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Scienza e il Primo Romanticismo tedesco

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Editorial

We are delighted to publish this third issue of *Symphilosophie: International Journal of Philosophical Romanticism*. Our first issue in 2019 attempted to highlight the philosophical stature of romanticism with regard to idealism by underscoring some of the ideas and methods shared by these two currents; our second issue in 2020 focused on the thought of the women writers of romanticism, contributing to contemporary critiques of the received philosophical canon. The present 2021 issue aims to do further justice to another essential dimension of early German Romanticism: its rich reflections on science. Not just "science" understood in an absolute and singular sense as an immutable truth of metaphysical speculation, but science in its new, properly modern and exact status, as it took shape during the second half of the eighteenth century. This period ushered in an era in which knowledge became specialised through empirical and experimental research; in so doing, the "sciences" became genuinely plural, seeking to integrate the totality of what is cognizable in the most varied disciplines and fields.

We are honoured to have Leif Weatherby, Associate Professor of German Literature at New York University and author of *Transplanting the Metaphysical Organ: German Romanticism between Leibniz and Marx*[1] as the guest editor of the main section. His introduction provides an overview of this issue's seven research articles and the question of Science and German Romanticism. We are extremely grateful to him, and the authors of these articles – Stefani Engelstein, Jocelyn Holland, Alberto Bonchino, Gabrielle Reid, Steven Lydon, Gabriel Trop, and Márcio Suzuki – for their outstanding work in tackling such a challenging topic.

In these sombre times of a pandemic when a devastating virus has spread among human beings, transmitting a hitherto unknown disease, the current volume particularly concerns the concepts of the organism and scientific hypothesis, the processes of life, health, and medicine, as well as the notions of form, polarity, the sound figures, and individuation. In direct continuity with this theme of science, this issue additionally contains eight new and for the most part never-before published translations of short texts or excerpts by different German Romantic thinkers and scientists. Diverse fields such as biology, chemistry, physics, physiology, mathematics, and astronomy, are all addressed in original source texts by Franz von Baader,

[1] Leif Weatherby, *Transplanting the Metaphysical Organ: German Romanticism between Leibniz and Marx* (New York: Fordham University Press, 2016).

Friedrich Schlegel, Novalis, Karoline von Günderrode, Johann Wilhelm Ritter, and Carl Gustav Carus.

With regard to the topic at hand, let us simply add a few words about the broader problem of whether "Romantic science" can or should indeed be classified as *science* as such. Ever since the academic field of philosophical romanticism emerged and was consolidated in recent decades, notably due, among others, to the seminal work of Manfred Frank, Elizabeth Millán Brusslan, Frederick C. Beiser and Jocelyn Holland, there has been a growing awareness that the "transcendental poetry" to which *Frühromantik* attaches such great importance, is not (solely) a matter of writing in verse (or literary writing) but actually concerns all areas of human activity and inquiry. In this respect, it is not superfluous to quote again the famous *Athenaeum* fragment 116: "Romantic poetry is a progressive universal poetry. [...] It alone can become, like the epic, a mirror of the whole circumambient world, an image of the age. And it can also – more than any other form – hover at the midpoint between the portrayed (*Dargestellte*) and the portrayer (*Darstellende*), free of all real and ideal self-interest."[2] Jean-Luc Nancy, who sadly passed away recently in August 2021, had, along with Philippe Lacoue-Labarthe, made this definition of romantic poetry the basis of a speculative reading of Jena Romanticism. Their ground-breaking research, especially in *The Literary Absolute*, similarly stimulated an entire generation of scholars in France, the USA, and in many other countries. However, a reading of romanticism as a philosophy of literature detached from the world, caught up in the autotelic and reflexive movement of its own production,[3] is perhaps overly restrictive, and does not entirely fit with the other key romantic ambition of an encyclopaedic totality of scientific knowledge about nature.

Indeed, among the Romantics, Johann Wilhelm Ritter, Franz von Baader and Friedrich von Hardenberg (Novalis), were all trained in the sciences by some of the leading natural scientists of the time. While many of the other Romantics likewise engaged with the latest scientific findings, simultaneously seeking to express in writing their views on this scientific research and the multiplicity and complexity of the natural world.

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[2] Friedrich Schlegel, *Fragmente in der Zeitschrift Athenaeum* (1798/1800), frag. 116, in *Kritische Friedrich-Schlegel-Ausgabe*, Bd. II, hrsg. von H. Eichner, München–Paderborn, Schöningh, 1967, p. 182. English translation: *Philosophical Fragments*, translated by Peter Firchow (Minneapolis: University of Minnesota Press, 1991), p. 32.

[3] See Philippe Lacoue-Labarthe, Jean-Luc Nancy, "Avant-propos", in: *L'Absolu littéraire. Théorie de la littérature du romantisme allemand* (Paris : Seuil, 1978), pp. 8-28. English: "Preface", *The Literary Absolute. The Theory of Literature in German Romanticism*, translated by Philip Bernard and Cheryl Lester (Albany, NY: State University of New York Press, 1988), pp. 1-17.

As new editions of their works further confirm, the Jena Romantics developed a worldview far removed from some of the clichés found in older scholarship of mere nostalgic or ethereal visionaries. Rather, their philosophies are the consequence of a knowledge of nature remarkably grounded in and informed by contemporary scientific progress and discoveries. To be sure, a series of questions remain: Did they derive their conception of science from a poetic programme or vice-versa? Was their interest in the sciences more about science as a methodological instrument than about concrete knowledge of the empirical world? That is to say, does it more concern the inner dynamics of an implementable form of scientific thinking than achievable technical results or scientific experiments?

Moreover, during the same period when a pluralisation and specialisation of knowledge was emerging and the institutionalisation of philosophy as a discipline in its own right was becoming an object of intense debate among philosophers themselves, the early Romantics dared to transgress disciplinary boundaries and explore interactions between fields that are usually divided in a binary manner. Here Romanticism not only brought literature and philosophy into dialogue, but interlinked these disciplines with countless others, including history, anthropology, linguistics (philology), and psychology, and in a no less fruitful way, with the natural sciences, now called the 'hard' or 'exact' sciences as opposed to the 'humanities'.

The current issue of *Symphilosophie* therefore reflects this romantic interdisciplinarity *avant la lettre*: a dialogue across the gulf of traditionally separated disciplines, with that separation not always being fully justified. Some of the contributions published in this issue were written by researchers belonging, academically and disciplinarily, to the sphere of literary studies or German studies; they enter into syncretic discourse with articles by historians of philosophy. All the pieces defend an approach that combines a heterogeneity of languages and modes of argumentation with a plurality of intellectual backgrounds, which is less prevalent in groups solely composed of "professional philosophers." We believe there is no better way to do justice to the Romantic ideal of symphilosophy today than with these genuine interdisciplinary exchanges.

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The cover image of issue 3 shows a 1989 work by the Swiss artist Jean Tinguely, to which Tinguely gave the somewhat anachronistic title "Heraklit beim Erfinden des Wackelkontakts" (Heraclitus Inventing the Loose Contact). This preparatory drawing in mixed media, felt-tip pen, pencil,

watercolour, gouache and collage on white paper, is part of a series of kinetic sculptures conceived as mechanistic portraits of philosophers, in homage to dialectical thinking that reconciles opposites. It is now in the Museum Tinguely in Basel. Connecting-disconnecting: such is the dialectical object that Tinguely's Heraclitus brings into play. With one foot in one era (antiquity) of which only vestiges remain, and the other foot already in modernity, the image announces the dawning of a new civilisation and a different cognitive functioning. It seems appropriate to draw a parallel between Tinguely's mental portrait of the ancient Greek philosopher of becoming and German Romanticism's relationship to science. Heraclitus's thought not only forms a crucial philosophical point of reference for the Romantics, whose dynamic thinking proceeds by means of ruptures, logical leaps, and the synthesizing of opposing poles to generate creative sparks. But the flamboyant flash of energy emanating from the contact in Tinguely's drawing (the broad line of red paint) echoes Galvani's *Berührungselektrizität*, a discovery that indelibly marked the development of German Romanticism and its reflections on science.

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The main section of next year's issue of *Symphilosophie* 4 (2022) will be devoted to the relationship between the Dutch philosopher Frans Hemsterhuis and Early German Romanticism. We are very pleased to announce that Daniel Whistler (Royal Holloway, University of London) will be the guest editor of this main section on Hemsterhuis. In addition, submissions of research articles are still open for the "Miscellaneous" section of this fourth issue. These articles may be on any topic related to German romantic philosophy, and submissions can be in English, French, Italian, or German. Contributors are also invited to submit review essays, book reviews, and new translations of original source materials. As the year 2022 is the 250th anniversary of the birth of the two major romantic figures, Friedrich Schlegel and Friedrich von Hardenberg (Novalis), contributions on their philosophies would be particularly welcome. The deadline for this fourth issue is 31 March 2022.

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Finally, we would like to express our deepest gratitude to all the translators who have contributed to this third issue, especially to the translators new to *Symphilosophie*: Jocelyn Holland, Charlotte Morel, Carlos Zorrilla Piña,

Alberto Bonchino, and James D. Reid. Thanks to their vital work of translating, introducing and annotating, a number of source texts essential for a better understanding of late eighteenth and early nineteenth-century German philosophy are now available to all scholars. Besides the group of translations relating to the topic of science, this year's "Miscellaneous" section includes two other original philosophical translations by Emmanuel Chaput and Marie-Michèle Blondin. We are also appreciative of the authors of the book reviews who are making better known some of the most recent academic scholarship. The "Bulletin" at the end of this issue furthermore lists many more of the latest editions, book publications, events, conferences, and calls for papers, relating to German romantic and idealist philosophy. Lastly, we extend our warmest thanks to our many expert peer reviewers from around the globe, and not least to our wonderful editorial team for all their hard work.

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We will close this editorial by drawing attention to the recent opening of Das Deutsche Romantik-Museum (The German Romanticism Museum) in Frankfurt, the first museum entirely devoted to Romanticism. It not only intends to display certain paintings by Caspar David Friedrich, Carl Gustav Carus, or Carl Blechen, among others, but also to publicly exhibit hand-written manuscripts, portraits, and personal objects of the members of German Romanticism. The result of over ten years of work by the Freies Deutsches Hochstift, the museum officially opened its doors on 14 September 2021. On that occasion two actors performed a *Dramolett* (playlet) composed by the writer Daniel Kehlmann, in which two characters discuss, with delicious irony, the importance of Romanticism in the history of European culture. We'll finish with this sentence, uttered at the very beginning of the dialogue: "Ohne die Romantik wären wir nicht, was wir sind!"[4] (Without Romanticism, we would not be what we are!)

Padua and Brussels, 12 December 2021

Giulia Valpione
Laure Cahen-Maurel

[4] Daniel Kehlmann, "Die Empfindung als Wille und Werbetext", published in the *Frankfurter Allgemeine Zeitung*, 26 September 2021.

Editorial

Mit großer Freude präsentieren wir Ihnen die dritte Ausgabe von *Symphilosophie. Internationale Zeitschrift für romantische Philosophie*. Unsere erste Ausgabe (2019) zielte darauf ab, die philosophische Geltung der Frühromantik durch den Vergleich mit dem Idealismus hervorzuheben, indem sie Gedanken und Vorgehen unterstrich, die beiden Bewegungen gemein sind; unsere zweite Ausgabe (2020) beschäftigte sich mit dem Denken der Schriftstellerinnen der philosophischen Romantik und trug so zu einer aktuellen Kritik des allgemein akzeptierten philosophischen „Kanons" bei. Die vorliegende Ausgabe soll einer weiteren wesentlichen Dimension der deutschen Frühromantik gerecht werden: ihren überaus reichhaltigen Überlegungen zur Wissenschaft; „Wissenschaft" nicht nur verstanden im absoluten und singulären Sinne, als unveränderliche Wahrheit und Gegenstand metaphysischer Spekulation, sondern vor allem Wissenschaft in ihrem neuen, wahrhaft modernen Status, wie er sich in der zweiten Hälfte des 18. Jahrhunderts abzeichnete. In dieser Zeit hebt eine Ära an, in der sich das Wissen durch empirische und experimentelle Forschung spezialisiert und „die Wissenschaften" tatsächlich pluralistisch werden: sie versuchen, die Gesamtheit des Erkennbaren in die verschiedensten Bereiche und Disziplinen zu integrieren.

Es ist uns eine Ehre, dass wir Leif Weatherby, *Associate Professor* für deutsche Literatur an der New York University und Autor des Buches *Transplanting the Metaphysical Organ: German Romanticism between Leibniz and Marx*[1], als Gastherausgeber für den Hauptteil der vorliegenden dritten Ausgabe von *Symphilosophie* gewinnen konnten. Seine Einleitung gibt einen Überblick über die sieben Forschungsartikel dieser Ausgabe und geht der Frage nach dem Verhältnis der Frühromantik zur Wissenschaft nach. Wir sind ihm und den Autoren der Beiträge – Stefani Engelstein, Jocelyn Holland, Alberto Bonchino, Gabrielle Reid, Steven Lydon, Gabriel Trop und Márcio Suzuki – sehr dankbar für ihre herausragende Arbeit, mit der sie sich einem so anspruchsvollen Thema gewidmet haben.

In diesen düsteren Zeiten der Pandemie, in denen sich ein verheerender Virus unter den Menschen ausbreitet und uns eine bisher unbekannte Krankheit überträgt, beschäftigt sich der vorliegende Band vor allem mit den Begriffen des Organismus und der wissenschaftlichen Hypothese, mit den Lebensprozessen, der Gesundheit und der Medizin sowie mit den Begriffen der Form, der Polarität, der Klangfiguren und der Individuation. In direktem

[1] Leif Weatherby, *Transplanting the Metaphysical Organ: German Romanticism between Leibniz and Marx*. New York, 2016.

Anschluss an das Thema 'Wissenschaft' enthält diese Ausgabe zusätzlich acht neue und größtenteils noch nie veröffentlichte Übersetzungen von kurzen Texten oder Textauszügen verschiedener deutscher romantischer Denker und Wissenschaftler. Verschiedenste Bereiche wie Biologie, Chemie, Physik, Physiologie, Mathematik und Astronomie werden anhand von Originaltexten von Franz von Baader, Friedrich Schlegel, Novalis, Karoline von Günderrode, Johann Wilhelm Ritter und Carl Gustav Carus behandelt.

Im Hinblick auf das vorliegende Thema möchten wir lediglich einige Worte zu dem allgemeineren Problem hinzufügen, ob die „romantische Wissenschaft" tatsächlich als *Wissenschaft* im eigentlichen Sinne eingestuft werden kann oder sollte. Seit Entstehung des akademischen Bereiches einer philosophischen Romantik und dessen Vertiefung in den letzten Jahrzehnten, insbesondere auf den Weg gebracht durch die bahnbrechenden Arbeiten von Manfred Frank, Elizabeth Millán Brusslan, Frederick C. Beiser und Jocelyn Holland, ist das Bewusstsein gewachsen, dass die „transzendentale Poesie", der die Frühromantik so große Bedeutung beimisst, nicht (nur) eine Frage des Schreibens in Versen (oder des literarischen Schreibens) ist, sondern tatsächlich alle Bereiche menschlichen Handelns und Forschens betrifft. In diesem Zusammenhang ist es nicht überflüssig, noch einmal das berühmte Fragment 116 des *Athenaeum* zu zitieren: „Die romantische Poesie ist eine progressive Universalpoesie. […] Nur sie kann gleich dem Epos ein Spiegel der ganzen umgebenden Welt, ein Bild des Zeitalters werden. Und doch kann auch sie am meisten zwischen dem Dargestellten und dem Darstellenden, frei von allem realen und idealen Interesse auf den Flügeln der poetischen Reflexion in der Mitte schweben". [2] Jean-Luc Nancy, der bedauerlicherweise im August 2021 verstarb, hatte zusammen mit Philippe Lacoue-Labarthe diese Bestimmung der romantischen Poesie zur Grundlage einer spekulativen Lesart der Jenaer Romantik gemacht. Ihre bedeutsamen Arbeiten, vor allem *Das Literarisch-Absolute*, haben eine ganze Generation von Wissenschaftlern in Frankreich, den USA und in vielen anderen Ländern angeregt. Allerdings mag eine Lesart der Frühromantik als eine von der Welt losgelöste Philosophie der Literatur, die in der autotelischen und reflexiven Bewegung ihrer eigenen Produktion gefangen ist,[3] vielleicht zu restriktiv sein und nicht recht zu der ebenfalls zentralen romantischen Ambition einer

[2] Friedrich Schlegel, *Fragmente in der Zeitschrift Athenaeum* (1798/1800), Frag. 116, in *Kritische Friedrich-Schlegel-Ausgabe*, Bd. II, hrsg. von H. Eichner. München–Paderborn, 1967, S. 182.

[3] Siehe Philippe Lacoue-Labarthe, Jean-Luc Nancy, "Avant-propos", in: *L'Absolu littéraire. Théorie de la littérature du romantisme allemand*. Paris, 1978, S. 8-28. Vgl. *Das Literarisch-Absolute: Texte und Theorie der Jenaer Frühromantik*. Aus dem Französischen von Johannes Kleinbeck übertragen. Wien, 2016.

enzyklopädischen Totalisierung der wissenschaftlichen Erkenntnis der Welt passen.

Tatsächlich wurden unter den Romantikern Johann Wilhelm Ritter, Franz von Baader und Friedrich von Hardenberg (Novalis) von einigen der führenden Naturwissenschaftler ihrer Zeit in den Wissenschaften ausgebildet. Auch viele andere Romantiker setzten sich mit den neuesten wissenschaftlichen Erkenntnissen auseinander und versuchten gleichzeitig, ihre Ansichten über diese wissenschaftlichen Forschungen und die Vielfältigkeit und Komplexität der natürlichen Welt schriftlich zum Ausdruck zu bringen.

Wie neue Ausgaben ihrer Werke bestätigen, entwickelten die Jenaer Romantiker eine Weltanschauung, die weit von den in der älteren Forschung verorteten Klischees entfernt ist, nach welcher jene Denker nostalgische oder ätherische Visionäre wären. Vielmehr sind ihre Philosophien die Konsequenz einer Naturerkenntnis, die in bemerkenswerter Weise auf den zeitgenössischen wissenschaftlichen Fortschritten und Entdeckungen beruht und von diesen geprägt ist. Freilich bleibt jedoch eine Reihe von Fragen offen: Leiteten die Frühromantiker ihre Auffassung der Wissenschaft aus einem poetischen Programm ab oder umgekehrt? Ging es ihnen bei ihrem Interesse an den Wissenschaften mehr um die Wissenschaft als methodisches Instrument als um die konkrete Erkenntnis der empirischen Welt? Das heißt, waren sie nicht eher an der inneren Dynamik einer umsetzbaren Form wissenschaftlichen Denkens interessiert, als an erreichbaren technischen Ergebnissen oder wissenschaftlichen Experimenten?

Darüber hinaus wagten es die Frühromantiker in derselben Zeit, in der sich eine Pluralisierung und Spezialisierung des Wissens abzeichnete und die Institutionalisierung der Philosophie als eigenständige Disziplin zum Gegenstand intensiver Debatten unter den Philosophen selbst wurde, die Grenzen zwischen den Disziplinen zu überschreiten und die Wechselwirkungen zwischen den gewöhnlich binär getrennten Bereichen zu erforschen. Hier brachte die Romantik nicht nur Literatur und Philosophie in einen Dialog, sondern verknüpfte diese Disziplinen mit zahlreichen anderen, darunter Geschichte, Anthropologie, Linguistik (Philologie) und Psychologie, und auf nicht minder fruchtbare Weise mit den Naturwissenschaften.

Die vorliegende Ausgabe von *Symphilosophie* spiegelt also diese romantische Interdisziplinarität *avant la lettre* wider: ein Dialog über die Kluft der traditionell (nicht immer gerechtfertigterweise) getrennten Disziplinen hinweg. Einige der in dieser Ausgabe veröffentlichten Beiträge wurden von Forschern verfasst, die akademisch und disziplinär der Literaturwissenschaft oder der Germanistik angehören; diese treten in einen synkretistischen Diskurs mit Aufsätzen von Philosophiehistorikern. In der Gesamtheit jener

Beiträge wird ein Ansatz vertreten, der eine Heterogenität der Sprachen und Argumentationsweisen mit einer Pluralität der intellektuellen Hintergründe verbindet, die in Kreisen, die ausschließlich aus „Berufsphilosophen" bestehen, seltener anzutreffen ist. Wir glauben, dass es keinen besseren Weg gibt, dem romantischen Ideal der Symphilosophie heute gerecht zu werden, als durch diesen wahrhaft interdisziplinären Austausch.

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Das Titelbild der Ausgabe 3 zeigt ein Werk des Schweizer Künstlers Jean Tinguely aus dem Jahr 1989, dem Tinguely den etwas anachronistischen Titel „Heraklit beim Erfinden des Wackelkontakts" gab. Die Zeichnung in Mischtechnik, Filzstift, Bleistift, Aquarell, Gouache und Collage auf weißem Papier ist Teil einer Reihe kinetischer Skulpturen, die als mechanistische Porträts von Philosophen konzipiert wurden. Diese Philosophenporträts sind eine Hommage an das dialektische Denken, das die Gegensätze versöhnt. Die Zeichnung befindet sich heute im Museum Tinguely in Basel. Verbinden-Trennen: Das ist der dialektische Gegenstand, den Tinguelys Heraklit ins Spiel bringt. Mit einem Fuß in einer Epoche (der Antike), von der nur noch Reste übrig sind, und mit dem anderen bereits in der Moderne, kündigt das Bild den Anbruch einer neuen Zivilisation und einer anderen kognitiven Funktionsweise an. Es scheint angebracht, eine Parallele zwischen Tinguelys geistigem Porträt des antiken griechischen Philosophen des Werdens und dem Verhältnis der deutschen Frühromantik zur Wissenschaft zu ziehen. Nicht nur ist Heraklits Denken ein wichtiger philosophischer Bezugspunkt für die Frühromantiker, deren dynamisches Denken mit Brüchen, logischen Sprüngen und der Annäherung entgegengesetzter Pole vorgeht, um einen Funken überspringen zu lassen; sondern der grelle Energieblitz, der von der Berührung in Tinguelys Zeichnung ausgeht (der breite rote Farbstrich), erinnert an Galvanis Berührungselektrizität, eine Entdeckung, die die Entwicklung der Frühromantik und ihre Reflexion über die Wissenschaft unauslöschlich geprägt hat.

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Der Hauptteil der nächsten Ausgabe – *Symphilosophie* 4 (2022) – wird sich der Beziehung zwischen der Frühromantik und dem niederländischen Philosophen Frans Hemsterhuis widmen. Wir freuen uns sehr, dass Daniel Whistler (Royal Holloway, University of London) als Gastherausgeber für diesen Hauptteil gewonnen werden konnte. Darüber hinaus können noch

Forschungsartikel für die Sektion „Varia“ dieser vierten Ausgabe eingereicht werden. Die Artikel können sich mit jeglichem Thema befassen, das mit der philosophischen Romantik zu tun hat, und können auf Deutsch, Englisch, Französisch oder Italienisch verfasst werden. Auch Buchrezensionen und Buchbesprechungen sowie Neuübersetzungen von Originaltexten können eingereicht werden. Da sich im Jahr 2022 die Geburt der beiden großen frühromantischen Denker Friedrich Schlegel und Friedrich von Hardenberg (Novalis) zum 250. Mal jährt, sind Beiträge über ihre Philosophien besonders willkommen. Die Abgabefrist für die 4. Ausgabe ist der 31. März 2022.

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Unseren tiefsten Dank möchten wir an dieser Stelle allen Übersetzern, die an dieser Ausgabe von *Symphilosophie* mitgearbeitet haben, aussprechen, insbesondere den Übersetzern, die neu bei *Symphilosophie* sind: Jocelyn Holland, Charlotte Morel, Carlos Zorrilla Piña, Alberto Bonchino, und James D. Reid. Dank ihrer unverzichtbaren Übersetzungs-, Einführungs- und Kommentierungsarbeit stehen nun allen Wissenschaftlern eine Reihe von Quellentexten zur Verfügung, die für ein besseres Verständnis der deutschen Philosophie des späten 18. und frühen 19. Jahrhunderts wichtig sind. Neben dieser Reihe von Übersetzungen zum Thema Wissenschaft enthält die diesjährige „Varia“-Sektion zwei weitere philosophische Originalübersetzungen von Emmanuel Chaput und Marie-Michèle Blondin. Wir danken auch den Autoren der Buchrezensionen, die einen Teil der neuesten wissenschaftlichen Erkenntnisse besser bekannt machen. Die Rubrik „Mitteilungen“ am Ende dieser Ausgabe listet darüber hinaus viele weitere Neuausgaben, Buchveröffentlichungen, Veranstaltungen, Tagungen und Calls for Papers zur deutschen romantischen und idealistischen Philosophie auf. Abschließend möchten wir uns bei unseren zahlreichen Gutachterinnen und Gutachtern aus aller Welt und nicht zuletzt bei unserem wunderbaren Redaktionsteam für die geleistete Arbeit bedanken.

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Zum Schluss dieses Editorials möchten wir auf die kürzlich erfolgte Eröffnung des Deutschen Romantik-Museums in Frankfurt a. M. hinweisen, des ersten Museums, das sich ausschließlich der Romantik widmet. Es zeigt nicht nur die Malerei von u.a. Caspar David Friedrich, Carl Gustav Carus oder Carl Blechen, sondern stellt auch Manuskripte, Porträts und persön-

liche Gegenstände der Mitglieder der deutschen Romantik aus. Nach über zehnjähriger Arbeit des Freien Deutschen Hochstifts wurde das Museum am 14. September 2021 offiziell eröffnet. Zu diesem Anlass führten zwei Schauspieler ein von dem Schriftsteller Daniel Kehlmann verfasstes Dramolett auf, in dem zwei Figuren mit köstlicher Ironie über die Bedeutung der Romantik in der europäischen Kulturgeschichte diskutieren. Wir enden mit einem Satz, der gleich zu Beginn des Dialogs fällt: „Ohne die Romantik wären wir nicht, was wir sind!“[4]

Padua und Brüssel, 12. Dezember 2021

Giulia Valpione
Laure Cahen-Maurel

[4] Daniel Kehlmann, “Die Empfindung als Wille und Werbetext”. *Frankfurter Allgemeine*, 26. September 2021.

Éditorial

C'est avec beaucoup de plaisir que nous présentons le troisième numéro de *Symphilosophie. Revue internationale de philosophie romantique*. Après un premier numéro, en 2019, visant à souligner l'envergure philosophique du romantisme à l'aune de l'idéalisme qui lui est contemporain, en mettant en évidence une certaine communauté d'idées et de méthodes entre les deux courants, le deuxième numéro (paru en 2020) s'est attaché à la pensée des écrivaines du romantisme, contribuant, ce faisant, aux critiques actuelles du « canon » en vigueur dans l'histoire de la philosophie. Le présent numéro se propose, quant à lui, de rendre justice à une autre dimension essentielle du premier romantisme allemand : ses très riches réflexions concernant la science. Non pas seulement « la Science » au singulier et avec majuscule, entendue comme vérité immuable, objet de spéculation métaphysique, mais la science dans son statut nouveau, proprement moderne, tel qu'il s'est dessiné au cours de la seconde moitié du XVIII[e] siècle. Cette période a en effet ouvert une ère où les savoirs se sont spécialisés au gré de recherches empiriques, expérimentales ; où la science est devenue en cela plurielle, cherchant à intégrer la totalité du connaissable, dans les domaines les plus variés.

Leif Weatherby, Professeur associé en littérature allemande à la New York University et auteur de l'ouvrage *Transplanting the Metaphysical Organ: German Romanticism between Leibniz and Marx*[1], nous a fait l'honneur et le grand plaisir de coordonner l'édition du dossier thématique pour ce troisième numéro de *Symphilosophie*. Il fournira, dans les pages qui suivent, un aperçu des sept articles de recherche que nous publions ici et une introduction à la question du romantisme et de la science. Nous lui sommes extrêmement reconnaissantes, ainsi qu'aux auteurs de ces articles – Stefani Engelstein, Jocelyn Holland, Alberto Bonchino, Gabrielle Reid, Steven Lydon, Gabriel Trop et Márcio Suzuki –, pour le remarquable travail qu'ils ont accompli en s'attaquant à un sujet aussi difficile.

En ces temps sombres de pandémie où un virus ravageur se propage entre les êtres humains, nous transmettant une maladie inconnue jusqu'ici, le numéro aborde en particulier les notions d'organisme et d'hypothèse scientifique, les processus du vivant, la santé, la médecine. Outre ces aspects faisant écho à notre présent, il traite de la question de la forme, de la polarité, de figures acoustiques, d'individuation. Nous donnons également huit courts textes ou extraits de textes d'auteurs romantiques dans des traductions

[1] Leif Weatherby, *Transplanting the Metaphysical Organ: German Romanticism between Leibniz and Marx*, New York, Fordham University Press, 2016.

inédites pour une très large part, au sein d'un riche dossier qui se veut en continuité avec le thème du numéro. À travers des écrits de Franz von Baader, Friedrich Schlegel, Novalis, Karoline von Günderrode, Johann Wilhelm Ritter et Carl Gustav Carus, ce dossier reflète la variété de domaines propre à la science moderne, en l'occurrence, biologie, chimie, physique, physiologie, mathématiques et astronomie.

Nous ajouterons seulement quelques mots ici sur la question plus large que la thématique soulève à nos yeux : la question de savoir si la « science romantique » se définit bien comme une *science*. Depuis qu'un champ d'études philosophiques sur le romantisme s'est constitué et consolidé académiquement ces dernières décennies, notamment autour des travaux fondateurs de Manfred Frank, Elizabeth Millán Brusslan, Frederick C. Beiser ou Jocelyn Holland, on prend toujours plus la mesure du fait que la « poésie transcendantale », à laquelle la *Frühromantik* attache une grande importance, n'est pas (uniquement) affaire d'écriture en vers (ou d'écriture littéraire) mais qu'elle concerne tous les domaines de la connaissance et de l'activité humaines. Il n'est pas superflu, à cet égard, de citer de nouveau le célèbre fragment 116 de l'*Athenaeum* : « La poésie romantique est une poésie universelle progressive. [...] Elle seule [...] peut devenir miroir du monde environnant, image de l'époque. Et cependant c'est elle aussi qui, libre de tout intérêt réel ou idéal, peut le mieux flotter entre le présenté (*Dargestellte*) et le présentant (*Darstellende*)[2] ». Jean-Luc Nancy, dont on a tristement appris la mort en août dernier, avait, avec Philippe Lacoue-Labarthe, fait de cette définition de la poésie romantique la base d'une lecture spéculative du romantisme d'Iéna. Leurs travaux pionniers, *L'Absolu littéraire* en particulier, ont également stimulé toute une génération de chercheurs en France, aux États-Unis et dans de nombreux autres pays. Néanmoins une lecture qui perçoit dans le premier romantisme allemand une philosophie de la littérature détachée du monde, prise dans le mouvement autotélique et réflexif de sa propre production[3], est peut-être trop restrictive et ne s'accorde pas entièrement avec une autre ambition caractéristique de ce romantisme : celle d'une totalisation encyclopédique des savoirs sur la nature.

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[2] Friedrich Schlegel, *Fragmente in der Zeitschrift Athenaeum* (1798/1800), Frag. 116, in *Kritische Friedrich-Schlegel-Ausgabe*, Bd. II, hrsg. von H. Eichner, München–Paderborn, Schöningh, 1967, p. 182 ; « Fragments de l'*Athenaeum* », trad. fr. P. Lacoue-Labarthe et J.-L. Nancy avec la collaboration de A.-M. Lang, in Philippe Lacoue-Labarthe, Jean-Luc Nancy, *L'Absolu littéraire. Théorie de la littérature du romantisme allemand*, Paris, Seuil, 1978, p. 112.

[3] Voir Philippe Lacoue-Labarthe, Jean-Luc Nancy, *L'Absolu littéraire*, « Avant-propos », p. 8-28.

Parmi les romantiques, Johann Ritter, Franz von Baader et Friedrich von Hardenberg (Novalis) ont été formés aux sciences naturelles auprès des principaux savants de leur temps. Bien d'autres se sont également intéressés aux découvertes les plus récentes, exprimant leurs points de vue sur ces avancées dans leurs écrits. Tous ont eu la volonté de dire la réalité multiple et complexe du monde extérieur.

De nouvelles éditions de leurs œuvres ont permis de déconstruire les clichés véhiculés pendant longtemps sur la vision romantique du monde comme vision éthérée ou passéiste. Elles confirment que le rapport au monde des premiers romantiques allemands repose sur une connaissance de la nature remarquablement informée des progrès scientifiques de l'époque et forte de savoirs de terrain. Demeure toutefois une série de questions. Les premiers romantiques ont-ils fait dériver leur conception de la science d'un programme poétologique, ou l'inverse ? Leur intérêt pour les sciences ne porte-t-il pas sur la science en tant qu'instrument méthodologique plus que sur la connaissance concrète du monde empirique ? Soit davantage sur la forme et la dynamique de pensée que la réflexion scientifique met en œuvre que sur les résultats qu'elle obtient ?

De plus, à l'époque même où émerge une pluralisation du savoir par spécialisation et où l'institutionnalisation de la philosophie comme discipline à part entière devient un objet de débat intense entre philosophes, les premiers romantiques franchissent les frontières disciplinaires et instaurent des échanges bien plus féconds entre ce que l'on divise habituellement de manière binaire. Le romantisme a non seulement fait dialoguer littérature et philosophie mais ces deux disciplines prégnantes croisent d'autres domaines innombrables, tels l'histoire, l'anthropologie, la linguistique (philologie), la psychologie ou encore, par une voie non moins fructueuse, les sciences de la nature, aujourd'hui appelées « sciences dures » ou « sciences exactes » par opposition aux sciences « humaines ».

Le présent numéro de *Symphilosophie* est à l'image de cette interdisciplinarité romantique avant la lettre : un dialogue par-delà la distance qui sépare les disciplines académiquement instituées, sans que cette séparation soit toujours justifiée. Une partie des contributions publiées dans ce dossier ont été écrites par des chercheurs appartenant, sur le plan académique et disciplinaire, à la sphère des études littéraires ou de la germanistique ; elles entrent ici dans un discours syncrétique avec des articles d'historiens de la philosophie. Toutes ces contributions mises ensemble plaident pour une approche conjuguant une hétérogénéité de langages et de modes de démonstration, ainsi qu'une pluralité de formations scientifiques, moins fréquentes dans des groupes composés seulement de « philosophes professionnels ».

Nous pensons qu'il n'y a pas meilleure façon de rendre justice de nos jours à l'idéal romantique d'une symphilosophie que par ces échanges véritablement interdisciplinaires.

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La couverture de ce numéro 3 représente une œuvre de l'artiste suisse Jean Tinguely datant de 1989, à laquelle ce dernier a conféré le titre anachronique *Heraklit beim Erfinden des Wackelkontakts* (Héraclite inventant le faux contact). Ce dessin préparatoire de technique mixte, feutre, crayon, aquarelle, gouache et collage sur papier blanc, fait partie intégrante d'une série de sculptures cinétiques conçues comme des portraits machiniques de philosophes, en hommage à la pensée dialectique, réconciliatrice des contraires ; il est aujourd'hui conservé au Musée Tinguely de Bâle. Connecter-déconnecter : tel est l'objet dialectique que met en œuvre l'Héraclite de Tinguely, avec un pied dans une époque (l'antiquité) dont il ne reste que des vestiges et l'autre déjà dans cette modernité qui s'annonce du temps des premiers romantiques allemands comme une nouvelle civilisation, avec un autre fonctionnement mental. Il nous a paru pertinent de faire le parallèle entre ce portrait mental du philosophe antique du devenir par Tinguely et le rapport des premiers romantiques allemands à la science. Non seulement la pensée d'Héraclite est un point de référence philosophique important pour les romantiques, dont la pensée dynamique procède par ruptures, sautes logiques, et rapprochement de pôles opposés pour faire jaillir une étincelle, mais l'énergie flamboyante qui émerge du contact dans le dessin de Tinguely (le trait de peinture rouge) peut être regardé comme un écho à la *Berührungselektrizität* de Galvani, qui a marqué de manière indélébile le développement du romantisme allemand.

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Le dossier thématique du numéro de l'année prochaine, *Symphilosophie* 4 (2022), sera consacré au rapport du premier romantisme allemand avec la pensée du philosophe hollandais Frans Hemsterhuis. Nous avons le grand plaisir d'annoncer que ce dossier sera dirigé par Daniel Whistler (Royal Holloway, University of London). La revue accepte encore, en outre, des propositions d'articles originaux à caractère scientifique pour la section « Varia » de ce quatrième numéro. Elles peuvent porter sur n'importe quel sujet ayant trait à la philosophie romantique allemande et être soumises dans l'une ou l'autre des quatre langues de la revue : français, anglais, allemand ou italien. Des recensions et comptes-rendus d'ouvrage ainsi que des

traductions inédites de sources originales sont également bienvenues. Dans la mesure où l'année 2022 marquera le 250e anniversaire de la naissance des deux grands penseurs romantiques Friedrich Schlegel et Friedrich von Hardenberg (Novalis), des contributions portant sur leurs philosophies seront particulièrement appréciées. La date limite de soumission des contributions est fixée au 31 mars 2022.

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Nous tenons, pour finir, à exprimer notre plus vive gratitude à tous les traducteurs ayant collaboré au présent numéro de *Symphilosophie*, en particulier à ceux dont c'est la première collaboration avec la revue : Jocelyn Holland, Charlotte Morel, Carlos Zorrilla Piña, Alberto Bonchino et James D. Reid. Grâce à leur travail capital de traduction, de présentation et d'annotation, des pages essentielles à la compréhension de la philosophie allemande de la fin du XVIIIe et du début du XIXe siècles sont désormais accessibles à tous les chercheurs. Outre le dossier de traductions en lien avec la thématique du numéro, la section « Varia » est également constituée, cette année, de deux autres traductions originales par Emmanuel Chaput et Marie-Michèle Blondin. Notre gratitude va aussi aux auteurs des recensions dont les contributions font mieux connaître quelques-uns des travaux universitaires les plus récents. Le bulletin en fin de volume liste encore bien d'autres actualités et nouvelles ressources pour la recherche et les études romantiques, éditions, parutions, revues, annonces de colloques et d'appels à contribution… Enfin, nous remercions bien chaleureusement nos évaluateurs externes, aux quatre coins du globe, et, surtout, notre équipe éditoriale pour tous les efforts et le travail fournis.

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Nous conclurons en saluant l'inauguration toute récente, à Francfort, du Deutsches Romantik Museum, premier musée entièrement consacré au romantisme. Il a pour vocation de montrer la peinture de Caspar David Friedrich, Carl Gustav Carus ou Carl Blechen, entre autres, mais aussi d'exposer des manuscrits et objets du quotidien des membres du romantisme allemand. Le musée, fruit d'environ dix années de travail de la part du Freies Deutsches Hochstift, a ouvert ses portes le 14 septembre 2021. À cette occasion, deux acteurs ont interprété un *Dramolett* (une saynète) composé par l'écrivain Daniel Kehlmann, dans laquelle deux personnages discutent, avec une délicieuse ironie, de l'importance du romantisme dans l'histoire de la

culture européenne. Nous en retiendrons cette phrase, prononcée au tout début du dialogue : « Ohne die Romantik wären wir nicht, was wir sind! (Sans le romantisme, nous ne serions pas ce que nous sommes !)[4] ».

Padoue et Bruxelles, le 12 décembre 2021

Giulia Valpione
Laure Cahen-Maurel

[4] Daniel Kehlmann, « Die Empfindung als Wille und Werbetext », paru dans le quotidien *Frankfurter Allgemeine* du 26 septembre 2021.

Editoriale

È con immenso piacere che pubblichiamo questo terzo numero di *Symphilosophie. Rivista internazionale sulla filosofia romantica*. Il primo numero (2019) ha cercato di evidenziare la statura filosofica del romanticismo attraverso un confronto con l'idealismo, sottolineando alcuni concetti e metodi condivisi; il secondo numero (2020) si è concentrato sul pensiero delle scrittrici e filosofe del romanticismo, contribuendo alle critiche contemporanee al canone filosofico tradizionalmente stabilito. Il presente numero (2021) mira a rendere ulteriore giustizia a un'altra dimensione essenziale della *Frühromantik*: le sue ricche riflessioni sulla scienza. Non solo la "Scienza" intesa al singolare e in senso assoluto come una verità immutabile della speculazione metafisica, ma la scienza nel suo nuovo statuto, propriamente moderno, che prese forma durante la seconda metà del XVIII secolo. Questo periodo ha inaugurato un'epoca in cui la conoscenza si è specializzata attraverso la ricerca empirica e sperimentale; così facendo, le "scienze" sono diventate plurali, cercando di integrare la totalità di ciò che è conoscibile nelle discipline e nei campi più diversi.

Siamo onorate di avere Leif Weatherby, professore associato di letteratura tedesca alla New York University e autore di *Transplanting the Metaphysical Organ: German Romanticism between Leibniz and Marx*[1] come *guest editor* del dossier principale del volume qui pubblicato. La sua introduzione fornisce una panoramica sia dei sette articoli pubblicati in questo numero sia del rapporto tra scienza e romanticismo tedesco. Siamo estremamente grati a lui, agli autori e alle autrici di questi articoli – Stefani Engelstein, Jocelyn Holland, Alberto Bonchino, Gabrielle Reid, Steven Lydon, Gabriel Trop e Márcio Suzuki – per il loro eccezionale lavoro nell'affrontare un tema così impegnativo.

In questi tempi cupi in cui un virus devastante si è diffuso tra gli esseri umani, trasmettendo una malattia finora sconosciuta, il presente volume tocca i concetti di organismo e di ipotesi scientifica, prendendo in considerazione i processi vitali, il rapporto tra salute e medicina, così come le nozioni di forma, polarità, di individuazione e di figure sonore. In linea con il tema della scienza, questo numero contiene inoltre otto brevi testi ed estratti, tradotti appositamente per questa pubblicazione, di opere scritte da membri della *Romantik*. Campi diversi come la biologia, la chimica, la fisica, la fisiologia, la matematica e l'astronomia sono affrontati in testi originali di

[1] Leif Weatherby, *Transplanting the Metaphysical Organ: German Romanticism between Leibniz and Marx*, New York, Fordham University Press, 2016.

Franz von Baader, Friedrich Schlegel, Novalis, Karoline von Günderrode, Johann Wilhelm Ritter e Carl Gustav Carus.

Per quanto riguarda l'argomento trattato, aggiungiamo semplicemente qualche parola sul problema più ampio se la "scienza romantica" possa o meno essere classificata come scienza in quanto tale. Da quando è emersa la ricerca accademica sul romanticismo filosofico è emerso e si è consolidato negli ultimi decenni – in particolare grazie, tra gli altri, al lavoro seminale di Manfred Frank, Elizabeth Millán Brusslan, Frederick C. Beiser e Jocelyn Holland – la crescente consapevolezza che la "poesia trascendentale" a cui la *Frühromantik* attribuisce una così grande importanza, non è (solo) una questione di scrittura in versi (o scrittura letteraria), ma riguarda in realtà tutti i settori dell'agire e del sapere umano. A questo proposito, non è superfluo citare ancora una volta il famoso frammento 116 dell'*Athenaeum*: "La poesia romantica è una poesia universale progressiva. [...] Solo essa può, al pari dell'epica, diventare uno specchio dell'intero mondo circostante, un'immagine dell'epoca. Pure, essa può anche librarsi, più di tutto, nel mezzo, tra il rappresentato (*Dargestellte*) e chi lo rappresenta (*Darstellende*), libera da ogni interesse reale e ideale."[2] Jean-Luc Nancy, purtroppo recentemente scomparso nell'agosto del 2021, aveva, insieme a Philippe Lacoue-Labarthe, fatto di questa definizione della poesia romantica la base di una lettura speculativa del romanticismo di Jena. Le loro ricerche pionieristiche, soprattutto in *L'assoluto letterario*, hanno stimolato allo stesso modo un'intera generazione di studiosi in Francia, negli Stati Uniti e in molti altri paesi. Tuttavia, una lettura del romanticismo come una filosofia della letteratura distaccata dal mondo, presa nel movimento autotelico e autoriflessivo sulla propria produzione,[3] è forse eccessivamente restrittiva, e non si adatta completamente all'altra ambizione chiave della *Romantik* verso una totalità enciclopedica della conoscenza scientifica della natura.

Infatti, tra i romantici, Johann Ritter, Franz von Baader e Friedrich von Hardenberg (Novalis), furono tutti istruiti nel campo delle scienze naturali da alcuni dei principali scienziati del tempo. Allo stesso tempo, tanti altri romantici si occuparono ugualmente delle ultime scoperte scientifiche, cercando di esprimere le loro riflessioni riguardo ad esse e rispetto alla molteplicità e complessità del mondo naturale.

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[2] Friedrich Schlegel, *Fragmente*, in *Kritische Friedrich-Schlegel-Ausgabe*, Bd. II, hrsg. von H. Eichner, München–Paderborn, Schöningh, 1967, p. 182, n. 116. Traduzione italiana in August Wilhelm Schlegel e Friedrich Schlegel, *Athenaeum 1798-1800*, a cura di G. Cusatelli, traduzione, note e apparato critico di E. Agazzi e D. Mazza, Milano, Bompiani, 2009, p. 167-168.

[3] Philippe Lacoue-Labarthe, Jean-Luc Nancy, "Avant-propos", in *L'Absolu littéraire. Théorie de la littérature du romantisme allemand*, Paris, Seuil, 1978, p. 8-28.

Come le nuove edizioni delle loro opere confermano ulteriormente, i romantici di Jena svilupparono una visione del mondo molto lontana da alcuni dei cliché che si trovano in studi più datati che li dipingono come meri visionari speculativi. Al contrario, le loro filosofie sono la conseguenza di una conoscenza della natura notevolmente fondata e informata sul progresso e sulle scoperte scientifiche a loro contemporanee. D'altra parte, rimangono una serie di domande: derivarono la loro concezione della scienza da un programma poetico o viceversa? Il loro interesse per le scienze riguardava più la scienza come strumento metodologico o la conoscenza concreta del mondo empirico? Vale a dire, tale interesse è rivolto forse più alla dinamica interna di una forma attuabile di pensiero scientifico oppure ai risultati tecnici ottenibili e agli esperimenti scientifici in quanto tali?

Nello stesso periodo in cui stava emergendo una pluralizzazione e specializzazione del sapere e in cui l'istituzionalizzazione della filosofia come disciplina a sé stante stava diventando oggetto di un intenso dibattito tra gli stessi filosofi, i primi Romantici osarono trasgredire i confini disciplinari ed esplorare le interazioni tra campi solitamente divisi in modo binario. Qui il Romanticismo non solo portò la letteratura e la filosofia in dialogo, ma collegò queste discipline con innumerevoli altre, tra cui la storia, l'antropologia, la linguistica (filologia), la psicologia, e in un modo non meno fruttuoso, con le scienze naturali, ora chiamate scienze 'dure' o 'esatte' in opposizione alle *humaniora*.

Il presente numero di *Symphilosophie* riflette dunque questa inter-disciplinarità romantica *avant la lettre*: un dialogo che colma l'abisso che tradizionalmente separa le discipline accademicamente consolidate – una separazione non sempre pienamente giustificata. Alcuni dei contributi pubblicati in questo numero sono stati scritti da ricercatori appartenenti, accademicamente e disciplinarmente, alla sfera degli studi letterari o della germanistica; essi entrano in discorso sincretico con gli articoli di storici della filosofia. Tutti i pezzi difendono un approccio che combina una pluralità di formazioni intellettuali con un'eterogeneità di linguaggi e modalità di argomentazione, solitamente assente nei gruppi composti unicamente da "filosofi di professione". Crediamo che questi genuini scambi inter-disciplinari siano il modo migliore per rendere giustizia oggi dell'ideale romantico di un'autentica sinfilosofia.

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L'immagine di copertina di questo terzo numero riprende un'opera del 1989 dell'artista svizzero Jean Tinguely, alla quale egli diede il titolo un po'

anacronistico di "Heraklit beim Erfinden des Wackelkontakts" ("Eraclito che inventa il contatto difettoso"). Questo disegno preparatorio a tecnica mista (pennarello, matita, acquerello, gouache e collage su carta bianca) fa parte di una serie di sculture cinetiche concepite come ritratti meccanici di filosofi, in omaggio al pensiero dialettico che riconcilia gli opposti. Si trova ora al Museo Tinguely di Basilea. Connettere-disconnettere: tale è l'oggetto dialettico che l'Eraclito di Tinguely mette in gioco. Con un piede in un'epoca (l'antico) di cui rimangono solo vestigia, e l'altro piede già nella modernità, l'immagine annuncia l'alba di una nuova civiltà e di un diverso processo cognitivo. Sembra opportuno fare un parallelo tra il ritratto, creato da Tinguely, dell'antico filosofo greco del divenire e il rapporto del romanticismo tedesco con la scienza. Il pensiero di Eraclito non solo costituisce un punto di riferimento filosofico cruciale per i romantici, il cui pensiero dinamico procede per mezzo di rotture, salti logici e sintesi di poli opposti per creare scintille; bensì il lampo fiammeggiante di energia che emana dal contatto nel disegno di Tinguely (l'ampia linea di vernice rossa) riecheggia distintamente la *Berührungselektrizität* di Galvani, una scoperta che segnò indelebilmente lo sviluppo del Primo Romanticismo tedesco e le loro riflessioni sulla scienza.

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La sezione principale di *Symphilosophie* 4, che verrà pubblicato nel 2022, sarà dedicata al rapporto tra il filosofo olandese Frans Hemsterhuis e il Primo Romanticismo tedesco. Siamo lieti di annunciare che Daniel Whistler (Royal Holloway, University of London) sarà il *guest editor* di tale dossier. È inoltre ancora possibile avanzare proposte per articoli di ricerca destinati alla sezione "miscellanea" del quarto numero. Questi articoli possono vertere qualsiasi argomento relativo alla filosofia romantica tedesca, e possono essere scritti in inglese, francese, italiano o tedesco. Invitiamo inoltre a presentare note, recensioni di libri e nuove traduzioni di materiali originali. Infine, poiché l'anno 2022 è il 250° anniversario della nascita dei due maggiori pensatori romantici, Friedrich Schlegel e Friedrich von Hardenberg (Novalis), i contributi sul loro pensiero sono particolarmente benvenuti. La data limite per la presentazione di materiali per il quarto numero è il 31 marzo 2022.

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Vogliamo infine esprimere la nostra profonda gratitudine ai traduttori che hanno contribuito a questo terzo numero, specialmente ai traduttori che per la prima volta collaborano con *Symphilosophie*: Jocelyn Holland, Charlotte

Morel, Carlos Zorrilla Piña, Alberto Bonchino e James D. Reid. Grazie al loro vitale lavoro di traduzione, introduzione e annotazione, sono ora a disposizione di tutti gli studiosi dei testi essenziali per una migliore comprensione della filosofia tedesca di fine Settecento e inizio Ottocento. Oltre al gruppo di traduzioni relative al tema della scienza, la sezione "Miscellanea" di quest'anno comprende altre due traduzioni originali di Emmanuel Chaput e Marie-Michèle Blondin. Siamo grate anche agli autori delle recensioni qui pubblicate che con le loro pagine contribuiscono a far conoscere meglio alcune delle più recenti ricerche accademiche sulla *Romantik*. La sezione "Bollettino" che chiude questo numero elenca inoltre molte delle ultime edizioni, pubblicazioni di libri, eventi, conferenze e calls for papers relativi alla filosofia romantica e all'idealismo tedeschi. Infine, estendiamo i nostri più sentiti ringraziamenti ai nostri numerosi revisori provenienti da tutto il mondo, e non da ultimo al nostro meraviglioso team editoriale per il loro imprescindibile duro lavoro.

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Chiudiamo questo editoriale richiamando l'attenzione sulla recente apertura del *Das Deutsche Romantik-Museum* ("Il Museo del Romanticismo tedesco") a Francoforte, il primo museo interamente dedicato al roman-ticismo. In esso sono esposti dipinti di, tra gli altri, Caspar David Friedrich, Carl Gustav Carus o Carl Blechen, ma anche manoscritti autografi, ritratti e oggetti personali dei membri del romanticismo tedesco. Risultato di oltre dieci anni di lavoro del *Freies Deutsches Hochstift*, il museo è stato ufficialmente inaugurato il 14 settembre 2021. In quell'occasione due attori hanno interpretato un *Dramolett* (un "dramoletto") composto dallo scrittore Daniel Kehlmann, in cui due personaggi discutono, con deliziosa ironia, sull'importanza del romanticismo nella storia della cultura europea. Concludiamo con questa frase, pronunciata all'inizio del dialogo: "Ohne die Romantik wären wir nicht, was wir sind! (Senza il Romanticismo, non saremmo quello che siamo!)" [4]

Padova e Bruxelles, 12 dicembre 2021

Giulia Valpione
Laure Cahen-Maurel

[4] Daniel Kehlmann, "Die Empfindung als Wille und Werbetext", pubblicato in *Frankfurter Allgemeine Zeitung*, 26 Settember 2021.

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Science and Early German Romanticism

Introduction

Leif Weatherby[*]

> If all wit is the principle and organ of universal philosophy, and all philosophy nothing other than the spirit of universality, the science of all sciences eternally mixing with and separating again from each other, a logical chemistry…
> *Athenaeum Fragment* 220[1]

The sheer speed of development in the intellectual scene in Germany after Kant presents a problem for scholarship. The *Critique of Pure Reason* was published twice, first in 1781 and then in 1787, bookending the Pantheism controversy, which turned German thought to an evaluation of and move beyond the Enlightenment.[2] Blumenbach's *On the Formative Drive* also appeared in 1781, ending the debate on epigenesis from the Enlightenment and touching off a more general philosophical debate about the nature of science and the content of the slowly separating natural sciences.[3] The years that follow, and especially those after 1794 – the year that Fichte gave his famous lectures in Jena – are bewilderingly productive. To be sure, the

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[1] "Ist aller Witz Prinzip und Organ der Universalphilosophie, und alle Philosophie nichts andres als der Geist der Universalität, die Wissenschaft aller sich ewig mischenden und wieder trennenden Wissenschaften, eine logische Chemie…" Friedrich Schlegel, *Kritische Friedrich-Schlegel-Ausgabe* (KFSA), eds. Ernst Behler, Jean Jacques Anstett, and Hans Eichner (Munich: Schöningh, 1958-), vol. II, 200; my translation.

[2] See Frederick C. Beiser, *The Fate of Reason: German Philosophy from Kant to Fichte* (Cambridge MA: Harvard University Press, 1993). Cf. Dieter Henrich, *Between Kant and Hegel: Lectures on German Idealism*. Edited by David S. Pacini (Cambridge MA: HUP, 2008).

[3] See Helmut Müller-Sievers, *Self-Generation: Biology, Philosophy, and Literature around 1800* (Stanford, CA: Stanford University Press, 1997); John Zammito, *Kant, Herder, and the Birth of Anthropology* (Chicago: University of Chicago Press, 2002); John Zammito, *The Gestation of German Biology: Philosophy and Physiology from Stahl to Schelling* (Chicago: UCP, 2018).

"transcendental philosophy" played the central role, but it absorbed aesthetics, poetics, biology, chemistry, mathematics, political theory, and economics, often in unprecedented combinations. Philosophy itself moved at a rare clip in what Eckart Förster calls its "twenty-five years."[4] The composite texts so characteristic of Romanticism often defy summary of even ostensible meaning, before one would want to move to interpretation. Schlegel's famous remark that the French Revolution, Fichte's *Wissenschaftslehre*, and *Wilhelm Meister* are the "three tendencies of the age"[5] seems almost a simplification when we pick up a text like, for example, Carl August Eschenmayer's *Sätze aus der Natur-Metaphysik auf chemische und medicinische Gegenstände angewandt* (1797). This small treatise mixes Kant, Fichte, and Schelling with post-Newtonian debates on the nature of force, life, and chemistry. Certainly it is just as complex a situation in Franz von Baader's *Über das pythagoräische Quadrat in der Natur oder die vier Weltgegenden* (1798), or Joseph Görres's *Aphorismen über die Organonomie* (1803). If we turn back to the fragmentary work of Early German Romanticism – as in the epigraph above – or the aspiration to include science in the novel, or the topic of irony in Romanticism's remediation of science, the complexity only deepens. Early German Romanticism aspired to *remediate science in linguistic expression*.

Even Romantic *Naturphilosophie* without aesthetic ambition makes use of rapid, repeated synthesis of philosophy that evades simple summary, as in the example of Schelling's nature-philosophical system, which he advanced in at least three separate versions between 1797 and 1800 alone. In the final system we find this chart:

Organic	General	Anorganic Nature
Formative Drive	Light	Chemical Process
Irritability	Electricity	Electrical Process
Sensibility	Cause of magnetism?	Magnetism?[6]
Organische	*Allgemeine*	*Anorganische Natur*
Bildungstrieb	*Licht*	*Chemischer Process*
Irritabilität	*Electrizität*	*Electrischer Process*
Sensibilität	*Ursache des Magnetismus?*	*Magnetismus?*[7]

[4] Eckart Förster, *The Twenty-Five Years of Philosophy*, trans. Brady Bowman (Cambridge MA: HUP, 2012).
[5] Friedrich Schlegel, KFSA II, 198, no. 216.
[6] F.W.J. Schelling, *First Outline of a System of the Philosophy of Nature*, trans. Keith R. Peterson (Albany NY: State University of New York, 2004), 9.
[7] F.W.J. Schelling, *Erster Entwurf eines Systems der Naturphilosophie* (Jena & Leipzig: Gabler, 1799), p. VIII. The universal unifying force is, of course, the *Weltseele* in the earlier writing of that name. Schelling leaves its determination open in all of these writings, positing only

The incompleteness of the categories, along with the extensive excursions into the science of the nerves, the organs, light, and post-Lavoisier chemistry, pose no more than a historical challenge. But the triad that adds up to "sensibility" renders the physical universe transparent to thought, or perhaps itself conscious, presenting the "spiritualization of nature" that Schelling announces as the project of *Naturphilosophie* (where his version of Idealism, also given in multiple systems from 1795-1800, requires the "objectification of spirit"). This means that the science of Romanticism is never innocent of Idealism, never untinged by a deep, thoroughgoing engagement with the trajectory of transcendental philosophy after Kant. When one adds literary form to this equation, as the Jena Romantics so influentially did, the difficulty really appears for the first time. That difficulty is not to spell out the various *ingredients* of the composite discourse – a task that the scholarship has slowly but surely chipped away at for the last several decades[8] – but to interpret the synthesis of so many bodies of thought in language. Early German Romanticism throws down this gauntlet, claiming that philosophy and literature must mediate science. That project cannot be reduced to discursive reflection on science, the task of "orienting" us in a scientific world, or ancillary considerations of the destinies of morality and beauty in the scientific order. Its claim is to add to knowledge.

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that one must conclude to it from the investigations. In the *Weltseele*: "Da nun dieses Prinzip die Kontinuität der anorgischen und der organischen Welt unterhält und die ganze Natur zu einem allgemeinen Organismus verknüpft, so erkennen wir aufs neue in ihm jenes Wesen, das die älteste Philosophie als die *gemeinschaftliche Seele der Natur* ahndend begrüßte, und das einige Physiker jener Zeit mit dem formenden und bildenden Äther (dem Anteil der edelsten Naturen) für Eines hielten." F.W.J. Schelling, *Von der Weltseele*, in: *Schellings sämmtliche Werke*, vol. I, 2, hrsg. von Karl Friedrich August Schelling (Stuttgart: Cotta Verlag, 1857), p. 569. In the *Entwurf*, as a harbinger of the next year's breakthrough: "Es wurde vorausgesetzt, die Natur sey Entwickelung aus Einer ursprünglichen Involution. Diese Involution kann aber nach dem Obigen nichts Reelles seyn: sie kann also nur als *Act* vorgestellt werden, als *absolute Synthesis*, welche nur ideal ist, und gleichsam den Wendepunkt der Transcendental- und der Naturphilosophie bezeichnet." (Schelling, *Erster Entwurf*, p. 321; emphasis in original.)

[8] See Stefani Engelstein, *Anxious Anatomy: The Conception of the Human Form in Literary and Naturalist Discourse* (Albany NY: SUNY, 2008); Christine Lehleiter, *Romanticism, Origins, and the History of Heredity* (Lewisburg: Bucknell, 2014); Gabriel Trop, *Poetry as a Way of Life: Aesthetics and Askesis in the German Eighteenth Century* (Evanston: Northwestern, 2015); Michael Gamper, *Elektropoetologie: Fiktionen der Elektrizität, 1740–1870* (Göttingen: Wallstein, 2009); Benjamin Specht, *Physik als Kunst: Die Poetisierung der Elektrizität um 1800* (Berlin: de Gruyter, 2010); Jocelyn Holland, *German Romanticism and Science: The Procreative Poetics of Goethe, Novalis, and Ritter* (New York: Routledge, 2009), and more recently *The Lever as Instrument of Reason: Technological Constructions of Knowledge around 1800* (New York: Bloomsbury, 2019); Joan Steigerwald, *Experimenting at the Boundaries of Life: Organic Vitality in Germany around 1800* (Pittsburgh: University of Pittsburgh Press, 2019).

But we stand across a gulf from this synthetic language, and it is hard to take seriously a statement like the one made by Lorenz Oken in his *On the Universe as Continuation of the Nervous System* of 1808:

> The universe is only *one* animal, whose sensorium commune or self-consciousness is the human, the animals its brain, the plants its senses, and the trunk is everything that remains, what you call "inorganic." There is nowhere an interruption; just as essentially as the sense-organ is one with the brain, is just the distributed brain, so is the sense-object just as essentially one with the sense-organ, and is simply the sense organ further spread out into the universe. The brain extends itself through the sense-nerve, which extends itself into its organ, this extends itself into its object, and this extends itself into the endlessness of the universe.[9]

Discourse, in Foucault's technical sense of what is possible to say, no longer occupies this space. To read Oken today is to see analogy, metaphor – "poetry," in the colloquial sense. But underlying that metaphor is the literal way in which the scientist meant what he wrote, and which can only speak to us across that gulf with *both* the proper intellectual-historical basis *and* an interpretive synthesis of the rapid development of philosophy and science in the years around 1800. I have argued elsewhere that this and other examples of Schellingian *Naturphilosophie* prepared the ground for the modern philosophy of technology, since they imagine a world of nervous and communicational extensions, a sort of continuity based on a cognition delegated to the physical universe, as we have managed to pass off so many cognitive tasks to algorithms, servers, and networks.[10] Discursively, it is not clear that Romantic science has any linear relation to the institution of science after positivism.[11] But to reduce Romantic thought solely to the realm of the

[9] Lorenz Oken, *Über das Universum als Fortsetzung des Sinnensystems* (Jena: Frommann, 1808), 10: "Das Universum ist nur E i n Thier, dessen Sensorium commune oder Selbstbewusstsein der Menschenleib, dessen Hirn die Thiere, dessen Sinne die Pflanzen, dessen Rumpf aber alles Übrige ist, was ihr unorganisch nennt. Es ist nirgends ein Unterbrochenes; so wesentlich als das Sinnorgan mit dem Hirn eins, nur das ausgebreitete Hirn ist, so wesentlich ist das Sinnobject mit dem Sinnorgan ein, ist nur das weiter in das All ausgebreitete Sinnorgan. Das Hirn verlängert sich durch den Sinnesnerven, dieser verlängert sich in sein Organ, dieses verlängert sich in sein Object, und dieses verlängert sich in die Endlosigkeit des Universums."

[10] See Leif Weatherby, "Romantic Conceptions of Life," in ed. Elizabeth Millàn Brusslan, *The Palgrave Handbook of German Romanticism* (London: Palgrave, 2020), 449-471.

[11] See, however, Thomas Kuhn, "Energy Conservation as an Example of Scientific Discovery," in Thomas Kuhn, *The Essential Tension. Selected Studies in Scientific Tradition and Change* (Chicago: UCP, 1977), 65-105.

aesthetic is to miss the metaphysical synthesis in the very notion of Romantic aesthetics. That metaphysics is one of a composite world, scientific and therefore uncertain, revolutionized and therefore unstable, yet expressible in unpredictable form. To get at this project, fundamental research is still in order. The articles that follow present just that kind of research, revealing new aspects of Romantic science and training the interpretive lens on the synthesis of philosophy, literature and science proper to Romanticism.

The special issue begins with Stefani Engelstein's "The Emergent Organism: Kielmeyer, Röschlaub, Schelling, Novalis," which reevaluates the intertwined histories of organic and mechanical thinking in. In a tour de force, Engelstein strips away the baggage of later notions of "organic" and "mechanical" to specify the paradox of the notion of "organism" as a relationship between being and becoming, *Gang* and *Bestand*. This article is sure to be a standard source for continued interrogation of the category of the organic around 1800, precisely because it reveals a discourse that cannot easily be subsumed into or dismissed on the grounds of later scientific and discursive developments. Jocelyn Holland then shifts the framework towards the Romantic notion of "hypothesis" ("*Ein Schuss in die blaue Luft* – The Early German Romantic Hypothesis"), tracing the hypothesis that Newton famously claimed "not to frame" through 18th-century scientific lexica and into Romanticism. Comparing Schlegel and Novalis (in dialogue) on the hypothesis, Holland shows how the "arbitrary" aspect of hypothetical thinking becomes a tool for contact with the real – the physical world, but also "America," in Novalis – and thus an instrument of Romantic scientific reason. Alberto Bonchino's "Von Lavoisier zu Baader. Einige Bemerkungen zur nachkantischen Naturphilosophie" argues that Baader turns out to be practicing exactly the type of synthesis between transcendental philosophy and early quantitative chemistry so characteristic of Romanticism. Bonchino argues that Baader adds a third, unifying force to Kant's "two-forces doctrine" in the *Metaphysical Principles of Natural Science*, creating the basis for a holistic chemistry. The issue continues with Gabrielle Reid's "Friedrich Schlegel's Philosophy of the Middle, or Physics and the Transition Between Forms." Reid explores the geometry of form in Schlegel's *Dialogue*, showing how Schlegel is able to bind physics and poetry into his "new mythology" in the encyclopedia notion without destroying either one. The upshot is a thoroughly self-reflective theory of poetry that, in its formal manifestation, is also science. Steven P. Lydon considers A.W. Schlegel's integration of physics into aesthetics ("The 'Sound Figures' and *Naturphilosophie* in A. W. Schlegel's Lectures on Art History and Aesthetics (1798/1801)"), which cohere the natural world by crossing boundaries erected by abstract scientific

doctrines, raising the possibility of an aesthetics that includes a fuller objective world than any single scientific discourse can offer, uniting perception and objectivity. Gabriel Trop's article, "Karoline von Günderrode's Aesthetics of *Naturphilosophie*," takes us into the realm of poetry, showing the mediation of the earth in the downward pull of attractive force in Günderrode's lyric work. A "dedifferentiation" of forces "transvalues the field of normativity," absorbing Schelling's *Naturphilosophie* into a creation of poetic form. The issue closes with Marcio Suzuki's "What is Life? At the Roots of Romantic Philosophy: Kant's Philosophical Vitalism," which digs back into Kant's own philosophy, arguing that a physiological vitalism is at the root of all Romantic borrowings from Kant. By this point there can be little naivety about the depth of the Romantic engagement with science, and there is a large body of scholarship that plumbs that depth. The articles in this issue take a step forward into the difficult interpretation of the Romantic synthesis of science and philosophy in literature and beyond.

Symphilosophie

International Journal of Philosophical Romanticism

The Emergent Organism

Kielmeyer, Röschlaub, Schelling, Novalis

Stefani Engelstein[*]

ABSTRACT

The word *Organismus* came into usage in German in the 1790s to hold certain paradoxes in suspension. Referring to the dynamic processes of a living being rather than to the being itself, the concept of the organism attempted to navigate the complexity of identity for an interactive system in flux. This article analyzes four interconnected theories of the organism. Carl Friedrich Kielmeyer conceptualized an open, interactive system of all living beings in development over time. Andreas Röschlaub adapted John Brown's concept of excitability into a theory of the organism as that which integrated internal self-determination with responsiveness to an external world for each living being. Friedrich Schelling developed a theory of a world organism as a system of forces and incorporated thinking from both Kielmeyer and Röschlaub to account for differentiated existence as such. Finally, Novalis rendered the very concept of boundaries indistinct through his emphasis on perviousness and communicability.

Keywords: history of science, *Naturphilosophie*, history of medicine, history of ecology

ZUSAMMENFASSUNG

In den 1790er Jahren kam das Wort *Organismus* im Deutschen zur Verwendung, um bestimmte Paradoxien in der Schwebe zu halten. Indem sich das Wort auf die dynamischen Prozesse eines Lebewesens statt auf das Lebewesen selbst bezog, trat das Konzept des Organismus aus dem Versuch, die Komplexität der Identität für ein System im Wandel zu formulieren, hervor. Dieser Artikel analysiert vier anverwandte Theorien des Organismus. Carl Friedrich Kielmeyer konzipierte ein offenes, interaktives System aller Lebewesen in Entwicklung im Lauf der Zeit. Andreas Röschlaub adaptierte John Browns Konzept der Erregbarkeit und entwarf daraus eine Theorie des Organismus als Integrierung der internen Selbstbestimmung mit einer Empfänglichkeit für eine externe Welt. Friedrich Schelling entwickelte die Theorie eines Welt-Organismus als System von Kräften und nahm dazu Kielmeyers und Röschlaubs Überlegungen auf, um auch differenzierte Existenz als solche begründen zu können. Schließlich ließ Novalis das Konzept der Grenzen an sich durch seinen Fokus auf Durchdringlichkeit und Übertragbarkeit verschwimmen.

Schlüsselwörter: Wissenschaftsgeschichte, Naturphilosophie, Medizingeschichte, Geschichte des Ökologiebegriffs

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Historians and literary critics have recognized the organism around 1800 as a boundary object, one that attempts to mediate between the extremes of mechanistic and vitalistic understandings of living beings.[1] Whether labelled by critics teleo-mechanism or vital materialism, various theories of the living or organized being arose in this period to reconcile its paradoxical status, evidently governed by natural law and yet simultaneously capable of independent activity or behavior.[2] Naturalists, philosophers, and literary authors alike grappled with finding ways to unite these features within a natural rather than supernatural framework and saw their coincidence as a defining characteristic of living beings. However, there is another way in which the emerging concept of the organism mediated between competing perspectives on living beings, namely between an older focus on the anatomical body, i.e. organized matter, and a newer focus on forces and interactive processes.[3] While there is a relationship between these two polarities, they are not identical. In addition, as in the case of mechanistic and vitalistic thinking, no strict boundary between body and force can be upheld. At stake in the shift in emphasis from body to activity is a more complicated notion of the identity of living beings in relationship to the world with which they interact that puts pressure on the establishment and maintenance of boundaries, while acknowledging their permeability.[4] The increasing emphasis on physiology and on life processes permeated medicine and the emerging fields of biology in German-speaking areas, as

Many thanks to the librarians at the Leibniz Zentrum für Literatur- und Kulturforschung, Berlin and at Duke University and the University of North Carolina, Chapel Hill who helped me find sources for this article.

[1] To avoid confusion, I will use the term "living being" throughout this article to refer to what is generally known in English as an organism. The argument of this article hinges on the distinct definition of the word *Organismus* or *organism* around 1800, not as a living being, but as a form of dynamic activity that could be descriptively applied to systems, including those of living beings.

[2] The clear division of thinkers into opposed camps of mechanists and vitalists, as well as the older tendency to understand Romantics in general as anti-mechanist have been challenged repeatedly over the past few decades. See Timothy Lenoir, Robert Mitchell, Stefani Engelstein's *Anxious Anatomy*, Leif Weatherby, Jocelyn Holland's *German Romanticism and Science* and *The Lever as an Instrument of Reason: Technological Constructions of Knowledge around 1800*, and Joan Steigerwald (cf. bibliography at the end of this article).

[3] As Georg Toepfer notes, "Nicht mehr die beschreibenden Disziplinen der Biologie, etwas die *Morphologie*, *Anatomie* oder *Systematik*, sondern *physiologische* Untersuchgen, die Organismen als besondere kausale Systeme konzipieren, rücken in den Mittelpunkt der Beschäftigung mit den Lebewesen" (787).

[4] Tobias Cheung has traced the history of the relationship of *inner world* to *external world* as the basis of the concept of the *organism* as living being from 1780-1860. In this article, I will focus on the ambiguities of these distinctions. See Tobias Cheung, *Organismen: Agenten zwischen Innen- und Außenwelten, 1780-1860*.

well as *Naturphilosophie* and Romantic literature and theory. Simultaneously, the word *Organismus* came into general usage for the first time. In the closing years of the eighteenth century, it shifted its meaning from a descriptive term for a particular mode of operation to the term for a living being with such a mode of operation.[5] During this brief moment of transition, the organism served as a conceptual place-holder for a paradox rather than as a defined and circumscribed object. This unresolved ambiguity continues to haunt the living being.

1. The Transformations of the Organism: An Overview

Zedler's *Universal Lexicon*, which appeared from 1731-1754, has an entry for *Organismus*, which the entry author defines as a subset of mechanism. The entry is a repudiation of the influence of the animist physician Georg Ernst Stahl, who, beginning in the 1680s, had used the previously very rare word *Organismus* in his Latin texts as a contrast with *Mechanismus*.[6] He thereby distinguishes between two orders of motion, the first due to a vital principle or soul and the second purely mechanical. Zedler's entry, without naming Stahl, states in contrast:

> Organism [*Organismus*] is nothing other than the arrangement [*Einrichtung*] of the parts of an organic body. It is little or not at all different than mechanism [*Mechanismo*], far less can it be opposed to mechanism as some do…; the mechanism [*Mechanismus*] refers to the arrangement of the parts of each and every body; the organism, however, to the parts only of organic bodies. And from this it is clear that the organism is also a mechanism, although the mechanism cannot also be called an organism… The organic mechanism or the organism becomes increasingly simple from the human being all the way to the most contemptible and smallest worm, from the zoophyte all the way to the lowest plant.[7] (25.1868 [947])

Organism here is an arrangement, neither anatomical structure nor physiology alone. It is a feature of a living being, the particular mechanism by which it functions, without, however, identifying any uniquely organic element. Zedler's entry for *Mechanism* provides further guidance. In this case, mechanism is said by the entry author to entail both "the operations

[5] For an historical overview of this shift with copious helpful citations, see Cheung, "What is an 'Organism'?" and Georg Toepfer. Both are interested in the larger movements of the term.

[6] See Cheung, "What is an 'Organism'?" 166-168 and Toepfer 787. For a more detailed and recuperative view of Stahl's organism, see also John Zammito 19-36.

[7] All translations from German are mine when not otherwise noted.

[*Würckungen*] of the natural body, in so far as they emerge from the several configurations comprised of figure and motion" and also "the essential configuration of the body… by means of which all change in the world occurs that comes about naturally" (20.24; 1739). Mechanism is then both the characteristic of a body that enables or facilitates movement or change according to regular laws, and also the operations themselves that arise from such characteristics. This ambiguity between physical facilitation and patterns of activity not only persists but also expands in the case of organism, in which the cause of the activity, unlike for non-living bodies, appears immanent and remains contested. As structure, activity, and possibly cause, organism becomes the underlying object of physiology. Interestingly, while the author of Zedler's *organism* entry rejects Stahl's vitalism, the author of his *mechanism* entry rejects mechanical views of living beings such as that of Descartes, which, he declares, mistakenly "try to explain miraculous works mechanically" (20:26). The lexicon itself therefore incorporates the dilemma of organism without even a gesture towards resolution.

At just the same time that Zedler was producing his lexicon, Albrecht von Haller was developing a system of physiology for animals that rested on the two interacting forces of irritability and sensibility. Haller tied these capacities to specific anatomical structures. Irritability was a property of muscles, which react immediately to physical stimuli, and sensibility was a property of nerves, which Haller identified as the carriers of sense impressions, but also as responsible for the *experience* of such impressions. Because some muscles function independently of volition, Haller's theory of irritability located the power of movement in a diffuse and distributed organic system independent of centralized will. Nonetheless, Haller's material physiology coexisted with, and indeed invited, an ongoing dualism or vitalism because the mechanism that enabled a voluntary response to impressions, i.e. the transition from perception to motive force, remained a black box. This dualism was not strictly Cartesian. Unlike Descartes, who famously considered animals machines and denied them experience, Haller attributed sensibility – the power to *experience* perception in some form – to animals as well as humans. While irritability can be directly observed experimentally, however, the sensibility of another living being cannot be ascertained in any unmediated way. Humans rely on language to convey internal experience to one another, but Haller needed a different marker of internal perception for other living beings. One predictable effect of Haller's experimental practice, which relied on vivisection, was pain, and Haller depended in particular on the observer's recognition of pain response as

evidence of sensibility, in direct contradiction of Descartes's account of animals as insensible to pain.[8] Even if the existence of both sensibility and irritability could therefore be grounded on evidence, their separation remained contentious. The point of interchange between nerves and muscles in voluntary motion, as well as the indwelling and distributed motile power of involuntary muscles, remained open invitations to explanatory supplementation, whether vitalistic, mechanistic, or dialectic.[9]

In the 1790s, a number of thinkers in the German-speaking world attempted to unify Haller's concepts of irritability and sensibility into a general system, and did so by way of theories that depended on a concept of organism.[10] In 1793, Carl Friedrich Kielmeyer, a chemistry professor at the Höhere Karlsschule and later professor of chemistry and botany in Tübingen gave an influential lecture in which he formed a coherent, unified system that incorporated Haller's two independent forces of irritability and sensibility.[11] He combined the two with a third foundational force, reproductive capacity, and posited the proportional distribution of the forces across all living beings, understood collectively. At the same moment, the young Bamberg physician Andreas Röschlaub encountered the theories of the Scottish physician John Brown, who had combined irritability and sensibility into a unified theory of excitability as the definition of life in 1780.[12] In other words, where Kielmeyer had unified

[8] Haller, 16. See Joan Steigerwald for a fascinating account of the discussion among naturalists about the pain caused to animal subjects, both in terms of an ethics of suffering and in terms of the uncertainty it introduced into experimental results (58-70). See also François Duchesneau, "Degrees & Forms of Sensibility in Haller's Physiology," 207-210.

[9] For the distributed nature of the forces in Haller, as well as for an account of his theory in relation to mechanism and vitalism, see Duchesneau, Gaukroger 225-226, and Tsouyopoulos *Andreas Röschlaub* 103. For the difficulty of distinguishing sensibility from irritability and the system of nerves from that of muscles, see Steigerwald 58-70.

[10] Many physicians and naturalists had adapted and altered Haller's propositions in the intervening time. See Hubert Steinke for an overview of the reception of Haller over the course of the second half of the eighteenth century.

[11] See Gabrielle Bersier (19) for the publication history of the lecture, "On the Relations between Organic Forces in the Series of Different Organizations, and on the Laws and Consequences of These Relationships." See Bersier also for a very clear account of Kielmeyer's system and for an analysis of Kielmeyer's influence on Goethe. Bersier suggests that Goethe's support for Schelling arose from Schelling's extension of Kielmeyer's theory (20). Further valuable general discussions of Kielmeyer can be found in Kai Torsten Kanz's introduction to the lecture, in Steigerwald (195-205) and in John Zammito (256-261 and 265-285).

[12] Röschlaub's advocacy resulted in a number of translations into German: in 1795 by Adam Weikard, in 1796 by Christoph Pfaff, and by Röschlaub himself in 1805-6. See Nelly Tsouyopoulos, "The Influence of John Brown's Ideas in Germany" 63-64. Weikard translated Brown's original Latin edition, while Pfaff translated Brown's own English

irritability and sensibility into one system across the organic spectrum, Brown had done so within each living being. In the 1790's Röschlaub reconceptualized Brown's system into a theory of the *organism* to integrate both internal self-determination and a necessary responsive interaction with the external world through a dynamic disposition of forces he posited as the basic unit of life.[13]

When simultaneously with Röschlaub's first influential publication of his ideas, Friedrich Schelling wrote in his 1798 essay *On the World-Soul* that a "universal organism" encompassed the organic and inorganic universe, the reference was not to a living thing – not a proto-Gaia theory – but rather to a dynamic but organized interplay of reciprocal forces that render a system *such as* a living being coherent, and which, Schelling posited, could also be seen at work in the world as a whole.[14] Schelling acknowledged his debt in this work to Kielmeyer's theory of forces. A year later, having read Röschlaub as well as Kielmeyer, Schelling released the *First Outline of a System of the Philosophy of Nature* in which he adapted and wove their theories together into an overarching system of natural forces that, he postulated, permeated individual living beings as well as the larger universe, while still allowing for the crucial differentiation of internal from external, and hence for the sustained distinctions that characterizes existence.[15] This adaptive fusion allowed Schelling to posit under the term *organism* conditions of possibility for nature as such, for living activity within natural laws, and simultaneously for human knowledge about the objective world.

In these same years of 1798-1799, the notebooks of Friedrich von Hardenberg, whose literary works were published under the pen name Novalis, show considerable engagement with Brownian medicine. Novalis was reading both Röschlaub and Schelling, but unlike them, Novalis does not build a theory around the word *organism*. Nonetheless, like both, he

translation, which included cases and examples as well as a controversial quantification of excitability.

[13] Werner Gerabek oversimplifies Brown to some extent when he notes that "Röschlaub modifizierte das starre, eindimensionale, auf bloße Aktion und Reaktion ausgelegte Modell Browns durch ein prozesshaftes, dynamisches und betrachtete die Lebensprozesse als Ausdruck komplexer Wechselbeziehungen zwischen Umwelt und Organismus" (187).

[14] The concept of the organism in Schelling has received wide-spread attention and has attracted particular interest in the context of ecology in the last 10-15 years. For a variety of perspectives, some more focused on living beings in Schelling and others on the system-mechanism he calls *Organismus*, see Marie-Louise Heuser, Camilla Warnke, Lara Osteric, Dale Snow, Stefani Engelstein's "Schelling's Uncanny Organism," Jason Wirth's *The Conspiracy of Life: Meditations on Schelling and His Time* and *Schelling's Practice of the Wild*, and Iain Hamilton Grant.

[15] Rie Shibuya makes a somewhat parallel claim that Schelling's conception of illness specifically arose "as a Brownianism modified through Kielmeyer's physiology" (318).

works through the idea of stimulus and expressive response as regulation of identity to speculate on boundaries in flux. Novalis extends these ideas to develop a theory of language that implicates literary works themselves.

In the following years, the meaning of the word *organism* began to migrate, even in Schelling's own works, towards the individual living being for which we currently use the word *organism* in English. This article will trace the ambiguity and oscillation that the term *organism* attempted to suspend rather than to resolve during the brief period in the 1790s: the precarious reciprocity between becoming and being, between active forces and organized form, between volition and law-governedness, between self-identity and interactivity.

2. John Brown and Andreas Röschlaub: The Organism as the Object of Physiology

In 1780, John Brown published *Elementa medicinae*, in which he purported to lay out no less than "a science of life" (*Elements of Medicine*, I.xvi) applicable not only to humans, but also animals and plants (I.2). Brown's theory attributed to every living being a reservoir of excitability which is acted upon by stimulation to instigate all of the living functions. Brown listed the functions of the living being as "muscular contraction, sense, and the energy of the brain in thinking and in exciting passion and emotion" (I. 3-4), thus splitting Haller's sensibility into the discrete properties of sense perception, on the one hand, and intellectual and emotional activity, on the other, and listing both alongside muscular activity. Moreover, since all of these functions originate, according to Brown, in a nervous *system* composed of both nerves and muscles, this system must be the seat of excitability (I. 38), which unites them. Brown's newly conceived capacity for excitability enables a response to stimulus, whether external, physically internal, or consisting of thoughts and passions. This process of incitement and response is continuous throughout the various systems, rather than being centralized (in the brain, for example). Illness describes the negative impact on functionality that results from an imbalance between incitement and excitement. Disease is therefore not a state fully distinct from health (I.51-2), but rather a description of the ill effects on life functions caused by an over- or under-expression of excitability (I.55-56). The degree of excitement, however, is not a simple proportionate reaction to the strength of the stimulus, as the level of available excitability can be suppressed by previous overstimulation or heightened by insufficient previous stimulation. It is, in other words, the internal condition of excitability that determines the

response to external prompts. Brown here establishes a relationship between the living being and the external world that extends from nourishment and breath to passion and emotion, locating temporal priority for activity outside the living being, but granting regulatory agency to the internal functioning of the living being itself. The living being thus constitutes itself through but also against external provocation. The ability to do so is *life*, a "forced state" (I.59), as he famously declared.

As Nelly Tsouyopoulos notes, nothing in Brown's system had changed between the first publication of his theory in 1780 and his belated reception in Germany. However, in the 1790s something changed in Germany that caused his work to be understood differently. Tsouyopoulos perceptively identifies that novel cultural element with Fichte, whom Röschlaub read alongside Brown as a student.[16] For Fichte in his *Science of Knowledge* of 1794-1795, it is a *Tathandlung*, an activity, that brings the I, the subject, into being out of the absolute subject and through its encounter with the Not-I, the object. The subject's awareness of itself is mediated through its perception, one might say its sensibility, which it experiences as caused by the external world for which its own body is a mediator, but to which the body ultimately also belongs. To Röschlaub under the influence of Fichte's *Science of Knowledge*, Brown's account of excitability no longer looked like a mechanist's account of passive reactivity. Röschlaub instead reinterpreted the claim as the foundation of a theory of the organism – a word nowhere used by Brown – as that which instantiates itself, i.e. which lives, insofar as its own impulses respond than merely react to the impressions of an outer world. In his 1798 *Investigations on Pathogenesis or Introduction to the Theory of Medicine*, Röschlaub advocated for an embrace of theory within medical science. Indeed, medicine called for two theories: a theory of practical medicine ("praktischen Heilkunde"), and also a theory of theoretical medicine (*Pathogenesis* 4). To heal illness, it would be necessary to understand the cause of the illness – hence the book's title. Meanwhile, an understanding of causes could only come from a theory or philosophy of nature, of living bodies, or, ultimately, of the "Nature of living organisms, and the studies [*Lehre*] it encompasses are therefore called natural studies [*Naturlehre*] (physiology of living organisms" (6).[17] Theory and practice would then form a beneficial circle of reciprocal augmentation (28-29). Startlingly like Schelling's *On the World-Soul* of the same year, as we will see below, Röschlaub presents a theory of the organism, *Organismus*,

[16] Tsouyopoulos mentions the influence of Fichte on Röschlaub's interpretation of Brown. *Andreas Röschlaub und die romantische Medizin* 112.
[17] The parenthesis lacks a closure in the original.

as the center of a new kind of intellectual endeavor that seeks to establish a proper relationship between philosophy and empirical natural knowledge.

While Brown never used the words organization or organism, they are central to Röschlaub's understanding of life, health, and disease. In his *On the Influence of the Brownian Theory in the Practical Medicine* of 1798, he spells out these definitions.

> … for the possibility of life two conditions are necessary, an outer, namely organization, and an inner, the life-principle, which Brown places in the excitability of the organism. Under organization we understand a particular mixture, form, a specific constitution [*Zusammenhang*] of bodies that are capable of life. The appropriate configuration of the organization…, as well as the appropriate degree of the life-principle (that is specified by this configuration of the organism) produce the health of the living body. (16)

Life here relies on an inner and outer condition of possibility. The outer condition or *Organisation* is not merely the structure of the body, the anatomy, but includes the relationship of the parts to each other (their constitution/*Zusammenhang*). The inner condition is a principle of life, namely its excitability, its ability to respond. This ability adheres to its *Organismus*. The organization and the organism form a polarity of external and internal. While the organization is subject to local illness through injury (17), the negative effects of an impaired life principle cause "allgemein" (18) or general illnesses of the whole organism that permeate the system. The organism is thus consistently identified with the general, universal operations of life. Directly following the description of these two distinct classifications of illness that divide the local organization from the universal organism, however, Röschlaub notes that a universal and a local disease can hit simultaneously so that both coexist in the same *organism*, suddenly expanding the term to cover both sides of the duality. The meaning of the term *organism* thus hangs suspended between the active, internal component of the individual life principle – its excitability – on the one hand, and the integration of this principle with its material body, its form, and its internal living functioning into a larger whole, on the other.

3. Karl Friedrich Kielmeyer's System of All Living Beings

For Röschlaub as for Brown, medicine encompassed questions of health and definitions of life not only for humans, but for all living beings. However, it focused on the treatment of human diseases and handled each human being as a distinct entity. The unified theory of life it promulgated

thus functioned analogously, but separately, for each individual living being. Karl Friedrich Kielmeyer, on the other hand, in the brief space of a single lecture in 1793, attempts a consolidation of the living world over time and space into a single system of forces. The lecture was a sensation, subsequently circulated even before its publication. In it, Kielmeyer postulated a generally inverse relationship between sensibility and irritability. The greatest sensibility and lowest level of irritability was to be found in the most complex organisms. As one descends in a series towards the simpler living beings, sensibility decreases while irritability increases. At a certain point, however, both activities recede and energy instead is spent on reproduction, manifested either in the generation of vast numbers of offspring, or in the ability to regenerate lost parts or to undergo metamorphoses of various kinds.[18] One could conceive of this proportional relationship as a law of conservation of forces.

The sweep of Kielmeyer's project is ecological and evolutionary, both *avant la lettre*. Kielmeyer frames his task as the question: "how, namely, can a course of change [*Gang*] and persistence [*Bestand*] in this animated [*belebten*] nature be explained from the laws that concern changes in the relations of forces of organizations?" (my trans. 40). Alteration and continuity, becoming and being, *Gang* and *Bestand*, are necessary elements of a system that encompasses transformation over time and yet comprises at any given moment distinct individuals and distinguishable species.[19] The system is neither homogenous nor chaotic, but rather maintains differentiation at discrete organizational levels.

As Kielmeyer's title indicates, it is not living beings in themselves, but rather the "Relations between Organic Forces" (29) that are the primary topic of his concern. The field in which Kielmeyer locates these forces, moreover, is the "Series [*Reihe*] of Different Organizations," i.e. the series of living beings.[20] Indeed, both the words *series* and *organization* are here ambiguous, as a series can exist in either space or time, and the specificity

[18] Two additional forces make an appearance in the lecture, a force of secretion, which would include the assimilation of nourishment and other necessary elements from the external world alongside the elimination of waste, and a force of propulsion, the internal movements of the fluids and digestive organs, for example. Because Kielmeyer did not expand on these forces, other thinkers influenced by Kielmeyer tended to group them under one of the three theorized forces. See Zammito 259 for explanations of these forces.

[19] Iain Hamilton Grant describes species for Kielmeyer as the medium through which "time becomes momentarily phenomenological" (134). Thomas Bach notes how extraordinary it is that Kielmeyer chooses as his overarching goal a question that historicizes living beings collectively (45-46). As Zammito notes, Kielmeyer historicized nature from an empirical, rather than metaphysical or eschatological, perspective (258).

[20] Kielmeyer quotations will be from Grant's translation unless otherwise noted.

of organization fluctuates between the individual and the species, all members of which share a common form and set of processes. Kielmeyer's series of species inhabits the earth simultaneously, but his transformationist theory also posits that species develop one from the other over vast stretches of time. In order to arrange his series of beings over the scope of deep time into a grand system (although one, as we will see, that resists closure), Kielmeyer depends on establishing ambiguities between individual and species. Just as the organs make up a system that constitutes the organism of an individual (as we will see below), individuals of a single species interact with each other so intimately, "that we should believe, according to our manner of speaking and representing, that nature had interwoven the nerves of an individual with those of the others into a web, and the impressions of one would be felt in the sensorium of the other" (30). The terms are not haphazardly given – sensibility, the prerogative of the nerves in Kielmeyer as in Haller, is a self-directed function, through which impressions register internally, and hence ostensibly the least communal of all forces. Here, however, even sensibility is acknowledged to form interconnections between individuals and to unite a species not only in any given moment, but over time, from parent to offspring, into what "one may call the life of the species" (5).

Unlike Brown and Röschlaub, then, Kielmeyer takes the species as his primary setting for forces, and he requires a longer temporality. Kielmeyer begins his essay by drawing time quite explicitly into the consideration of living beings, whose organs are not only incorporated into a system in which they serve mutually as means and ends, as Kant had defined the living being in his *Critique of Judgment* of 1790, but also into one in which the organs themselves undergo continuous changes, which occur both simultaneously and in sequence (4):

> Each of the living individuals, thus animated [*belebt*] by their organs, endures for a greater or lesser stretch of time, and, at each point in this course of time, the system of operations [*Wirkungen*] that we call its life, and the system of organs that constitute its organism, change, one emerging from the other as its cause. (30 [4], trans. mod.)

Kielmeyer here parses the available words for living bodies, living forces, and living systems differently than Zedler had. For him, it is *life* itself that represents the system of operations or activities (for which the German word *Wirkungen* also means effects), while the living individual's *organism* is its system of organs, their interconnection and interactivity. Organism and life cause each other reciprocally. Both the system of operations and the

system of organs are dynamic, however interdependent each also is with the form of the living being; each remains in flux and they affect each other reciprocally as well as being affected in tandem. Kielmeyer binds the active organs of a single living being into a unit, unifies all individuals of a type into a species, and connects all living beings into one system that, like the individual, also participates in developmental temporality. We can see what a developmental system of forces looks like by turning to Kielmeyer's theory of recapitulation. Kielmeyer posits that embryos in their earliest form begin with the distribution of forces that characterizes the simplest life forms and then progress through the proportions that characterize more complex forms before arriving at the proportionality characteristic of their own species (36-38). In its focus on forces and hence the workings of life, this theory differs from Ernst Haeckel's more famous later account of ontogeny recapitulating phylogeny in which embryos manifest the *form* of simpler living beings in ascending sequence as they develop.

The principle for Kielmeyer here and throughout the essay is thus a physiological theory of compensation, both at the level of each force, and among forces at the level of individuals as representatives of species.[21] Kielmeyer notes, for example, that the reproductive force can take various forms, such as growth, generation of offspring, metamorphosis, or regeneration. However, any given species must balance these options against each other. He then embeds this description in the larger system in which reproductivity as a whole is inversely proportional to sensibility. Sensibility allows more flexible and varied response to danger, a strategy that serves the same ultimate purpose as prolific generation or extraordinary healing abilities, namely, to prevent destruction from outpacing preservation, that is to perverse the life of the species (43).[22] As Thomas Bach points out, Kielmeyer here offers "already a physiological interpretation… no longer established through the description of differences among living beings, but rather explained through the interrelationship of functions with respect to their self-constitution" (55). To the extent that the particular combination

[21] See Gabrielle Bersier for an account of the various laws of compensation Kielmeyer sets out within each force, in relationship to the larger law of compensation that governs the relationship of the forces to each other (21-23).

[22] For example, Kielmeyer gives an extraordinarily observant description of what would eventually come to be known as r and K survival strategies, by which simple species that require less investment during embryonic development propagate profusely, while formally complex species that require greater parental investment during embryonic development propagate sparsely (28-30). Kielmeyer is interested here in physical and physiological investment of offspring, while modern descriptions of r and K strategies also incorporate the energy spent raising offspring.

succeeds, we see "persistence in animated nature" (Kielmeyer 43 [41], trans. mod.), i.e. a species that endures for some period of time.

Kielmeyer's assumption that such strategies are not always successful – that there have been species extinctions (43-44) foreshadows Darwinian natural selection without positing survival as an actual mechanism of change. As Joan Steigerwald notes, for Kielmeyer species are nature's experiments (198). While Kielmeyer celebrates sensibility as "the best" and rarest of the forces (33), its effects highlight the contingency that characterizes nature for Kielmeyer. The abundance of sensibility in humans means that humans, alone of all living beings, have "obtained the capacity to freely alter (within certain limits) the relation of the other forces that it has in common with the other animals" (44). Intelligence, itself a function of sensibility, allows humans to increase sensory perception through tools like microscopes and telescopes, to increase mobility by harnessing faster animals, and generally to adapt to changing circumstances (44). The likely result, Kielmeyer speculates, is that humans will soon overwhelm the ability of other species to persevere and will drive some to extinction, if we have not done so already (44).

While Kielmeyer's main point in this text is the proportional distribution of the forces of sensibility, irritability, and reproductive power among species, he also projects this law of compensation into two other dimensions, first, into human psychology, and second, outward into an expansive ecology. Kielmeyer ends his text with speculations about the intellectual development of the human species, and of each human individually, through a similar law of proportionality between forces. In spite of his language of a series, the path of development reveals itself here as non-unidirectional. The balance of mental capacities – sensitivity, fantasy, and rationality – should ensure that humans with varying personal strengths can achieve happiness in a variety of circumstances. And yet, he goes on, it is possible to suppress or to fail to develop any one of the human potentialities, leaving any given individual unable to achieve success in the particular circumstances of their life (45-46).

In addition to encompassing the interior life of humans, Kielmeyer throws out one more speculative gesture. Not only over time as a result of transformation, but also at any given moment, life on earth is interconnected in a vast and complex system of interactions, he observes:

> Finally, the operations [*Wirkungen*] of the individuals of a species are linked together with the operations (to which they are so often opposed) of individuals of other species into a system of operations to

> form the life of the great machine of the organic world. This machine also appears to be progressing along a path of development that we may best represent to ourselves through the image of a parabola [*Parabel*] that never circles in on itself. (30, trans. mod. [5])

Kielmeyer here imagines all life as a single dynamic unit.[23] The developmental path of the living world is a *Parabel*, a word that means both *parabola*, an open curve, and *parable*, an exemplary narrative through which we picture the natural world to our own reason. Rather than the circle long held to represent perfect plenitude, the elliptical revolution around a sun, the hyperbola's advance towards infinity, or a progressive straight line, Kielmeyer gives us an eye-brow-raising open-ended curve. The system itself thus neither gestures towards transcendence nor is it closed in the end; harmony does not reign. In the potential for extinction as in the human vulnerability to a lack of adaptive fit to a given environment, the absence of definitive closure in Kielmeyer's laws – their ultimate contingency – leaves humans as well as nature undefended against future shocks. As a parable, then, Kielmeyer's theory is not only a metaphorical narrative, but one that includes an important lesson, here a warning. Kielmeyer's natural world tumbles through a series of trials and errors in which imbalance is not generally visible only because it leads to destruction and disappears from our view. From this perspective, Kielmeyer's *Gang und Bestand*, transience and continuity, raises the specter of a fragile universe. Each living being, in which organism and life animate and cause each other, participates in a complex web of active relations with members of its own and other species. Meanwhile, it represents a single point both in a distributive field of possible relations of force and in the ongoing life of a species itself always in flux and always at risk.

4. Theories of the Organism: Schelling and Röschlaub, 1798

Schelling's indebtedness to Kielmeyer in his early works, *On the World-Soul: A Hypothesis of Higher Physics as an Explanation of the Universal Organism and First Outline of a System of the Philosophy of Nature* has never been in question, given Schelling's own description of Kielmeyer's lecture as "a speech which the coming age will doubtlessly consider the beginning of an epoch of an

[23] Bach notes the metaphoricity of the term "machine" to absolve Kielmeyer of a mechanistic worldview (107-108), but as Jocelyn Holland argues, the two were not opposed for Kielmeyer, who was willing to use concepts of mechanism and mechanics in his understanding of the organic ("Mechanics beyond the Machine in Kelmeyer and Eschenmayer").

entirely new history of nature" (Schelling *World-Soul*, VI.253, my trans.). Schelling was attracted to Kielmeyer for a variety of reasons: for his focus on forces rather than material organization, for his integration of these forces into a system that allowed for increasing complexity and that functioned universally (at least among living beings), and finally, for his formulation of an issue of fundamental significance to Schelling, namely the coincidence and reciprocity of being and becoming. In *On the World-Soul*, Schelling takes up a similar task, and he does so by developing a new concept of the organism. Unlike Kielmeyer, however, Schelling prefers circles to parabolas, and he extends his system to include the world itself.

If Kielmeyer's foundational question had to do with the co-existence of stability and alteration, Schelling's goes beyond explaining phenomena, however broadly envisioned. As Marie-Luise Heuser notes, for Schelling the question driving *Naturphilosophie* is "'How is nature possible?': what necessary premises must we posit so that we can a priori see in its inner necessity that which we experience as nature" (17-18). Schelling begins the work of answering this question by tackling the definitions of *Mechanismus*, *Organismus*, and *Organisation* in the context of a "graduated sequence of stages of all organic beings" (VI.68) influenced by Kielmeyer.[24] Like Leibniz and the author of Zedler's encyclopedia entry on *organism*, Schelling denies the opposition of organism and mechanism. However, the difference between them for him far exceeds setting. Rather, organism disrupts and adjusts mechanism, which Schelling sees as a series of causes and effects, and hence an infinite process, but also a simple one. If dammed, however, the simple sequence of mechanism becomes an *organization* with its own complex *organism*.

> Only where nature has not inhibited this stream, does it flow forward (in a straight line). Where nature has inhibited it, it turns back (in a circular line) into itself… this concept [of the organism] merely designates a succession, which *enclosed within certain limits* flows back into itself.[25]

The world itself is such an organization and its organism is the resulting dynamic shape of its agitation; it is formed, self-directed churning. As he will explain later in the work, "*Organization* and *life* do not express anything **persisting** *in themselves* [*an sich Bestehendes*], but only a specific *form* of

[24] While I focus here on the *Organismus*, Leif Weatherby has discussed the *organ* as a device by which Schelling moves across the fields of science, metaphysics, and theology (173).
[25] VI.69 trans. mod. This and remaining translations from Schelling's *World-Soul* are by David W. Wood in private correspondence unless otherwise noted.

being, that *joins in common several causes working together*" (VI.254; bold emphasis added). Adapting Kielmeyer's reflection on *Gang* and *Bestand*, Schelling moves even further in the direction of dynamism. The living thing's defining quality, as in the quote above, is the absence of *Bestand* in anything other than the process of change, indeed of disturbance: "The immediate goal of nature … is only the process itself, is only the **persistent** [*beständige*] disturbance and restoration of the equilibrium of the negative principles in the body" (VI.203, bold emphasis mine). And yet, in his insistence that the stream of cause and effect does circle in on itself, Schelling creates a system less precarious than Kielmeyer's. Schelling's titular claim in this work, his bold hypothesis of the title, is that the world itself possesses such organism, consisting of a universal gyre of complex interactions, within which other, more individual organizations form their own organisms, their own eddies, "the *particular* [*einzelnen*] things in nature are *just many limitations* or *particular ways of looking at the general* [*allgemeinen*] *organism … the organism is the principle of the things*" (VI.189). The organism is the principle of natural objects, itself not a thing, but a precondition for the existence of things.

Producing this particular concept of the organism allows Schelling to extend Kielmeyer's apparatus in two ways. First, by integrating the inorganic into an active world, Schelling creates a unified field for knowledge and activity. Second, in this work, Schelling takes up Kielmeyer's rhetorical challenge to improve upon language that Kielmeyer had described as a crutch, redefining what he referred to "with the makeshift word [*Behelfwort*] 'forces' [*Kräfte*], and with the names of different forces. As long as the differences between classes are not cancelled out by a higher understanding [*Witz*] and converted into similarities, then the following distinguishable…different forces, can be established for now" (Kielmeyer 32). Abandoning humility, Schelling answers this appeal to a higher understanding and makes of Kielmeyer's three forces a unity in trinity, "branches of one and the same force" (Schelling, VI.252). It is only in the following year, in the *First Outline of a System of the Philosophy of Nature*, that Schelling will synthesize this universal system inspired by Kielmeyer with the individual system of forces he begins to adapt from Röschlaub's understanding of John Brown. In the process, his understanding of organism will shift to take greater account of the boundaries between inner and outer.

While writing *On the World-Soul*, Schelling was already familiar with Brown's work through the 1796 translation by Christoph Heinrich Pfaff.[26] Unlike Brown's 1795 translator Weikard and 1806 translator Röschlaub, Pfaff was not an adherent, and he introduced Brown's work with a critical essay. Schelling's sharp criticism of Brown in *On the World-Soul* echoes two of Pfaff's objections. First, both complain that Brown oversimplifies, misusing Newton's famous *hypothesis non fingo* as an excuse (Pfaff, *John Brown's System der Heilkunde* xix-xxiv) or failing to recognize that forces like excitability are synthetic rather than simple (Schelling VI.196). Second, both view Brown's principle of life as thoroughly passive (Pfaff, *John Brown's System* xx; Schelling VI.196), rather than in fact "in every respect an effective, self-acting [*wirksame selbstthätige*] force" (Pfaff lxxxvii).

However, Pfaff was not the only one interpreting Brown for a German audience in 1798. Röschlaub's *Pathogenesis* appeared at the same time as Schelling's *On the World-Soul* and the two reveal remarkable similarities in the definition of the organism although in different contexts. As we saw above, Röschlaub is still not using the word *organism* to refer to a living being, but instead to a kind of arrangement. He is, however, only interested in such organisms when they are found in living beings. As a result, he confines his theory to "living organisms" or the "living organism" (*Pathogenesis* 6). The living organism can neither be equated with its anatomy, "that construction of its parts…that we call organization" (79) or its physiology [*Lebensverrichtungen*] (50), but represents a regulative disposition that interrupts a chain of cause and effect, just as for Schelling: "as long as the forces [*Kräfte*] of the individual elements operate on each other continuously with the same force [*Gewalt*]" and without disturbance, there can be no expression of activity (Röschlaub, *Pathogenesis* 266). The organism, however, mediates actively, causally, and self-directedly between external stimulus and living function. Physiology has its foundation in this organism (51).

The ability to disrupt and redirect the series of causes and effects is not a vitalistic force for Röschlaub, but rather the descriptive equivalent of life which inheres in matter: "We must therefore imagine the life-principle as a mere capacity of organic material to operate against [*entgegenzuwirken*] impressions from outside" (231). We see examples of this principle in the

[26] Schelling had learned about Brown from Pfaff in Leipzig when Pfaff was composing the translation in 1796. Pfaff spent a week visiting Schelling in early 1798 while Schelling was writing *On the World-Soul* and Pfaff the second edition of his translation. Pfaff familiarized Schelling with galvanic experiments (VI.6-8). Pfaff had also been an enthusiastic student of Kielmeyer's and promoted his theories. See Zammito 334, 255.

fact that the organism reacts with decreasing intensity to a stimulating drug over time, or is less reactive to light in the afternoon than upon waking up in the morning (282). Moreover, the body readjusts to its original degree of reactivity if a pause in the stimulus or incitement allows it to recover. The cause of the organism's excitement is therefore only indirectly the outside incitement; directly, the cause is excitability, the organism's own inherent ability to respond (280). Even injuries rarely exact only direct physical damage. A simple splinter causes inflammation whose impact outlasts the extraction of the original injuring cause. Excitability (*Erregbarkeit*) differs from simple irritability (*Reizbarkeit*) because of this "self-efficacy" (235); its "capacity…for self-operation, for action" (235). In other words, life only appears in deviation from smooth and immediate reactivity, which can be thought of as the indifference of non-living matter. Eventually, even the sober incitements of a well-regulated life will wear down the ability to moderate responses, and once the organism's excitability is fully exhausted, it returns to indifference and life ends (288).

Life unites two elements, the significant disruption of either of which amounts to a state of illness that will have repercussions for functionality, namely "a) an *outer*, the organization, b) an *inner*, the life-principle" (88). The entirety of the material body, i.e. the *Organisation* is here rendered external, while only the life principle, namely excitability, is internal. This life principle is both pervasive and undetectable to the senses except through its effects. As in his work on Brownian medicine discussed above, the dichotomy between inner and outer here can also be understood as that between the local and the universal or general (93). The position of Röschlaub's concept of the organism can be discerned from the possessive pronouns used with it. The human being possesses "my organism" (55); the living organism possesses "its living activities" (88). Organism as a concept here transitions from an abstract description of how processes unfold, as in Zedler, to a singular possession of an individual. In this form, the word begins to allow for a plural.[27] However, even "individual living organisms, i.e. that of the human being, of the horse, etc., the oak, the mosses, etc." (9) can still refer to a type, an arrangement common to all humans or all oaks, although unique to the species. The line between organism as a quality proper to a type, organism as the property of an individual, and organism as that individual itself remains indistinct throughout writings by Röschlaub and also in Schelling's work after 1798. The modern organism that emerges remains a kind of placeholder for

[27] Toepfer credits Schelling for the earliest usage in the plural in German (785, 795).

being, a suspension of characteristics that refuses definition as an object while allowing inquiry to progress.

Röschlaub integrates his theory of excitability as a principle of life into the long debate over a "universal world spirit" (101), tracing a history from the ancient world to his own time. Given Schelling's equation of *world-soul* with a *universal organism* in that same year, one can hardly wonder at the immediate intellectual attraction between the two authors, which developed into a friendship and active collaboration before a later break, with Schelling eventually repudiating Röschlaub and Brown.[28] For Röschlaub and for Schelling, the organism in their works of 1798 is a site of interruption of simple mechanism. For Schelling, self-identity then results from the diversion of a running series of causes and effects that becomes knotted, that tarries, that remains temporarily stable. For Röschlaub, self-identity inheres in the regulation of reactions throughout a single sphere of activity. For both, the interruptions of mechanism are temporary and fragile; dissolution or death is synonymous with a point of indifference, the lost ability to hold mechanism in check, to turn it inward.[29]

5. Schelling's Unified Theory of the Organism

In April, 1799, Schelling published a fascinating review in the second volume of Röschlaub's *Magazine for the Perfecting of Theoretical and Practical Medicine* that indicated an alteration in his view since *On the World-Soul*. Here, he defended Brown's system against claims that it was purely mechanistic. Rather, Schelling insisted, the theory of excitability rested upon "something self-supporting [*Selbstständige*], that is presupposed by the exciting forces, and therefore is independent from them, founded, as it were, in a higher order, entirely outside the sphere in which it is possible to be affected without mediation [*unmittelbaren Affizirbarkeit*]" (II.2 257-258). This unnamed autonomous and higher source of excitability in living beings, which is its cause, Schelling goes on to suggest, can only find its grounding outside the experimental sphere in "the higher physics, which does not observe the phenomenon of life in so isolated a way as physiology, much less common medicine, has done up to now" and which might find that "the phenomenon of organic excitability was like that of electrical excitability and quite similarly had its final foundation in the dynamic order

[28] See Tsouyopoulos, "Der Streit" and Zammito 333-340.

[29] For reflections on sexual division as the primal manifestation of this inhibition of the *Indifferenzpunkt* for Schelling, see my "Sexual Division and the New Mythology" and also David Farrell Krell, 90-99.

of the universe" (259). Including inorganic nature in the inquiry and moving beyond the experimental to first principles, or the preconditions for differentiated existence, Schelling suggests, would elucidate the chain of reasoning that Brown presupposed but neglected to expand on. To fill these gaps, Schelling recommends his forthcoming "Outline of a System of the Philosophy of Nature" (261).

In fact, the challenge Röschlaub's work issued to Schelling lay in the difficulty of conceptualizing organism beyond the living being, as Schelling had attempted in the previous year. In spite of Röschlaub's care in restricting his discussion to *living organisms*, and thus leaving open the possibility of other forms of organism, he defines *organism* only with respect to life. Schelling saw in Röschlaub's definition of the boundaries of the organism through function however, a way to theorize differentiation as such, and by abstracting the excitability of the organism to a universal level, a way to characterize more clearly the *world-soul* of his earlier work. Schelling extrapolates from Kielmeyer the notion of a series of beings that points to a theory of nature as a whole and from Röschlaub a mechanism for individuation. For Röschlaub, the living organism offers resistance to the mere stimulation of the outer world, and can be defined by the sphere of this activity. Schelling understands this activity of resistance not as a mere property of the boundary between objects, but as its generator:

> It order that it not *be* assimilated, it must *assimilate*; in order that it not *be* organized, it must *organize*. In this act (of opposition) the internal divides itself from the external for it…Its RECEPTIVITY to the external is conditioned by its ACTIVITY against it. Only insofar as it strives against external nature can external nature act upon it as upon something internal. (*First Outline* 54, trans. mod. [VII.118])

At a minimal level, this resistance exists even for the inorganic world and explains how objects come to be in a world of becoming. The forces at work include repulsion and attraction, as well as chemical processes (57). Brown's and Röschlaub's excitability, which unites receptivity with activity, thus migrates from principle of life to a function of the universal organism, the world-soul. Merely because the same mechanism is at work at each level does not mean that Schelling's system is one of lateral equality. Rather, nature as a whole manifests a "DYNAMIC GRADUATED SEQUENCE OF STAGES" (6) in which objects are not only varied, but organized into a series of ascending complexity. Nature is "one product that is inhibited at various stages" (6 trans. mod.). Unlike for Kielmeyer, however, the rungs in Schelling's series are organized according to a systematic hierarchy of

complexity and not historically.[30] Just as each living organism encompasses a material organization, so must this higher organism – namely nature itself.

As complexity increases, so does the cost of maintaining difference. If all boundaries already entail resistance against indifference as a condition of existence, this oppositional force is still stronger for living beings. Already for Röschlaub and Brown, "we must think of life and every state of living functioning therefore also a priori as a forced state" (*Pathogenesis* 240), one that exists only through its excitability, its response to and against its surroundings. Kielmeyer sees this defensive activity much more concretely as a struggle to preserve life which "withstands each attempt to annihilate it" (43) against destructive depredations. Kielmeyer's forces of destruction (43) refer not only to the inertia of inorganic indifference, as for Röschlaub and Schelling, but also other living beings such as predators and other external circumstances and situations. Schelling brings Kielmeyer's forces of destruction back to Röschlaub's first principles and intensifies them:

> Life, where it comes into existence, comes against the will of external nature…, as it were, by a tearing-away from it. External nature will struggle against life; most external influences which one takes as life-promoting, are really destructive for life. (*First Outline* 62)

Schelling's definition of the organism through its resistance to an external world poses a clear challenge to his positing of nature collectively as an organism. Where can this universal organism find its outside? Here again Röschlaub is useful for Schelling. Röschlaub has offered the glimpse of a solution by relegating the organization to the outer world, and theorizing only excitability itself as truly interior to the organism, which is then composed of both aspects.[31] Schelling doubles the duality, so that the organism can be the world and still have an outside, an external world [*Außenwelt*] (112, VII.179), which is its own product. This coarser organism that mediates the influence of the external world, the "organism of the organism – … would be the one that is continually reproduced through the excitement [*Erregung*] of the higher" (108, trans. mod. [VII.174]). Each organism can be perceived as dual, split between higher and lower. The organism is thus divided against itself, acting in its subjectivity as a force of differentiation which intervenes in the inertia of the organism as object, which is the outer world. As Gabriel Trop maintains, for Schelling "Individuated matter… is nothing but a manifestation of this

[30] For more on the connection between Schelling and Kielmeyer in the notion of a natural series, see Bach 276-279.
[31] Both Röschlaub and Schelling are also influenced by Fichte here.

primordial frustration" (115). And yet here, Schelling acknowledges the threat of an infinite regress that he tries to evade through a Möbius strip, in which "the dynamic organization of the universe as an infinite *involution* (as presented in the previous division), where system within system is dynamically grasped [*begriffen*], is demonstrated to be necessary in a new respect" (112-113 trans. mod. [VII.179-180]).

In the process of this multiplication, *organism* takes on its most complex role, not only the mediator of force and matter, as for Röschlaub, but as the coincidence of object and subject in a dynamic that nonetheless prevents their collapse. To capture this principle, Schelling reaches back to the older physiological dichotomy of irritability and sensibility but, significantly, in the form in which it been expanded into a triad with the addition of reproductive force by Kielmeyer.[32] While Schelling both praises and summarizes Kielmeyer (141-149), he makes this theory his own. Kielmeyer's three forces inhabit organism at least incipiently at all its levels for Schelling. Sensibility, however, unfolds itself only in the higher organism, the organism as subject, i.e. either the living being or nature as the universal organism of the universe: "only the inception of *sensibility* is the inception of life" (*First Outline* 114), it is "something reverting [*zurückgehendes*] into the subject of the organism, indeed, even first constituting the latter – in a word, that absolute-innermost element [*Absolut-Innerste*] of the organism itself "(114 trans. mod. [VII.182]). It is this Absolute, the subject, that is not accessible to senses, is not objective, and can only be deduced through its effects (114-115). It is easy to trace the association with sensibility, which Haller had also described as the source of experience for the individual living being, and yet as inaccessible to the observer except through its effects. According to Schelling, sensibility, as both inner experience and confrontation with the external world, as perception and yet not perceptible in itself, is thus duplicity itself, it "stands on the boundary of all empirical phenomena, and to its cause as the highest, everything in Nature is connected" (116 trans. mod).[33] Once again, the living organism gestures towards the universal organism, not just analogously as microcosm to macrocosm, but as joined by a shared cause and shared forces which become a single, triadic force. Excitability is the

[32] Schelling is also building on Friedrich Blumenbach's formative drive here and making this force the foundational one for existence, in the form of a *formative force* for the inorganic world and a *formative drive* for the organic world. For Schelling's multiple influences, see Leif Weatherby 180-187.

[33] Cheung notes that Schelling has here grounded Brown's stimulus-response mechanism in this duplicity, which converts excitability into a cause of life rather than natural product (*Organismen* 115).

umbrella term for this force, which consists of the operation of sensibility as a source of activity, that manifests itself in the sensory world in irritability, as part of a process of self-constitution and reproduction (172 [VII.218]). In this way and through a detour through Röschlaub, Schelling has fulfilled Kielmeyer's gesture towards a grand, unified theory of a single force more fully than in *On the World-Soul*.

Returning then to the new role of the word *organism*, we see that it arises to fill a conceptual gap, not only as the mediator between force and form and between vitalism and mechanism, but as the carrier of identity in the absence of solidity, an identity created by the directedness of swirling motion itself. Organism conjures up temporary balance in order to produce itself at all as a product, and yet organism would cease to exist if this rest, this indifference became absolute (118). Schelling's theory of existence allows for Kielmeyer's *Gang* and *Bestand*, change and persistence within a system of difference and identity resting under the descriptive term, organism, that resists determinacy.

6. Novalis and Living Language

In the years 1798-1799, Novalis was a student at the Mining Academy in Freiberg. His unpublished *Physicalische Fragmente* notebooks from the period refer to chemical and engineering material, but are also suffused with Brownian speculations.[34] Like Schelling, Novalis in these fragments appropriates those properties Brown and Röschlaub used to define living beings and expands their purview to include the inorganic.[35] While Schelling, however, is particularly focused on the way that Brown and Röschlaub enable the drawing of boundaries between inside and out, Novalis is more interested in the inextricability of the natural object – living or not – with its surroundings, indeed with its permeability and resulting state of flux. While Brownian language makes an appearance in several of the texts he worked on in these two years, both published and unpublished, I will suggest at the conclusion of this article that one text without such

[34] See Neubauer on Novalis's familiarity with Brown from at least 1797 (45), Röschlaub in 1798 (104), and Kielmeyer at an indefinite point (22). He also read and commented on Schelling's works in the notebooks.

[35] Novalis not only applies the concept of the stimulus (*Reiz*) to the inorganic ("Physicalische Fragmente" III.73), but also speculates about oxygen as nourishment for which metals have an appetite, and which they eat (III.82). Nonetheless, he locates a major distinction between living and non-living objects in the absence or presence of entrails, which lead to different constitutions in relationship to internality-externality (III.86).

obvious references is nonetheless deeply responsive to Brownian theory, namely *The Novices at Sais*.

Novalis' decision not to focus on the word *organism*, as Schelling and Röschlaub had at this same moment, is instructive.[36] While I have argued here that the term organism itself serves to designate a dynamism rather than a definite object, the world would seem to indicate a drive to concretize such dynamism, or a need to supply such an object. However open the organism remained to the workings of forces and the interactivity with an outer world, however alert to paradox and suspended oppositions in both of their works, the tendency of the concept towards boundary-setting remained too restrictive for Novalis. He carries the thought experiment to its logical extreme, theorizing a liminal cohesiveness of objects that remain radically open to stimuli with dynamic interactions. Moreover, he draws out an association with language already latent in the frequent appearance of the word *Ausdruck* or expression to refer to the organism's response to stimuli in Brownian texts.

To understand the connection between language and life, we need to look first at Novalis's own language in adapting Brown, and how it differed from that of Schelling, Röschlaub, and the translators:

> We call the body dead – which is merely the conductor of solicitation – which solicitation does not awaken. The absolute non-conductor of solicitation can be called dead in turn. So we see that sensible life is in itself a halfway-condition. We discover here at the same time…that life and death are relative concepts. (III.92)

If health and illness were already relative for Brown, Novalis takes this concept to a new level. Life is an ambiguous circumstance in which the body receives a solicitation or call and conducts or transmits it, but only imperfectly, neither reacting merely according to physical laws nor failing entirely to interact with it. The word *Leiter* or conductor reflects his

[36] Novalis does occasionally use the word, generally in order to bring together body and soul, the processes of living bodies with those of philosophy, or inner and outer. For example, in the *Allgemeinen Broullion* (#655), he notes "Only organic philosophism, or the philosophical organism, is the subject of medical algebra or analysis. (Brown has attempted to present its fundamental principles)" (121 trans. mod. See also #702). Novalis did frequently use the word *Organ* and related words such as *Instrument* and *Werkzeug* in his writings on life and mind. See in particular, Weatherby (206-250) on Novalis's *organology*, through which he blends "novelistic self-construal, regulatory and technical understanding, and interest in statecraft" (215), and Holland, *German Romanticism and Science* 85-112 and *The Lever as an Instrument of Reason* (71-86), in which she notes Novalis's turn towards forces (80) and his understanding of motion as a result of their interplay, even in unaccompanied by change of physical location (78).

merging of Brownian concepts with theories of electricity (III.80). But solicitation comes from a legal framework (as in the English word solicitor) or one of anxiety and appeal (as in the English formulation solicitous). Associating life principally with the sensible, while not unique to Novalis, further emphasizes experiential sensitivity. The juxtaposition of conduction and solicitation strengthens the connection between organic and inorganic implicit in the potential for bidirectional transmission of both. One might think that the ideal condition of the living body would be an attitude both receptive and responsive, positioned halfway between the two disquieting forms of death. And yet, in another formulation, Novalis posits a seemingly harder line of defense against intrusion of the external that then slowly dissolves, claiming:

> Health is: the ability to repulse the foreign…That which is healthy is a conductor of stimulus. That which is *more, than healthy* – a non-conductor of stimulus (conductor – non-conductor, female – male.) [37] Shouldn't there be in this regard another more accurate *construction figure* [*Constructionsfigur*]? Where, for example, health would be presented as a force of repulsion and illness as a force of attraction condensed together in specific quantities… The actual health would then consist [*beständе*] merely in the consistency in reduction [*gleichbleibenden Verminderung*] of both – and would be nothing other than the original individual relationship (constitutional [relationship]) of the forces that were condensed together… one should be the force of intention – the other the force of extension… (III.80)

This torrent of shifting associations with health and sickness is interrupted by the self-conscious staging of helplessness in the face of linguistic framing, a solicitation of empathy for the difficulty of explaining indistinct phenomena. In this passage, health is a moving target, first identified as the ability to repulse the foreign, then as the attribute of conductivity for an external stimulus after all, but only when re-evaluated as inferior to something *more than health* which would resist such conduction. When the connection between health and repulsion is reiterated, it is quickly subjected to yet another correction, in which repulsive and attractive forces exist in a balance particular to a given individual. Finally, repulsion and attraction are tentatively reframed as intention in relation to extension, terms that allude both to occupying space and to interior will, while sustaining the tension between them. Questions and subjunctives abound in

[37] Analyzing sexual differentiation in Novalis lies outside the scope of the present sketch. David Krell focuses on sex in Novalis's thinking in *Contagion*, and Jocelyn Holland in *German Romanticism and Science* 56-84.

this ricocheting volley, as well as ambiguous phrases with the grammar of questions though lacking its punctuation. What emerges from this apparent chaos is the idea of a flexible relationship to a spectrum of health and illness that privileges oscillation between a defensive and an open stance towards external influences, while simultaneously registering expansion or externalization into an outer world. The self, the subject, the individual is here neither given nor fixed but emerges from an accrual of assertion that occurs beneath a border of perceptibility, until it reaches an I-point [*Ichpunct*] at which I-ness [*Ichheit*] could be said to materialize (III.78).

Novalis gives us a concrete example of how this interchange might work in a particular experience. Absolute light, Novalis claims, is never visible (III.96). Rather, a sense organ, an eye, responds to a stimulus of light through resistance to it. When the stimulus prevails, there is an experience of light; an equilibrium between stimulus and organ produces the more nuanced experience of day; when the eye, the sense organ, prevails, dusk or night is the experiential result: "light stimulus and eye are here *mixed* and One" (III.96). The result of the amalgam of stimulus and sense organ belongs neither strictly to the perceiver nor to the world. It is instead a transmission in which both participate: eating light, the eye excretes visible things (III.96). As a result, "sensible light in shining [is] a sign that the Doubled substance that has now been generated has enough energy to excite other bodies – or even indeed to overwhelm and infect" (III.97). Novalis envisions experience as a transmission that can be characterized as nourishment and excretion, as a language of signs, as the production of offspring (*erzeugte*), and also as contagion which may be further transmitted by the perceiver in one or another form. Novalis's understanding of transmission as communication, in both the sense of contagion and language, radically opens the boundaries of bodies and minds, rendering them both flexible and vulnerable, as David Farrell Krell has analyzed in depth.[38]

While a reading of Novalis's extraordinarily complex, unfinished novel, *The Novices at Sais* lies outside the scope of this article, I want to suggest here at my conclusion that the very texture of the novel fragment incorporates Novalis's interest in exteriorizing and interiorizing, in touching, meeting, and sharing. This communal understanding of the boundary-drawing of objects and subjects belongs in conversation with Brown, Röschlaub, Kielmeyer, and Schelling. Novalis's entire fragment is

[38] Krell traces this connection between sexuality, speech, excrement, and contagion in Novalis's notebooks (29-69). Verena Anna Lukas has also analyzed language as both speech and text as a form of *incitement* for Novalis. See also Uerlings 382-386.

composed of juxtaposed voices and perceptions of voices. Rather than interpreting the voices and the perceptions as belonging to unnamed, but discrete, characters (speakers and listeners), I would suggest understanding the fragment's structure as focused on the flow of stimuli in the form of expression, out of which figures materialize and dematerialize. These eddies in which the flow becomes temporarily "*verdichtet*" (I.79) – either thickened or poetically composed – do not receive names, but they do have paths and directions. The fragment's methodology, I would suggest, is laid out in its famous opening passage:

> Various are the paths that humans travel. Whoever pursues and compares them will see fantastical figures emerge; figures that seem to belong to that great cipher script that we glimpse everywhere, in wings, in eggshells, in clouds, in snow, in crystals and formations of stone, on freezing waters, in the interior and exterior of mountains, of plants, of animals, and of humans, in the lights of heaven, on discs of pitch and glass scored or touched,[39] in the iron filings around a magnet, and in strange conjunctions of chance. We suspect in them the key to this miraculous script, its linguistic teachings, only the suspicion refuses to acquiesce to any fixed form and seems unwilling to become a higher key. (I.79)

This novel follows and compares the manifold paths of humans declared in the opening sentence, and both observes and reveals figures in their traces that give the impression of being readable and interpretable.[40] However, there is no key. Nature's expression is not a code or set of signifiers, but is composed of multiple forms of assertion, effects of objects' responsiveness to the exterior world through internal mediation that absorbs with changes and also repels.[41] As in Schelling, patterns gesture towards the invisible presence of sensibility, of spirit inhering in the world as a whole. Unlike Schelling, however, Novalis focuses on the way that each object, living or not, calls to each other; there is outreach and there is response. Even if

[39] Novalis is likely referring to electrical experiments originally performed by Georg Christoph Lichtenberg in which patterns that came to be known as Lichtenberg-Figuren were produced on plates of varying materials.

[40] Bergengruen (61-63), Theisen (248), and Uehrlings (387-390) also discuss the bi-directionality of this passage.

[41] Because Novalis's engagement with nature, with its examination, and with language in *The Novices* is quite evident, many valuable interpretations of the fragment from this perspective are available. My own reading intervenes here in contextualizing processes of interiorization and exteriorization and including the fragment itself as one such expression. For relevant readings of language and nature in *The Novices*, see in particular Bianca Theisen, Maximilian Bergengruen, Herbert Uerlings, and Gabriele Rommel.

deciphering is the wrong approach, the ushering of the solicitation and its reception are meaningful.

One might note that human language is not included in the list cited above, so that language might be thought to work in more explicit, if also more mediated ways. It is notable, however, that speech is bound up with the comings and goings of figures in the novel, with their literal paths or *Wege*.[42] Language occurs at a higher level of consciousness than the patterns of crystal, wings, or the intricacies of living bodies, but it is a similar activity. *The Novices* itself must then be understood as what Novalis calls in *Pollen*, in one of his few uses of the word *organism*, "stimulation [*Incitament*] of the organism" (*Philosophical Writings* 25, trans. mod. [II.418]).[43] The novel functions, as the *Pollen* fragment suggests, as nourishment to develop the germ which is already within. In this case, however, it makes sense to read the sequentially following aphorism as linked to this one: "The seat of the soul is the point where the inner and the outer worlds touch. Wherever they permeate each other – it is there at every point of permeation" (26, trans. mod. [II.418]). While the image of the pre-existing germ may close the individual, the interpenetration of inner and outer world immediately re-opens it. For Novalis, the soul is not a unique, divinely individuated property, nor is it a principally differentiating life-principle, but it is rather a vehicle of communicative interaction. This partial saturation of internal and external worlds does not annihilate the differentiation of objects – living or not – for Novalis, but does preclude their static identity.

What I hope to have traced in this article is the circulation and alighting of a concept that was generally given the name *organism*, namely the figure of a problem or paradox consisting in the coincidence of *Gang* and *Bestand* in the natural world in the last years of the eighteenth century, at the origin of biology. For a brief period during which the term came into common usage for the first time, it resisted reification and made space for complex philosophical speculation about the differentiated nature of existence, of life, process, boundaries, and community in time.

[42] Dalia Nassar posits that the novel traces inward and outwards paths between nature and the moral self (49-52).

[43] These two fragments appear both in the published version of *Pollen* and in the handwritten collection. I have taken the English from a translation of the handwritten set, also called *Miscellaneous Observations*.

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Ein Schuß in die blaue Luft

The Early German Romantic Hypothesis

Jocelyn Holland[*]

ABSTRACT

This essay examines the contributions made by Friedrich Schlegel and Novalis to what hypotheses can be and do in the context of Early German Romanticism. It situates these two thinkers against the backdrop of eighteenth-century discussions that examine both the usefulness of the word *Hypothese* in the German context and the ways in which hypotheses can be established in scientific and philosophical discourses. Using Schelling's systematic thinking about hypotheses as a point of departure, I show how Schlegel and Novalis each use the hypothesis heuristically to test the capabilities of the positing individual in general terms and to forge connections between key Romantic concepts (such as religion and mythology), all the while keeping methodological considerations in mind.

Keywords: hypothesis, supposition, experience, knowledge, truth

RÉSUMÉ

L'article examine l'apport de Friedrich Schlegel et de Novalis à la question de la nature des hypothèses, et de ce qu'elles peuvent produire, en régime romantique. Les discussions du XVIII[e] siècle relatives à la fois à l'utilité du mot *Hypothese* dans le contexte allemand et aux façons d'établir des hypothèses en science et en philosophie forment la toile de fond sur laquelle ces deux penseurs sont ici situés. Partant de la réflexion systématique de Schelling sur la notion d'hypothèse, on montre comment Schlegel et Novalis recourent chacun à l'hypothèse de manière heuristique pour tester les capacités de l'individu qui la pose de manière générale et forger des liens entre des concepts clés du romantisme (tels la religion et la mythologie), tout en gardant à l'esprit des considérations méthodologiques.

Mots clés : hypothèse, supposition, expérience, connaissance, vérité

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Introduction

At the end of July, 1794, Novalis received a letter from his friend Friedrich Schlegel. It contains several of the elements one might expect to find in a correspondence between two friends at the end of the eighteenth century, including apologies for a delay in communication, along with descriptions of both the writer's location (a picturesque small farmer's house in Pillnitz, near Dresden) and his state of mind (Schlegel claims to have finally found some measure of peace after a "painful" time). At the end of the letter, Schlegel turns to the topic of his friendship with Novalis. He expresses the wish to see Novalis again before they become strangers to one another, adding that such a thing would, of course, never happen on his side. Schlegel feels less secure about Novalis' ability to reciprocate:

> Your way is perhaps not just diverging from mine, but rather is diametrically opposed. Let me know how much farther you have traveled upon it, and if it is to your satisfaction. I will be happy if I see that your earlier inclinations and your later path are joined in harmony.[1]

Novalis, in his response to Schlegel, is swift to affirm the reciprocal intensity of feeling, but he offers a corrective to Schlegel's metaphor of two radically diverging paths. "Know," writes Novalis, "that I certainly remain and will continue to remain worthy of you. We can travel only *one* path."[2] He returns to the same image of his and Schlegel's path at the end of the letter:

> …never again forget that I cannot forget you and that it was a hypothesis, a pure, sheer hypothesis, about the diverging path – a shot into the blue sky. Our way must be approximation – until we both ignite from a single flame, to the left and right of us, as on Christmas, where then the new year comes eight days later.[3]

The primary motivation for lingering on this episode from Novalis' and Schlegel's correspondence is not to revisit the discourse of friendship as it is encoded at the end of the eighteenth century, but to examine the thinking that informs the particular image of two paths and the corresponding idea of the hypothesis. Schlegel's letter has already provided the metaphor, which he constructs in a way similar to a calculus problem devoted to ascertaining the distance between two lines at any point in time. For Novalis, it is less a

[1] Novalis, *Schriften* (=HKA), vol. 4, eds. Richard Samuel, Hans-Joachim Mähl and Gerhard Schulz (Stuttgart: Kohlhammer, 1998), 363. All translations are mine unless otherwise noted.
[2] HKA 4, 140.
[3] HKA 4, 141.

problem of mathematics than it is one of physics or even ballistics. He redefines Schlegel's metaphor as a hypothesis of the most arbitrary kind one can imagine: a shot fired aimlessly into the air. According to Novalis, Schlegel's hypothesis is entirely incorrect, because the problem of their respective trajectories is one that should be posed in terms of approximations, rather than divergences; his is a more optimistic way to identify the current state of separation between two objects. Under Novalis's pen, the hypothesis is not simply a fiction or a wild idea, but rather a moment of absolute arbitrary creativity accompanied by approximation as a positive heuristic tool – something to be used advantageously until a flame can be (re)kindled between the objects in question.

In the timeframe of interest to the present essay, Novalis's articulation of a *blanke Hypothese* appears at a chronological – and admittedly arbitrary – middle point between two momentous chapters in the history of the hypothesis, with eighteenth-century definitions on the one side and a Romantic reconfiguration of the hypothesis on the other. The first part of the following discussion will therefore touch upon a few of the narrative strands that dominated eighteenth century writing on the hypothesis, several of which are encapsulated within Novalis's letter to Schlegel. This essay will address how the hypothesis was distinguished by discipline in the writings of Johann Heinrich Lambert, how the elements of its definition sparked a debate between Joachim Campe and Karl Philip Moritz, and how it became connected to a language of the arts in Johann Samuel Traugott Gehler's *Physical Dictionary*. There is clearly much more to say about the hypothesis – enough to fill several volumes – if one were to include a more detailed discussion of the role the hypothesis played in modern scientific thinking.[4] The goals of the present essay are narrower: to show how the early German Romantic use of the word hypothesis, in good Romantic fashion, accomplishes something contradictory: incorporating aspects of a particular German tradition while, at the same time, articulating something new. The second part of the essay will therefore look beyond the middle point to examine the ways in which the hypothesis was subsequently reshaped in the writings of Schelling, Novalis, and Schlegel, with a focus on the latter two. It will show how an Early Romantic argument for the necessity of hypothesis

[4] For an overview, see Michael Heidelberger's and Gregor Schiemann's edited volume, *The Significance of the Hypothetical in the Natural Sciences* (Berlin, New York: Walter de Gruyter, 2009), which testifies to the irreducible plurality of views on the scientific hypothesis: "The significance attributed to hypothesis is, so to say, a kind of a litmus-paper for the changing and diverging conceptions of science of the scientific actors themselves, as well as of the philosophers who reflect upon the sciences" (1).

took different forms that shared an epistemological emphasis on the making or "inventing" of knowledge that both preserved and transformed the tradition of thinking of the hypothesis in terms of creativity.

Part One: Eighteenth-Century Perspectives

The German term *Hypothese* is slow to enter the lexica of the eighteenth century, unlike its English and French counterparts. Raphson's[5] *Mathematical Dictionary* (1702), a translation of a Jacques Ozanam's *Dictionnaire mathématique* (1691), defines it as "a Supposition; among Mathematical principles Postulates are sometimes so called. The different Systems of the World are also called by that Name."[6] The entry does not further explain what, precisely, is meant by a supposition, but the introduction to the dictionary elaborates on the qualities of a hypothesis, with a focus on geometry:

> When we make a Demonstration from any Geometrical Figure whatever, we suppose the figure to be infinitely more exact than it appears on the Paper, *viz*. such exactly as the Soul conceives it to be, and this we call an *Hypothesis*. Wherefore an *Hypothesis* is a supposition of that which is not, for that which may be. Whence it follows that it is not necessary that the Hypothesis should be true, but it is sufficient that it is possible. Whence it follows that there may be several Hypotheses on the same Subject.[7]

The central part of this definition is likely what is most familiar to modern-day readers: that the truth value of the hypothesis is yet to be determined. The hypothesis begins its life in the vague category of "that which is not" with the hope that at a later stage it may, in fact, become that which is. The 1694 edition of *Le grand dictionnaire de l'Académie françoise*, which positions the "hypothesis" beneath the definition of "thesis," uses similar language:

> *Hypothese*. feminine noun. Philosophical term, supposition of a thing, be it possible, be it impossible, of which one draws a consequence … It is also said of the assembly of several things which one imagines, and

[5] This dictionary was edited by Joseph Raphson, whose name is frequently misprinted (including on the cover of the dictionary) as Ralphson.
[6] Raphson, *Mathematical Dictionary*. *A Mathematical Dictionary, or a Compendious Explication of All Mathematical Terms, Abridg'd from Monsieur Ozanam, and Others*. *With a Translation of his Preface; and an Addition of several easie and useful Abstracts*, J. Raphson translator and editor (London: J. Nicholson, T. Leigh, and D. Mitwinter, 1702), [the pages containing dictionary entries are not numbered].
[7] Raphson, *Mathematical Dictionary*, 34.

> which one supposes in order more easily arrive at the explication of certain phenomena, which one otherwise calls system.[8]

Along with the graphical subordination of hypothesis to thesis on the printed page of the dictionary, the French and English words "supposition" – which Gehler's *Physical Dictionary* will some decades later render as *Voraussetzung* – help to solidify the spatial metaphor of the hypothesis. The *Oxford English Dictionary* entry on the prefix "sub-," of which "sup-" is a variation, connects its etymology to the Greek prefix *ὑπο-* (hypo-) and defines it primarily in terms of spatial positioning: "under, close to, up to, towards."[9] The hypothesis, as supposition, is both proximate and subordinate to that which comes next.

Ephraim Chambers' 1738 *Cyclopaedia* provides a much more extensive definition that covers the use of the term hypothesis in logic ("a proposition or principle which we suppose, or take for granted in order to draw conclusions therefrom, for the proof of a point in question") and in physics ("a kind of system laid down from our own imagination, whereby to account for some phaenomenon or appearance of nature").[10] Chambers also adds his thoughts on contemporary critiques of the use of hypotheses. He distinguishes the philosophical position whereby true conclusions can be drawn even from false hypotheses (using the example that, should the sky fall down, one would be able to catch a lark) from a more skeptical attitude towards the fictional quality of hypotheses in general: "Whatever is not deduced from phaenomena, says Sir Isaac Newton, is an *hypothesis*; and *hypotheses*, whether metaphysical, or physical, or mechanical, or of occult qualities, have no place in experimental philosophy."[11] Chambers' *Cyclopaedia* and other eighteenth-

[8] "hypothese," *Le dictionnaire de l'Académie françoise*, vol. 2, M-Z (Paris: Coignard, 1694), 561.

[9] "sub-, prefix". OED Online. September 2021. Oxford University Press. https://www-oed-com.azp1.lib.harvard.edu/view/Entry/192418?rskey=3z6YOK&result=20&isAdvanced=false (accessed November 28, 2021).

[10] Ephraim Chambers, *Cyclopaedia, or an Universal Dictionary of Arts and Sciences*, vol. 1, s.v. "hypothesis" (London: [publisher not listed], 1728), (pages unnumbered).

[11] Chambers, *Cyclopaedia*, s.v. "hypothesis." For more information about Newton's "troublesomely ambivalent legacy" where the hypothesis is concerned, see Ernan McMullin's essay, "Hypothesis in Early Modern Science" (Heidelberger and Schiemann, *The Significance of the Hypothetical in the Natural Sciences*, 7-38, 32). It is also interesting to note that the term *supposition* has its own history of falsehood. The *Oxford English Dictionary* also states in no uncertain terms that the history of *supposition* is shadowed by less savory meanings than the one listed above, including the "act of passing off one child for another," "production of a fake document," "transient discord" (in music), and the "fraudulent attribution of a work of art to an artist who did not produce it" ("supposition, n.". OED Online. September 2021. Oxford University Press. https://www-oed-com.azp1.lib.harvard.edu/view/Entry/194705?redirectedFrom=supposition, accessed November 28, 2021).

century reference works place Newton – rather unfairly, as the Newton scholarship has shown – at one end of a spectrum where hypotheses are concerned, but the focus, by and large, is on the potential for knowledge to be gained through their use.

What one can gather then, based on these examples from French and English texts, is that it is possible to think of the hypothesis in terms of number (which is to say, the hypothesis can refer to a singular statement or to a collective, when understood as a system); as a spatial metaphor (a foundational position by necessity proximate to the subsequent conclusions placed "on top" of it); as a product of the imagination, regardless of whether it is valorized positively or negatively; and as something that, according to some scientific perspectives, exists in tension with observation and experiment. Connecting several of these elements is also the visualization of a hypothesis, an idea which encompasses acts of the imagination as well as pen on paper, where the geometric figure emerges as a different kind of approximation of a pure idea. By contrast, the neologism *Hypothese* takes hold only gradually in German-language writings. It does not merit its own entry in Zedler's *Universal Lexicon*, which was published between 1731 and 1754, although the word *Hypothese* does appear sporadically in that publication. Johann Lambert's multi-volume *New Organon*, first published in 1764, offers a more comprehensive view. In a departure from the definitions we have observed in the examples from French and English sources, it first refers to hypotheses as "arbitrary concepts" [*willkührliche Begriffe*] in the volume on dianoiology (the science of the intellectual faculties).[12] *Willkührlich* is a peculiar word in German. In current usage, it refers to things done arbitrarily, randomly, or haphazardly, but the eighteenth-century context is murkier. Adelung defines it first of all as something done deliberately, in such a way that is grounded in ideas [*Vorstellungen*].[13] The second and third definitions deviate from the first, however: they encompass actions that are grounded purely in willfulness, as opposed to ideas and even actions that are accomplished "according to and based upon unclear ideas [*dunkeln Vorstellungen*], in which sense it is opposed to that which occurs by choice or according to clearly recognized reason."[14] The use of the word *willkührlich* to refer to hypotheses thereby accomplishes two things: it de-emphasizes the

[12] Johann Lambert, *Neues Organon oder Gedanken über die Erforschung und Bezeichnung des Wahren und dessen Unterscheidung vom Irrthum und Schein*. Vol. 1 (Leipzig: Johann Wendler, 1764), 44.
[13] See "willkührlich" in Johann Christoph Adelung, *Versuch eines vollständigen grammatisch-kritischen Wörterbuches der hochdeutschen Mundart*, vol. 4 (Leipzig: Johann Gottlob Immanuel Breitkopf, 1780), in col. 230-231.
[14] "willkührlich," in Adelung, *Versuch*, col. 1151.

heretofore clearly defined spatial configuration (such as one had in the *supposition*) in favor of metaphorical "darkness," and at the same time it introduces a note of epistemological uncertainty that was, to be sure, always included in the general understanding of the hypothesis, but still not rendered in such stark terms. The tension between these two aspects of the hypothesis – its metaphorical spatiality and epistemological uncertainty – take center stage in a debate between Joachim Campe and Karl Philip Moritz on the status of the German word *Hypothese* that I will discuss below. From Lambert's perspective, however, the hypothesis's quality of being "*willkührlich*" remains central, given that he repeats this definition of the hypothesis throughout the *New Organon*: beginning in the first section, "On Concepts and Explanations," where the context is a theory of nature, and continues to introduce the hypothesis in subsequent sections on physics, mathematics, and astronomy in the third section, as well as in the eighth section, devoted entirely to empirical investigation ("Von der Erfahrung"). The eighth section contains the most elaborate commentary on the hypothesis: what it is ("an arbitrarily assumed concept of a thing, from which [concept] one tries to explain it") and how you can use it.

Out of Lambert's wide-ranging remarks on hypotheses, which cover varying requirements for exactitude (greater in mathematics, less in the physical sciences) and the potential usefulness of incorrect hypotheses, along with various tests for proving and disproving the truthfulness of hypotheses, I would like to focus on just one point from the eighth section: the use of the *regula falsi*, the method of false position, better known colloquially as the 'trial and error' method.

Lambert refers to this method as an example of how a hypothesis becomes a useful tool, by virtue of the simple example of an arithmetical problem that is solved through a series of increasingly more educated guesses:

> [The method of false position] proscribes that one should take any random number instead of the sought after one, and with it so proceed, as if it were the true one. If it fulfills the condition of the problem, then it is at least one of the true ones because sometimes several and, where the problem is indetermined, endlessly many are possible. Should, however, the randomly chosen number not fulfill the condition of the problem, then one sees how [this number] deviates from it, and from the deviation is the number determined which does not deviate at all, and is accordingly the true one or one of the true ones, which satisfies the problem.[15]

[15] Lambert, *Neues Organon*, 361-362.

According to this method, the trick to solving at least some mathematical problems is to take, as it were, a shot in the blue sky. Lambert's suggestion to choose "any random number" is echoed in Novalis's "pure, sheer hypothesis": they are essentially one and the same. In a similar manner, Lambert's suggestion that one proceed by quantifying deviations and reducing them through newer, more accurate hypotheses is echoed in Novalis's plea to Schlegel that their path should be one of approximation. For his part, Lambert is well aware of the difficulties involved when trying to apply the method of the *regula falsi* in other areas of scientific inquiry. After a few comments on the more complicated scenario of alphabetic decoding, he suggests that the method works best in those branches of science where the problem at hand has a relatively low number of possible outcomes to test out. These include astronomy, "if one takes the proposition, that either the earth moves, the sun moves, or that they both move."[16] Kepler's revision of the Copernican system is, for Lambert, a case where one uses the *regula falsi* to take an insufficient hypothesis to determine the degree of deviation from the desired results and with it formulate a new, more fitting hypothesis.

Questions concerning the use and abuse of hypotheses in the name of scientific progress linger throughout the eighteenth century and, as will become evident in the second part of the essay, are also a concern in Novalis's appropriation of the hypothesis. The seeds for what will become a Romantic interest in the potentially creative, inventive power of the hypothesis are already present even in the most mainstream scientific publications, such as Johann Gehler's *Physical Dictionary* [*Physikalisches Wörterbuch*], an interdisciplinary compendium of scientific concepts and theories that enjoyed a broad readership. The entry *Hypothese*, like each one in the dictionary, begins with a succinct German definition, followed by the equivalent terms in Latin and French. In this case, they are: "*angenommener Satz*, *Voraussetzung*, *Hypothesis*, *Suppositio*, *Hypothese*, *Supposition*."[17] The "angenommener Satz" is a proposition that is assumed. *Voraussetzung* is the German translation of the French *Supposition* or Latin *Suppositio*, although the composite prefix "*voraus*-" is somewhat more complicated than "*sup*-," being a prefix that can connote both spatial and temporal priority. One will notice that there is no mention of the "arbitrary concept" or *willkührlicher Begriff* here – nor does the term appear at any point in the entry. Despite that fact, Gehler's subsequent

[16] Lambert, *Neues Organon*, 363.

[17] "Hypothese," in Johann Samuel Traugott Gehler, *Physikalisches Wörterbuch oder Versuch einer Erklärung der vornehmsten Begriffe und Kunstwörter der Naturlehre mit kurzen Nachrichten von der Geschichte der Erfindungen und Beschreibungen der Werkzeuge begleitet in alphabetischer Ordnung*, vol. 2 (Leipzig: im Schwickertschen Verlage, 1789), 675.

discussion of the *Hypothese* jumps directly into metaphors of the hidden and the visible in its first sentence:

> The true causes of natural effects and phenomena are often very hidden and cannot be stated with decisive certainty. In such cases one takes refuge in the elucidation of the phenomena to a representation that has merely been thought up; one assumes that the natural occurrence to be elucidated occurs due to this or that cause, in this or that way…[18]

The uncertainty of the hypothesis, couched in terms of an "invented" point of view, is central to Gehler's discussion. He gives the example of Benjamin Franklin's hypothesis concerning the cause of electrical phenomena: Franklin's assumption of a "fine material" [*feine Materie*] whose excess or lack thereof correlates to the presence or absence of electrical phenomena is, in Gehler's words, an "idea, merely thought up by him, whose correctness cannot be proven with certainty, a physical hypothesis."[19] In a departure from Lambert, for whom hypothesis falls relatively neatly into the categories of true or false, Gehler adds some epistemological fine-tuning when he writes that hypotheses lack apodictic certainty [*Gewißheit*] and instead possess probability [*Wahrscheinlichkeit*][20]. The two emphases in Gehler's discussion of the hypothesis – that they are invented or imagined, and that they possess greater or lesser degrees of probability, rather than certainty – overlap within aesthetic metaphors: "[t]he good hypotheses, even when they are not the truth themselves, still make the connection between occurrences more sensuous."[21] The "sensuous" perceptibility of the hypothesis is a component of its epistemological rigorousness: as with any physical construction, visual metaphors can also be tested to ascertain their viability. The gravest abuses are perpetuated by those for whom hypothesis-making becomes something like an uncontrollable desire [*Begierde*] and whose efforts at imagining and visualizing hypotheses lead to an "artificial structure" [*künstliche Gebäude*] of less value than an individual fact.[22]

Hypothese vs. *Wage-Satz*

There are at least two reasons why the incorporation of the word *Hypothese* into the German language did not occur seamlessly. The first has do with a desire for linguistic purism present throughout the eighteenth century,

[18] "Hypothese," in Gehler, *Physikalisches Wörterbuch*, 675.
[19] "Hypothese," in Gehler, *Physikalisches Wörterbuch*, 675.
[20] "Hypothese," in Gehler, *Physikalisches Wörterbuch*, 675.
[21] "Hypothese," in Gehler, *Physikalisches Wörterbuch*, 677.
[22] "Hypothese," in Gehler, *Physikalisches Wörterbuch*, 678.

provoked by the concern that too many foreign terms were entering the language where words with Germanic stems would serve just as well or better. The second reason has more to do with semantics: there was disagreement over how to express the two key aspects of the hypothesis – its spatial metaphor of foundation-laying and its connotation of epistemological uncertainty – within a single word. The dissenting points of views were published toward the end of the eighteenth century in a debate between Joachim Heinrich Campe (1746-1818) and Karl Philipp Moritz (1756-1793). Despite occupying a purist's stance where the German language is concerned, Campe was not generally a conservative thinker. Quite the contrary: he was an admirer of the French Revolution and was even granted honorary French citizenship in 1792. He was passionately devoted to school reform and, as a countermeasure to conservative educational agendas, he founded his own scholastic publishing house. Campe's preference for words of Germanic origin in his native language can therefore be read from a more democratic perspective, as an attempt to come up with German terms that a common person could understand, rather than as an expression of xenophobia.

In 1790, in a journal founded by him (likewise the publishing house), Campe published a forty-page text titled "Tests of a few Experiments in German Language-Enrichment" [*Proben einiger Versuche von deutscher Sprachbereicherung*], a document which contains numerous suggestions for replacing foreign words with Germanic equivalents. Nestled between the suggestions of transforming *Hippocrene* into *Roßbach* and *Individuum* into *Einzelwesen*, one finds the term *Hypothese*. Campe's suggestion is to replace *Hypothese* with *Wage-Satz*:

> because a hypothesis [*Hypothese*], as hypothesis, is not yet proven, thus there is always something risked [*etwas Gewagtes*] thereby, placing it as a foundation in order to build other propositions upon it. We certainly already have the word presupposition [*Voraussetzung*]; only there are still cases where we would have reservations using it, and for which we still seem to be lacking a proper word; as, for example, when we speak of the hypothesis of predetermined harmony, etc.[23]

Campe's comments make it clear that a shift has occurred over time in terms of how the uncertainty of a hypothesis is expressed, in that metaphors of knowledge coded in terms of darkness or light have been replaced by the

[23] Joachim Heinrich Campe, "Proben einiger Versuche von deutscher Sprachbereicherung," *Braunschweigisches Journal*, ed. by Ernst Christian Trapp, vol. 3, no. 11, November 1790 ([publication location n.a.]: im Verlage der Schulbuchhandlung, 1790), 289.

language of uncertainty and probability. The fact that there is nothing about the construction of the word *hypothesis* that denotes the calculations of risk made every time the practice of hypothesis-making occurs is a problem for Campe that is remedied by the introduction of the root *wag-*, meaning risk or dare. Some of his readers, however, felt that the neologism *Wage-Satz* went too far. In a 1792 rebuttal directed towards Campe's broader efforts to keep the German language Germanic, Karl Philipp Moritz takes particular issue with Campe's rejection of the neologism *Hypothese*. The problem, according to Moritz, is that *Wagesatz* "only expresses one part of the concept…namely the sheer *uncertainty* of a presupposition."[24] Moritz points out that the etymology of the word [hypothesis], with its Greek origins, represents the presupposition "as a *foundation*, whereupon one *builds* a consequence that is *certain* as long as the foundation remains firm."[25] The conclusion Moritz draws is that any element of uncertainty in the hypothesis only lies in the initial presupposition, and not in what one builds upon it. The kind of uncertainty Moritz has in mind is distinct from what has been observed so far because it has more to do with the creative, fiction-generating quality of the presupposition as action than with epistemological determinations of content.

Moritz died a year after his rebuttal of Campe was published, allowing Campe the opportunity to have the final word. In 1801, Campe printed a "supplemental volume" to Adelung's well-established German dictionary. This additional volume was billed as a *Dictionary for the Elucidation and Germanizing of Foreign Expressions That Have Encroached Upon Our Language* [*Wörterbuch zur Erklärung und Verdeutschung der unserer Sprache aufgedrungen fremden Ausdrücke*]. With regard to the *Hypothese*/*Wagesatz* debate, the volume mostly contains a summary of what has come before. Campe reiterates his suggestion to use *Wagesatz* instead of *Hypothese* and makes reference both to writers who support him and to Moritz's rebuttal. Campe offers a (somewhat belated) response by turning Moritz's own logic against him: just as Moritz accuses Campe of preserving the element of uncertainty at the expense of leaving out the notion of a foundation, Campe points out that, Moritz's comments notwithstanding, *Voraussetzung* is all foundation and no uncertainty. In fact, he writes, the Greek term also makes the same "mistake." Campe proposes to resolve the problem by asking, which of the two options is the most necessary and whether one even needs to have all

[24] Karl Philipp Moritz, "Ueber die bisherigen Beschäftigungen der akademischen Deputation zur Kultur der vaterländischen Sprache," in *Deutsche Monatsschrift* (Berlin: Friedrich Vieweg dem Älteren, Sept.-Dec. 1792), 286.
[25] Moritz, "Ueber die bisherigen Beschäftigungen," 286.

aspects of the meaning of a word expressed in its parts. In a somewhat circular logic, he observes that the existence of the word *Hypothese* itself proves just the opposite. His solution, ultimately, is to utilize *Wagesatz* for those cases where the uncertainty of the proposition is emphasized, and *Voraussetzung* for those where the act of foundation-laying is dominant. With little exception, Campe's suggestions are largely ignored by the greater hypothesis-building community. If one looks hard enough, though, one can find a few traces. The chemist Jacob Joseph Winterl, for example, uses both *Hypothese* and *Wagesatz*: the former to lay the foundation for his argument, and the latter, admittedly tucked away in a footnote, within a situation of experimental uncertainty. Such cases are the exception that proves the role: the *Hypothese* has taken root in the German language, to the general exclusion of the *Wagesatz*.

Part Two: The Romantic Hypothesis

Even though the *Wagesatz* has no role to play in early German Romantic writings, the element of risk-taking, whether in the form of a wild shot or a cast net, will prove to be a formative component of how Schlegel and Novalis incorporate the term hypothesis into their writings. Before turning to Schlegel and Novalis, the next few pages will take a brief look at Schelling's nature-philosophical system as a model for how to navigate between the largescale perspective of the hypothesis as system and the more focused discussions of individual hypotheses. I then turn to Novalis and Schlegel's notes and fragments to show how aspects of the hypothesis which are already present in the philosophical and scientific contexts of the eighteenth century are reworked and re-evaluated. The decision to limit the discussion to Novalis and Schlegel is motivated, at least in part, by the desire to show that the process of hypothesis-formation is innately compatible with the experimental thinking displayed by these two writers in their notes, aphorisms, and essays. As will be shown, there is a strong and consistent early Romantic argument for the necessity of hypotheses in philosophical, scientific, and aesthetic contexts. The notion of a "thought up" representation (Gehler), treated somewhat cautiously by Enlightenment-era thinkers, is now given full rein, and the epistemological emphasis on "making" or "inventing" knowledge is valued positively. It will also be discussed below how such ideas are not articulated by suppressing earlier notions of doubt as contained in the meaning of hypothesis and its heuristic use. Rather, the drive to create hypotheses occurs and is expressed dialogically, in explicit tension with questions of truth and falsehood.

Friedrich Schelling, a familiar presence in the textual landscape of Schlegel's and Novalis's philosophical explorations, stands out for his far-reaching engagement with the hypothesis. In two of his nature-philosophical treatises, *Ideen zu einer Philosophie der Natur* [Ideas for a Philosophy of Nature] (1797) and the *Weltseele* [World Soul] (1798), Schelling provides ample evidence for a philosophical understanding of the hypothesis that operates across scale.[26] The primary hypothesis that Schelling analyzes in the first section of the *Ideas* is first introduced as a claim (*Behauptung*) that warmth is a "mere modification" of light, an idea that Schelling has already tested out in conjunction with a few empirical examples.[27] The move from claim to hypothesis occurs within the act of broadening the inquiry: "One can ask: whether the aforementioned hypothesis is so easily joined with all light phenomena as it is with the empirical examples introduced above."[28] The plasticity of a hypothesis can also be defined in other ways, such as in cases of failure. Schelling acknowledges, for example, that even if the propagation of light has not yet been successfully explained, this is still no reason to abandon the hypotheses that have been generated during the process of investigation, since "it may be that all those hypotheses are *equally* false, and that a common error is the basis of all of them."[29] Schelling also uses the word "presuppose" as a noun (*Voraussetzung*) and as a verb (*voraussetzen*) in close proximity in those contexts where the hypothesis is also invoked. He suggests that one might "presuppose" that light plays one of the fundamental roles in nature and that the "presupposition" is confirmed by assumptions which can be ventured about the formation of the planetary system we inhabit, including Kant's "hypothesis" [*Hypothese*] about the early development of our planet from its original fluid and gaseous states.[30] For Schelling,

[26] This aspect of Schelling's thinking receives a more detailed analysis in Dalia Nassar's *The Romantic Absolute. Being and Knowing in Early German Romantic Philosophy (1795-1804)* (Chicago: University of Chicago Press, 2013), 206-208. Nassar shows how Schelling's initial approach to the hypothesis (that "every experiment must be guided by a hypothesis," and that "the hypothesis acts as the regulative idea of the experiment") were undertaken with the goal that one should "arrive at the idea of nature itself" (206-7). She then shows how these thoughts lead Schelling to the idea of the "absolute hypothesis," which functions "as the ground of the system as a whole and as such is the basic premise upon which the knowledge of nature is based" (207), ideas which are given elaborate philosophical grounding in Nassar's reading.

[27] Friedrich Wilhelm Joseph Schelling, *Ideen zu einer Philosophie der Natur*, in *Historisch-Kritische Ausgabe* (=AA), im Auftrag der Schelling-Kommission der Bayerischen Akademie der Wissenschaften, eds. H. Michael Baumgartner, Wilhelm G. Jacobs, Jörg Janzen, Hermann Krings, vol. 1.5, (Stuttgart: Frommann-Holzboog, 1994), 16.

[28] Schelling, *Ideen*, 16.

[29] Schelling, *Ideen*, 30.

[30] Schelling, *Ideen*, 31-32.

the Kantian hypothesis is interesting, among other reasons, for its potential to be extended to the formation of the planetary system as a whole.[31]

The characteristics of Schelling's handling of the hypothesis, including the desire to utilize it to its fullest potential and expand its reach, as established in the *Ideen*, are further developed in the *Weltseele*, which bears the subtitle: "a hypothesis about higher physics" [*eine Hypothese zur höhern Physik*]. R. J. Richards comments that Schelling's hypothesis about the world-soul "implied that all of nature was bound together as a living balance of forces," and positioned as it is with reference to the work as a whole, this use of the hypothesis also recalls its other meaning as a synonym for system.[32] Schelling makes this connection clear in the first section of his treatise, when he refers to the interplay of positive and negative forces essential to all worldly phenomena: "both of these conflicting forces, taken together, or envisioned in conflict, lead to the idea of an *organizing principle*, forming the world into *system*. The ancients wanted perhaps to indicate such a [principle] through the *world soul*."[33] The terms "System" and "*first hypothesis*"[34] in this treatise are interconnected, but the *Weltseele* also allows room for other, more focused hypotheses to receive individual attention, such as Franklin's hypothesis about positive and negative electrical material[35] or Schelling's own hypothesis about barometric changes.[36] As in the *Ideen*, there is also the potential to move along the spectrum from hypotheses about specific phenomena to the all-encompassing hypothesis of the world soul – Schelling would like for Newton's and Euler's followers to join forces, in order to see their perspectives as complementary and able to be joined into a single hypothesis.[37] One can hear echoes of this sentiment in how Friedrich Schlegel and Novalis approach the hypotheses. In a collection of notes dated from the time between August 1799 through February 1800 – roughly a year or two after the publication of Schelling's *World Soul*, Novalis explores a line of thought that resonates with Schelling's understanding of the hypothesis: "Just as the thinking *experimenter* seeks thoughts or ideas, that is, laws in nature, so too does the *philosopher* seek to develop the unity of the laws or of the system of

[31] Schelling, *Ideen*, 32.
[32] Richards, "Romantic Biology: Carl Gustav Carus at the Edge of the Modern," in *Palgrave Handbook of German Romantic Philosophy*, ed. by Elizabeth Millán Brusslan (New York: Palgrave Macmillan, 2020), 350.
[33] Friedrich Wilhelm Joseph Schelling, *Von der Weltseele – eine Hypothese der höhern Physik zur Erklärung des allgemeinen Organismus*, AA, vol. 1.6, 4.
[34] Schelling, *Weltseele*, x.
[35] Schelling, *Weltseele*, 90.
[36] Schelling, *Weltseele*, 149.
[37] Schelling, *Weltseele*, 13.

thought to a rich manifold. Both can make the most glorious discoveries by pursuing *hypotheses*."[38]

Schlegel's Hypotheses

Unlike Schelling, Friedrich Schlegel is no system-builder. Like Schelling, however, Schlegel develops a way to bridge between focused and more sweeping perspectives on the hypothesis. Throughout his notebooks, the hypothesis appears sporadically in the context of a number of famously laconic definitions, but in only one of these – "hypothesis is [mythological] proposition" [39] – does it occupy the subject position. Other statements formulate comparisons to hypotheses, granting it a metaphorical status by positioning it as a predicate: "Every fact is hypothesis, of course" [40]; "Speculation perhaps nothing other than a hypothesis in the spirit of universality."[41] This latter example dates from 1798, the same year that Friedrich Schelling published his treatise on the *Weltseele* [World Soul] – one will recall that Schelling also refers to his *Naturphilosophie* as a "speculative physics." In other short statements, Schlegel focuses on various aspects of the hypothesis, in order to articulate something essential about its nature, and its limits. Here are just a few examples:

> In every hypothesis the *primitive* is certainly true, if also poorly expressed.[42]
>
> Observation of the phenomena must be the spirit of every depiction, and examination of the hypothesis has to be the character of the investigation [*Abhandlung*].[43]
>
> *Phenomenon* is that which deviates from a hypothesis.[44]

Collectively, these can be read as steps in a method, where by the first is the generation of the hypothesis as an imperfect statement that attempts to capture something true, the second is the comparison of the hypothesis to the phenomena to measure correlations and deviations, and the third is the

[38] HKA 3, 611, *344*.
[39] Friedrich Schlegel, *Philosophische Lehrjahre*, in *Kritische Friedrich-Schlegel-Ausgabe* (=KFSA), vol. 18, eds. Ernst Behler, Jean-Jacques Anstett, Hans Eichner (Munich et al.: Schöningh, 1963), 51, *332*.
[40] KFSA 18, 131, *107*.
[41] KFSA 18, 131, *108*.
[42] KFSA 18, 168, *528*.
[43] KFSA 18, 221, *323*.
[44] KFSA 18, 306, *1345*.

(idealized) description of this process in essayistic form. In his acknowledgement of the hypothesis's incomplete nature, Schlegel also makes the connection to the incomplete nature of systems: "materialism and spiritualism are only *hypotheses*; idealism and realism are only *aspects of the system*, profiles, perspectives."[45]

However, in two more programmatic statements on the hypothesis, located in close proximity to one another in Schlegel's notebooks, he gives more attention to what the hypothesis can be and what it can do:

> The *hypothesis* of Idealism is that of *love*; the only hypothesis which is at the same time *experiment*; a presupposition which we always make, the presupposition of our self. <Only [the hypothesis] loosens the knot between *thinking* and *acting*. – In order to resolve this strife, we must sublate thinking and acting *experimentally*; since nothing remains other than the *infinite* and also *consciousness* <*love striving*> – or a [synthesis] of both.>[46]

This note takes up threads that are by now familiar: as observed before in other contexts, the hypothesis is equated with the presupposition (*Voraussetzung*), which conjures images of both a spatial and temporal priority. It is also connected to the "experiment," a concept featured in other statements on the hypothesis.[47] At the same time, this programmatic statement also makes claims to singularity. Rather than positing a universal hypothesis in Schelling's sense, Schlegel describes the hypothesis of Idealism: as "[hypothesis] of love." It is the only one, Schlegel writes, which is an experiment at the same time. That this particular hypothesis is tasked with unraveling "the knot between *thinking* and *acting*" adds to this sense of uniqueness given that it is accomplished "experimentally" (*Versuchsweise*, where *Versuch* is another word for experiment). In other words, the uniqueness of this description of the hypothesis lies in the fact that Schlegel

[45] KFSA 18, 33, *150*.

[46] "Die *Hypothese* des Id[ealismus] ist die der *Liebe*; die einzige H[ypothese] die zugl[eich] *Experiment* ist; eine Voraussetzung die wir immer machen, die Voraussetzung unsrer selbst. <Nur diese lößt d[en] Knoten zwischen *Denken* und *Handeln*. – Um diesen Streit zu heben, müssen wir *Versuchsweise* Denken und Handeln aufheben; da bleibt nichts übrig als das *Unendliche* und auch *Bewußtseyn* <*Liebe Streben*> – oder eine [Synthese] von beiden.>," KFSA 18, 404, *1000*.

[47] The same note that calls a fact a hypothesis also aligns the fact with mystery and experiment (KFSA 18, 131, *107*). Another note suggests that Fichte's philosophy is both hypothesis and experiment (KFSA 18, 251, *684*), and a third draws a correlation between hypothesis, experiment, and phenomenon (KFSA 18, 405, *1015*). See also Lothar Pikulik, *Frühromantik: Epoche, Werke, Wirkung* (Munich: C.H. Beck, 2000²), 103, on the proximity of hypothesis and experiment in Early German Romanticism.

mobilizes it in the service of a second-order thought experiment: a thought experiment about the relation of thought to action.

To read Schlegel's second programmatic statement on the hypothesis in tandem with the first one – something that lends itself naturally, given that it follows immediately on the tail of the first – is to be confronted with a significant difference in scale. No longer concerned with a particular hypothesis, Schlegel instead engages in a Cartesian exercise of annihilation and reconstruction that aligns the hypothesis with a primary intellectual act. It is, in that regard, a logical continuation of the thought experiment suggested by the prior reflection on the hypothesis:

> In the theory of the world, nothing is necessary except annihilating matter and space and reducing everything to time and activity. With every repetition of the original hypothesis one of the first acts is also joined. – This hypothesis is the foundation of thinking, really thinking itself. – *Act and the hypothesis* form a *lever*, *faith* is the hypomochlion. Exchange of the poles – makes the act into hypothesis and the hypothesis into act. What is *limited* must be dissolved [*aufgelößt*] into that which determines, just as *matter* and *space* must be destroyed.[48]

For Descartes, the one certain thing left after tearing down everything else – the philosophical Archimedean point – is the certainty of oneself as a thinking thing. For Schlegel, it is also a model inflected with a kind of primitive mechanical metaphorics as embodied by a lever, a figure which Early German Romanticism also aligns with a model of the self.[49] In the scenario constructed by Schlegel's example, the lever is mobilized when action occurs in the form of thought, and where thought takes the form of hypothesis. The relation between these terms makes sense when one recalls that the logic of the lever is one of equivalence: the force applied to one arm of the lever at a certain distance from the fulcrum can be reconceived in terms of the forces being applied to the other arm. Schlegel, Novalis, and other Romantic-era thinkers take this mechanical logical of equivalence and rework it in frameworks which allow relationships between diverse concepts to be established; one finds numerous examples in Schlegel's and Novalis's planned encyclopedia project. According to the mode proposed in the above note, one can further interpret the lever as positing a mutually dependent relationship of hypothesis and act such that these two terms are inextricable

[48] KFSA 18, 404, *1002*.

[49] In my book, *The Lever as Instrument of Reason: Technological Constructions of the Human* (London: Bloomsbury, 2019), I explore this idea in greater depth, drawing on examples from Kant, Early German Romanticism, *Naturphilosophie*, and empirical psychology around 1800.

from one another, bound within a broader trajectory of thought that takes as its point of departure an original hypothesis and all subsequent iterations of further hypotheses. Schlegel makes the metaphysical grounding of this mechanical model very clear by placing faith at the fulcrum point or "hypomochlion," i.e., the position of mediation, between act and hypothesis.

Towards a Conclusion: Approximation and Divergence

By bringing Schlegel's and Novalis's thoughts about the hypothesis into dialogue with one another in this final section, the essay will essentially conclude where it began: with the question of approximation or divergence between two friends. This time around, the question will be posed more concretely in terms of the hypothesis and answered in a way that, in true Romantic fashion, manages to both preserve and escape the binary logic of either/or. And just as the initial exchange of letters between Schlegel and Novalis staged a fictional communication, each of the two examples discussed below appear in the fictional guise of conversation or dialogue, whereby the first is from Novalis's *Dialogues*, and the second is from Schlegel's *Dialogue on Poetry*.

It is perhaps good to keep in mind that, compared to Schlegel, Novalis wrote relatively little about the hypothesis. One would imagine the *Fichte Studies* to be another fruitful source, but the word hypothesis appears there only once, albeit in a thought-provoking note: "To presuppose [*Voraussetzen*] is a very welcome expression. Positing [*Setzen*] has to be used in the sense that it is in the expression: I posit the case. It is the action of the hypothesis [*Hypothese*]."[50] Novalis's best known use of the hypothesis comes from the fifth of his *Dialogues*, composed in late summer 1798. This dialogue is also well-known for its statement "princes are zeroes," and it is sometimes read

[50] HKA 2, 199, *282*. For a reading of this passage, see Joan Steigerwald's essay, "Traces of Novalis in Schelling's Philosophy," in *Schelling's Philosophy. Freedom, Nature, and Systematicity*, ed. by Anthony Bruno (Oxford: Oxford University Press, 2020), 32—52. As Steigerwald writes, "The I can only cognize what it is in the sphere of conscious reflection. Yet 'what I do not know, but feel […] I believe.' Novalis' reference to belief is not meant to denote an act of faith; rather it is the projective act of hypothesis we can only feel or presuppose. In characterizing Fichte's principle 'I am I' as an 'illusory proposition' and the original act of self-positing as a presupposition, Novalis highlighted its character as a belief or hypothesis we project" (35). For more on the hypothesis in the context of the *Wissenschaftslehre*, see Jeffery Kinlaw, "Self-Determination and Immediate Self-Consciousness in the Jena *Wissenschaftslehre*," in *Fichte and Transcendental Philosophy*, ed. by Tom Rockmore, Daniel Breazeale (New York: Palgrave Macmillan, 2014), 176—189, where Kinlaw describes how "Fichte defends a unified and comprehensive explanatory hypothesis for consciousness. The structure and content of all intentional relations are initiated and grounded upon the free self-activity of what Fichte calls the I" (176).

in conjunction with *Faith and Love*, which was published the following year. As in the other dialogues, there are two speakers, A and B, whose personas and topics of interest shift somewhat between one dialogue and the other. A and B are, by definition, never in accord with one another, and in the fifth dialogue this structural divergence manifests in a disagreement about hypotheses. A uses his own hypothesis, "princes are zeroes," as a point of departure for a broader inquiry about the status of hypotheses in general, and he makes two claims: that a "single truly observed fact" is worth more than any hypothesis; and that the impulse to keep producing new hypotheses is a morally risky one, a "scientific wantonness" that dulls one's sense of truth.[51] B then speaks up both poetically and prosaically in favor of the hypothesis, beginning with two distiches that reintroduce the theme of the hypothesis's eternal regeneration:

> Hypotheses are nets, only he catches who casts.
> Is not America itself discovered by hypothesis?
> Let the hypothesis live high and above all else – only it remains
> Eternally new, as long as it may keep conquering itself.[52]

The metaphor of the net is new for Novalis in connection with the hypothesis, but the essential gestures of casting and recasting, and learning from one's mistakes, should seem familiar by now where hypotheses are concerned, given that we have already seen the same idea expressed in somewhat different terms by both Lambert and Schlegel. B continues, in prose, to elaborate on the usefulness of hypotheses. He leads with a derogatory remark about "the skeptic" who attempts to weaken the ground upon which structures of knowledge might be erected without making any direct contri-

[51] HKA 2, 668. For more background on Early German Romanticism's understanding of the "fact," see my essay, "Facts Are What One Makes of Them: Constructing the Faktum in the Enlightenment and Early German Romanticism," in *Fact and Fiction. Literary and Scientific Cultures in Germany and Britain*, ed. by Christine Lehleiter (Toronto: University of Toronto Press, 2016), 33—49. For an analysis of the point of view adopted by Speaker A, see Pikulik, *Frühromantik*, 104. Pikulik notes that Speaker A's rejection of the hypothesis goes quite a bit further than the mainstream scientific position at that time.

[52] HKA 2, 668. Daiber uses this passage from Novalis as an example for how Novalis uses the "via negationis" to use discrepancies between subsequent hypotheses and "proven reality" to come closer and closer to the truth; Daiber, *Experimentalphysik des Geistes. Novalis und das romantische Experiment* (Göttingen: Vandenhoeck & Ruprecht, 2001), 253. The model of the hypothesis that Daiber has in mind – a "syntactically well-formed, semantically meaningful, generalizable statement" – would, however, not necessarily include Novalis's "Schuß in die blaue Luft" (Daiber, *Experimentalphysik*, 18).

bution to science,[53] but for the "hypothetician" [*Hypothetiker*], B has more positive words:

> The true hypothetician is none other than the inventor – before whose eyes the discovered land darkly hovers prior to his invention – who hovers with the dark image over observation, [over] experiment – and only through free comparison – through manifold touch and friction of his ideas with experience finally encounters the idea which relates negatively to positive experience, so that both eternally hang together – and a new heavenly light should radiate around the force that has come to the world.[54]

Even if B has the last word – and, in general, more words – in this dialogue than A does, one can still observe that B's response does not leave A's claims behind altogether. Instead, A's inherent resistance to hypotheses in favor of facts, which A posits in terms of a preference for truth over fiction, is incorporated into B's response as a second, embedded dialogue between the skeptic and the hypothetician. B then synthesizes these two positions into a productive encounter of negative and positive that brings a new light and new force to the world. The dialogue thereby preserves both the distinction of two philosophical positions through the offset paragraphs of A and B, even as it, one narrative frame deeper into the text, offers the possibility, through repeated encounters, of a reconciliation between the two.[55]

The *Dialogues* do not contain Novalis's final words on the hypothesis. One can find two further notes in the collection *Fragments and Studies* that have been dated from August 1799 to February 1800. These notes hearken back to the positions articulated by both A and B: first, by suggesting that both the "thinking experimenter" and the philosopher can make the "most brilliant discoveries" through the "pursuing of *hypotheses*"[56]; then, by proposing that the basis of nature is "necessary hypothesis."[57] This second note does more than capture the ideas mentioned in the "prosaic" part of B's response – its first line also recalls the poetic metaphor about hypotheses as nets: "Die Natur fängt, um mich so auszudrücken mit dem Abstracten,

[53] HKA 2, 668. Pikulik also underscores the fact that Speaker B's Romantic perspective does not preclude the acquisition of knowledge (*Frühromantik* 104).
[54] HKA 2, 669.
[55] With its emphasis on balancing and reconciling a plurality of voices, my reading agrees with the concluding remarks John Neubauer makes in his essay, "Nature as Construct," in *Literature and Science as Modes of Expression*, ed. Frederick Amrine (Dordrecht et al.: Kluwer, 1989), 129—140: "If we take the plural voice of this dialogue seriously, we may perceive in it a recognition of, if not a plea for, methodological pluralism" (138).
[56] HKA 3, 611, *344*.
[57] HKA 3, 667, *607*.

an."[58] Even more striking is the fact that, with the pairing of two closely related verbs, *fangen* and *anfangen*, one has a neat inversion of human and nature: the human casts and catches [*wirft* and *fängt*], and with each hypothesis hopes to learn a bit more about nature whereas nature, as primary hypothesis, simply begins [*fängt an*].

These last two notes by Novalis on the hypothesis were published posthumously, but they were written around the same time as a statement by Schlegel which occurs in one of his best known poetological works, the *Dialogue on Poetry* (*Gespräch über die Poesie*).[59] Though not his final word on the hypothesis within the broader context of his philosophical notes and other writings, the passage on the hypothesis in this essay is notable for the way in which it formulates the hypothesis in terms of converging divergences. Readers familiar with this essay will recall that it is staged as a conversation among several friends, one of whom, Ludovico, holds a lengthy discourse on what he describes as a "new mythology." In the wake of his contribution, the conversation turns to the question of a unified view of the arts and sciences.[60] Another speaker, Lothario, voices an opinion that finds general consensus: that "the innermost mysteries [*Lebenskeime*, or "life seeds, J.H.] of all the arts and all knowledge are therefore a possession of poetry."[61] He continues: "Everything has emerged from it and must flow back to it."[62] The accompanying idea is a familiar trope of German Romanticism: that our current state is fractured, but ideally all knowledge and all arts would be "one" and articulated poetically. Ludovico agrees with Lothario and restates their shared idea in terms of the hypothesis. His comments are, accordingly, rooted in the postlapsarian perspective, after the original unity of arts and sciences has been shattered. In the current moment, however, one can witness a rapprochement:

> I am of Lothario's opinion that the energy of all the arts and knowledge meets at one central point…I prefer physics also for the reason that the

[58] This is how the line is printed in the standard Novalis edition. In many other places, however, one finds: "Die Natur fängt, um mich so auszudrücken, mit dem Abstracten an."
[59] KFSA 2, 284—362; cf. Friedrich Schlegel, *Dialogue on Poetry and Literary Aphorisms*, translation and introduction by Ernst Behler and Roman Struc (University Park and London: Pennsylvania University Press, 1968).
[60] Herbert Uerlings paraphrases the project of the 'New Mythology' as making totality able to be experienced "under the conditions of modernity"; this is possible by making scientific processes symbolic, "through which the individual and the idea of the whole, the particular and the general" are mediated, Herbert Uerlings, "Jenaer Romantik/Frühromantik: Novalis, Schelling, Schleiermacher, Tieck," in *Friedrich Schlegel Handbuch. Leben–Werk–Wirkung*, ed. by Johannes Endres (Stuttgart: J. B. Metzler, 2017), 54.
[61] Schlegel, *Dialogue*, 90.
[62] Schlegel, *Dialogue*, 90.

> connection here is most visible. Physics cannot conduct an experiment without a hypothesis, and every hypothesis, even the most limited, if systematically thought through, leads to hypotheses of the whole, and depends on such hypotheses even if without the conscious knowledge of the person who uses them.[63]

This passage ties together multiple threads. It serves as a reminder that the activity of science (via the experiment) and poetic creativity (indexed, in this case, by the hypothesis) occur in tandem. Even though the discursive context of the hypothesis may be one of fragmentation, it symbolizes a unifying point that conjoins scientific experimentation with poetic creativity, thereby indexing both the originally unified state from which the world has departed and the ideally unified one which is yet to come. It also situates this activity within a broader mythic/historical context of unification. And in the unconscious, unaware actions of the hypothesis-user, it recalls the wild "shot into blue air" which is the arbitrary starting point of the more conscious work that brings two apparently diverging objects into the convergence which is innately theirs to begin with.

Elements from earlier eighteenth-century discussions of the hypothesis – the idea of uncertainty, of something risked, of a tentative foundational gesture that is merely one in a series of steps – return, transformed, in the worldview of Early German Romanticism. Novalis's image of a "shot in the blue air" unwittingly taps into the production of hypotheses through the *Regel falsi*, an arbitrary shot – or cast of the net – that leads to ever better approximations. Schlegel and Novalis's notes and fragments allow for such gestures to function across scale, from the hypotheses produced by particular schools of thought, such as Idealism, to broader reflections about nature as a whole that is characteristic of Romantic *Naturphilosophie*. The poetological writings of Schlegel and Novalis – in this case, the *Dialogues* and *Dialogue on Poetry* – integrate multiple points of view about the hypothesis. These perspectives are allowed to coexist, but they are not unified – the emphasis is on a current state of coming into contact within a long history of past and future unity. In retrospect, then, the correspondence between Schlegel and Novalis that reflects on the status of their friendship lends itself to being read as if Schlegel and Novalis unwittingly and unconsciously personify the tendencies that will later be codified in their poetological works – a dual perspective that allows for perspectives of convergence and divergence, coupled with the longing for ever greater proximity.

[63] Schlegel, *Dialogue*, 90.

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Von Lavoisier zu Baader

Einige Bemerkungen zur nachkantischen Naturphilosophie

Alberto Bonchino[*]

ZUSAMMENFASSUNG

Die Suche nach einer letztgültigen Einheit der natürlichen Phänomene war bereits im 18. Jahrhundert ein verbreitetes und vieldiskutiertes Thema der Physik, bevor diese Idee prägend für die deutsche Naturphilosophie des 19. Jahrhunderts wurde. Um die stetig wachsende Anzahl der imponderablen Fluida zu reduzieren, führten viele »atomistisch« gesinnte Naturwissenschaftler elektrische, magnetische, thermische und chemische Phänomene auf einen Dualismus von zwei entgegengesetzten bzw. polaren Grundkräften zurück und nahmen auf diese Weise die »dynamistischen« Ideen der romantischen Naturphilosophie vorweg. Der vorliegende Aufsatz betrachtet diese Phase der Wissenschaftsgeschichte konstellationsgeschichtlich und beleuchtet einige der damaligen Diskurse. Genauer wird Baaders frühe Auseinandersetzung mit der Wärmestofflehre Lavoisiers in den Blick genommen. Dabei wird herausgearbeitet, wie Baader explizit – in der Auseinandersetzung mit der Wärmetheorie Crawfords und im Zusammenhang mit der Chemie Lavoisiers – Kants dynamischen Ansatz mit den Delucschen physikalischen Grundsätzen zu verbinden versucht.

Stichwörter: Atomismus, Dynamismus, Einheit der Kräfte, Imponderabilien, Wärmestoff

ABSTRACT

The quest for the ultimate unity of natural phenomena was one of the main features of eighteenth-century physics. This idea was to become of decisive importance for nineteenth-century German natural philosophy. In order to reduce the number of imponderable fluids, many "atomists" explained electrical, magnetic, thermal and chemical phenomena through a dualism of opposite polar principles, thereby anticipating the "dynamic" ideas of Romantic natural philosophy. This paper presents some of the protagonists of this change in science and explores some of the related discussions at that time. Specifically, it focuses on Baaders's first work, *Ideen über Festigkeit und Flüssigkeit zur Prüfung der physikalischen Grundsätze des Herrn Lavoisier* (1792), and on his attempt to deal with Crawford's theory of heat and Lavoisier's chemistry by combining Kant's dynamic approach with Deluc's physical principles.

Keywords: atomism, dynamism, unity of forces, imponderables, warm matter

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[Es] ist eigentlich eine Art von Anwendung eines Satzes,
den ich immer predige – daß alles in allem ist[*]

1. Einführung

Der folgende Beitrag möchte Franz von Baaders (1765–1841) frühe Auseinandersetzung mit der Wärmestofflehre Lavoisiers in den Blick nehmen, in der seine Rezeption von Kants dynamistischem Ansatz der *Metaphysischen Anfangsgründe der Naturwissenschaft* (1786) eine entscheidende Rolle spielt. Im Besonderen soll hierbei Baaders Aufsatz *Ideen über Festigkeit und Flüssigkeit zur Prüfung der physikalischen Grundsätze des Herrn Lavoisier* (1792) erörtert werden,[1] der von dem Siebenundzwanzigjährigen gegen Ende seines Studienaufenthaltes an der Freiberger Bergakademie verfasst wurde.[2] Baaders Text ist Zeuge des Wandels der Wissenschaft und an den damit zusammenhängenden Diskussionen beteiligt. Dieser Wandel geht insbesondere von der chemischen Theorie Lavoisiers aus, die nach der ersten Übersetzung des *Traité élémentaire de chimie* (1789) im Jahr 1792 auch in Deutschland eine offene und zuweilen heftige Debatte unter den dortigen Chemikern auslöst.

Wie zu Recht festgestellt wurde, ist Baaders Aufsatz eines der ersten eigentlichen Beispiele der nachkantischen Naturphilosophie und in diesem Sinn besonders erwähnenswert. Es deuten sich darin einige Problematiken an, welche die Naturphilosophie der Frühromantik in ihrer Auseinandersetzung mit Kants Erbe und in ihrem Streben nach Vereinheitlichung der Naturkräfte in der Naturwissenschaft zu lösen versucht.[3] Wesentlich ist hierbei, wie Baader explizit – in der Auseinandersetzung mit der Wärmetheorie Crawfords und vor allem im Zusammenhang mit der Sauerstoff-Chemie Lavoisiers – Kants dynamischen Ansatz mit den Delucschen physikalischen Grundsätzen zu verbinden versucht.

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[*] Georg Christoph Lichtenberg, Sudelbuch L 915 (1796–1799).

[1] Franz von Baader, *Texte zur Naturphilosophie (1792–1808)*, hrsg. von A. Bonchino (*Ausgewählte Werke*, Bd. 1), Brill-Schöningh, Leiden-Paderborn 2021, S. 13-30.

[2] Hierzu vgl. Alberto Bonchino, »Geologie der Frühromantik. A. G. Werner und die Entstehung der spekulativen Naturphilosophie (1788–1799)«, in: *Materie als geronnener Geist. Studien zu Franz von Baader in den philosophischen Konstellationen seiner Zeit*, Brill-Schöningh, Leiden-Paderborn 2014, S. 127-161 und vgl. auch Siarhei Biareishyk, »Rethinking Romanticism with Spinoza: Encounter and Individuation in Novalis, Ritter, and Baader«, in: *The Germanic Review: Literature, Culture, Theory* 94/4 (2019), S. 271-298.

[3] Francesco Moiso, »Kants naturphilosophisches Erbe bei Schelling und von Arnim«, in: W. Ch. Zimmerli, K. Stein, M. Gerten (Hrsg.), *»Fessellos durch die Systeme«. Frühromantisches Naturdenken im Umfeld von Arnim, Ritter und Schelling* (= Natur und Philosophie 12), Frommann-Holzboog, Stuttgart-Bad Cannstatt 1997, S. 203-274, hier: S. 205.

Um den sachlichen Zusammenhang von damaliger Chemie, Physik und Naturphilosophie mit all seinen komplexen Facetten, die im Hintergrund von Baaders Versuch stehen, gebührend beleuchten zu können, ist es vorab notwendig, in ein historisch-wissenschaftliches Dickicht einzudringen, das allerdings für unser Sujet wichtig ist, obwohl es dem Leser einiges an Anstrengung abverlangt. Insofern wird im Folgenden zuerst in aller Kürze Baaders Beziehung zu Lichtenberg thematisiert und Lavoisiers maßgebliche Leistung für die Chemie seiner Zeit beschrieben werden. Im Anschluss kommt Kants Theorie der Materie zur Sprache, wie sie in seinen *Metaphysischen Anfangsgründen der Naturwissenschaft* erarbeitet wurde. Abschließend wird der Bogen zu Baaders Schrift geschlagen und damit seine »chemische« Verbindung (in Anlehnung an Lichtenberg) des Kantschen Dynamismus mit den Delucschen physikalischen Grundsätzen kontextualisiert werden.

2. Lichtenberg

Es ist kein Zufall, dass Baader am 4. Februar 1792 die noch unveröffentlichte Abhandlung Georg Christoph Lichtenberg (1742–1799) »zur gütigen Prüfung« zuschickt.[4] Damit will sich der junge Bergbaustudent aus Freiberg nicht nur das »vollgültige Urtheil« eines der angesehensten Professoren der Naturlehre und Mathematik im deutschsprachigen Raum seiner Zeit einholen, um in Erfahrung zu bringen, »in wie weit die eine oder andre meiner [Baaders] Absichten erfüllt worden« sind, sondern zugleich sondieren, ob es möglich wäre, den Aufsatz »in irgend ein französisches Journal unterzubringen«. [5] Obgleich dieses Publikationsvorhaben nicht erfolggekrönt ist, – schwerlich gelinge es, so Gren an Baader, einen nicht französischsprachigen Beitrag in einer französischen Zeitschrift erscheinen zu lassen – so nimmt Lichtenberg Baaders Anliegen doch ernst und liest das Manuskript eingehend.[6] Er billigt dabei nicht nur seine Übertragung von Kants dynamistischer Vorstellung einer von vornherein mit Kräften begabten Materie auf das chemische Gebiet der Naturlehre,[7] sondern befindet zugleich Baaders Hypothese über Festigkeit und Flüssigkeit für einsichtig, nach welcher das Feste durch den Zusammenhangsgrad des ihm vorausgesetzten homogenen, ursprünglich elastischen Flüssigen und mithin als bloßes

[4] Georg Christoph Lichtenberg, *Briefwechsel*. Im Auftrag der Akademie der Wissenschaften zu Göttingen hrsg. von U. Joost, A. Schöne, Bd. 3 (1785–1792), Beck, München 1990, S. 1035 (Nr. 2020).
[5] Ebd.
[6] Ebd.
[7] Franz H. Mautner, *Lichtenberg. Geschichte seines Geistes*, de Gruyter, Berlin 1968, S. 310-321.

Zusammengehaltenwerden anzusehen ist.[8] Das heißt mit anderen Worten, dass die Festigkeit nicht wie durch die Atomisten als Urzustand der Materie und die Flüssigkeit als Mangel an Zusammenhang aufgefasst, sondern durch die Eigenschaft der Teilverschiebung definiert wird.[9]

Lichtenberg war wie Baader davon überzeugt, dass die chemischen Kräfte, die sich in den Reaktionen und Affinitäten der Stoffe zeigen, nicht als etwas Isoliertes betrachtet werden können, sondern in einen Zusammenhang mit den physikalischen, insbesondere den Fluida der Wärme und Elektrizität gebracht werden mussten.[10] Er betrachtete daher die dem Aufsatz Baaders zugrundeliegende Vereinheitlichungstendenz, die ganz klar unter den verschiedenen Denkmöglichkeiten für Lichtenberg einen epistemologischen Vorzug besaß, mit großem Interesse.[11]

Die Tendenz, die verschiedenen Erscheinungen der Natur auf eine gemeinsame Ursache zurückzuführen (weil »*alles in allem ist*«[12]), ist also für Lichtenberg sowie für Baader kennzeichnend. Sie stellt eine präzise Betrachtungsweise des Naturverständnisses dar, das auf den Begriff der Ganzheit gründet und sich allen naturwissenschaftlichen Untersuchungen beider Naturphilosophen beigesellt.[13] Lichtenberg war einerseits der vorsichtigen Meinung, »dass man eine überkommene Theorie nicht vorschnell verwerfen soll«,[14] andererseits aber für neue Ideen offen, wie jene des jungen Baader, der gerade angefangen hatte, im Kielwasser von Kants *Metaphysischen Anfangsgründen* die dynamistische Vorstellung einer von vornherein mit Kräften begabten Materie weiterzudenken. In diesem Sinn ist

[8] Baader, *Texte zur Naturphilosophie*, S. 16f., 23 und 25f.
[9] »Der Unterschied zwischen Festigkeit und Flüssigkeit liegt wahrscheinlich in der leichteren Verschiebbarkeit wie Baader anmerkt« (Sudelbuch J 1831 (1789–1793), in: G. C. Lichtenberg: *Schriften und Briefe*, hrsg. von W. Promies. 6 Bde., Hanser, München 1968–1992, Bd. 2, S. 331).
[10] Wolf von Engelhardt, »›Wenn auch meine Philosophie nicht hinreicht, etwas Neues auszufinden, so hat sie doch Herz genug, das längst Geglaubte für unausgemacht zu halten.‹ Georg Christoph Lichtenberg und die Naturwissenschaft seiner Zeit«, in: J. Zimmermann (Hrsg.), *Lichtenberg. Streifzüge der Phantasie*, Dolling und Galitz, Hamburg 1988, S. 132-156, hier: S. 154, dazu vgl. auch in Lichtenberg: *Schriften und Briefe*, Bd. 2, S. 290 (Nr. 1575) und 524f. (Nr. 917).
[11] Die »Einheit der Natur liegt als wissenschaftliches Postulat und als allmählich zu entschleierndes Geheimnis auch weiterhin allen speziellen Ansichten Lichtenbergs von ihr und allen seinen Bestrebungen zu Grunde«, so: Mautner, *Lichtenberg*, S. 310.
[12] Lichtenberg: *Schriften und Briefe*, Bd. 2, S. 524 (Nr. 915 und 916) und 349 (Nr. 1944).
[13] Claus Prisner, »›Ich finde nichts als Lufft, es sind imponderabile Stoffe hinzu gekommen oder davon gegangen‹ Stoffliche Energiekonzepte bei Lichtenberg«, in: U. Joost, S. Oettermann, S. Spiegel, *Georg Christoph Lichtenberg 1742–1799. Wagnis der Aufklärung*. Katalog zur Ausstellung Darmstadt/Göttingen, Hanser, München 1992, S. 331-337.
[14] Engelhardt, *Lichtenberg*, S. 155.

Lichtenberg zweifellos als Vorbote der frühromantischen Naturphilosophie zu betrachten.[15]

3. Lavoisier

Antoine Laurent de Lavoisier (1743–1794) ist eine der bedeutendsten Persönlichkeiten in der Geschichte der Chemie und gilt bekanntermaßen als »der Urheber der Chemischen Revolution«,[16] einer Revolution allerdings »ganz ohne revolutionären Gestus«, da sie sich im Zeichen der »*Kontinuität* mit den Arbeiten seiner Vorgänger« ereignet und keinen radikalen Umsturz darstellt.[17] Obzwar der Wissenschaftler Lavoisier eher »als letzte Figur der Chemie des 18. Jahrhunderts und nicht als erster moderner Chemiker« zu betrachten ist,[18] so kann man nicht in Zweifel stellen, dass sich die Chemie unter dem Einfluss seines Werkes »der inhaltlichen Beschaffenheit und dem methodischen Zugang nach grundlegend gewandelt« hat.[19]

Lavoisier war kein Philosoph.[20] Dennoch liegen seine wissenschaftlichen Leistungen, die eine neue Epoche für die Chemie eröffnet haben, vor allem auf theoretischem Gebiet. Seine naturwissenschaftlichen Arbeiten haben durch die theoretische Interpretation einiger experimenteller Tatsachen einen Neubeginn des chemischen Wissens und vor allem der

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[15] »[...] Es ist [...] das Aufheben und Verschlingen der chemischen Kräfte und ihre Entwickelung wieder, durch die die Natur so vieles ausrichtet. Es ist dieses die eigentliche Weltseele. [...]« (Lichtenberg, *Schriften und Briefe*, Bd. 2, S. 246f. (Nr. 1340)).

[16] Martin Carrier, »Antoine Laurent de Lavoisier und die Chemische Revolution«, in: A. Schwarz, A. Nordmann (Hrsg.), *Das bunte Gewand der Theorie. Vierzehn Begegnungen mit philosophierenden Forschern,* Alber, Freiburg 2009, S. 12-42, hier: S. 12. Vgl. auch Marco Beretta, *Lavoisier. Die Revolution in der Chemie*, Spektrum der Wissenschaft Verl., Heidelberg 1999.

[17] Jan Frercks, *Kommentar*, in: Antoine Laurent Lavoisier, *System der antiphlogistischen Chemie*. Aus dem Französischen von Sigismund Friedrich Hermbstaedt, Suhrkamp, Frankfurt a. M. 2008, S. 181-411, hier: S. 306 und 309.

[18] Bernadette Bensaude-Vincent, Isabelle Stengers, »Une révolution en balance«, in: *Histoire de la chimie*, La Découverte, Paris 1993, S. 111-121, hier: S. 120.

[19] Carrier, »Antoine Laurent de Lavoisier«, S. 12.

[20] Ausgebildet als Jurist verfügte Lavoisier über fundierte naturwissenschaftliche Kenntnisse. Seine naturwissenschaftlichen Interessen konzentrierten sich zunächst auf die Geologie und später auf die Chemie. Als er 1776 zum Inspektor der staatlichen Pulverfabrikation ernannt wurde, konnte er sich in seiner Dienstwohnung im Arsenal in Paris ein sehr gut ausgestattetes chemisches Laboratorium einrichten. Seine Ehefrau Marie Paulze wirkte dabei gleichsam als eine wissenschaftliche Mitarbeiterin: Sie zeichnete Lavoisiers Versuche auf, übersetzte fremdsprachige Literatur und fertigte auch Zeichnungen der Geräte für die Veröffentlichungen an. Als Steuerpächter des *Ancien Régime* wurde Lavoisier im November 1793 zusammen mit den meisten seiner Kollegen verhaftet und zum Tode verurteilt. Am 8. Mai 1794 wurde er guillotiniert. Zu Lavoisiers Biographie vgl. Marco Beretta, *Scienza e rivoluzione. Antoine Laurent Lavoisier (1743–1794)*, Editrice Bibliografica, Mailand 2019.

chemischen Praxis ermöglicht, der am Ende des 18. Jahrhunderts die Chemie zu einem tiefgreifenden Wandlungsprozess führte. Lavoisiers Methode lässt sich mit den Begriffen Beobachten, Experimentieren und Benennen charakterisieren. Seine wesentlichen Errungenschaften innerhalb der Geschichte der Chemie bestehen in der Oxidationstheorie (nämlich einer Klassifikation von Säuren, Basen und Salzen entsprechend dieser Theorie), in der Aufstellung einer ersten Liste der Stoffe und Elemente, in der Formulierung des gasförmigen Zustandes als eines dritten Zustandes der Materie und in der Schaffung einer neuen chemischen Nomenklatur.[21]

Seit der Antike war das chemische Denken eng mit der experimentellen Physik verbunden, da diese noch weitgehend auf dem vorsokratischen bzw. aristotelischen Elementkonzept beruhte. Dabei handelte es sich um Prinzipien der Materie als Träger allgemeiner Eigenschaften wie Festigkeit, Flüchtigkeit oder Brennbarkeit. Nach der klassischen Elementenlehre des Aristoteles waren es vier Elemente (Feuer, Wasser, Erde, Luft), die als die einfachsten Bestandteile der Materie galten. Im Lauf der Zeit ist diese Vorstellung von verschiedenen Autoren um weitere Elemente erweitert worden, so dass vielfältige Varianten der klassischen Lehre entstanden sind (zum Beispiel wurden Schwefel und Quecksilber als Vermittlungsglieder unter den vier Elementen eingeführt). Hinsichtlich der wissenschaftlichen Neubegründung der modernen Chemie haben Feuer und Luft unter den vier aristotelischen Elementen der Materie eine wesentliche Rolle gespielt.

Die Wärme wurde bis zum Ende des 18. Jahrhunderts und darüber hinaus als ein feiner flüssiger Stoff angenommen. Es handelte sich dabei um einen spezifischen Wärmestoff, der wie eine Flüssigkeit von einem Körper in den anderen eindringt. Die Existenz eines solchen Wärmestoffs hat niemand zu jener Zeit bezweifelt. Seine genauen Eigenschaften festzustellen und sich darüber zu einigen, erwies sich indessen als sehr problematisch. Manche hielten dieses Fluidum für gewichtlos, andere für schwer. Manche ließen es durch fernwirkende Kräfte wirken, andere durch direkten Kontakt auf die verschiedenen Stoffe, die dadurch ihre Eigenschaften änderten.[22]

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[21] Gemeinsam mit Louis Bernard Guyton de Morveau (1737–1816), Claude Louis Berthollet (1748–1822) und Antoine-François de Fourcroy (1755–1809), hierzu vgl. Jost Weyer, *Geschichte der Chemie*, 2 Bände, Springer, Berlin-Heidelberg 2018, hier: Bd. 1, S. 520.

[22] In dieser Tradition steht auch die von Georg Ernst Stahl (1660–1734) am Anfang des 18. Jahrhunderts entwickelte Vorstellung, nach der die hypothetische Substanz »Phlogiston« für alle Brennbarkeit verantwortlich ist. Insofern enthalten alle brennbaren Stoffe und Metalle unter ihren chemischen Komponenten diese Substanz, die dann bei Verbrennung freigesetzt wird bzw. aus dem betreffenden Körper entweicht, wobei ein unbrennbarer Rückstand zurückbleibt. Stahls Theorie funktionierte unter bestimmten Umständen recht gut und fand

Besonders einflussreich wurden gegen Ende des 18. Jahrhunderts die Forschungen von Joseph Black (1728–1799), Professor für Chemie in Edinburgh, über die Natur des Feuers (sog. Wärmelehre). Dabei führte Black die grundlegenden Begriffe der latenten bzw. verborgenen Wärme sowie der spezifischen Wärmekapazität ein, die die Basis für weitere fruchtbare Untersuchungen über die Wärme legten und zugleich quantitative Experimente zu thermischem Gleichgewicht, Volumenänderung und Phasenübergängen von Flüssigkeiten förderten. Blacks Wärmelehre ließ sich ebenso auf die Deutung der elektrischen und magnetischen Phänomene anwenden und stellte sich insofern als dynamistische Alternative zu den atomistischen Vorstellungen einer rein extensiven Wirkung der Wärme durch Ausdehnung der Körper dar.[23]

Es war ein polar strukturierter Verbrennungsprozess, an dem offensichtlich auch die nach Aristoteles elementar geltende Luft beteiligt war, dem damals bei allen spezifischen Untersuchungen über die Wärme eine besondere Bedeutung zugemessen wurde. Damit ist ein zentraler Aspekt benannt, der Lavoisiers Arbeiten direkt betrifft, nämlich die Erkenntnis der Tatsache, dass die Luft kein einzelnes Element ist, die sich mit dem betreffenden Stoff verbindet, sondern ein physikalischer Zustand der Materie, den einige Substanzen annehmen können. Lavoisier stellte die Hypothese auf, dass die atmosphärische Luft eine Zusammensetzung aus verschiedenen Bestandteilen im gasförmigen Zustand ist. Diese neue Auffassung des aristotelischen Elements wäre – das ist zu betonen – nicht ohne die zeitgleichen Untersuchungen über die Luft (genauer: gasartiger Stoffe) von Stephen Hales (1677–1761),[24] die auch Black beeinflussten, sowie u.a. die Erforschungen von Henry Cavendish (1731–1810) und Joseph Priestley (1733–1804) möglich gewesen.

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tatsächlich weite Verbreitung als ein heuristisch fruchtbares Erklärungsmuster. Sie wurde durch die namhaften Chemiker jener Zeit wie etwa Pierre Joseph Macquer (1718–1784), Carl Wilhelm Scheele (1742–1786) und Joseph Priestley (1733–1804) weiterentwickelt.

[23] Durch den Verzicht auf eine theoretische Definition und den Rückgriff auf eine sozusagen operationelle Definition der Wärme stellte er fest, dass gleiche Wärmezufuhr in verschiedenen Körpern zu sehr unterschiedlichen Veränderungen der Temperatur führen kann. Daraus hatte er nicht nur schließen können, dass jede Substanz eine eigene, spezifische Kapazität zur Aufnahme der Wärme besitzt, sondern dass zwischen der in einem Körper anwesenden Wärmemenge und dessen Temperatur immer eine Differenz vorliegt. Darüber hinaus konnte Black beobachten, dass die Zufuhr von Wärme bei kochendem Wasser oder schmelzendem Eis nicht zu einer Temperaturveränderung, sondern zu einem Wechsel des Aggregatzustands führt (das heißt latente bzw. verborgene Wärme insofern, als sie die Temperatur bzw. das Thermometer nicht beeinflusst).

[24] Diesem waren die diesbezüglichen Untersuchungen von Robert Boyle (1627–1691) und John Mayow (1641–1679) bekannt. Vgl. hierzu Weyer, *Geschichte der Chemie*, S. 479ff.

Die Zeit war reif, um zu der Überzeugung zu gelangen, dass verschiedene physikalische Zustände der Materie nicht einem bestimmten chemischen Element zuzuordnen, sondern für jegliche Stoffe der Natur vorstellbar sind, insofern sie auf geeignete Temperaturen gebracht würden. Dies bedeutet mit anderen Worten, dass jeder Stoff in drei verschiedenen Zuständen existieren kann: als Festkörper, als Flüssigkeit und als luftförmiges Fluidum (Gas). In diesem Sinn genügt der Grad der Wärme, um denselben Stoff sukzessive in einen dieser drei Zustände zu überführen. Mit Blacks und insbesondere Priestleys Experimenten wurden verschiedene Arten von Luft (und jede mit ihren spezifischen Eigenschaften) isoliert und erkannt: von der sogenannten fixen Luft (Kohlenstoffdioxid) bis zur brennbaren Luft (Wasserstoff).

Um 1772 beschäftigte sich Lavoisier selbst mit Experimenten über die Fixierung und Freisetzung von Luft. Dabei konnte er Gewichtsänderungen beobachten. Um sie präziser bestimmen zu können, entschloss er sich, seine Analysen im geschlossenen System mit Hilfe der Waage systematisch zu prüfen. Auf diesem Weg konnte Lavoisier einige Jahre später eine neue Theorie der Verbrennung formulieren, nach der ein in allen Körpern anwesender Wärmestoff (der als Grundstoff in die Liste der chemischen Elemente aufgenommen wurde) an die Stelle von Stahls Phlogiston trat, und zugleich für die von Priestley bereits erkannte »dephlogistierte Luft«[25] die neue Bezeichnung »Sauerstoff« einführen.[26] Mithin ist es nicht mehr das Phlogiston, das aus der brennenden Materie freigesetzt wird, sondern der Wärmestoff, der aus dem in der Luft anwesenden Sauerstoff entweicht. Die Verbrennung erklärt sich darum als synthetische Verbindung zwischen dem verbrennenden Körper und dem Sauerstoff der Luft (und nicht wie bei Stahl als Abscheidung).

Nach einer solchen dual entwickelten Wärmestofflehre Lavoisiers ist der Wärmestoff ein Element, das wie andere chemische Stoffe Verbindungen eingeht und dabei als Agens wirkt: *Un fluide très-subtil,* fähig in die Poren aller Körper einzudringen und eine Verbindung mit deren kleinsten Teilchen einzugehen. Damit ist der Wärmestoff als ein elastisches, mit auseinander-

[25] Priestleys bedeutendste Leistung auf dem Gebiet der pneumatischen Chemie ist seine Entdeckung des Sauerstoffs, den er »dephlogistierte Luft« nannte. Vgl. Weyer, *Geschichte der Chemie*, S. 487f. und Carrier, »Antoine Laurent de Lavoisier«, S. 21f.

[26] Patricia Fara, *4000 Jahre Wissenschaft*, übers. von A. Kamphuis, Spektrum Akademischer Verlag, Heidelberg 2010, S. 203: »Lavoisier postulierte, dass Metalle im Feuer Sauerstoff aufnehmen, während Erze Sauerstoff abgeben. Mit Hilfe einer Linse, die Sonnenlicht sammelte, erhitze er eine kleine Menge Quecksilbererzpulver. Das dabei entwichene und aufgegangene Gas analysierte er, und nachdem er alle anderen Möglichkeiten ausgeschlossen hatte, erkannte er es als neu und nannte es Oxygenium oder Sauerstoff«.

treibender Kraft begabtes Fluidum wirksam, während die Anziehungskraft der Körperteilchen untereinander diesem entgegenarbeitet. Der Aggregatzustand eines jeden Körpers resultiert sonach aus dem Wirkungsverhältnis der beiden Kräfte: der Expansivkraft des Wärmestoffs und der Anziehungskraft der Körperteilchen.[27]

Obwohl Lavoisiers Neuerung mit der traditionellen Lehre von den Imponderabilien verbunden bleibt, bereitet sie doch den Weg für einen tiefgreifenden Wandlungsprozess des chemischen Wissens und seiner Anwendung vor, der zugleich zu einer grundlegenden Reform der chemischen Nomenklatur führte.[28] Schließlich kann zu Recht gesagt werden: »Die materielle Hypothese [eines Wärmestoffs] entwickelte sich in den Händen von Black, Lavoisier und anderen zu einer präzisen quantitativen Theorie, die fähig war, fast alle bekannten Phänomene zu erklären«.[29]

4. Kant

Einer der Aspekte, der die vorherrschende deutsche Naturwissenschaft zu Ausgang des achtzehnten und in den ersten Jahrzehnten des folgenden Jahrhunderts charakterisiert, ist der Versuch, die Gesamtheit der Naturphänomene aus zwei entgegengesetzten Kräften zu erklären, die in ihrer Wechselwirkung die phänomenalen Eigenschaften von Körpern hervorbringen.[30] Sonach beschreiben attraktive und repulsive Grundkräfte, die das Wesen der Materie ausmachen, die Mannigfaltigkeit der Naturerscheinung einheitlich. Das Ziel eines solchen Erklärungsmodells, das erlaubt, möglichst viele Kräfte auf zwei ursprüngliche Kräfte zu reduzieren, ist im Grunde genommen »die Dichotomie von passiver Materie und aktiven Kräften, die

[27] Manfred Durner, »Theorien der Chemie«, in: F.W.J. Schelling, *Historisch-Kritische Ausgabe*. Ergänzungsband zu Werke 5 bis 9. Wissenschaftshistorischer Bericht zu Schellings naturphilosophischen Schriften 1797–1800, Frommann-Holzboog, Stuttgart-Bad Cannstatt 1994, S. 1-161, hier: S. 95f.

[28] Dies sowie Lavoisiers Uminterpretation der von Cavendish entdeckten Knallgasreaktion als Synthese von Wasser (1781), die ihn dazu führte, das Wasser als Verbindung von Wasserstoff und Sauerstoff aufzufassen und somit einen weiteren Grundstoff der aristotelischen Tradition, eben das Wasser, nicht als elementar sondern als zusammengesetzt zu erklären, kann hier nicht weiterverfolgt werden. Hierzu vgl. Weyer, *Geschichte der Chemie*, S. 471ff. und Carrier, »Antoine Laurent de Lavoisier«, S. 27ff.

[29] S. Lilley, »Attitudes to the Nature of Heat about the Beginning of the Nineteenth Century«, in: *Archives Internationales d'Histoire des Sciences* [nouvelle série] 1 (1948), 630-639, hier: S. 635.

[30] Alexander Rüger, »Dualistische Entwürfe zur Einheit der Naturphänomene und die Anfänge der Romantischen Naturphilosophie«, in: *Berichte zur Wissenschaftsgeschichte* 8 (1985), 219-232.

in der Newtonschen Mechanik so erfolgreich verwendet wurde, aufzuheben zugunsten einer einheitlichen Sicht«.[31]

Zu dieser unifizierenden Strömung zählt auch Kant mit seinem in den *Metaphysischen Anfangsgründen der Naturwissenschaft* (1786) unternommenen Versuch auf metaphysischer Ebene die dynamistischen Prinzipien der physikalisch-chemischen Wissenschaften zu beleuchten. Seine maßgebliche These besteht darin, dass nicht Ausdehnung und Undurchdringlichkeit als ursprüngliche Merkmale der Materie zu betrachten sind, weil diese in Wirklichkeit als Wirkung grundlegender, der Materie innewohnender Kräfte resultieren: »Die Kraft geht also der Materie ontologisch, der Kraftbegriff dem Materiebegriff methodologisch voran«.[32]

Hierbei versucht Kant in Fortführung der *Kritik der reinen Vernunft* (1781) eine Naturlehre zu begründen, die nicht mit Erfahrungsgesetzen, sondern mit reinrationalen, apriorischen Prinzipien arbeitet. Dieser Absicht folgend führt er den Begriff der Materie auf das polare Zusammenspiel zweier real entgegengesetzter, aber metaphysisch bestimmter Grundkräfte, die sich gegenseitig limitieren, zurück. Die Materie wird somit definiert als »das Bewegliche, sofern es einen Raum erfüllt. Einen Raum erfüllen heißt allem Beweglichen widerstehen, das durch seine Bewegung in einen gewissen Raum einzudringen bestrebt ist. Ein Raum, der nicht erfüllt ist, ist ein leerer Raum«.[33] Dieser Widerstand, den die ihren Raum erfüllende Materie übt, ist von daher Bewegung gegen eine andere entgegengesetzte, die zu ihrer Ursache eine bewegende Kraft hat.[34]

Auf diese Weise setzt Kants dynamistische Konstruktion der Materie – wie bemerkt wurde – an die Stelle eines mathematisch-atomistischen Begriffs von absoluter Undurchdringlichkeit den Begriff der repulsiven Kraft und nimmt zugleich die Anziehung als Grundkraft hinzu, um die Möglichkeit des Begriffs von Materie zu erklären und damit die Erfahrbarkeit von Materie zu begründen (als das Reale der Gegenstände der äußeren Sinne).[35]

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[31] Ebd., S. 222.

[32] Martin Carrier, »Kants Theorie der Materie und ihre Wirkung auf die zeitgenössische Chemie«, in: *Kant Studien* 81 (1990), S. 170-210, hier: S. 170.

[33] Immanuel Kant, *Metaphysische Anfangsgründe der Naturwissenschaft (1786)*, in: *Gesammelte Schriften*, hrsg.: Bd. 1-22 Preußische Akademie der Wissenschaften, Bd. 23 Deutsche Akademie der Wissenschaften zu Berlin, ab Bd. 24 Akademie der Wissenschaften zu Göttingen. Reimer, Berlin 1900ff., Bd. 4, S. 496.

[34] Ebd., S. 497: Eine »Materie erfüllt einen Raum, nicht durch ihre bloße Existenz, sondern durch eine besondere bewegende Kraft«.

[35] Jörg Jantzen, »Baader und Schelling. Bemerkungen zu ihrer Naturphilosophie«, in: A. Bonchino, A. Franz (Hrsg.), *Aufklärung und Romantik als Herausforderung für katholisches Denken*, Brill-Schöningh, Paderborn-Leiden 2015, S. 199-220, hier: S. 206.

Die Wechselwirkung zwischen ursprünglicher Repulsion und ursprünglicher Attraktion bestimmt den Grad der Ausdehnung der Materie, indem die beiden Kräfte in jeglichem Zustand mit einer bestimmten Wirkungsstärke zusammenwirken. Die Schwere der Körper wird auf die immediate Wirkung der anziehenden Kraft zurückgeführt,[36] während die Elastizität auf der immediaten und unbegrenzten Kraft der Repulsion beruht.[37] Mehr als diese zwei bewegenden Kräfte lassen sich nach Kant nicht postulieren: Sie sind »die einzigen a priori einzusehenden allgemeinen Charaktere der Materie«[38] und werden dazu als kontinuierliche Größen aufgefasst, aus deren variablem Verhältnis bzw. wechselnder Intensität die Materie in ihren verschieden bestimmten Dichten erfolgt.[39] Dies lässt sich aber nicht a priori, sondern nur empirisch erforschen.

Damit ist aber auch vorgegeben, dass die Materie als Kontinuum trotz ihrer spezifischen Verschiedenheit so konstruiert ist, dass sie, wenn auch unterschiedlich, immer präsent ist und zwar ohne leere Zwischenräume in den Körpern und ohne letztes unteilbares Teilchen der Materie.[40] Kants dynamistische Theorie setzt von daher die unendliche Teilbarkeit der Materie voraus, die mithin nie für vollendet angesehen wird. Dies bedeutet mit anderen Worten, dass der Prozess der Teilung potentiell unendlich ist.[41]

Kant argumentiert von seinem, auf das Verhältnis von zwei Kräften reduzierenden Standpunkt aus zwar konsequent, doch liegen offensichtliche Schwierigkeiten in solch einem dynamistisch formulierten Ansatz, derer er sich allerdings bewusst zu sein scheint. Zuerst wird die Materie nur aus ihren Wirkungssphären in Raum und Zeit erfasst, die zur Voraussetzung ihrer dynamistischen Struktur bzw. der Attraktion und Repulsion führen. Diese aber müssen lediglich angenommen werden, weil sie auf keinen ihnen vorgängigen Grund zurückgeführt werden können. Insofern wird damit weder die Unmöglichkeit des Atomismus bewiesen noch umgekehrt die Notwendigkeit des Dynamismus im Sinne zweier ursprünglicher und unbegrenzter Kräfte. So kann das Erklärungsmodell des Atomismus weiterhin eingeräumt werden, ohne, wie es oben für die Chemie Lavoisiers der Fall ist, auf eine dynamistische bzw. auf dem Wirkungsverhältnis zweier

[36] Kant, *Metaphysische Anfangsgründe der Naturwissenschaft*, S. 508.
[37] Ebd., S. 499.
[38] Ebd., S. 501.
[39] Ebd., S. 518.
[40] Ebd., S. 523.
[41] Ebd., S. 503.

Kräfte basierende Erklärungsart verzichten zu müssen.[42] Zum Beispiel kann man spezifische Fluida als zugrundeliegende Träger der Kräfte annehmen, die alle Tätigkeit in der Natur vermitteln und in denen die Atome oder Elemente ihre entgegengesetzten Kräfte ausüben. Mithin hätte man ein Erklärungsmodell, in dem die polare Spannung der Kräfte vorhanden bleibt, während die spezifische Verschiedenheit von Materie mit verschiedenen Materietypen definiert werden kann.

Weitere wesentliche Schwierigkeiten – sie seien hier lediglich benannt – können zum einen in Kants »extentionaler Identifikation« der ursprünglichen Anziehungskraft der Materie mit der Gravitationsanziehung, zum anderen in der Notwendigkeit einer Differenzierung zwischen einer ursprünglichen und einer abgeleiteten Kraft der Repulsion festgestellt werden.[43] Ebenfalls problematisch resultieren zugleich die Tatsachen, dass Kants dynamistischer Begründung der Materie allein das Zustandekommen flüssiger, aber nicht starrer Körper gelingt, wie auch schließlich, dass die Interpretation chemischer Prozesse von der Sache her zum Begriff einer absoluten bzw. kontinuierlichen chemischen Auflösung führt.[44]

Kant hat diese konzeptuellen Schwierigkeiten akzeptiert und folglich seine transzendentale Grundlegung der Physik tiefgreifenden Revisionen unterzogen,[45] deren unvollendetes Ergebnis in seinem handschriftlichen Nachlass vorliegt und in dem er letztendlich ein völlig homogenes, das Universum erfüllendes Fluidum annimmt, dessen Erschütterungen die

[42] Zusammengefasst: Die Atomistik setzte ursprünglich neben dem leeren Raum und den Stoßkräften ausgedehnte, absolut undurchdringliche Teilchen voraus, die sich in ihrer Gestalt voneinander unterscheiden. Damit erklärt sie die mannigfaltigen Naturerscheinungen. Die spezifische Verschiedenheit der Materie entsteht aus diversen Zusammensetzungen der Teilchen innerhalb eines leeren Raumes. Diese Auffassung ist von daher quantitativ und somit der mathematischen Darstellung fähig. Kant hält indes sowohl den Begriff eines leeren Raumes als auch die Vorstellung absolut undurchdringlicher Atome für unmöglich, weil sie sich nicht als Objekte möglicher Erfahrung eignen, sondern sogar »okkulte Qualitäten« sind. Beide sind somit innerhalb einer transzendentalphilosophisch begründeten Naturphilosophie als illegitim anzunehmen. Er entwirft dagegen ein dynamistisches ganzheitliches Erklärungsmodell, das die transzendentalen Prämissen insofern respektiert, als es keiner möglichen Erfahrung widerspricht. Danach wird die Materie als Kontinuum interpretiert; das heißt, dass die spezifische Verschiedenheit der Materie auf Intensitätsmomente zweier polarer Grundkräfte (Attraktion und Repulsion) reduziert wird.
[43] Carrier, »Kants Theorie der Materie«, S. 184-192.
[44] Ebd., S. 192f. und Durner, *Theorien der Chemie*, S. 43f.
[45] Wolfgang Bonsiepen, *Die Begründung einer Naturphilosophie bei Kant, Schelling, Fries und Hegel. Mathematische versus spekulative Naturphilosophie*, Klostermann, Frankfurt a.M. 1997, S. 91-94.

Phänomene der Elektrizität, der Wärme und des Lichts bewirken und das offensichtlich dem Wärmestoff Lavoisiers gleich ist.[46]

5. Kants Erbe und Baaders »Ideen«

Zwar gehört die Chemie in den damals zugänglichen Druckschriften Kants insofern zur dynamistischen Physik, als sie bloß deren angewandter Zweig ist,[47] doch entspricht dies für ihn keiner Geringschätzung dieser Wissenschaft. Im Gegenteil, wie betont wurde, hat er lebenslang die Herausforderungen der zeitgenössischen Chemie ernst genommen und die wichtigsten Entwicklungen in diesem Bereich aufmerksam verfolgt.[48] Schon in einem 1804 erschienenen Nachruf auf Kant wurden sowohl sein breites Wissen über die Chemie, als auch sein Interesse an dieser Wissenschaft ausdrücklich unterstrichen.[49] Diese Ansicht findet auch in Tuschlings Buch *Metaphysische und transzendentale Dynamik in Kants Opus postumum* Bestätigung, in dem nicht nur der Einfluss physikalisch-chemischer Texte auf Kants späteres Denken gezeigt, sondern auch das Verhältnis Kants zu Baaders Text *Ideen über Festigkeit und Flüssigkeit, zur Prüfung der physikalischen Grundsätze des Hrn. Lavoisier* (1792) thematisiert wird.[50]

Trotz dieser besonderen Aufmerksamkeit für die Chemie hat Kant dennoch weder chemische Forschungsarbeiten verfolgt noch eine eigene chemische Lehre aufgestellt. Er hat in erster Linie – wie zusammengefasst wurde – einen grundsätzlichen, aber allgemeinen Weg aufgezeigt, nach dem

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[46] Jaap van Brakel, »Kant's Legacy for the Philosophy of Chemistry«, in: D. Baird, E. Scerri, L. McIntyre (Hrsg.), *Philosophy Of Chemistry*, Springer, Dordrecht 2006, S. 69-91, hier: S. 78f.

[47] Kant, *Metaphysische Anfangsgründe der Naturwissenschaft*, S. 530.

[48] Mai Lequan, *La chimie selon Kant*, PUF, Paris 2000.

[49] Vgl. Ludwig Wilhelm Gilbert, »Nekrolog [auf Kant]«, in: *Neues allgemeines Journal der Chemie* 2 (1804), S. 239-240 zit. in Carrier, »Kants Theorie der Materie«, S. 194.

[50] Burkhard Tuschling, *Metaphysische und transzendentale Dynamik in Kants Opus postumum*, De Gruyter, Berlin 1971, S. 40, 44, 49-51. Kants Interesse an Baaders ersten Schriften – das heißt gegenüber prägnanten Beispielen der frühromantischen Naturphilosophie, die den dynamistischen Ansatz zur Grundlage der nicht-mathematisierten Naturwissenschaften machen – wird übrigens auch untermauert durch einige Exzerpte (vgl. Kant, *Gesammelte Schriften*, Bd. 14, S. 482ff. und Erich Adickes, *Kant als Naturforscher*, Bd. 2, de Gruyter, Berlin 1925, S. 158 und Michael Friedman, *Kant and the Exact Sciences*, Harvard University Press, Cambridge 1998, S. 282 Anm.), die er gegen Ende der 1780er Jahre auf Grundlage der breit rezipierten und in den damals wichtigen Fachzeitschriften ausführlich besprochenen Abhandlung Baaders *Vom Wärmestoff* angefertigt hat. Vgl. Franz Baader, *Vom Wärmestoff, seiner Vertheilung, Bindung und Entbindung, vorzüglich beim Brennen der Körper*, Johann Paul Krauß, Wien-Leipzig 1786. Hier plädiert Baader »sehr energisch für eine besondere Wärmematerie«, welche »von den einzelnen Körpern durch spezifische verschiedene ›wärmebindende Kräfte‹ (nach Analogie der chemischen Affinitätskräfte zu denken) angezogen wird« (Adickes, *Kant als Naturforscher*, S. 158).

auch die chemischen Prozesse dynamistisch aus den Kräften der Attraktion und Repulsion zu erklären sind, ohne allerdings diese Theorie im Detail auszuführen.[51] Der Kantsche Dynamismus ist als eine Art naturphilosophisches Erbe für die nachfolgende Generation von Wissenschaftlern und Philosophen anzusehen, die seine Konzeption rezipierten, zuweilen modifizierten und auf die Erklärung konkreter chemischer Phänomene anwandten.[52]

Auch Baaders Aufsatz über Lavoisier ist diesem Vermächtnis zuzuordnen, insofern es sich dabei um eine theoretische Auseinandersetzung mit Kants dynamistischer Zwei-Kräfte-Lehre und der chemischen Tradition der mechanistischen Atomistik handelt. In diesem Sinn argumentiert er im Haupttext gegen Lavoisiers Theorie der Aggregatzustände und wirft die Frage auf, ob dessen Begriffsverwendungen von Flüssigkeit, Kohäsion und Starrheit voraussetzungslos gebraucht werden dürfen oder tatsächlich noch eine Begründung verlangen. In den Anmerkungen entwickelt er indes eine dynamistische Konstruktion der Materie, die von Kants *Metaphysischen Anfangsgründen der Dynamik* ausgehend darauf abzielt, die Materie in ihrem ursprünglichen Zustand als ein vollkommenes Kontinuum zu erklären. Selbst wenn diese Auseinandersetzung zu keiner eindeutigen Lösung führt,[53] stellt Baaders Beitrag einen der ersten und interessantesten Versuche dar, auf dem Weg zu einer »chemischen« Gesamteinsicht der Naturerscheinungen[54] eine Synthese zwischen den atomistischen Ansätzen der neuesten Chemie und dem Kantschen Dynamismus zu erwägen.

6. Baaders Mittelweg zwischen Atomismus und Dynamismus

Baader skizziert in dem bereits zitierten Brief an Lichtenberg vom 4. Februar 1792 sein in den *Ideen* dargelegtes wissenschaftliches Programm folgendermaßen:

> »[Dabei] habe ich, sowohl die Absicht [...], die Nichtigkeit der Lavoirsierischen [*sic*] als im Gegentheil die Wichtigkeit der Deluc'schen physikalischen Grundsäze zu zeigen, zugleich aber auch einige Kantische Ideen mehr in Umlauf zu bringen. Was erstere Absicht

[51] Durner, *Theorien der Chemie*, S. 44 und auch Lequan, *La chimie*, S. 119f.
[52] Ebd.
[53] Der Aufsatz schloss mit der Ankündigung »*Die Fortsetzung künftig*«, allerdings ist der versprochene Folgebeitrag nie erschienen.
[54] Baader selbst ist sich dessen bewusst und bezeichnet sich später als »einen der ersten Auguren dieser Naturansicht«, vgl. Baader an Jacobi, 16. Juni 1806, in: F. von Baader, *Sämtliche Werke*, hrsg. von F. Hoffmann *et al.*, 16 Bde., Bethmann, Leipzig, 1851–1860, Bd. 15, S. 200.

> betrift, so soll dieser ganze Aufsaz eigentlich nur ein Kommentar zu H. Deluc's Worten in seinen Briefen an H. La Metherie seyn, wo er nemlich sagt, daß Chemie nicht Phisik sey, und Hr[.] Lavoisier hätte offenbar besser gethan, nicht so weit auszuholen, aber er that es nun einmal und französische Metaphysik will überall nicht recht gelingen[.] – Was aber meine zweite Absicht anlangt, so bin ich der Meinung, daß die Zustandebringung einer generellen Phisik, der wir dermalen so sehr bedürfen, des Beistandes der Kantischen Metaphysik der Naturwissenschaft nicht minder bedarf, als des der Mathematik, und daß folglich durch Bekanntmachung des LeSageschen mechanischen Sistems jene wenigst nicht entbehrlich gemacht wird – so wenig als der umgekehrte Fall statt findet.[55]

Auf die einzelnen Textverweise, die Baader in diesem Brief benennt, ist hier nicht weiter einzugehen.[56] Angebracht erscheint es aber, die Weichenstellungen, die Baader vornimmt, kurz auf den Punkt zu bringen und damit zum Schluss zu kommen. Baaders Anliegen sind im Wesentlichen zwei: Zum einen vertritt er die Ansicht, dass die Delucschen Grundsätze den Lavoisierschen vorzuziehen sind. Zum anderen verlangt er, Kants Theorie der Materie auf dem Gebiet einer generellen Physik bzw. für die Erklärung der Voraussetzungen der Mechanik fruchtbar zu machen, ohne den Atomismus letzten Endes zu desavouieren.

Jean-André Deluc (1727–1817) war besonders für seine Theorie der expansiblen Flüssigkeiten (auf der Grundlage des atomistischen Systems Lesages) in Deutschland bekannt.[57] Er stand mit Lichtenberg im brieflichen Kontakt und, obwohl nur zwei Briefe Lichtenbergs erhalten geblieben sind, belegen die mehrfachen Nennungen im Schriftwechsel mit Dritten sowie verschiedene Notizen sein großes Interesse an Delucs Forschungen. Lichtenberg, den die Lavoisiersche Chemie nicht überzeugte, fand in Delucs Theorie eine gute Synthese zwischen der antiphlogistischen und der phlogistischen Theorie.[58] In den zwischen 1790 und 1793 veröffentlichten Briefen an Jean-Claude Delamétherie (1743–1817) stellt Deluc sein System

[55] Georg Christoph Lichtenberg, *Briefwechsel*, Bd. 3, S. 1035 (Nr. 2020).

[56] Sie wurden andernorts und zwar im Kommentar der historisch-kritischen und kommentierten Edition Baaders bereits erschlossen, vgl. Baader, *Texte zur Naturphilosophie*, S. 193-223.

[57] Marita Hübner, *Jean André Deluc (1727–1817). Protestantische Kultur und moderne Naturforschung*, Vandenhoeck & Ruprecht, Göttingen 2010, S. 137.

[58] Er übernimmt Delucs Vorstellung, nach der das Wasser vermöge der Wärme unter dem Einfluss der »aerisirenden Stoffe« in die Luftarten übergehe und hält diese für die »komponierenden Teile der elektrischen Materie«, so dass die Luftarten nur eine Art verhülltes Wasser darstellten. Mithin würde nicht die Zersetzung des Wassers, sondern vielmehr dessen chemische Verbindung mit den elektrischen Materien die Luftarten ergeben.

der Naturforschung dar, in dem er die neue französische Chemie aus der Sicht der Meteorologie (»das große Laboratorium der Natur«) widerlegen will.[59] Er kritisiert Lavoisiers Forschungen über die Zusammensetzung des Wassers und vertritt stattdessen die Auffassung, Wasser lasse sich durch eine Dekomposition der Luft analysieren. Seine Verteidigung der alten Chemie präsentiert sich als eine damals sehr einflussreiche Verquickung von unterschiedlichen Ansätzen. Dabei handelt es sich vor allem um die Weiterentwicklung des atomistischen Ansatzes Georges-Louis Lesages (1724–1803) samt einer weit ausgebauten Wärmestoff- bzw. Äther-spekulation. Daraus geht Delucs Lehre von den elastischen Flüssigkeiten hervor, die, kurz gesagt, aus einem fortleitenden Fluidum und einer schweren bzw. ponderablen Materie besteht.[60] Damit werden die meisten Erscheinungen durch Zusammensetzungen und Zersetzungen der expansiblen Flüssigkeiten erklärt, die zuletzt »den herrschenden Charakter in dem Gange der Natur auf unsrer Erde« produzieren.[61]

Wie richtig bemerkt wurde, repräsentiert Deluc nicht nur speziell die vorlavoisiersche Chemie, sondern allgemeiner »eine Richtung der Naturlehre gegen Ende des 18. Jahrhunderts, welche die physikalischen Vorgänge in den Gesamtprozess der Natur einzugliedern sucht«. [62] In diesem Sinn hat Lichtenberg selbst Delucs Theorie verstanden und geschätzt, weil sie eben »ein Zweig eines großen Stammes ist, dessen Äste sich über die ganze Natur erstrecken« und »wodurch das ganze Gebäude unsrer Kenntnisse der Natur mehr Zusammenhang und Festigkeit erhält«.[63]

Ähnlich scheint Baader Delucs dualistisches System der fortleitenden und ponderablen Fluida zu verstehen und dem Lavoisiers vorzuziehen. Dazu aber kommt, dass Baader Delucs Schema oder, genauer gesagt, seine Grundvorstellung von der Zersetzung und Verbindung subtiler Flüssigkeiten nicht nur dazu geeignet hält, die Einheit der Natur abzubilden; er versteht sie auch als gleichrangig bzw. vereinbar mit dem Kantschen Dynamismus. Es entsteht letztendlich der Eindruck, dass Baader hierbei versucht hat, den Atomismus Lesages und Delucs dualistisches System mit der dynamistischen Materietheorie Kants in Einklang zu bringen und damit eine Art dynamistische Atomistik als Mittelweg zwischen Atomismus und Dynamismus einzuschlagen.

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[59] Hübner, *Deluc*, S. 138f.
[60] Baader, *Texte zur Naturphilosophie*, S. 220 erklärende Anmerkung zu 28, 29.
[61] Jean-André Deluc, *Neue Ideen über die Meteorologie*. Aus dem Französischen übersetzt von J. H. Wittkopp, 2 Bde., Friedrich Nicolai, Berlin-Stettin 1787–1788, Bd. 2, S. 324 (§ 832).
[62] Bonsiepen, *Die Begründung einer Naturphilosophie* (Anm. 44), S. 238.
[63] Erxleben/Lichtenberg, *Anfangsgründe der Naturlehre*. Fünfte Auflage. Dieterich, Göttingen 1791, S. 435 (§ 494).

Während Baader Lavoisiers Theorie der Aggregatzustände als Folge des Zusammenspiels der Stoffe mit einem eigenen Wärmestoff sowie seine atomistische Richtung eines vorausgesetzten Festen kritisiert, argumentiert er zugleich für eine dynamistische Konstruktion der letzten Bestandteile der Materie.[64] Es ist nach Baader nicht mehr angemessen einen passiven und einen darauf wirkenden lebendigen aktiven Stoff anzunehmen, sondern allein ein alle Materie durchdringendes Zusammenspiel zweier aktiver, real entgegengesetzter Kräfte. Diese dynamistische Erklärung der letzten, einfachen Bestandteile der Materie beschreibt er – in Anlehnung an Lichtenberg – mit der Annahme eines immer größer werdenden Widerstands der Teile gegen weitere Teilung, so

> daß die Anziehung (als Widerstand gegen die Trennung) mit der Zerkleinerung selbst in solchem Verhältnisse zunimmt, daß sie am Ende größer wird, als jede gegebene oder vorhandene Naturkraft (mechanische oder chemische?) – Wollte man also in diesem Sinne behaupten, alle Materie bestünde aus ferner untheilbaren Elementen, so würde dieß nur soviel heißen, *als alle Materie ballt sich bey ihrer Trennung in* (*zuletzt*) *unauflösliche* (obschon mathematisch theilbare) *Atome*.[65]

Damit lässt sich nach Baader die generell unendliche Teilbarkeit der Materie mit ihrer faktischen endlichen Unteilbarkeit (das ist eine Art dynamistischer Atomismus) zusammen denken. Grundsätzlich macht Baader dabei das reduktionistische Schema möglichst vieler Kräfte auf zwei ursprüngliche Kräfte geltend »als eines durchgehenden, durch innere Entgegensetzung in Bewegung gehaltenen dynamischen Prozesses, der nie als ganzer, sondern nur in einzelnen, für sich betrachteten Produkten zur Ruhe, das heißt zu einem latent bewegten, in sich lebendigen, jederzeit durch Irritation in erneute Bewegung sich auflösenden Gleichgewicht kommt«.[66]

Auf diese Weise wird deutlich, warum Baader das Manuskript seiner Ausführungen zuerst Lichtenberg zugeschickt hat, und welch wichtige Rolle die von Lichtenberg rezipierte Delucsche Lehre der expansiblen Flüssigkeiten für die nachkantische bzw. frühromantische Naturphilosophie gespielt hat. Selbst wenn die Spannung zwischen einer mechanischen Physik und einer dynamistischen Konstruktion der Materie als Modell einer

[64] Baader, *Texte zur Naturphilosophie*, S. 16.
[65] Baader, *Texte zur Naturphilosophie*, S. 22, 38-23, 17 (Anm.).
[66] Michael Gerten, »Die Bedeutung Kants und Baaders für die dynamistische Naturphilosophie um 1800«, in: Roswitha Burwick, Heinz Härtl (Hrsg.), *»Frische Jugend, reich an Hoffen.« Der junge Arnim*, Niemeyer, Tübingen 2000, S. 49-84, hier: S. 66.

physischen Dynamik letztendlich sowohl bei Lichtenberg[67] als auch bei Baader unaufgelöst bleibt, wird dadurch ersichtlich, welche Bedeutung den imponderablen Fluida als Grundstoffen, auf welche die Wechselwirkung der zwei Grundkräfte des Kantschen Dynamismus letztlich zurückgeführt wird, zu jener Zeit beigemessen wurde. Es handelt sich dabei um den Versuch, möglichst viele Kräfte auf zwei ursprüngliche Kräfte zu reduzieren, der zu Ende des 18. und zu Anfang des 19. Jahrhunderts Verbreitung fand, und später – zugleich experimentell und spekulativ – die gemeinsame Sprache der Naturforscher und Schriftsteller der deutschen Romantik prägen wird.

Exemplarisch sind hier Baaders anschließend publizierte Beiträge, in denen er die Gesamteinsicht im Sinn einer Wissenschaft des Ganzen – nun aber nicht mehr im Ausgang, sondern gerade in Überwindung von Kant – anstrebt. Hierin wird allerdings nicht mehr die Entwicklungslinie einer dynamistischen Atomistik verfolgt, stattdessen aber der Versuch unternommen, eine »dinamische Konstrukzion des Körpergebildes« aus Grundkräften,[68] die jedoch nun nicht »selber wieder als Körper hipostasirt werden« müssen,[69] zu errichten. Baader hält einerseits an der in den *Ideen* aufgestellten Theorie der Materie als eines ursprünglich vollkommenen Kontinuums fest, andererseits vervollständigt er Kants dynamistische Zwei-Kräfte-Lehre mit einem dritten synthetischen Prinzip im Sinne eines beide Kräfte Vereinenden, damit diese »so gleichsam wider ihren Willen [...] vereint auf einen Punkt hin zu würken und die Erscheinung der Materie hervorzubringen« beginnen.[70]

Baader erkennt also die oben hervorgehobenen Schwierigkeiten des Kantschen polaren Kräftemodells an und räumt damit ein, »dass eine Konstruktion der Materie aus nur zwei entgegengesetzten Kräften deshalb nicht gelingen kann, weil hierin immer schon etwas Drittes vorausgesetzt werden muss, was sie zusammenhält, wodurch der Konflikt beider Kräfte in einem Zusammenspiel realisiert wird«.[71] Er erklärt zugleich auch, dass dieses dritte Prinzip (das er »Schwere« nennt), selbst als »unmittelbare Äusserung des allen einzelnen Körpern, oder für sich beweglichen, *innwohnenden*, sich in jedem derselben individualisirenden [...] Individuums [zu] betrachten

[67] Engelhardt, *Lichtenberg*, S. 154f.
[68] Baader, »Beyträge zur Elementar-Phisiologie« (1797), in: *Texte zur Naturphilosophie*, S. 58, 35.
[69] Ebd. S. 66, 28.
[70] Baader, »Ueber das pythagoräische Quadrat in der Natur« (1798), in: *Texte zur Naturphilosophie*, S. 129, 19-20.
[71] Eckart Förster, *Die 25 Jahre der Philosophie. Eine systematische Rekonstruktion*, Klostermann, Frankfurt a.M. 2011, S. 244.

[ist], was eben darum nicht selber (als Materie) *erscheint*, weil es diesen allen, Bestand, Gehalt und Wahrheit giebt«.[72]

[72] Baader, »Ueber das pythagoräische Quadrat in der Natur«, in: *Texte zur Naturphilosophie*, S. 124, 27-125, 2.

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Schlegel's Philosophy of the Middle

Or Physics and the Transition between Forms

Gabrielle Reid[*]

ABSTRACT

This article considers the role the concept of polarity, derived from physics, plays in Friedrich Schlegel's theory of poetry. It specifically addresses polarity's intervention in the construction of the new mythology, which would unify the disparate poetry of his age. Polarity instantiates the tension between two conceptions of theory more broadly found in Schlegel's thought: theory as immanent in the work or field it theorizes (e.g., the new mythology as poetry about poetry) and theory as cross-disciplinary (e.g., the romantic encyclopedia project). Although polarity enters the discourse on poetry from without, it underlies Schlegel's notion of immanent theory. I argue that polarity functions as a pivot between these two frameworks. While scholarship has considered polarity within the context of the encyclopedia project, this article shows how polarity must be negated if the cross-disciplinary organization of knowledge is to take shape.

Keywords: Friedrich Schlegel, polarity, new mythology, poetry, physics

ZUSAMMENFASSUNG

Dieser Artikel beschäftigt sich mit der Rolle, die Polarität, abgeleitet von der Physik, in Friedrich Schlegels Theorie der Poesie spielt. Er verfolgt dabei die Beantwortung der Frage, inwiefern Polarität an der Herausbildung Schlegels neuer Mythologie mitwirkt, mit welcher der letztere wiederum die disparate Poesie seiner Zeit vereinigen will. Polarität dient als Beispiel für den Konflikt zwischen den zwei Auffassungen von Theorie, die sich im Werk Schlegels finden: 1) Theorie, die dem Werk oder dem Fach immanent ist (z.B. die neue Mythologie als Poesie der Poesie) und 2) Theorie, die fachübergreifend ist (z.B. das romantische Enzyklopädieprojekt). Obwohl die Polarität von außen in den Diskurs über die Poesie eintritt, liegt sie Schlegels Begriff der immanenten Theorie zugrunde. Ich argumentiere, dass Polarität als Drehpunkt zwischen den zwei Theorieverständnissen funktioniert. Obwohl Polarität oft im Rahmen des Enzyklopädieprojekts betrachtet wird, zeigt dieser Artikel auf, wie Polarität verneint werden muss, um Wissensorganisation interdisziplinär werden zu lassen.

Stichwörter: Friedrich Schlegel, Polarität, neue Mythologie, Poesie, Physik

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1. Introduction

In his *Dialogue on Poetry*, Schlegel calls on physics to revive poetry by restoring unity to the divided works of his age.[1] Physics, Schlegel explains, can shed light on poetry's nature and reveal inner connections that otherwise evade our grasp. Why would the author so well known for his immanent notion of theory, which claims that a theory must be derived from within the work or field to which it pertains, turn to physics to further our understanding of poetry? While the passages in the *Dialogue* that mention physics raise more questions than they answer, this paper shows how Schlegel's other works from around the same time, his *Lectures on Transcendental Philosophy* and thematically corresponding fragments, more thoroughly address this issue and make a case for why physics is essential to the practice and study of poetry. Constructing the unifying function of all poetry (what Schlegel calls the new mythology) is an infinite task for poetry alone. He does, however, speak of such unification in another context when he introduces the encyclopedia project—the combination of all knowledge from all fields within a single work, which would forge interrelations across disciplines through a series of thematically mixed fragments. This project culminates in the unification of poetry, but only to the extent that it also unites poetry with all disciplines while preserving the distinctions between the fields.

While the new mythology and the romantic encyclopedia share the unification of poetry as a common goal, the latter is described as imminently possible. To the extent that the text frames itself as a poetic meditation on the nature of poetry, the *Dialogue* is primarily based on an immanent conception of theory, here in the form of poetry about poetry. The trajectory of the *Lectures*, by contrast, is enabled by a cross-discursive conception of theory, both in terms of its goal and the way it gets there; the *Lectures* show how philosophy will culminate in the romantic encyclopedia, an organization of knowledge in which philosophy is only one branch. Despite this general difference, the *Dialogue* includes details that depend on the cross-discursive notion of theory (for example, by relying on physics for the construction of the new mythology), and the *Lectures* still leave room for the immanent notion of theory, both before and after we reach the stage in which the encyclopedia becomes possible. Here, Schlegel begins by developing a philosophy of philosophy from within philosophy before showing the limitations of this method,

[1] I would like to thank Rüdiger Campe, Leif Weatherby, and the anonymous reviewers for their thoughtful comments and suggestions during the revision process. I would also like to thank Jelscha Schmid for helping me with the abstract.

and his notion of the encyclopedia still leaves room for the immanent conception of theory without letting it dominate. This paper draws attention to passages that point to the moment of transition between these two forms of theory. As I will show, physics provides the key to understanding the relationship between immanent and cross-discursive theory and the relationship between the *Dialogue* and the *Lectures*. In particular, the figure of polarity acts as a pivot point between these two frameworks.

Most prominently, polarity serves as an example of and foundation for theory that is immanent to the field it theorizes. The concept of polarity is taken from the vocabulary of physics, more specifically from magnetism. For Schlegel, it refers to a way of dealing with simultaneous yet opposed terms. It brings together the positive, the negative, and their midpoint or synthesis (otherwise called the point of indifference) within a single figure. The polarity of the magnet not only belongs to the content of physics but also functions as a sort of diagram of physics' experimental method, which progresses dialectically through diametrically opposed terms. Polarity thus presents us with a theory of physics but also belongs to the content of the field it theorizes.

Schlegel's various iterations of immanent theory all fall into this polar form, but it has its limitations. As in the case of the new mythology, all thought that progresses through polarities is always caught up in an infinite striving for a theory that can account for the totality of which the specific case is a part. In order to arrive at the infinite whole, the figure of polarity must be neutralized and negated. While Schlegel leaves hints of this idea in the *Dialogue*, it can only be thoroughly explained outside of poetry's domain. Poetry as a totality, as it emerges in the romantic encyclopedia, cannot be reached from within poetry. The negation of the figure of the magnet, which opens up new, non-polar ways of organizing knowledge, can only be reached through an indirect route—through physics' intervention in the development of philosophy.

Physics is essential to poetry both because it already underlies poetic notions through polarity and because it allows poetry to achieve its goal: the unification of all poetry. Physics enables this unification by negating the polarities it produces and thereby opens up the possibility of the interrelation of all arts and sciences in the encyclopedia project. Poetry's goal is thus reached not through poetry alone but through physics and philosophy. Since Schlegel's oeuvre contains fragments of the sort one expects to find in the encyclopedia that is to come, and since Schlegel continually stresses the ubiquity of polar forms, there is a tendency to read polarity into a theory of

the romantic fragment primarily based on Schlegel's texts.[2] This paper argues that the organization of knowledge in a series of fragments is only possible after the negation of polarity. This point of transition entails moving from a linear model to a circular model of philosophy, and ultimately to a conception of philosophy as conic, enabling the transition between these two and many other forms while also opening up the possibility of cross-discursive theorization. In this organization of knowledge, the once polar, immanent conception of theory still remains; when neutralized, however, it no longer dominates.

2. Physics and the New Mythology

In his *Dialogue on Poetry*, Schlegel puts forward the idea that the theory of poetry must itself be poetry, and his own text puts this idea into practice. *Dialogue on Poetry* is a theoretical work of fiction, and as we shall see, the text takes on a poetic practice through which the goals of constructing a new poetry (or new mythology) and constructing a theory of such poetry become one; the new mythology is both an all-encompassing poem and the general theory of poetry. Since the new mythology is presented as the solution to the crisis of poetry in Schlegel's age, and since Schlegel's own text takes steps towards constructing this new poetry through its theoretical reflections on poetry, the assumption that the theory of poetry is itself poetry seems to mark the path towards the missing unity. Nevertheless, Schlegel claims that physics and philosophy must intervene in order to establish the new mythology as an all-encompassing poem.[3]

Schlegel's *Dialogue* consists of four presentations on various aspects of poetry by four different characters. The section titled "Speech on Mythology" most directly addresses the topics raised in the introduction by the narrator of the text: the relationship between contemporary romantic poetry and ancient poetry, and the relationship between individual poems and poetry in general within each period. The narrator sees in ancient poetry what the poetry of his own age lacks—a unifying midpoint not only at which all individual poems and poets converge, but also at which other forms of poetry (e.g., nature) join the poetry of words. Identifying that midpoint as mytho-

[2] See Antje Pfannkuchen and Leif Weatherby, "Writing Polarities: Romanticism and the Dynamic Unity of Poetry and Science," *The Germanic Review* 92, no. 4 (2017): 335-339.

[3] With this turn to physics, Schlegel implicitly joins a broader conversation taking place between some of his contemporaries on the potential use of physics for philosophical and poetic aims. Like Schlegel, other authors such as Goethe, Schelling, and Ritter consider how physics can intervene in philosophy and poetry in order to bypass these disciplines' limitations. This article is part of a larger project that situates Schlegel within this context.

logy, the speech calls for a "new mythology," which would fill the role of the intersection missing from the otherwise disparate and disorderly poetry of the current age.

Mythology, as the unifying function of all poetry, is itself poetry.[4] For the ancients, this unity is realized in "a single, indivisible, and perfect [*vollendetes*] poem" which includes the various specific instances of poetry.[5] For modern poetry, however, the integration of the individuals into a unified whole is an ideal. Not starting from, but rather working towards this unity, romantic poetry is caught in an infinite striving for and construction of its center. On this distinction Schlegel writes:

> The new mythology, in contrast, must be forged from the deepest depths of the spirit; it must be the most artful of all works of art, for it must encompass all the others; a new bed and vessel for the ancient, eternal fountainhead of poetry, and even the infinite poem concealing the seeds of all other poems.[6]

The individual poets must construct the new mythology like a work of art, starting from their own perspectives and reaching towards the infinite whole. One might think that the paths from individual poems to one, infinite poem would lead us through poetry. Parts of Schlegel's text give evidence for this interpretation, both on the level of poetry and the level of the theory of poetry. Schlegel explains how the poet "must strive continually to expand his poetry and his view of poetry, and to approximate the loftiest possibility of it on earth by endeavoring in the most specific way to integrate his part with the entire body of poetry."[7] Here, he describes poetry and views or theories of poetry as all contributing to the construction of the totality of poetry (the new mythology). Schlegel further weaves the two concepts together by asserting that all theory of poetry must itself be poetry. In addition to the eternal extension of their poetry in the direction of the all-encompassing poem, the poet must similarly orient their theoretical understanding of poetry towards the whole. The parallel movements of poetry and its theory here described

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[4] "…mythology and poetry are one and inseparable." Friedrich Schlegel, *Kritische Friedrich-Schlegel-Ausgabe* (hereafter: KFSA), ed. Ernst Behler, Jean Jacques Anstett, and Hans Eichner (Munich: Schöningh, 1958-), vol. II, 313. English translation in: Friedrich Schlegel, *Dialogue on Poetry and Literary Aphorisms*, trans. Ernst Behler and Roman Struc (University Park & London: The Pennsylvania State University Press, 1968), 82. All translations of passages from the *Dialogue* are from Behler and Struc. All other translations are my own.

[5] Ibid. It is in light of this ideal that Lukács describes the Romantics as seeking an all-encompassing order, looking to poetry to provide a "synthesis of unity and universality." Georg Lukács, *Die Seele und die Formen* (Neuwied and Berlin: Luchterhand, 1971), 73.

[6] KFSA II, 312; Behler and Struc, 82.

[7] KFSA II, 286; Behler and Struc, 55.

give way to the view that "…one cannot really speak of poetry except in the language of poetry [*als nur in Poesie*]."[8] Furthermore, Schlegel's text puts forward the idea that to understand poetry, one must engage in poetic production—one must be a poet.[9]

The integration of poetry and its theory supports the idea that the solution to the problem of poetry is to be found in the construction of an infinite poem, which can be approached by extending the reach of poets towards the unifying function of the whole. Schlegel's *Dialogue* participates in this endeavor. Setting the stage for the conversation to follow, the narrator explains the format of the work:

> It is intended to set against one another quite divergent opinions, each of them capable of shedding new light upon the infinite spirit of poetry from an individual standpoint, each of them striving to penetrate from a different angle into the real heart of the matter.[10]

Rather than writing a treatise on poetry, Schlegel cultivates a theory through a poetic and fictive work in which individual characters share their thoughts on poetry. While these viewpoints are themselves limited to one perspective each, common themes and ideas emerge that connect them. Schlegel thus demonstrates his commitment to the view that conversations about poetry should take on the form of collective poetic practice, which aims to construct a point at which all poems and all views on poetry converge. His own text puts this idea into action.

At this point, the reader expects to find poetic meditations on the nature of poetry, and this is mostly what follows. In the second speech, however, we find the following passage:

> If a new mythology can emerge only from the innermost depths of the spirit and develop only from itself, then we find a very significant hint and a noteworthy confirmation of what we are searching for in that great phenomenon of our age, in idealism. Idealism originated in just this way, from nothing as it were, and now it has constituted itself in the spiritual sphere as a firm point from which the creative energy of man can safely expand, developing in all directions, without losing itself or the possibility of return. All disciplines and all arts will be seized by the great revolution. You can see it already at work in physics where idealism erupted of its own before it was touched by the magic wand of philosophy. And

[8] He continues: "Everyone's view of poetry is true and good as far as that view itself is poetry." (KFSA II, 285; Behler and Struc, 54)
[9] "We are able to perceive the music of the universe and to understand the beauty of the poem because a part of the poet, a spark of his creative spirit, lives in us…" (Ibid.)
[10] KFSA II, 286; Behler and Struc, 55.

> this wonderful, great fact can at the same time be a hint for you of the secret correspondence and inner unity of the age.[11]

Despite the text's organization, which is described as participating in the construction of a new mythology through its poetic character, we find here a different path marked. Instead of in poetry, evidence of the new mythology emerges in idealism as it appears in philosophy and in physics. At this point, physics is merely the field in which idealism is first visible. By the end of the *Dialogue*, Schlegel suggests that physics might play a more essential role in realizing the new mythology:

> Only when the mysteries and mythology are rejuvenated by the spirit of physics, will it be possible to write tragedies in which everything is ancient, and which yet would be certain to capture the sense of the age through the meaning. Greater compass and greater variety of external form would be allowed, indeed advisable…[12]

Mythology, or poetry, must be rejuvenated, and it is in physics that this key process takes place. In light of Schlegel's methodological commitment to the idea that we can only speak about poetry in poetry, and that the theory of poetry should take the form of and be thoroughly integrated with poetry, how are we to understand the role of physics in constructing the new mythology? Perhaps counterintuitively, the key to understanding the role of physics in poetry lies in another work, one not of poetry but of philosophy: Schlegel's *Lectures on Transcendental Philosophy*. If we are to seek a solution to the problem of poetry in physics, and the solution to the problem of poetry and physics in philosophy, we must justify this intertextual and interdisciplinary approach. We must account for the possibility of two seemingly contradictory forms of knowledge. In one, poetry must expand to include physics and in the other, the two disciplines must remain separate.

3. Polarities

Before we can account for the way Schlegel's work incorporates two contradictory organizations of knowledge (the immanent and the interdisciplinary conceptions of theory), we must observe the point at which these two frameworks come to a head: the moment when polarity reaches its limits. As we shall see, Schlegel conceives of the immanent conception of theory as thoroughly polar. Modelled on the magnet, the form of immanent theory is

[11] KFSA II, 313-314; Behler and Struc, 82-83.
[12] KFSA II, 350; Behler and Struc, 117.

actually responsible for the crisis of poetry with which Schlegel is concerned. From this perspective, the poet is always striving to reach the midpoint but can at best only indefinitely approach it; there is no outside perspective from which to observe the movements of polarity without taking on these movements. Despite the infinite task of constructing the new mythology from within poetry, Schlegel maintains that achieving this goal is possible. Furthermore, while polarity goes hand in hand with the immanent conception of theory, physics—and not poetry—provides the basis for this form. Since polarity comes from physics, physics is already involved in poetry. Polarity, however, masks the role of the outside field (physics) and appears as the inherent form of the field it theorizes (here, poetry). These observations point to another conception of theory at work beyond polarity's limits in which cross-disciplinary theories become possible. For Schlegel, these limits coincide with the pivotal moment in which we reach philosophy of philosophy.

In his *Dialogue*, Schlegel explains the importance of physics for poetry and its project of finding the new mythology, the midpoint that unites the totality of poetry. As we have seen, physics makes signs of poetry's unity visible. While it is not the only discipline that can shed light on this center, it is the one that can do so most clearly.[13] Physics connects the particular to the whole, and thereby shows the possibility of the individual experiment or poem moving beyond itself to say something about the whole: "Physics cannot conduct an experiment without a hypothesis, and every hypothesis, even the most limited, if systematically thought through, leads to hypotheses of the whole."[14] Physics thus demonstrates an ability to move from the individual to the whole, whereas poetry can only infinitely strive for and approach the whole as its limit. As we have seen, the individual's view of poetry is always restricted. The poet, however, does not accept this limitation. Schlegel writes:

> The mind cannot bear this; no doubt because, without knowing it, it nevertheless does know that no man is merely man, but that at the same time he can and should be genuinely and truly all mankind. Therefore, man, in reaching out time and time again beyond himself to seek and find the complement of his innermost being in the depths of another, is certain to return ever to himself. The play of communicating and

[13] "I preferred physics also for the reason that the connection here is most visible." (KFSA II, 324; Behler and Struc, 90)
[14] Ibid.

> approaching is the business and the force of life; absolute perfection [*Vollendung*] exists only in death.[15]

In this passage, which discusses the attempt at overcoming of the individual's limits through a form of communal striving, various oppositional pairs emerge such as unknowing/knowing, individual/totality, self/other, and life/death.[16] The task of constructing an infinite poem, the seed of all poems, is never complete; however, contrary to the claim that this infinite poem can only be progressively approached and never reached, the *Dialogue* also includes passages that state that the poet *can* find the midpoint. Poets can expand their poetry and views of poetry when they have "found the center point through communication with those who have found theirs from a different side, in a different way. Love needs a responding love [*Gegenliebe*]."[17] The midpoint can be found through the oppositional pair of love and counter-love, through a poet's search for the midpoint that occurs in conjunction with another's. The form of this seemingly paradoxical demand, that the midpoint exists only as a limit yet can be reached as the meeting-point of oppositional terms, is recognizable as the form of the magnet—Schlegel's essential model of experimental physics.[18]

Experimentation generates polarities, and in doing so constructs the common midpoint of two diametrically opposed terms. Physics contributes to poetry's aim by providing the cooperative notions of experimentation and polarity. As we shall see, these ideas from physics correspond to the immanent conception of theory. In his *Lectures on Transcendental Philosophy*, Schlegel calls his method the experimental method, which consists of three parts: the positive element, the negative element, and the combination of the positive and negative (their shared midpoint).[19] The fact that this dialectical

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[15] KFSA II, 286; Behler and Struc, 54.

[16] Bianca Theisen places emphasis on the complex unities that emerge from Schlegel's use of such oppositional pairs. See Bianca Theisen, "χα Absolute Chaos: The Early Romantic Poetics of Complex Form," *Studies in Romanticism* 42, no. 3 (2003): 301-321. John Smith contextualizes Schlegel's notion of the infinite within infinitesimal calculus and shows how it informs his approach to these polarities. Schlegel's "concept of the infinite, which both embraces philosophical dualisms even as he empowers consciousness with the ability to approach their overcoming, owes much of its formulation to debates concerning infinitesimal calculus." John H. Smith, "Friedrich Schlegel's Romantic Calculus," in *The Relevance of Romanticism: Essays on German Romantic Philosophy*, ed. Dalia Nassar (Oxford: Oxford University Press, 2014), 240.

[17] KFSA II, 286; Behler and Struc, 55.

[18] I use "model" here in a sense similar to Jocelyn Holland, when she writes about the lever in Schlegel: "If we think of the lever as a 'model,' then it is one that arrives with a strong sense of its own functionality already embedded within the larger conceptual apparatus." Jocelyn Holland, *The Lever as Instrument of Reason* (New York: Bloomsbury, 2019), 85.

[19] KFSA XII, 33.

method, which he borrows from physics, is figuratively embodied by the magnet becomes clear when he calls the midpoint the point of indifference—the point at which the polarized forces cancel each other out. Abstracting from the actual magnet, Schlegel's thought positions the positive and negative poles as limit-concepts between which the middle oscillates.[20] In the *Lectures*, the poles are also described as the minimum and maximum of this middle term.[21] Belonging to physics while also functioning as a diagram of physics' method, the magnet is the epitome of immanent theory. The magnet belongs to physics, but it also shows how physics operates; it *is* part of physics, but it also is *about* physics.[22] When terms are brought into this constellation, they take on the same self-theorizing structure.

We can see this occur, for example, with idealism. For Schlegel, idealist philosophy has to do with the poles of consciousness and the infinite, and it seeks to unite them in consciousness of the infinite.[23] Idealism, oscillating between the two poles, is a "firm point," which "will not only by analogy of its genesis be an example of the new mythology, but it will indirectly be its very source."[24] Having emerged as if out of nothing, freely out of the depths of the spirit, idealism thematizes the struggle to find the common midpoint while providing that midpoint. Idealism expresses "that mankind struggles with all its power to find its own center."[25] It is the recognition that the essence of spirit consists in the process of infinite oscillation, "to determine

[20] See, for example, *Athenaeum* Fragment 116, which portrays poetry as hovering in the middle between a series of oppositional pairs: object and subject, real and ideal, outwards and inwards. Caught in the structure of polarity, romantic poetry can never be complete. See KFSA II, 182; Behler and Struc, 140-141. On a similar abstraction from the perspective of the lever in Schlegel's thought, see Holland's *The Lever as Instrument of Reason*: "…the logic of the lever allows for abstract concepts to be treated as discrete quantities, and positioned into relationships—without, however, losing their dynamic potential or status as constructions-in-progress." (Holland, 85)

[21] See, for example, the polarity of consciousness and the infinite, between which reality (as their midpoint/point of indifference) oscillates: "Consciousness is thus to be seen as the negative or minimum of reality; the infinite, by contrast, is the positive or maximum of reality." (KFSA XII, 17)

[22] It is here that we see the emergence of the structure that Leif Weatherby attributes to poetry with respect to the organism. "Poetry is not an imitation of the structure of the organism. Rather, it *is* and is about that structure." Leif Weatherby, "Romantic Conceptions of Life," in *The Palgrave Handbook of German Romantic Philosophy*, ed. Elizabeth Millán Brusslan (Cham: Palgrave Macmillan, 2020), 450. According to Weatherby, this structure is related to the Romantic "attention to the blurry boundary between the depicted and the means of depiction," which we can also see at work in Schlegel's use of the figure of the magnet and the experimental method. (ibid)

[23] KFSA XII, 17.

[24] KFSA II, 314-315; Behler and Struc, 82-84.

[25] KFSA II, 314; Behler and Struc, 83.

itself and in perennial alternation to expand and return to itself."[26] The "fixed point" is the search for the fixed point. Idealism therefore participates in the construction of humanity and poetry's common midpoint, but it does so only insofar as it provides a theoretical expression of the struggle to construct such a center. Idealism thus provides an example of immanent theory; it strives to construct the midpoint or synthesis between two poles, and in doing so it thematizes this movement. Idealism furthers the proliferation of the figure of polarity and serves as a theory that explains the oscillation between two poles.

Poetry, as we have seen, is similarly caught up in an eternal striving for the infinite, both as infinite totality and infinite origin. Each poet seeks the common midpoint, both through their poetic creation and their theoretical conception of poetry. It is through this common oscillation between unreachable limit-poles that we arrive at the conclusion that the theory of poetry can only be found in poetry.[27] Schlegel's philosophy similarly hovers between polarities insofar as it progresses through a series of oppositional pairs.[28] This movement also occurs on a larger scale, insofar as Schlegel's philosophy oscillates between systematicity and lack of system.[29] We have noted how the generation of polarities goes hand in hand with the immanent conception of

[26] Ibid.

[27] The claim at the beginning of the *Dialogue*, "…one cannot really speak of poetry except in the language of poetry [als nur in Poesie]," is situated in a passage that highlights the common striving for a limit-pole that poetry and representations of poetry take on. Leading up to the claim about poetry and its theory, Schlegel describes how our poetry is related to an original, wordless poetry of nature: "Just as the core of the earth adorned itself with formulations and growths, just as life sprang forth of itself from the deep and everything was filled with beings merrily multiplying; even so, poetry bursts forth spontaneously from the invisible primordial power of mankind when the warming ray of the divine sun shines on it and fertilizes it. Only through form and color can man recreate his own creation, and thus one cannot really speak of poetry except in the language of poetry." (KFSA II, 285; Behler and Struc, 54) Even the "origin" of life, if such a thing can exist, is always already cloaked in poetry the moment it manifests itself. Any representation of the origin of poetry, wordless or of words, is already part of poetry. There is no outside of this poetry from which we could actually reach the origin.

[28] Jocelyn Holland, situating this character of Schlegel's thought within the broader discourse on the lever, writes: "Schlegel's approach can best be described as the exploratory creation of levers themselves." (Holland, 81) For the most part, the figure of the lever and the figure of the magnet offer Schlegel the same general form: "The fulcrum is a locus of alternation, the point that embodies the interplay of forces on either side. Much like the points of indifference between magnetic poles—which are also privileged in romantic thinking—it serves as a model for negotiating a relationship between opposing concepts, as a figure of dynamic opposition." (Holland, 83-84)

[29] KFSA XVIII, 80. As Weatherby points out, "Although Schlegel insists here that a system cannot help, his repeated use of Spinoza as example suggests that the poetry he intends as philosophical organ will have a good measure of systemic unity." Leif Weatherby, *Transplanting the Metaphysical Organ* (New York: Fordham University Press, 2016), 260.

theory, which positions the midpoint as an unreachable limit of the two poles despite also positing its existence.

The polarity characteristic of Schlegel's thought reappears within scholarship. Schlegel's demand for the simultaneity of contradictory terms has resulted in a split—some have tended to emphasize the aspects of his thought that involve the striving for unity and systematicity, while others have emphasized the prevalence of disorganizing forces in his works.[30] Despite their different conclusions, both strains of interpretation emerge as ways of dealing with the proliferation of polarities, and readers on both sides emphasize the connection between these oppositional structures and the notion of immanent critique. By looking at two exemplary cases, we shall see how both readings bring us to the conception of theory being what it is about, but they nevertheless also tend towards an interdisciplinary understanding of Schlegel's thought, stressing the interrelation of fields. In order to get out of the framework in which, for example, the theory of poetry is found in poetry, we must transition out of the model of polar oppositions—we must move beyond the figure of the magnet and the theoretical framework it offers.

Frederick C. Beiser, exemplary of the reading focusing on the yearning for unity, sees Schlegel's Romanticism as primarily antifoundationalist.[31] According to Beiser, infinite striving for the whole enters Schlegel's thought as a way of dealing with the lack of foundations and complete totalities: "If we both must and cannot have a system, all that remains is the persistent *striving* for one."[32] On this view, the poles are limits that take the place of first principles and complete systems, two ideals that can only be infinitely approached.[33] Beiser takes Schlegel's notion of *characteristic*, or immanent critique, as a specific case of his antifoundationalism. Immanent critique compares each work not to some universal standards of beauty but instead to the work's own ideal, which for romantic poetry is always the ideal of

[30] See, for example, Beiser, Frank, and Lukács for the emphasis on striving for unity, and Trop, Weatherby, and Chaouli for arguments that emphasize the undoing of such organizing tendences (but not without drawing attention to the reorganization, the emergence of new forms, that follows).

[31] Frederick C. Beiser, *The Romantic Imperative* (Cambridge MA: Harvard University Press, 2003). Beiser identifies Schlegel's antifoundationalist turn with his break from Fichte. On this, he writes, "The only dimension of Fichte's philosophy that Schlegel wants to maintain are the doctrines that the ego consists in activity, and more specifically the activity of infinite striving. It is with striving, he insists, that philosophy should begin and end… Schlegel reads Fichte's first principle 'The ego posits itself absolutely' as an imperative: 'The ego *ought* to be absolute.'" (Beiser, 123)

[32] Beiser, 126.

[33] "The infinite longing and striving of the romantic aesthetic seemed entirely appropriate to an antifoundationalist epistemological doctrine that stressed the purely regulative state of first principles and complete systems." (Beiser, 108)

attaining the infinite whole. In Beiser's words, "This would mean trying to understand how all the features of romantic poetry—its mixture of genres, its lack of constraint, its use of irony, its longing and striving—derived from its central aspiration: the desire for the infinite."[34] Beiser points to the common orientation of poetry and the theory of poetry, here "immanent critique," that we observed in Schlegel's *Dialogue*. As we have seen, poetry and its theory both participate in the task of finding a common midpoint. This parallel striving for an infinite ideal is foregrounded in Beiser's account. On this reading, Schlegel's characteristic positions the work in relation to its own ideal, but romantic poetry positions *itself* in relation to its infinite ideal. Immanent critique is immanent to Romanticism's own central movement; it is, in a sense, romantic poetry.

We have seen in the cases of idealist philosophy and poetry two examples of self-theorization. In both instances, we end up with different iterations of the striving for poles and oscillation between them. The movement of oscillation and striving serves as a theory of poetry and idealism, but this movement is also produced by (and is even identical with) idealism and poetry. While Beiser considers these movements as fundamentally oriented towards and striving for unity in the infinite ideal, Gabriel Trop considers the ways in which these stabilizing gestures are always accompanied with ones of destabilization. Building on the type of reading put forward by Beiser, Trop focuses on a higher-order movement from which the oscillation between poles that pervades romantic conceptions of every discipline stems.[35] All the particular polarities that arise are symptoms of the polarizing movement of the absolute. On this reading, "the *form* of Schlegel's discourse thus has a revelatory function that organizes itself along the pulsations of a higher-order Absolute of force, a movement modeled on the structure of the magnet."[36] This absolute is the process of structuring polarities; it is the enactment of the experimental method as it occurs within scientific (in the broad sense of *Wissenschaft*) and artistic practices.

For Trop, the absolute is not the ideal of unity to be infinitely approached. Instead, the act of striving for the absolute or infinite, which for Beiser was the stabilizing way of dealing with the unsettling nature of the polar demand for the simultaneity of opposites, is accompanied by its

[34] Beiser, 128.
[35] "The most fundamental romantic patterns of representation operate within a cosmos of forces and polarities that cut across discursive fields, moving not only through magnetism, chemistry, medicine, and so forth, but also through poetry and philosophy, indeed interpenetrating *every field*." Gabriel Trop, "Arts of Unconditioning: On Romantic Science and Poetry," in *The Palgrave Handbook of German Romantic Philosophy*, 426.
[36] Ibid.

destabilizing counter-pole. In light of this realization, "The unconditioned or Absolute is not the holistic dream of totalizing mythology aiming to unite all of humankind and usher in a new golden age, but becomes a drive toward the production of difference, catapulting individuals out of their most entrenched investments and positions."[37] As the absolute moves in accordance with the structure of the magnet, producing polarities across discursive fields, it operates along an overarching polarity: that of the opposed processes of conditioning (or stabilizing) and unconditioning (or destabilizing). Attempting to theorize the absolute thereby participates in the ongoing proliferation of the structure of the magnet, generating further polarities through which the absolute continues to move. According to Trop, however, the magnet does not lend its form to the absolute's movement; instead, the absolute has priority, and the magnet of physics is a medium for this movement from which it derives its structure. Since the magnet's polar form comes from the immanent movements of the absolute, the force of the absolute that underlies that figure is the same as the one that structures other discourses into this "magnetic" form.

The magnet is a clear representation of the absolute's movement, but for Trop, the physics to which it belongs does not have some privileged status over the other disciplines. From this point of view, there is a limit to the sense in which philosophy, science, and criticism can be "about" their subject matters. Poetry, for example, "is an operation rather than a genre," and romantic literature such as the fragments "attempt to continually generate new relations that themselves *are* the movements of the Absolute."[38] The theory of poetry is found in the structure of the magnet, but the magnetic form is itself generated by poetry. The theory of poetry is immanent to poetry. It is the form which the operation *poetry* takes. Similarly, philosophy is first and foremost a medium in which the absolute as dynamic oscillation thematizes itself: "Philosophy itself, then, is less a meta-discourse that governs all the others than itself a medium of the Absolute of force: a thematization of the unconditioned as the production of a dynamic oscillation."[39] Philosophy and criticism are not just "about" the absolute; they facilitate the movements of the absolute and further its polarity-generating operations.

The figure of the magnet pulls everything into itself. For Beiser and for Trop, there is no outside perspective beyond its limits. Therefore, while philosophy can theorize the absolute, it cannot be a general meta-discourse

[37] Trop, 425-426.
[38] Trop, 425 and 427.
[39] Trop, 426.

of various fields because it is limited in its capacity to be "about" things external to its domain. Not only philosophy but "no discourse can claim a privileged status."[40] Philosophy cannot obtain some perspective outside the world it seeks to describe, and therefore "cannot function as a framework that explains *why* the sciences, the arts, and the whole world must be romanticized, but rather, is itself also part of the world that must be romanticized."[41] When romantic critics work to further a discipline that traditionally seeks to understand the world, they are not merely producing knowledge about the world, but knowledge that is part of the world. It acts in the world through its role in the movements of the absolute of force.[42] Given these restrictions on theory, there is a limited way in which we can understand the romantic formulations about the theory of the novel that is itself a novel, the theory of poetry that is itself poetry, and the theory of philosophy that is itself philosophy ("philosophy of philosophy"). Because theory can only operate on the same plane as that which it theorizes—the theory becomes part of the domain it seeks to explain—any theory of poetry will become poetry, and any theory of philosophy will become philosophy.[43] While Beiser explains these formulations as the result of the common act of infinite striving shared by, for example, poetry and criticism, Trop explains them in terms of the disciplines' and genres' common role as media of the movements of the absolute. For Trop, any type of science or theory is ultimately engaged in the same unconditioning and reconditioning as poetry, the arts, or anything that is part of the world.

In this context, "philosophy of philosophy" gets pulled into the magnet's structure as well. For Beiser, "philosophy of philosophy" would be

[40] Trop, 429.
[41] Ibid.
[42] "The romantic critic would see his or her own act as something that would facilitate the unconditioning and reconditioning of the real." (Ibid.)
[43] Maurice Blanchot points to this aspect of romantic literature when he writes, "literature (understood as the totality of forms of expression, including forces of dissolution as well) suddenly becomes conscious of itself, manifests itself and in this manifestation has no other task nor trait than to declare itself… The poet becomes the future of man at the moment when, being nothing but one who knows himself to be a poet, he designates (in this knowledge for which he is intimately responsible) the place where poetry will no longer be content to produce beautiful, well-defined works, but will produce itself in a movement without termination or determination. In other words, literature encounters its most dangerous meaning—which is to interrogate itself in a declarative mode: at times triumphantly in the discovery that everything thereby belongs to it, at others in the distress at discovering that it lacks everything, for it only affirms itself by default." Here we see literature oscillating between triumph and distress, between including everything and yet only itself. Maurice Blanchot, Deborah Esch and Ian Balfour, "The Athenaeum," *Studies in Romanticism* 22, no. 2 (1983): 166-167.

a metacritical philosophy. Since "criticism must be integrated with the process of enquiry and cannot stand apart from it," philosophy must engage with questions about what it means to be philosophy; it must be philosophy about philosophy, or critique of critique.[44] Trop diverges from Beiser on this point as well when he writes, "Schlegel's ultimate formulation of a 'philosophy of philosophy' is not a simple ironic infinite self-reflection or mise-en-abîme, but the folding of philosophical discourse into a self-perpetuating oscillation between opposing forces."[45] Any attempts to explain philosophy themselves participate in the furthering of the dynamic oscillation that structures polarities, and therefore also become philosophy. On this reading, "philosophy of philosophy" signals the common forces of the absolute that permeate every field and sensuous reality, in which they structure polarities into the figure of the magnet and perpetuate the processes of stabilization and destabilization.

Beiser and Trop in their own ways thus read "philosophy of philosophy" along the lines of theory that is what it is about, but for Schlegel, the moment in which we move from "philosophy" to "philosophy of philosophy" involves discontinuity and reconfiguration. In the following section, we shall see how this move is spelled out in the *Lectures*, but it is hinted at in the *Dialogue* as well. As we will learn from the *Lectures*, the move from philosophy to philosophy of philosophy involves a shift from idealism oriented towards the infinite to an infinite realism. We have already seen how, in the search for the new mythology, idealism becomes its origin. It does so, however, indirectly. It too must be rejuvenated once it realizes that it only has a fragmentary view of the whole; it is "only a part, a branch, a mode of expression" of the striving to find the midpoint.[46] Idealism becomes an indirect origin of the new mythology only when it becomes infinite realism.[47] According to the *Dialogue*, this realism cannot be expressed in philosophy but only in poetry.[48] We are thus led to a further polarity, that of the ideal and the real, since poetry will retain the idealistic origin of this infinite realism and will be based on the harmony of the two. Despite this replication of the magnetic figure, this moment breaks from the theoretical framework furthered by this structure. The philosophy of philosophy is not philosophy, but poetry.

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[44] Beiser, 124.
[45] Trop, 427.
[46] KFSA II, 314; Behler and Struc, 83.
[47] "Therefore, there must and will arise from the matrix of idealism a new and equally infinite realism." (KFSA II, 315; Behler and Struc, 83)
[48] KFSA II, 314.

What ends up being philosophy of philosophy is what Schlegel excludes from the range of philosophy's representational capacities. Poetry, as the philosophy of philosophy, is not a broadened conception of poetry that includes everything but is rather one in which poetry can achieve what another discipline (namely philosophy) cannot.[49] Philosophy of philosophy thereby hinges on the two models: that in which the theory is what it is about and that in which disciplines can theorize each other. Without considering philosophy of philosophy as the limit of polarity, we leave unexplained the fact that physics provides the basis for the figure that confines its own field and others to self-theorization. Foregrounding polarity without recognizing its limits also reduces the cross-disciplinarity of the encyclopedia to the absorption of all fields into poetry, without allowing true distinction between them.

4. The Line, the Circle, and the Transition between Forms

We have thus far observed the experimental method of philosophy modelled on the magnet and the implications it has for theory, which in this framework must be what it is about. The magnet pulls everything into it, and therefore forecloses any perspective outside its discursive field from which to theorize what belongs to that field. Despite the prevalence of this figure and the experimental method for which it functions as a model, Schlegel's work also contains many puzzling passages that seem to contradict polarity's theoretical implications. To understand how we can move from the claim that theory should be what it is about to the possibility of cross-disciplinary theorization, we must look closer at the moment in which the latter becomes possible: the moment when philosophy becomes philosophy of philosophy, which coincides with the moment when we move from idealism to an infinite realism. Attention to the pivot point between the two forms of knowledge-organization reveals that this transition is made possible through the negation of the figure of the magnet. With the cross-disciplinarity that enables the encyclopedia project, Schlegel moves beyond the polarities associated with his work. The negation of the figure of the magnet ultimately occurs at the culmination of its own form. Before we turn to the emergence of philosophy of philosophy at this point, we must observe how there is already tension within Schlegel's

[49] Weatherby comments on the distinction maintained between the disciplines: "The *Dialogue* does not analogize poetry to science but instead seeks to unite them by a precise analysis of their differing forms of semiotic production." Leif Weatherby, "A Reconsideration of the Romantic Fragment," *The Germanic Review* 92, no. 4 (2017): 411. On my reading, this is made possible primarily through the movement into an encyclopedic organization of knowledge.

polar model of theory. This tension is thematized and worked out in the figures of the line and the circle. The language surrounding Schlegel's polarities point to the figure of the linear bar magnet, whose point of indifference is the two opposite poles' shared midpoint and therefore lies between them. The use of the word "diametrical" in reference to the positive and negative poles further supports this reading.[50] When Schlegel first introduces philosophy as dealing with the poles of the infinite and consciousness, the infinite is the positive, consciousness the negative, and together they are "the two poles around which all philosophy turns."[51] This description invokes the linear figure of the axis of rotation. Even when Schlegel gives up the more concrete aspects of this figure of thought and considers, for example, the poles as unreachable limits from the perspective of some middle domain that only loosely maps onto the notion of the point or zone of indifference, he still maintains the associated vocabulary and its general structure.

Philosophy, as a knowing of knowing, repeats the form, associated with the magnet, of a theory that is what it is about. Nevertheless, Schlegel describes philosophy using the figure of the circle: "The idea of philosophy can only be reached through an infinite progression of systems. Its form is a cycle [*Kreislauf*]."[52] The circle that arises, however, is not one whose center is the point of indifference, and whose diameter reaches through both poles to their limits on the circumference. While Schlegel for the most part depicts the circle as an ideal, when he does describe its completed form, he does so in a way that does away with the original linear configuration entirely. The linear figure of the magnet is negated, even though the language associated with the magnet remains. The magnetic terms of positive/negative poles and point of indifference are reconfigured in the circle whose periphery is philosophy. Schlegel writes:

> If someone wants to know how a circle can be described by two opposed elements, they could think of it like this: the center of the circle is the positive

[50] KFSA XVIII, 419.
[51] KFSA XII, 5.
[52] KFSA XII, 10. In his notes, Schlegel further contrasts the linear, self-explanatory model and the circular, cross-discursive model: "Philosophy must therefore begin in the middle, like the epic poem, and it is impossible to recite it in such a way and to add to it piece by piece, as if the first piece were fully established and explained. It is a whole, and the path to recognizing this is therefore no straight line but a circle. The whole of basic science must be derived from two ideas, propositions, concepts, intuition without all other material." (KFSA XVIII, 518) Starting from the middle, one must begin with two elements (which together form a line), but we must traverse the circular path in order to reach philosophy as a whole. Manfred Frank reads this moment as the realization of a higher unity, which "turns the infinite into an allness" ["die Unendlichkeit in Allheit umwendet"]. See Manfred Frank, *Einführung in die frühromantische Ästhetik* (Frankfurt am Main: Suhrkamp, 1989), 290.

> factor, the radius the negative and the point on the periphery the point of indifference. Now the positive factor in the point of indifference strives to unite itself with the positive factor in the center; but the force of the negative factor cannot approach the center, and instead gets pulled around the center.[53]

In the circle described, the two poles still create a straight line. We learn, however, that this line is the negative factor (the radius), which stretches from the positive factor (the center of the circle) to the periphery (the point of indifference). The forces at work in the magnet, the attraction of unlike and repulsion of like forces, do not direct the circular movement of philosophy. Instead, it is the attraction of like and repulsion of opposite forces that drives the rotation that generates philosophy's circle. In light of this reconfiguration, Schlegel writes that the method of idealism and of philosophy is experimentation, but experimentation whose direction is centripetal or centrifugal, directed towards or away from the center.[54] While Schlegel first claims idealism deals with the poles (consciousness and the infinite), once the circle is complete, it instead deals with the midpoint (the point of indifference), which here is the periphery. Despite this passage and the tension between the line and the circle that it implies, Schlegel goes on to rely on both the circular form of philosophy and the more linear structure of the magnet.[55]

The magnetic and circular forms of philosophy are not merely two different parts of the same configuration, but rather stand in tension with one another. As we have seen, the magnetic model foregrounds the aspect of theory that is what it is about. Schlegel speaks of the circular model of philosophy as still to come; however, while he acknowledges that the circle is of yet not closed, he describes in detail what the completion of this form would entail. The moment in which the circle is closed is also when idealism (or philosophy) ends and infinite realism (or philosophy of philosophy) begins. With philosophy of philosophy we arrive at a cross-disciplinary organization of knowledge, and we can then observe how the circle is associated with interdisciplinarity in its highest form—with the encyclopedia project.[56] Just

[53] KFSA XII, 10.
[54] KFSA XII, 21.
[55] Beiser points to the circular form of Schlegel's philosophy when he writes: "The proper form of a system is not *linear*… but *circular*, where we begin from any proposition and return to it because all propositions are interconnected." (Beiser, 125) For Beiser, however, the circular system is only an ideal, which Schlegel's work would not claim to achieve but merely approximate (Beiser, 126). As we shall see, Schlegel does close this circle, but in doing so transitions beyond it.
[56] Early on in the lectures, he calls this period in which the circle is completed the epoch of the understanding. It is here where we can finally see the whole world. He writes, "Only with the epoch of understanding is the circle closed; this is thus the highest epoch." (KFSA XII, 13)

as idealism realizes that it is only a part of the whole in its transformation into infinite realism, the return of philosophy to itself (as the closing of the circle and the shift into philosophy of philosophy) involves the same step. Philosophy of philosophy concerns "the interconnection of all arts and sciences" and thus has the task of constructing the organism of their unification.[57] In this moment, when the circle is closed and philosophy achieves its unity, philosophy as the knowing of knowing becomes a part of knowing, a part of the infinite whole.[58] Once the encyclopedic organization of knowledge is made possible, what was thought to be the whole, or the complete theory of a field, is revealed as itself part of a larger whole. A field can no longer account for itself without considering its relation to other disciplines.

The magnetic and circular models are not merely two different figures that point to and describe the encyclopedic collection of fragments.[59] Although they can ultimately both be found within the romantic encyclopedia, they are two figures in tension. The engagement with this tension and the emergence of a model that can account for the transition between the two is an essential component of Schlegel's thought. In order to make sense of the two models together, we require a point of transition from the understanding of romantic poetry as progressive to an understanding of the fragments that resists the "redemptive" reading.[60]

The circle seems to promise what the figure of the line could not—philosophy could ultimately be taken as a whole instead of merely approa-

[57] KFSA XII, 91 and 94.

[58] "Here philosophy will be only a part of the whole." (KFSA XII, 94)

[59] Chaouli picks up on this tension, framing it in terms of the "synthesis of all branches of science and art," which counterintuitively "expresses these ideas in the stubbornly non-synthetic form of fragments." Michel Chaouli, *The Laboratory of Poetry* (Baltimore: The Johns Hopkins University Press, 2002), 4. He argues for a new understanding of synthesis that is informed by chemistry that would describe "the process of experimentation in which some forms emerge and others decay, in which some outcomes are predictable and others are not" (ibid). On his reading, this notion of synthesis and experimentation gives us the reciprocal necessity of opposite terms (such as synthesis which is always accompanied by analysis and vice versa). While I agree with Chaouli's view as it applies to the encyclopedia project, I argue that the type of reading he is working against (which views poetry as "the activity of enlivening all facets of a productive life with the same (organic) meaning," or as drawing everything into its poetic grasp) is not necessarily misguided, but rather picks up on the role of poetry in the pre-encyclopedic organization of knowledge (ibid). Chaouli himself makes room for aspects of this reading (which foregrounds the organic or dialectical) within his own, while emphasizing the simultaneity of narrative sense and senseless interruption. Both of these views exist in the encyclopedia, and we must account for the simultaneous possibility of the two and the transition between their forms.

[60] Chaouli argues that we must make space for "a process of reading that tolerates, indeed encourages, the emergence of transient configurations of thought among the fragments and essays that cannot be folded into a redemptive narrative, toward which the fragments have so often been understood to strive." (Chaouli, 5)

ching the whole by striving towards the limit poles of consciousness and the infinite. Approached directly, however, attempts to close the circle are also caught in an infinite process; it requires an "infinite progression of systems."[61] The circle, and with it the encyclopedic organization of knowledge, is merely an ideal from the perspective internal to idealism. How, then, does Schlegel maintain that the circle can ultimately be closed? Schlegel first shows the limitations of the direct approach before proposing an alternate method. Idealism theoretically culminates in the identity of its poles, which would destroy the figure of the magnet by eliminating its grounding polar force. Doing so, however, would entail an infinite task. Instead, we must take an indirect approach; we must linger in the finite in order to move beyond it, shifting our attention away from infinite aims and instead focusing on reality and its science: physics.

The details of this indirect path, and the solution to the tension between the magnetic and circular models, are worked out in Schlegel's particular use of physics. While philosophy generally deals with the poles of the infinite and consciousness, physics is the science of the middle domain: reality. Schlegel claims that his own philosophy is more akin to physics insofar as it is the philosophy of the middle and primarily deals with reality. Schlegel's philosophy is, like physics, concerned with the finite, but in a way that allows us to move through the finite, negating it and reaching a sort of apotheosis in the infinite. When philosophy and poetry try to present the infinite directly, they fall short and are caught in an infinite process of striving. This type of theorization of a medium from within that medium can only ever indirectly (symbolically, allegorically, or otherwise) present its limits—both its self-generating origin and its relation to the infinite totality of poetry. With the new mythology, however, "What usually escapes our consciousness can here be perceived."[62] To construct the new mythology and reach a conception of philosophy as an infinite whole, we must take an indirect route: "*The appearance of the finite should be destroyed*; and in order to do that, *all knowledge must be put in a revolutionary state*."[63] Instead of constructing the infinite, we must negate the finite and thereby allow the infinite to arise.

Despite lending philosophy its experimental form of the magnet (through which we get the structure of polarities that can only be approached from the domain between them), physics paradoxically also has a tendency to step beyond itself. Schlegel, noting this, writes that physics, "without knowing it gets into cosmogony, astrology, theosophy, or whatever you wish

[61] KFSA XII, 10.
[62] KFSA II, 318; Behler and Struc, 85.
[63] KFSA XII, 11.

to call it, in short, into a mystic discipline of the whole."[64] Physics thus not only connects the particular to the general through the relationship between the individual experiment and the hypothesis about the whole, but also connects itself to other sciences that are concerned with a more general whole beyond its scope. Physics mediates between the domain of self-theorization and the domain of cross-discursive theorization, and as we shall see, it does so through its ability to negate itself as representation of the finite. It is this negation of the figure of the magnet that coincides with the closing of philosophy's circle and with the resulting turn to philosophy of philosophy, or to an infinite realism. Once the circle of philosophy is closed and the figure of the magnet is negated, separate disciplines gain the capacity to join together in a collective, encyclopedic form of knowledge.

Schlegel positions this collapse of the structure of the magnet at the point at which philosophy reaches its ideal and becomes a circle. As we have seen, philosophy strives to become circular, an infinite progression of systems with varying circumferences. The unattainability of this form seems to foreclose any standpoint beyond the limits of philosophy. We can only theorize philosophy from within its field. According to Schlegel, if we could reach the limits of philosophy directly, we would do so by arriving at what he calls the last and highest truth of idealism—the identity of opposite poles through which "the positive and negative are one."[65] This identity would entail the collapse of the figure of the magnet, since there is no polarity without opposing forces. Instead of the linear magnet, philosophy would reach its circular form. Schlegel's way out of these limits is thus through a process of reconfiguration. The ideal limit case has the capacity to undo, or "uncondition," the form of the systems that strive for it.[66] Once philosophy becomes a circle and reaches its ideal, we reach the necessary turning point in which the magnet is neutralized.

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[64] KFSA II, 324-325; Behler and Struc, 90.

[65] KFSA XII, 27.

[66] Trop similarly highlights the dissolution of the magnet model in Novalis' thought. He cites the fragment, "Science does not begin with an antinomy—binomy—but with an infinitinomy." Novalis, *Notes for a Romantic Encyclopaedia: Das allgemeine Brouillon*, trans. David W. Wood (Albany NY: State University of New York Press, 2007), 153. On this fragment, Trop writes, "The 'infinite' in this instance *unconditions* the very structure of a polarity and opens a thinking of the proliferation of laws as the infinite multiplication of sheer difference rather than oppositionality" (Trop, 433). It is of note, however, that the fragment that turns away from the model of polar opposition is part of the encyclopedia project. While Trop might see this move from the binomy to the infinitinomy as reaffirming the underlying polar movement of the absolute that accompanies any stabilizing process with that of destabilization, the encyclopedia project to which this fragment belongs is only possible after the negation of the magnetic form.

Despite being apparently out of reach, the upshot of philosophy achieving its ideal is that the goal of the new mythology is realized: philosophy's final stage ushers in the unifying function otherwise missing from Schlegel's age. With the identity of the positive and negative poles and the neutralization that it entails comes the realization that "all separation is relative, is illusion; *they must coalesce, they must complete their interconnection*."[67] The missing connection is revealed once philosophy is complete and all dichotomies become identities. On this, Schlegel says, "True philosophy is the last philosophy, in which diametric opposition can no longer be philosophy."[68] Once we reach the final stage of philosophy, polarity is no longer part of this field. If all separation is illusion, the magnet structure of philosophy falls away in its final stage. The circle, however, is dependent on the magnetic line and also collapses in the process of neutralization. Schlegel does provide an alternate means of neutralizing the magnet that takes advantage of physics' natural ability to both mediate between the parts and the whole within its own field and pursue connections to disciplines beyond its own domain. This other, indirect path leads us to the negation of the magnet without having to reach the identity of poles. Closer attention to the immanent conception of theory shows how its own movements cause the collapse of its grounding figure. The negation of the magnet occurs because of its own magnetic structure.

The final stage of philosophy in which all propositions are identical is only an ideal, but we can instead reach the same result through the middle.[69] In order to see how all separation is relative without asserting the identity of each and every proposition, we need only turn our attention to the form of polarity. In the case of idealism, aimed at the identity of consciousness and the infinite, the middle domain—reality—is determined in relation to the two poles between which it oscillates. This middle domain, the domain with which physics and Schlegel's philosophy are concerned, is not only the domain of reality, but also of truth and knowledge.[70] Truth, like reality, is the product of conflicting poles and is relative. If truth is the point of indifference between two error-poles, then it is not absolute. It is not something outside of reality that reality can only approach, but rather arises within reality as we fight against error at reality's limits.[71] Viewed in this way, truth is something we produce, but not directly. Schlegel writes: "Truth emerges when opposing

[67] KFSA XII, 27.
[68] KFSA XVIII, 419.
[69] KFSA XII, 28.
[70] KFSA XII, 9.
[71] This lack of absolute truth gives freedom to thought and spirit. See KFSA XII, 92.

errors neutralize each other… If we negate error, truth emerges from itself."[72] This process of neutralization through which the poles are negated occurs during the same process that propagates the magnet form—through experimentation.[73] In order to bring about the collapse of the magnetic form, we merely need to acknowledge the role the poles play in determining the middle term. The very operation that produces polarities also draws our attention to the magnetic structure of the resulting dichotomies. Upon noticing this structure, we reveal the relative nature of the middle term. Experimentation thus leads to the negation of the figure of experimentation, Schlegel's primary figure of thought. In the case of truth, the polar structure that determines it reveals that truth is not absolute. Without a notion of absolute truth, we must give up our conception of error, for what was once considered error can no longer be meaningfully separated from the truth.[74]

The absence of error does not mean that what occupies the position of a pole is disregarded on the way to truth, but rather that this element is swept up in the reconfiguration.[75] Of the infinite, he says: "Yes, it is fiction… but the error disappears by itself when we proceed from ourselves as the midpoint and come back to ourselves again. How can one err? It can't be an illusion."[76] If there is no absolute truth, there are no errors and no poles. What was a pole and possibly an error, such as the infinite, is no longer opposed to truth. Schlegel's revolution rests on the realization that truth is itself infinite, and so is philosophy and knowledge. The negation of the finite comes from going through the finite, from beginning and ending with ourselves as the midpoint. The neutralization of the poles is a collapse of the magnet figure, the collapse of the framework through which we can only ever approach the origin and the totality as the limit points. No direct path can lead to consciousness of the infinite. Instead, we must go through the middle, we must turn our attention away from the absolute in order to discover it elsewhere. It is in this sense that the new mythology is an *indirect* mythology.[77] Beyond the magnet structure, Schlegel gives up the goal of identity of the positive and negative,

[72] KFSA XII, 93.
[73] "Each series of experiments based on something real leads to the truth." (Ibid.)
[74] KFSA XII, 95.
[75] Trop writes that "contrary forces… cancel one another but nevertheless remain present as structuring polarities. Truth becomes a higher-order movement *through errors*, and the relativity of truth involves the way in which these 'relations' both exist as differences and cancel one another out when one moves from one polar opposition to the next" (Trop, 427). Truth does not merely emerge as a movement within the magnet-structure but requires a reconfiguration that undoes this structure entirely.
[76] KFSA XII, 9.
[77] KFSA II, 319.

and instead goes about approaching philosophy through its interconnections.

Philosophy of philosophy is thus a turning point, and one that allows us to go through the magnet structure and through the circle, to a new configuration in which philosophy can account for both. Once we see the dissolution of the magnet, we reach a conception of philosophy that is not merely linear nor merely circular. The forces of physics retreat, and new figures emerge with the possibility of interdisciplinarity. Once physics can theorize poetry and philosophy from the outside, it gives up its priority as a dominant discourse. Philosophy of philosophy must account for the transition between forms, and it does so through mathematics. In this spirit, Schlegel writes: "The path of modern poetry and philosophy is not by any means cyclical, but instead more conic."[78] Philosophy is conic insofar as it concerns the middle, beginning not with basic elements but with complex objects. When we start with the cone, the Euclidean building blocks, the point and the line, are themselves derived as conic sections, emerging from the intersection of the cone with the plane. Using this method, we can also obtain the circle, ellipse, hyperbola, and parabola. Through their construction, we observe the transition and interconnection between these forms. For Schlegel, the cone is associated with apotheosis, which entails reaching the absolute and the infinite.[79] To be conic means to stretch from the point to the infinite, but from the perspective of the middle realm in which Schlegel's philosophy begins. The cone thus represents, for Schlegel, the possibility of finding the infinite in the finite.[80] We therefore achieve consciousness of the infinite, but not by a merely linear nor merely circular path.

In light of these considerations, the polarities invoked in the opening of the *Dialogue* obtain a new meaning. We recall, "The play of communicating and approaching is the business and the force of life; absolute perfection [*Vollendung*] exists only in death." The absolute completion mentioned there is not that of some infinite convergence; instead, the completion of life takes place in the negation of life, which entails a "leap into the opposite," a leap into death.[81] What first appeared as another oppositional pair—as furthering the structuring of polarities—is revealed as participating in the negation of the oppositional form. A different formulation of this thought appears in the

[78] KFSA XVIII, 233.
[79] See, for example, KFSA XVIII, 234, fragment 492.
[80] Smith considers this point with reference to calculus: Schlegel as "*the* romantic thinker of the infinite," for whom "the infinite has entered into, or is always already within, the finite just as calculus employs differentials, infinitesimals, and their infinite integration in order to explore the world of constant change." (Smith, 247)
[81] KFSA XII, 417.

lectures: "*True life is only in death.* Namely death is what emerges when life neutralizes itself, when it negates the opposition. Vulgar life (in the opposition) is thus not true life; the former must be negated if the latter is to emerge."[82] The configuration described here, that the "neutralization" of life involves the negation of the opposition intrinsic to the magnet structure, is revealed as a specific case in the general disintegration of this form.

When Schlegel's figure of experimentation is negated through experimentation, the dissolution of the magnet marks the extreme culmination of a theory that is what it is about. At the limits of this notion of theory, a reconfiguration takes place through which the old model is absorbed and included in a broader model—the encyclopedia project. Since the figure of the magnet disintegrates in the moment in which the encyclopedia project comes to fruition, the fragment is not so much engaged in producing polarities as in producing other forms of relation.[83] Just as the cone includes the line and the circle, the encyclopedia project includes the insights generated from the magnet-driven inquiry into the nature of knowledge and poetry.[84] When neutralized, the magnet no longer draws all discourses into its form. Instead, the configuration at work in structuring polarities still appears in the reconfigured project, but it no longer dominates. The post-magnetic realm of the fragments can therefore include the theory of the poem that is a poem, but it also opens up the possibility of the theory of the poem being found in physics, in math, and beyond.

[82] KFSA XII, 40.

[83] The fragment can still relate the "foundational binaries of representing the world—science and aesthetics—to one another through contradiction," but the fragments of the encyclopedia project would also offer other forms of relation not dependent on polarities. (Weatherby, "A Reconsideration of the Romantic Fragment," 408)

[84] This point is similar to the one Holland makes: "Once constructed, the lever effects continue to operate beneath the surface of the encyclopedia project, even when the lever or its component parts are not directly mentioned." (Holland, 86)

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The 'Sound Figures' and *Naturphilosophie* in A.W. Schlegel's Lectures on Art History and Aesthetics

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ABSTRACT

In his 1798 Jena lectures on art history and aesthetics, A. W. Schlegel declares that beauty objectively exists. But it is not enough simply to affirm this fact; Schlegel must draw out its implications. This means changing one's stance towards natural science. Rather than passively reacting to scientific prescriptions, Schlegel will insist that science accommodate beauty. And this requires neither the abolition of science nor its aestheticization. Schlegel will instead reinterpret science such that beauty's existence becomes possible. To reconstruct Schlegel's provocative intervention, I highlight a specific example from his lectures. The 'sound figures' were an acoustical phenomenon discovered by Ernst Chladni in 1787. For the Jena circle, this phenomenon harboured the possibility that sound was irreducible to mechanical physics and moreover contained traces of magnetism: the dynamic force upon which the Romantics' new vision of nature was constructed. Schlegel will utilise the sound figures to imagine "tone" as objectively existing.

Keywords: Sound figures, music, Jena Romanticism, nature, science

RÉSUMÉ

Dans ses leçons sur l'histoire de l'art et l'esthétique professées à Iéna en 1798, A. W. Schlegel déclare que la beauté existe objectivement. Mais il ne suffit pas d'affirmer ce fait : Schlegel doit en tirer les conséquences. Ce qui signifie changer de position par rapport aux sciences naturelles. Plutôt que de réagir passivement aux prescriptions scientifiques, Schlegel insiste pour que la science tienne compte de la beauté. Et cela ne requiert ni d'abolir ni d'esthétiser la science. Schlegel va au contraire réinterpréter la science de telle sorte que l'existence de la beauté devienne possible. En vue de reconstruire le geste provocateur de Schlegel, je mets en lumière un exemple spécifique tiré de ses leçons. Les « figures sonores » sont un phénomène acoustique découvert par Ernst Chladni en 1787. Pour le cénacle d'Iéna, il recèle la possibilité que le son soit irréductible à la physique mécanique et qu'il contienne en outre des traces de magnétisme : la force dynamique sur laquelle se construit la vision nouvelle que les romantiques ont développée de la nature. Schlegel utilisera les figures sonores pour se représenter l'idée d'une existence objective du « ton » musical.

Mots-clés : figures sonores, musique, romantisme d'Iéna, nature, science

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Developments in mechanical physics over the eighteenth century laid the foundation for European industrialisation, secularisation, and enlightenment.[1] Yet by the century's end, mechanism's discoveries were petering out and biology was concretising into an independent discipline.[2] By offering more elegant solutions for longstanding problems – such as an account of organic life – biology cast doubt upon mechanism's totalising ambitions.[3] At the same time, biology's distance from the sanctuary of mathematical certainty was keenly felt. The ascendance of biology accordingly re-ignited controversies that had remained dormant since 1700.[4] How could two incommensurate systems purport to represent nature? This incompatibility might not concern the pragmatist; but there were practical reasons for answering this most impractical of questions. Determining the common principle between inorganic matter and organic life could reinvigorate mechanical physics, break new ground in biology, and compatibilise human freedom with the deterministic universe. Herein the centrality of the dynamic phenomena of magnetism, electricity, and galvanism. It was not just that these phenomena proved exceptional within the mechanical universe; these discoveries modelled the re-interpretation of pillars like sound and light, which became a "limit of the actual bodily world;"[5] and this "limit" was not only perceptual, as Immanuel Kant had insisted, but rather the juncture where matter came into being.

Herein *Goethezeit* fascination with Ernst Chladni's 'sound figures:' geometrical shapes in sand that emerged when audial frequency was run through metal plate.[6] Chladni discovered this phenomenon while "testing" (1787, 77) theoretical formulae for oscillation, which Leonhard Euler and others had distilled from ground-breaking research in differential calculus.[7]

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[1] Frederick C. Beiser, *The Fate of Reason: German Philosophy from Kant to Fichte* (Cambridge, MA: Harvard University Press, 1987), 11.

[2] John H. Zammito, *The Gestation of German Biology Philosophy and Physiology: from Stahl to Schelling* (Chicago: University of Chicago Press, 2018), 8.

[3] Robert J. Richards, *The Romantic Conception of Life* (Chicago: University of Chicago Press, 2004), 114.

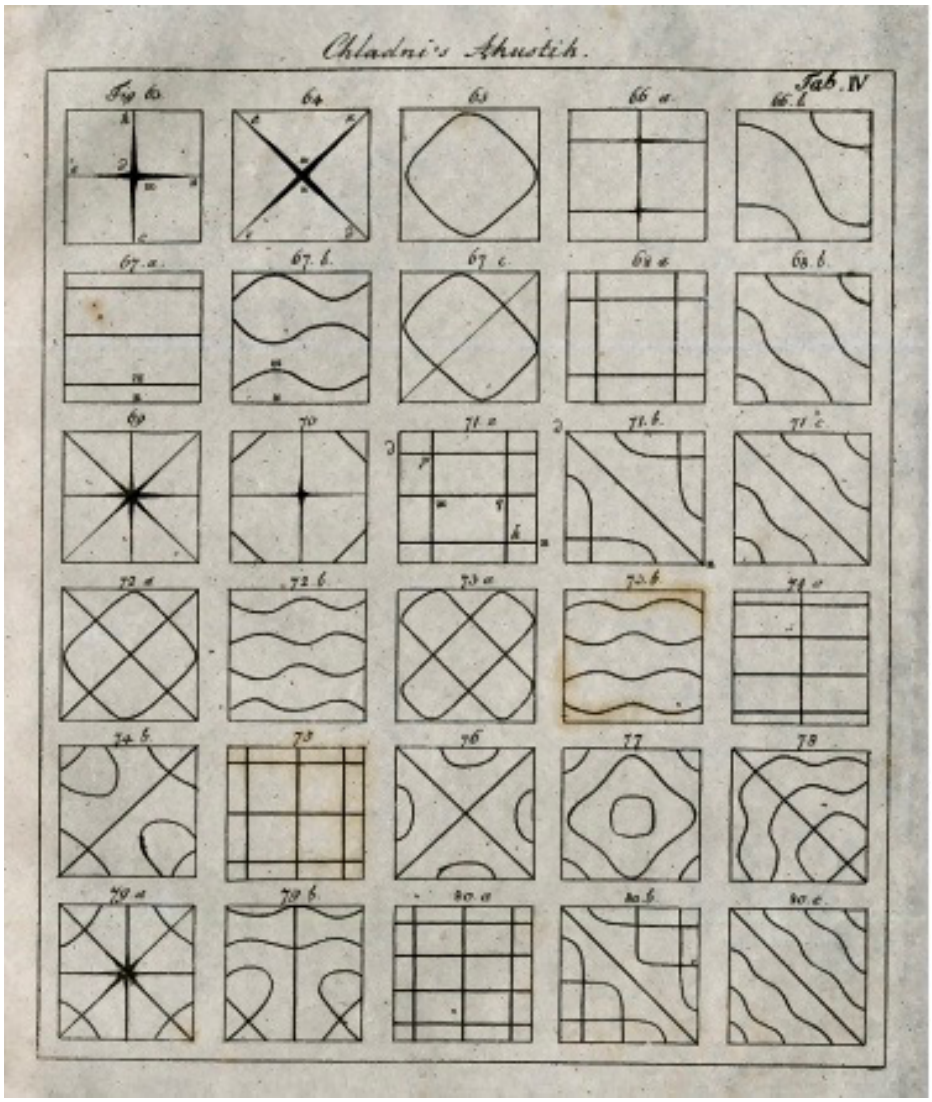
[4] Early in the eighteenth-century G. E. Stahl underlined "[n]ot the matter of the body – anatomy, chemistry, the 'mix' of fluids – but rather their interdependence." See *Theorie der Heilkunde*, trans. Karl Wilhelm Ideler, 3 vols. (Berlin: Enslin, 1831 -32), 1: 50. Cited in Zammito 2018, 25.

[5] "Gränze der eigentlich körperlichen Welt." A. W. Schlegel, *Kritische Ausgabe der Vorlesungen I*, eds. Ernst Behler and Frank Jolles (Paderborn, Munich: F. Schöningh, 1989), 307. Hereafter: *Vorlesungen* (1989). All English translations are my own.

[6] Ernst Chladni, *Entdeckungen über die Theorie des Klanges* (Leipzig: Weidmanns Erben und Reich, 1787), 33.

[7] Clifford Truesdell, "Introduction" in *Euleri Opera Omnia. Vol. XI seriei secundae* (Turici: Orell Füssli, 1960), 335.

But although these formulae effectively calculated two-dimensional oscillation, Chladni wrote that three-dimensional oscillation was "still shrouded in deepest darkness" (1787, 1).



Ernst Chladni, *Entdeckungen über die Theorie des Klanges* (1787), 93

This heightened the sense of mystery enveloping the sound figures, which Chladni had been exhibiting to the public around Europe.[8] By 1809, the sound figures' fame had earned Chladni an audience with Napoleon Bonaparte, who had maintained an amateur interest in mathematics since

[8] Dieter Ullmann, *Chladni und die Entwicklung der Akustik von 1750-1860* (Basel; Boston: Birkhäuser Verlag, 1996), 7.

childhood.[9] Impressed, Napoleon inaugurated a national competition at the *Institut de France*, which was only partially resolved after Sophie Germain's three submissions.[10] Observing this result from the judging committee, Joseph-Louis Lagrange suspected the sound figures might require an "entirely new type of mathematical analysis."[11] Thus did the sound figures' popularity exacerbate the perception that mechanical physics was in decline. Jena interlocutors took this opportunity to speculate upon the sound figures' magnetic basis, which inspired analogous experiments with electricity and colour.[12]

In some respects, Jena's embrace of magnetism, electricity, and galvanism accelerated the eighteenth-century's withdrawal into subjectivity. At the culmination of his *Metaphysical Foundations of Natural Science* (1786), Kant had fatefully written that there "seems no way out, but to turn away from the objects themselves and return to the mind."[13] Kant's programme for the sciences meant retracing from nature itself to the sensible conditions of its possibility. And the sciences did their utmost to adopt Kant's prescription. Seeing in objects nothing but the provisional harmony of underlying dynamic forces, the physicist Johann Wilhelm Ritter agreed that mind could only receive the world via Kantian "appearances" i.e. the sensible impression of an otherwise-unknowable thing. And while these forces held out the tempting prospect of an objective world, Ritter dared not reach behind the veil. Because electricity was also the medium of thought and sensation, Ritter cautioned, there was no reliable way objectively to measure or quantify these mysterious forces; and so the Kantian quagmire remained

[9] H. J. Stöckmann, "Chladni meets Napoleon." *European Physics Journal Special Topics* 145 (2007): 15–23, 21.

[10] L. L. Bucciarelli and N. Dworsky, *Sophie Germain: An Essay in the History of the Theory of Elasticity* (Dordrecht, Holland; Boston: D. Reidel, 1980), 41.

[11] Cited in Bucciarelli and Dworsky, 41.

[12] Ritter and Ørsted made galvanic interpretations of Lichtenberg and Chladni patterns. Whereas Chladni wrote of "Schallwellen" ("sound waves"), Ritter wrote of "Schallstrahlen" ("sound rays"). Ørsted used lycopodium, which was finer than Chladni's sand. This produced heaps of negatively charged dust distributed positively onto charged parts of plate. Strong vibrations became negative electricity and vice versa. Dan Christensen, "The Ørsted-Ritter Partnership and the Birth of Romantic Natural Philosophy," *Annals of Science*, 52 (1995): 153–185, 169. J. W. Goethe also used the sound figures as template for his "entoptic colours" in the *Farbenlehre*.

[13] Cited in Christensen 172. I use Christensen's English translation but one should be aware that Kant's original text uses "Ding" rather than "object" and "Vermögen" rather than "mind." The full original line: "nichts übrig bleibt, als von den Gegenständen auf sich selbst zurückzuführen, um, anstatt der letzten Grenze der Dinge, die letzte Grenze ihres eigenen sich selbst überlassenen Vermögens zu erforschen und zu bestimmen." Immanuel Kant, *Kritik der Urtheilskraft und naturphilosophische Schriften I* (Frankfurt: Weischedel, Wilhelm 1968), footnote 6, 135.

unbridged. Thus did Ritter's work give rise to what Dan Christensen called the "terrifying abyss of the qualitative epistemology of dynamical philosophy" (Christensen, 172).

And yet hope remained. Although dynamic physics could lead to abyssal nihilism by denying altogether the reality of external objects, it could also stimulate new possibilities: including an overhaul of the notion of objectivity itself. But this new objectivity was not easily won. One would have to relinquish familiar preconceptions about the object; not least its familiar attributes in space, time, and causation.[14] And this meant exposing oneself to a nature that might diverge radically from expectations. In this sense, objectivity required facing the most radical scepticism possible and then overcoming it. These two eventualities hinged around one and the same insight. Elaborating his colleague Ritter's claim that mind and world were both subject to electrical forces, H. C. Ørsted drew the conclusion that "the principles of acoustics and sense and mind are identical."[15] Ørsted made this announcement during his 1809 lecture to the Copenhagen Academy of Sciences, where he argued that the sound figures were elicited by magnetic forces (Christensen, 170). These were the same forces that F. W. J. Schelling had situated as foundational within his dynamical re-organisation of the natural world, which he undertook from 1796 onwards. August W. Schlegel drew on Schelling and Ritter during his 1798 Jena and 1801 Berlin lectures on art history and aesthetics – otherwise known as the *Kunstlehre* – where he utilised the sound figures to imagine "tone" as an objectively-existing thing.

A. W. Schlegel's *Kunstlehre* merits our attention not only because it stands among Jena's earliest sound figure references. The lectures also vivify an important development within recent scholarship. In 2006, Iain Hamilton Grant compellingly argued that Schelling's philosophy of nature deserved a contemporary exposition. For Grant, Schelling diagnosed a conspicuous blind spot in modern philosophy (since René Descartes): "that nature does

[14] "Die Materie hat für die wahre Physik ebenso wenig Realität an sich, als für die wahre Philosophie. Sie ist nur das sinnliche Symbol der beiden Kräfte, und selbst nur Vermittlungsglied eines bestimmten Verhältnis beider, das in der Natur notwendig ist und nur insofern ist sie selbst notwendig." F. W. J. Schelling, "Allgemeine Deduction des dynamischen Prozesses" in *Zeitschrift für spekulative Physik, Erstes Band zweites Heft* (Jena und Leipzig: Christian Ernst Gabler, 1800), 15.

[15] H. C. Ørsted: "this important part of physics would leap forward as… the principles of acoustics and sense and mind are identical…" "Forsøg over Klangfigurerne" (Copenhagen, 1807-1808), *Naturvidenskabelige Skrifter II* (Copenhagen: A. F. Host and son, 1920), 11-34. Cited in and translated by Dan Christensen, "The Ørsted-Ritter Partnership and the Birth of Romantic Natural Philosophy," *Annals of Science*, 52 (1995): 153–185, 170.

not exist for it."[16] In 2013, Daniel Whistler extrapolated this stance via Schelling's theory of symbolic language and – critically for my purposes – drew Schlegel into Schelling's developmental arc. For Whistler, Schelling neither imitated nor simply incorporated Schlegel into his theory of the symbol. Schelling rather performed his signature "speculative operation" upon the *Kunstlehre*.[17] In other words, Schelling utilised Schlegel's lectures as the "empirical" substrate for his "intellectual" explorations of art. Schlegel "kept [Schelling] oriented," "spared [him] much inquiry," and ultimately enabled his "formulation of the speculative."[18] Thus did Schlegel play a key role in the nature-philosophical division of labour; referring sympathetically in the *Kunstlehre* to Schelling's *System of Transcendental Idealism* (1800), which had given art paramount importance. So there is good reason to think Schlegel could help us to elaborate art's role for "the new Schelling"[19] and indeed reveal the extent to which Schellingian views permeated the Jena milieu.[20]

Schlegel declares as his founding gesture that beautiful artworks objectively exist. But it is not enough simply to affirm this fact. Schlegel must draw out its manifold implications, which means changing one's stance towards natural science. Rather than passively reacting to scientific prescriptions, Schlegel will insist that science accommodate beauty. This requires neither the abolition of science nor its aestheticization. Schlegel will rather diagnose those scientific theories which fall short of nature's grandeur. And this is not destructive by intent. Schlegel believes that criticism will purify science of *qualitates occultae* and facilitate its progress. In this sense, Schlegel's critical passages are propaedeutic to his constructive end goal: to reinterpret science such that beauty becomes possible. To convey this neglected positive dimension of *Naturphilosophie*,[21] I reconstruct Schlegel's sound figure interpretation. This detailed focus mimics Joan Steigerwald's

[16] "[D]aß die Natur für sie nicht vorhanden ist." Iain Hamilton Grant, *Philosophies of Nature after Schelling* (London, New York, NY: Continuum International Pub. Group, 2006), 170.
[17] Daniel Whistler, *Schelling's Theory of Symbolic Language* (Oxford: Oxford University Press, 2013), 166.
[18] Schelling to A. W. Schlegel, cited in Whistler 2013, 62.
[19] The title of an influential edited volume in which Grant's contribution originally appeared. *The New Schelling*, eds. Judith Norman, Alistair Welchman (Continuum: London, New York 2004).
[20] This has already been initiated by Jeremy Adler, "The Aesthetics of Magnetism: Science, Philosophy and Poetry in the Dialogue Between Goethe and Schelling" in *The Third Culture: Literature and Science*, ed. Elinor S. Shaffer (Berlin, New York: De Gruyter, 1997).
[21] Adrian Johnston has been the most vocal advocate for the re-evaluation of Marxist *Naturphilosophie*. See for example *A New German Idealism: Hegel, Žižek, and Dialectical Materialism* (New York: Columbia University Press, 2018). See also Helena Sheehan's magisterial *Marxism and the Philosophy of Science: a Critical History* (London: Verso, 2017).

outstanding close readings of Ritter's experiments[22] (hopefully addressing Robert Pippin's objection that treatments of *Naturphilosophie* have been insufficiently granular).[23] Myles Jackson and others have meanwhile provided an indispensable foundation for Chladni and the sound figures.[24] In the broader view, my contribution might be situated amidst the reassessment of *Naturphilosophie* within German studies.[25] One wonders if other artefacts from the history of science might further illuminate Jena's speculative operations.

In German literary studies, this discussion could help draw A. W. Schlegel towards the centre of the Jena canon.[26] Whereas Friedrich Schlegel delighted in rhetorical play and linguistic ambiguity, the story goes,[27] August W. Schlegel was the stuffy older brother. The encyclopaedic August sought in the words of an early editor to defuse "those expressions of the Romantic school that seem paradoxical when taken by themselves."[28] This was not an inaccurate description of August's approach. Yet one must appreciate the

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[22] Joan Steigerwald, "Figuring Nature: Ritter's Galvanic Inscriptions," *European Romantic Review*, 18:2 (2007): 255-263.

[23] Robert Pippin attributes to Adrian Johnston the view that G. W. F. Hegel's philosophy of nature is "out of date." Johnston does not actually say this but Pippin's remark nevertheless brings into focus the interpretation of empirical science in *Naturphilosophie*. See Robert Pippin, "Review of *A New German Idealism: Hegel, Žižek, and Dialectical Materialism.*" *Notre Dame Philosophical Reviews*, published 05/08/2018 [https://ndpr.nd.edu/reviews/a-new-german-idealism-hegel-zizek-and-dialectical-materialism/].

[24] Myles W. Jackson, *Harmonious Triads: Physicists, Musicians, and Instruments Makers in Nineteenth-Century Germany* (Boston: MIT Press, 2006); Benjamin Steege, "Review of Myles Jackson's *Harmonious Triads* and Matthias Rieger's *Helmholtz Musicus: Die Objektivierung der Musik,*" *Journal of Music Theory* 50:2 (Fall 2006); Viktoria Tkaczyk, "The Making of Acoustics around 1800, or How to Do Science with Words" in *Performing Knowledge, 1750 - 1850*. Eds. Mary Helen Dupree and Sean B. Frenzel (Berlin: De Gruyter, 2015).

[25] Jocelyn Holland, "The Silence of Ritter's Symbol," *The Germanic Review: Literature, Culture, Theory,* 92:4 (2017): 340-354; Antje Pfannkuchen & Leif Weatherby, "Writing Polarities: Romanticism and the Dynamic Unity of Poetry and Science," *The Germanic Review: Literature, Culture, Theory*, 92:4 (2017): 335-339; Leif Weatherby, *Transplanting the Metaphysical Organ: German Romanticism between Leibniz and Marx* (New York: Fordham University Press, 2016); Gabriel Trop, "The Aesthetics of Schelling's Naturphilosophie," *Symposium*, 19: 1 (2015); David Wood, "The Mathematical *Wissenschaftslehre*: On a Late Fichtean Reflection of Novalis" in *The Relevance of Romanticism*, ed. Dalia Nassar (Oxford, New York: Oxford University Press, 2014); Jocelyn Holland, *German Romanticism and Science: the Procreative Poetics of Goethe, Novalis and Ritter* (Routledge, 2009).

[26] It is worth noting that Jan Oliver Jost-Fritz and Christian Weber are editing a special issue of *Colloquia Germanica* on A. W. Schlegel that is forthcoming in spring 2022.

[27] See Paul de Man, "The Concept of Irony" in *Aesthetic Ideology,* ed. Andrzej Warminski (Minneapolis: University of Minnesota Press, 1996), 182; J. Hillis-Miller, *Revenge of the Aesthetic: The Place of Literature in Theory Today* (Berkeley: University of California Press, 2000), 58.

[28] "[D]ie einzeln für sich paradox erscheinenden Äußerungen der romantischen Schule." August W. Schlegel, *Kritische Schriften und Briefe,* ed. Edgar Lohnen (Stuttgart: W. Kohlhammer, 1963), lxiv.

motive behind this attempted consolidation of Romantic fragments. August did not attempt to stifle literary creativity or subordinate art to philosophy; he rather sought to foster Romanticism within science and thereby to realise provocative new conceptions of nature. So while the deductive form was indeed the provenance of J. G. Fichte and Schelling, its underlying motive was hardly to be distinguished from J. G. Herder and J. W. Goethe. Notwithstanding the real and substantive disputes to which this formal divergence gave rise, the cleft between Jena literature and philosophy should not be unduly absolutized.[29] In my view, August's systematic impetus reflected his effort to drive the principle of sufficient reason into the crevices of "dead" worldviews (1989, 184); to continue questioning when others "took refuge" in scientific or religious jargon (1989, 219). In that sense, August represented the intermediary between Jena's literary and philosophical genres. But whereas Fichte posited the "I" to forestall the regress into nihilism i.e. that indubitable first principle that laid the foundation for all subsequent knowledge,[30] August ventured the unprecedented and indeed quintessentially Romantic claim that any valid *Weltanschauung* must accommodate the "self-evidence of the beautiful" (1989, 186). In other words, August took as "principle" (*Grundsatz*) the notion that "art should *exist*" (my italics; 1989, 186). And this required nothing less than re-interpreting science and philosophy in light of the fact of beauty's objective existence.

The sound figures arise during A. W. Schlegel's discussion of "tone," which he frames as the basic prerequisite for music. Now, we have seen that tone had been represented by the quantitative oscillation model developed by Euler. But what grabs Schlegel's attention are recent efforts to explain beauty as mental phenomenon via oscillation within "certain fibres of the brain" (1989, 219). This had been undertaken by the mathematicians Denis Diderot and Jean le Rond d'Alembert, who had edited the *Encyclopédie* (1751–1766): a defining document of the French Enlightenment. To contest d'Alembert's ostensible reduction of beauty to an illusory after-effect of mechanical patterns, Schlegel aims to re-imagine tone as an objectively-existing thing. To do so, Schlegel indeed makes reference to Kant, who had utilised oscillation when defining the "pleasant" in his *Critique of the Power of Judgement* (1790).[31] But my real interest lies in how Schlegel attempts to get

[29] One might ask to what extent Schelling may be considered Romantic. See Dalia Nassar, "Introduction," *The Relevance of Romanticism*, 10, footnote 7; see also Dalia Nassar, "The Human Vocation and the Question of the Earth: Karoline von Günderrode's Philosophy of Nature," *Archiv für Geschichte der Philosophie* (2021): 304-321, 3, footnote 5.
[30] Beiser 1987, 5; Manfred Frank, "What is Early German Romantic Philosophy" in Nassar 2014, 25.
[31] Immanuel Kant, *Kritik der Urteilskraft* (Hamburg: Meiner Verlag 2009), §51.

beyond the transcendental paradigm in order to capture tone's "existence" (1989, 186). Here the sound figures play their key role as an exemplar of the most promising scientific research. Section one sketches Schlegel's general intellectual project, and especially the meaning of beauty, around his engagement with d'Alembert. Section two narrows focus upon Schlegel's treatment of music and establishes the axes of tone, rhythm, harmony. Section three reconstructs Schlegel's sound figure interpretation and draws some tentative conclusions.

1. Oscillation: Beyond Kant and Into the World

Schlegel takes as his object the "theory, history, and criticism of the fine arts" (1989, 181). The sound figures are peripheral to Schlegel's main topic, which is advantageous for the present discussion insofar as it enables us to refine our conception of the aesthetic and its relationship to empirical science in general. At the same time, Schlegel's critical treatment of various aesthetic theories, and his own positive theory of beauty, rely more heavily on the sound figures than one might expect. That owes to the convergence of acoustical science and the notion of sensible pleasure. In the early lectures, Schlegel identifies the French Encyclopaedists as an archetype of mechanical aesthetics. According to Denis Diderot and Jean le Rond d'Alembert, sensible pleasure was an expression of oscillation in "certain fibres of the brain" (1989, 219). In his primary work as mathematician, d'Alembert had refined Leonhard Euler's equations for oscillation. This was the same research nexus that Ernst Chladni "tested" in his experimental work in the *Entdeckungen über die Theorie des Klanges* (1787, 77) and which the sound figures threatened to cast into disarray. So eight years before Napoleon Bonaparte formalised this crisis and marshalled France's mathematical acumen towards a solution, the concept of beauty had already been embroiled in competing visions of nature. Schlegel looks sceptically upon d'Alembert's "experimental physics of the soul" (1989, 219) and maintains that beauty will forever elude the grasp of mechanism.

Schlegel's criticism of d'Alembert has theoretical and practical components. Not infrequently, theoretical objections to empiricism in Jena were undertaken from the Kantian standpoint (Christensen, 172). If an empiricist sought to derive consciousness from the brain, the Kantian would object that this mechanical schema was merely the projection of mind; and mind could not establish any "necessary" relationship to the external world. Any such attempt would require consciousness to step outside itself, as it were, in order to explain its own internal operations. Thus does Schlegel accuse "empirical

psychology" of an "impossible and nonsensical beginning" (1989, 219). But regardless of this tautology, Schlegel could easily have guessed why such transgressions kept recurring twenty years after Kant's intervention. Undeniably, mechanism satisfactorily accounted for the vast majority of phenomena in everyday experience. Combined with its great strides forward over the previous century, mechanists could assume with reasonable confidence that any barriers would inevitably be overcome; and moreover, without philosophical interference. Herein lay the perception that no mystery in the universe could withstand arithmetical penetration, which stripped from nature the aura of fascination. This was the situation Friedrich Schiller had narrated mythologically in "Die Götter Griechenlandes" (1788). With the advent of dynamic physics and physiology, however, the frontiers of mechanics became increasingly well defined and sentiment shifted accordingly. How could mechanists assume that time, space, and causality existed for nature in the same way they did for human beings? Surely this was the greatest anthropomorphism of all. Now, we have seen that Kant did not resolve this situation for the Jena circle; but he did determine its co-ordinates with unprecedented accuracy. The Jena circle accordingly realised they would have to go through – and not merely around – Kant in search of the principle of identity between mind and nature.

In its haste to colonise ever more exhaustively the natural universe, the Jena circle began to feel that mechanism was reaching beyond its own certainty. Schlegel accordingly identified how this overreach was facilitated by certain rhetorical strategies, which created the illusion of concreteness and precision where none truly obtained:

> Since [the French encyclopaedists] now derived the most general from the most specialised appearances, albeit without wishing to leave them unexplained, they naturally took their refuge in groundless hypotheses; in this way did philosophy as a whole end in certain fibres of the brain (that no person had in fact ever seen, making the territory all the easier to govern), whose vibrations were capable of conjuring up every arbitrary thing possible.[32]

D'Alembert posits "vibrations" in the "brain" as the root of consciousness. Schlegel could not accept this claim because vibrations in the brain had never been observed. Even from d'Alembert's own experimentalist standpoint, this would leave oscillation theory little more than a "groundless hypothesis." Of

[32] "an den sonoren Körpern bey ihrer Hervorbringung vorgeht: das sind nämlich die Vibrationen. In dieser Berechnung hat besonders Euler viel gethan..." A.W. Schlegel, *Vorlesungen* (1989, 379).

course, d'Alembert was not simply being careless here. Schlegel rather attributes the inconsistency to d'Alembert's unwillingness to be "consequential" (1989, 219) in his thinking. Schlegel complains that knowledge and "morality" are nothing more than "habits" and "prejudices" for d'Alembert (1989, 219). In other words, d'Alembert derives knowledge from the contingent and haphazard collection of sensible impressions. There is no possibility of d'Alembert attaining what Schlegel calls the "convictions of reason" (1989, 219) i.e. the necessary and timeless laws of nature. Schlegel does not yet need to possess such laws to posit reason as "conviction;" and this enables Schlegel practically to apply the principle of sufficient reason i.e. to reject any phenomena that lack adequate causal explanation. "Vibration" accordingly becomes intolerable for Schlegel. D'Alembert has failed to spell out the relationship between arithmetical models (vibration) and empirical objects (the brain), not to speak of the relationship between brain vibrations and consciousness. Schlegel therefore accuses d'Alembert of ignoring sensible evidence and taking "refuge" (1989, 219) in the arithmetical formula of vibration. Protected from the scrutiny of reason, this territory is "all the easier to govern" (1989, 219). Thus does d'Alembert cultivate an artificial and untrue vision of nature, which obfuscates with false concreteness the world that underlies our representations.

In Schlegel's criticism of d'Alembert, both the strength and weakness of the Kantian position is on display. Transcendental philosophy could neutralise any materialism that strayed beyond its sensible limits. But could this principled objection hold back the tide of empirical science, which was steadily rising in 1801? One recalls the heroic programme that transcendental philosophy announced upon its inception in 1781: to disengage from obscure scholastic disputes and to embrace Newtonian science despite its well-known inconsistencies. Leibniz had famously objected to Newton's gravity – the first cause without cause – as *qualitas occulta*.[33] Kant embraced Newton by quarantining the inexplicable "noumenon," rescuing objectivity in qualified and delimited form. Of course, Kant did not straightforwardly abandon the rationalist cause; he simply recognised how Newtonian science had outpaced and marginalised its competitors. Yet just twenty years after the first critique, the epistemological situation had changed once more. It was now Kant himself who looked into the abyss. On the one hand, Kant stared down the hordes of mechanical vulgarians that placed utilitarian goals above truth and were deaf to philosophy. On the other hand, even Kant's sympathisers

[33] G. W. Leibniz critically frames Isaac Newton's conception of gravity as "qualitas occulta" in the Samuel Clarke correspondence. See *Hauptschriften zur Grundlegung der Philosophie*, ed. Ernst Cassirer, trans. Artur Buchenau (Hamburg: Felix Meiner, 1966).

struggled to mobilise his transcendental criteria for science (Zammito 2018, 323). The sensible phenomena of biology and dynamic physics called sirenically for the observer to grant "objective reality" yet Kant could only deign "regulative validity." Ørsted's doctoral dissertation of 1799, for example, focused exclusively on Kant's rejoinder to Newtonian corpuscular theory; and then wrestled with transcendental epistemology for the duration of his career (Christensen, 159). Did these phenomena really exist or were they just illusory projections of consciousness? One can easily imagine how this uncertainty plagued empirical researchers.

Having read widely in physics, chemistry, and physiology during his years as tutor, Schelling keenly perceived this bottleneck between Kant and the empirical sciences. Without dramatic intervention, Kant would meet the same fate as his scholastic predecessors; owing not to some fatal flaw – though Kant's system was not without flaws – but to the evolving scientific landscape, which threatened to leave Newtonian physics behind. Unlike Kant, Schelling could not wait decades for the tectonic plates to re-align. Philosophy would have to respond more quickly to, and even foresee, emerging scientific developments. Thus was Schelling an early advocate of the dynamic physics, which did not earn widespread acknowledgement until around 1820 (Christensen, 177). Already in 1796, Schelling was pro-actively seeking to inoculate and compatibilise transcendental philosophy with the new sciences. And this meant developing an authentic and useful scientific *praxis* to counter-act its theoretical overweight. Viewing Schlegel's encounter with d'Alembert through this lens, it is clearer why the Jena circle were so amenable to Chladni's research, and moreover willing to overlook his commitment to mechanism. Chladni possessed two traits that Jena had in short supply: the mathematical acumen to interpret advanced theoretical physics on the one hand; and the experimental skill to demonstrate the chasm between these formulae and empirical reality on the other. For the Jena interpreters, Chladni was mobilising Kant's theoretical argument in the practical sphere and moreover without compromised doctrinal affiliation (Chladni had no use for philosophy). Schiller might well have numbered Chladni with Goethe among those "naïve" few who were unencumbered by modern hyper-awareness or "reflection."[34] Indeed, naivete might also be defined as the curiously-productive imperviousness to Kant.

It is this deficiency in the Kantian programme that pushes us beyond Schlegel's criticism of d'Alembert into the evolving, practical sphere that

[34] Friedrich Schiller, "Über naive und sentimentalische Dichtung" in *Werke und Briefe VIII* (Frankfurt am Main: Deutscher Klassiker Verlag, 1992), 746.

Naturphilosophie laid such great emphasis upon. The sound figures arrive some time after Schlegel's critical discussion of previous aesthetic theories; well into his positive accounts of art and in particular his lecture on music. Now although Schlegel has opportunistically played Kant off against d'Alembert, Schlegel remained ambivalent about transcendental aesthetics writ large. Kant's aesthetic autonomy was undoubtedly an achievement. So great an achievement, in fact, that Kant himself could not live up to it. For Schlegel calls beauty "the infinite exhibited (*dargestellt*) finitely," otherwise known as the "symbol." And this "connects" in turn with "the highest principle of philosophy" (1989, 186) i.e. the principle of identity, which was to overcome Kant's fundamental division between mind and nature. One perceives how Kant's "indeterminate" converges with Schlegel's "infinite" and yet how its wings were clipped with "*subjective* universality" (my italics) i.e. the proviso that beauty transpire within consciousness alone. In Schlegel's view, Kant was ultimately interchangeable with any other empiricist who took "the *existence* of beautiful objects as contingent and the way in which the brain was affected by them a *psychological* phenomenon" (my italics; 1989, 219). This echoes the "principle" that Schlegel announced in his first lecture, which stated that "art should exist" (1989, 186). Schlegel's first step was to posit the "existence" of art, and then subsequently to demand that philosophy account for it. This inverts (and retrieves the mantle of humility) from the Cartesian paradigm, which doubted everything except the cogito. Did not the subject also exist within some world, which made the act of doubting possible? So rather than positing the mechanical universe and then accounting for beauty within it, Schlegel asks how the mechanical universe must shift and give way to accommodate the objective existence of beauty.

Let us now consider how Schlegel's treatment of music refracts these broader philosophical concerns. Schlegel will focus his attention on the formal categories of "tone," "rhythm" and "harmony," which are supposed to delineate the possibilities of music per se. Now, this tableau may seem inimical to the private intensity of aesthetic experience. Yet by framing particular examples as relative distributions of sensation, this tableau permits Schlegel to represent art's historical development objectively. Thus does antiquity become associated with "the sense for the free movement of external life" and "energetic rhythm" (1989, 381). Meanwhile, Christian modernity – where "the mind turns back on itself in order to seek out a higher life" – is the historical moment that prioritises harmony, which according to Schlegel "does not lay its claims to powerful effect on the passage of time but rather seeks infinity within indivisible moments" (1989, 381). So rhythm is associated with action, exteriority, and space; whereas harmony is associated

with the domain of interiority, time, and the revelation of infinity within the finite. Now, the question of how form manifests whole historical epochs deserves to be discussed at greater length but the present account must limit its focus to determining the specific utility of the sound figures for Schlegel's analysis.

2. Music and its Existence: Tone, Rhythm, Harmony

Nestled inconspicuously amidst one short paragraph, the sound figures could easily be viewed as decorative artifice; a stray scientific metaphor in the discourse of aesthetics. And yet we have seen how Schlegel criticised d'Alembert and Kant, who had utilised art to ornament science, for excising beauty from nature. To interpret Schlegel's sound figure reference as scientific ornament in aesthetics would, conversely therefore, exclude nature from beauty. To avoid this outcome we must determine what purpose the sound figures play in Schlegel's overall project. And here one must guard against over-correction. The sound figures do not themselves exhibit beauty i.e. manifest some artistic quality in their own right. This would defeat the purpose of Schlegel's lecture, which was to determine in principle whether beauty is objectively possible. In actuality the sound figures play quite another role: namely, to imagine tone as objectively existing and thus to bridge the gap between mind and nature.

We have seen that Schlegel's lecture hinges around two formal-historical moments: antique rhythm and modern harmony. Tone is introduced as the interstice between rhythm and harmony; and this does not only have narrative utility. The purpose of tone is to represent the shared genetic locus from which rhythm (tone inflected by time) and harmony (tone inflected by space) both emerge. It is therefore imperative for Schlegel to determine "the *nature* of tone" (my italics; 1989, 269). For if tone is reducible to the quantity of mechanical vibrations then music would be the ephemeral product of an underlying mechanical universe. In other words, music would become precisely that illusion of consciousness that Kant/d'Alembert had described and Schlegel's world-historical vision would never get off the ground. Schlegel thus describes tone as that which

> precedes the sonorous bodies upon their emergence; the vibrations. In this calculation, Euler has achieved much.[35]

[35] "an den sonoren Körpern bey ihrer Hervorbringung vorgeht: das sind nämlich die Vibrationen. In dieser Berechnung hat besonders Euler viel gethan..." A.W. Schlegel, *Vorlesungen* (1989, 379).

Schlegel posits some relationship between tone and vibration. But Schlegel's formulation is potentially confusing as it blurs the distinction – so critical for his account – between mechanical and dynamic explanatory paradigms.[36] The mechanical paradigm is represented by the "calculation" in which "Euler has achieved much." These were the same formulae d'Alembert had refined and Chladni "tested." According to mechanism, vibrations provide the source of activity whereas tone represents the passive effect or product (and music becomes the secondary and even illusory echo of primary quantitative matter). Conversely, the dynamic standpoint is identifiable in Schlegel's prolix formulation: "precedes the sonorous bodies upon their emergence." This sentence grammatically strains to avoid the vocabulary of causation, which is associated with the mechanical paradigm. Instead of cause, the term "emergence" imagines vibration through conditional factors. This stems from the dynamic postulate that all bodies in nature harbour latent forces i.e. bodies are not inherently passive but are rather activated (the German *Hervorbringung* more literally approximates "drawn forth" in English) by external factors. In this case, Schlegel's remark that sound figures emerge "under certain conditions" (1989, 379) is again deceptively casual relative to its import. With this, Schlegel conveys that no truly "dead" matter inheres within the universe;[37] all bodies are awaiting their moment to sing.

Schlegel now goes on to invoke Chladni's "curious attempts in certain ways to project arithmetic into the domain of geometry."[38] To interpret this puzzling remark, we must appeal to earlier lectures. By "arithmetic" Schlegel means quantitative mechanical explanation. Arithmetic had been the "older theory" that calculated vibration "merely according to degrees of rapidity," which Schlegel contrasted with an as-yet unnamed method "whose whole nature appears to be different" (1989, 269). Schlegel now lifts the veil: this new method reflects "the domain of geometry." Of course, Euler *et al* were no strangers to geometry. Why then does Schlegel so emphatically distinguish between arithmetic and geometry? In an earlier lecture, Schlegel had explained that "geometrical figures" can be interpreted in different ways. Commonly, geometrical figures were utilised by mathematicians as "mere

[36] Here the 1798 lectures are clearer though less detailed. After referring to Pythagoras and his theory of universal harmony, Schlegel takes Euler as an instance of sceptical modernity. Chladni's sound figures are introduced as example of continuing possibility that "mathematische Beziehungen and Verhältnisse mit der Harmonie [stattfinden]" (1989, 120).

[37] F. W. J. Schelling, *Ideen zu einer Philosophie der Natur* (Landshut: Philip Krüll, 1803), 15. Hereafter *Ideen*.

[38] "[M]erkwürdigen Versuchen gewissermaßen aus der Arithmetik in das Gebiet der Geometrie [hinüberzuspiegeln]." A.W. Schlegel, *Vorlesungen* (1989, 379)

formula to relieve our conceptual burden" (1989, 307); in other words, conceptual shortcuts that prevented us from having to redo past logical judgements. Yet for Schlegel, these shortcuts skipped over the deductive steps that had originally generated mathematical formulae, pushing their internal mechanism further into the unconscious.[39] Schlegel therefore set out to excavate this sediment of custom and habit. In the long term, this seemingly-impractical approach would orient science more assuredly towards progress and prevent wasteful digression (which Schlegel calls "blind tapping;" 1989, 219). Now, Euler could interject: does it really matter if knowledge is arbitrary once the object has been described for all intents and purposes? Moreover, does this insistence upon necessity not amount to some vain metaphysical crusade? And Schlegel could respond: Euler here takes into account only the theoretical implications of the term "contingent" (1989, 219); its practical implications are much more serious. For against the background of an objective and independent world, illegitimate or "contingent" knowledge would distort and misrepresent; compressing the unfathomed richness of nature into sterile conformity with some haphazard theory of consciousness.

It is worth considering how unusual it is that Schlegel felt emboldened to intervene within theoretical mathematics, especially after Kant's choppy reception in experimental science. Schlegel's remark only makes sense when contextualised amidst the perceived decline of mechanical physics. In this developing situation, Schlegel may have imagined Euler's formulae as an esoteric private script, whose purchase on reality was beginning to loosen. In his paragraph on the sound figures, Schlegel goes on to say that

> Regarding the further refinement of these observations for the explanation of the relationship of tones to our hearing and hence to the whole organisation [in the sense of organic body], the mathematical path will prove difficult; for this relationship is a living one and mathematics can only supply constructions of the phenomenon

[39] Schlegel likely has in mind the debates surrounding differential calculus, which were presented by its inventor G. W. Leibniz as "Mittel zur Entlastung der Einbildungskraft" (Leibniz, 78); and therefore as pathway to grander intellectual feats. With ordinary algebra, it had proved "schwierig, die Eigenschaften der Figur auf einen Ausdruck der Rechnung zu bringen" (Leibniz, 77). Leibniz's new calculus would "dem Geiste die Objekte der sinnlichen Anschauung genau und ihrer Natur gemäß, wenngleich ohne Figuren, [darstellen]" (Leibniz, 77).

> subsequent to the subtraction of what is living within them. Here, further discoveries are to be expected from dynamic physics.[40]

Given the aforementioned rejection of Euler's arithmetic, it is potentially confusing that Schlegel interchangeably uses the term "mathematical" for critical and positive reasons. The context usually makes clear Schlegel's intended meaning. In this case, "mathematical" refers to the arithmetical standpoint of Euler *et al.* And Schlegel was confident that mechanical solutions for the sound figures would not be forthcoming. It was still eight years before Napoleon announced his national competition for the mechanical solution of the sound figures at the *Institut de France* in 1809. That is why Schlegel says – regarding the relation of tones "to our hearing and hence to the whole organization" – that "*further* refinement" [my italics] of the mechanical approach will "prove difficult." The term "further" acknowledges the breakthroughs of physics yet situates them firmly in the past. So by 1801, the limits of mechanism were evidently on the horizon and Schlegel drew his battle lines accordingly.

One might now begin to wonder: how does Schlegel develop his positive theory of nature from these predominantly critical statements? At the conclusion of his paragraph, it is enigmatically announced that "further discoveries are to be expected from dynamic physics." And these developments shall express the "living relationship" between "tones, hearing, and the whole organization" which the "mathematical" (now meaning arithmetical) approach of Euler *et al* have "[subtracted]" (1989, 379). Euler has failed to account for the living relationship between tone, hearing, and organism. But for his part Schlegel has neglected to explain what life is. Thankfully, the critical term "subtraction" can point us in the right direction. Nature is by definition whole for Schlegel. Any worthy philosophy of nature would therefore set out from this basic premise. Now, Schlegel does not claim to possess some God-like intuition of nature against which the sciences can be measured. The principle of the whole rather furnishes Schlegel with an eminently practical imperative: that each science accord with other sciences. How else could science claim to represent nature? Euler may perfectly well develop a self-contained arithmetical system; but this system carries unspoken implications. When pressed, Euler would reduce organic

[40] "Auf dem mathematischen Wege möchte man bey noch so großer Vervolkommung dieser Beobachtungen für die Erklärung des Verhältnisses der Töne zu unserm Gehör und dadurch zu ganzen Organisation schwerlich etwas weiter gewinnen, denn dieß Verhältniß ist ein lebendiges und die Mathematik kann nur Constructionen der Phänomene nach Abzug des Lebendigen in ihnen liefern. Hier sind also höhere Aufschlüsse erst von der dynamischen Physik zu erwarten." A.W. Schlegel, *Vorlesungen* (1989, 379).

beings to mechanical automata. And the point here is not that Euler violates the sanctity of human spirit. Schlegel would refer instead to physiology, which had been incorporating teleological paradigms over the past fifty years. Thus does Euler's system reveal itself for Schlegel as an incomplete and artificial image of nature, which must subtract organic life to remain consistent. From this perspective, the whole does not represent some unrealistic demand but rather articulates a tectonic shift within science.

Evidently, we still have not yet left the critical dimension of Schlegel's account behind. But without qualification by the term "subtraction," Schegel's organic vocabulary could easily be mistaken for an ill-fated attempt to subordinate arithmetic to organism. In light of the foregoing, we appreciate why such an effort would be no less deficient. Schlegel must establish the link or common principle between inorganic matter and organic life. Only with some concept of the inorganic could we determine how life emerges; simply positing the ubiquity of life would overstep the problem. That is why Schlegel invokes the "*living* relationship" (my italics) between "tones" and "hearing." The sound figures are not themselves living and yet must have some compatibility with organism. Now, we cannot expect Schlegel to attain this goal in one single paragraph. Schelling had already dedicated his major published works to determining the relationship between inorganic matter and organic life; and even these works had been qualified with the titles of "draft" or "idea." No less cautiously, Schlegel reminds his audience that key results from the sound figures are still "to be expected." But notwithstanding these provisos, one should not take the prognostic and quasi-millenarian language of *Naturphilosophie* too literally. The culmination of the system would provide no final revelation. It would simply crown what had come before; and what came before would be nothing other than empirical science dynamically interpreted. Schlegel was no scientist and yet had seriously engaged with experimentalists in Jena. Schlegel's sound figure reception accordingly provides greater insight into the cultural implications of dynamic physics, and its expected future trajectory, than the brevity of his paragraph might otherwise indicate.

3. The Sound Figures

It is one thing to say that mind is an expression of nature and quite another to cash it out. Let us now hone in on Schlegel's positive interpretation of the sound figures. We have seen that Euler's geometry had been criticised as "contingent," which characterised it as an artificial projection of consciousness. But with its canon of Pythagoras, Plato, Bruno, and Johannes Kepler,

Naturphilosophie saw geometry as an especially pure and self-contained science, which could generate principles without reference to experience i.e. independently of time (understood as pure form of intuition) and thus with complete necessity.[41] Now, this had profound implications for the Kantian milieu because, as Schlegel put it, "the mathematical designates that domain where we recognise the laws of nature as identical with the laws of mind" (1989, 306) (and here "mathematics" refers to geometry). Since geometry legislated for nature and consciousness in an "identical" fashion, the problem of transcendental philosophy – namely the correspondence between internal mind and external body – could potentially be overcome. Of course, this outcome depended upon rendering the phenomena of sensation "geometrically constructible" (1989, 329) i.e. deducing physical phenomena like light and sound from geometrical principles. This was what Schelling had been undertaking since 1796. And "sound" and "light" had pride of place for Schelling, since they represented nature in its most primitive "level" (*Ideen*, 257). Herein Schlegel's claim that "sound" and "light" stood "on the limit of the actual bodily world" (1989, 307). This "limit" indeed corresponded with Kant's imperceptible noumenon but for Schlegel "limit" *also* expressed matter in its primordial and unending process of self-determination; and specifically the point where becoming crystallised into being.

How do the sound figures fit into this schema? Schlegel said that Chladni "makes visible the purity of musical tones in the regularity of geometrical figures" (1989, 379). This could be interpreted in various ways. The Kantian might say that Chladni translates one sensation (sound) into another (vision).[42] But Schlegel wanted to get beyond sensation and into the external world. This did not mean flouting Kant's proviso that knowledge must be tethered to sensible experience. Schlegel rather posited that some common principle linked sensation to the external world. The route to nature must accordingly pass through the subject, "who has the capacity to intuit himself directly… this places him in the position of being able to grasp his

[41] Benjamin Berger and Daniel Whistler, *The Schelling-Eschenmayer Controversy, 1801* (Edinburgh: Edinburgh University Press, 2020), 106.

[42] Friedrich Nietzsche famously wrote: "Ein Nervenreiz, zuerst übertragen in ein Bild! Erste Metapher. Das Bild wieder nachgeformt in einem Laut! Zweite Metapher. Und jedesmal vollständiges Überspringen der Sphäre, mitten hinein in eine ganz andre und neue. Man kann sich einen Menschen denken, der ganz taub ist und nie eine Empfindung des Tones und der Musik gehabt hat: wie dieser etwa die chladnischen Klangfiguren im Sande anstaunt, ihre Ursachen im Erzittern der Saite findet und nun darauf schwören wird, jetzt müsse er wissen, was die Menschen den 'Ton' nennen, so geht es uns allen mit der Sprache." *Werke: Kritische Gesamtausgabe III.2*, eds. Giorgio Colli and Mazzino Montinari (Berlin: Walter de Gruyter, 1967–), 373.

being at its root, which is otherwise known as speculation."[43] It is worth focusing on the term "root." In a tree, the root is imperceptible and yet grounds the trunk and branches. Kant had used the term "root" to signify the reciprocity between sensibility and the understanding (the domain of thought).[44] To access this root, Kant "abstracted" i.e. removed the determinations from sensible representations in order to access the "pure" forms of intuition i.e. space and time. Of course, Kant would never have agreed that this enabled the subject "to grasp his *being* at its root" (my italics). The noumenon ruled out any connection between knowledge and being. "Being" was an extrapolation that derived from Schelling, who had insisted that "the system of nature is at the same time the system of our mind."[45] Schlegel's modified Kantianism thus explains why terms like "purity" are preserved yet re-oriented towards "musical tones" i.e. things in the world as opposed to transcendental vocabulary like "representation" [*Vorstellung*].

This lays out the basic coordinates of Schlegel's argument. Kant supplied the ideal mental forms whereas Schlegel pursued the real natural forms; and both vectors are indispensable. Now, it might seem contradictory that although we proceed in different directions i.e. towards mind and from nature respectively, we are nevertheless drilling towards one shared generative "root." According to the principle of identity, natural and mental forms emerge from the same source. This paradox is explained by Schelling's dual-aspect approach. For the ideal perspective, nature will always be something external. It will accordingly "appear" that mind and nature are getting further apart during these investigations. But for the real aspect, mind and external nature simply "express" the same underlying principle so these categories represent "poles" that are to be integrated during future inquiries.

It is from this standpoint that Schlegel pursues the "regularity of geometrical figures" (1989, 379). The German *Regelmäßigkeit* does not equate directly to the English term "regularity," which has empiricist connotations of convention or habit. Schlegel's "Regel" instead manifests the rationalist concept of necessity, which is liable to estrange the contemporary reader. Necessity might be possible to entertain in the mental sphere of transcendental philosophy; but Schlegel's application of necessity to the real world might be asking too much. Here certain qualifications deserve to be

[43] "Dieser hat die Fähigkeit selbst unmittelbar anzuschauen… dadurch wird er in den Stand gesetzt sein Dasein an der Wurzel zu ergreifen, welches Speculation heißt." A.W. Schlegel, *Vorlesungen* (1989, 219)

[44] Immanuel Kant, "Einleitung," §VII, *Kritik der reinen Vernunft* (Hamburg: Meiner Verlag, 2009). Hereafter *KrV*.

[45] "Das System der Natur ist zugleich das System unseres Geistes." Schelling, *Ideen*, 41.

borne in mind. We recall that Kant and Schlegel both acknowledged the limits of sensation. In neither case did necessity manifest itself tangibly. It is exclusively the vector of analysis that distinguishes Schlegel from Kant. Whereas Kant abstracted intuition into cognitive forms, Schlegel constructed intuition from natural forms. In this sense, Schlegel did not entirely throw transcendental caution to the wind. When Schlegel describes the sound figures as "dust scattered upon sonorous plains… that points to [*anzeigen*] the stasis (*Ruhe*) next to the oscillations,"[46] he did not directly perceive nature itself. Schlegel rather noted the "dust" that "points to" the moment when force had been present. And these temporal indicators had their spatial parallel insofar as they lay upon "nodes" i.e. the locations where "oscillations" were not active. The sound figures could only ever be perceived in the "stasis" next to their activity.

Via the sound figures, Schlegel therefore makes only negative inferences about nature. This may seem underwhelming but much depends on how these inferences are interpreted. We have seen that Schelling did not flout Kant's sensible limits but he did re-interpret them via the Spinozist terminology of *natura naturans* (sheer becoming or nature in its active state) and *natura naturata* (being or finite human perception i.e. nature imagined via the phenomenal categories of time, space, and causation). These were not separate worlds but rather different aspects of one and the same nature. It is under this lens we appreciate why Schlegel's negative inferences are imperceptible but nevertheless real. At the same time, Schelling knew that simply affirming nature's existence would not hasten the adoption of *Naturphilosophie*; especially following Kant's troubled scientific reception. This makes clearer why the practical interpretation of emerging science represented an indispensable component of Schelling's intellectual programme. And this raises difficult questions for any tradition that inherits *Goethezeit* thought and yet discards its scientific dimension,[47] which could render any claim to the real tentative indeed.

We have seen how Schlegel believed that *natura naturans* could negatively be inferred from the "stasis" of the sound figures. One might justifiably wonder: how could one derive something from its opposite? We have also seen that Schlegel's geometry was supposed to unify the inorganic

[46] "[S]onoren Fläche aufgestreute Staub…die bey den Schwingungen ruhenden Stellen anzeigen." A.W. Schlegel, *Vorlesungen* (1989, 379).

[47] One influential source for this within the otherwise positive reception of German Idealism was Theodor W. Adorno, who claimed that Hegel represented the moment when science and philosophy came asunder. See Theodor W. Adorno, *Kants "Kritik der reinen Vernunft" (1959)* (Frankfurt am Main: Suhrkamp, 1995), 65.

and organic. But how could something irreducibly spatial and static possibly account for development and change? In an earlier lecture, Schlegel had at least sketched the outline of an answer:

> Thus is the point viewed dynamically the image of absolute intensity of the highest concentration; the circle is the unification of this or attractive force with expansive force… the straight line or length is the schema of magnetism: a power that separates from itself in two opposing directions. The ellipse is the connection of length with the circle.[48]

Schlegel interprets static geometry as the "image" or expression of an underlying, dynamic geometry. The simple point becomes "absolute intensity of the highest concentration;" the circle becomes "the unification of this or attractive force with expansive force;" the line or length becomes "the schema of magnetism: a power that separates from itself in two opposing directions;" which finally becomes the "ellipse" when it is combined with the circle. With this, Schlegel shows how geometry may also be dynamically interpreted. This explains why Schlegel could say in an earlier lecture that geometrical figures are simultaneously "the *expression* and the *appearance* of the way in which nature's fundamental forces affect."[49] Geometry legislates for both nature (which it "expresses") and consciousness (to which it "appears"). And we now understand why Chladni "projects" [*hinüberspiegelt*] (1989, 379), in Schlegel's words, the results of arithmetic onto geometry. The term "speculation" derives from the Latin *speculum*; a mirror that does not merely duplicate (or "reflect") what the individual externally projects upon nature but a mirror in which nature – via the individual – finally comes to recognise and know itself.[50]

The sound figures exemplify Schlegel's dual-aspect approach. But it is not obvious what recommends the dynamic interpretation over the mechanical. Let us therefore recall Schlegel's practical justification. Necessity would link the ideal subject and real world. Otherwise, geometry would remain an intellectual exercise. To rectify this situation, Schlegel sought to account for the existence of the sound figures. It is not obvious

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[48] "So ist der Punkt dynamisch betrachtet das Bild der absoluten Intensität der höchsten Concentration; der Zirkel ist die Vereinigung dieser oder der Attractivkraft mit der Expansivkraft... Die grade Linie oder die Länge ist das Schema des Magnetismus: einer Kraft, die in zwei entgegengesetzte aus einander tritt. Die Ellipse ist die Verbindung der Länge mit dem Kreise." A.W. Schlegel, *Vorlesungen* (1989, 307).

[49] "[D]er *Ausdruck* und die *Erscheinung* von der Wirkungsart der Grundkräfte der Natur." A.W. Schlegel, *Vorlesungen* (1989, 307, my italics).

[50] Glenn Alexander Magee, *Hegel and the Hermetic Tradition* (New York: Cornell University Press 2001), 82.

what existence means here. We have seen that Euler chose to divide the sound figures into lines; and he did so because lines behave in accordance with established arithmetical equations. Euler's arithmetical procedure therefore involved extricating natural law from the messy contingency of the real world. Euler converted the "real" (something that existed in the world) into the "ideal" (something that existed in the mind). But for Schlegel, something that only existed in the mind does not really exist at all; it is an "detour" that would mire the perceiver in "dreams… gloom, and lunacy" (1989, 219). Schlegel therefore attempted to imagine geometrical figures as they really were i.e. messy, tendential, and imperfectly expressed. And to achieve this, Schlegel appealed to "power." If geometrical figures can be said to exist, they only do so an expression of "power." Thus does the "line" become "schema" for magnetism. Burdened though it is with scholastic terminology, this sentence just means that subtracting "power" from geometry would render it ideal (without the real i.e. "one-sided"). Of course, the positive elaboration of this perspective would require fully deriving the sound figures from natural forces and Schlegel does not undertake this project here.

In my view, Schlegel's justification for rejecting Euler and embracing dynamic physics is convincing even though his positive doctrine remains obscure. But Schlegel never claimed to offer this and explicitly stated that results from the sound figures were still "to be expected" (1989, 379). These results would arrive before long with Ritter's and Ørsted's correspondence about electro-magnetism in 1804.[51] Ørsted would present the results of these discussion to the Copenhagen *Royal Society of Science and Letters* in 1807,[52] which provided the basis for Schelling's 1811 "Bericht über den pasigraphischen Versuch des Professor Schmid in Dillingen." But we are not concerned to address these developments here. For now it suffices to observe the catalytic effect that prospective results had upon Schlegel's philosophy of art and in particular the attempted transition into the real. With magnetism, Kant's vaunted "touchstone of experience" is no longer just an empty phrase or placeholder for the experience it perennially defers; it is an actual thing. The ideal sloughs off its scholastic vocabulary to converge into identity with the real of magnetism.

[51] H. C. Ørsted, "Schreiben des Hrrn. Dr. Oersted zu Kopenhagen an Hrrn. I. W. Ritter zu Jena, Chladni's Klangfiguren in elektrischer Hinsicht betreffend," *Naturvidenskabelige Skrifter I*, 261. Cited in Christensen, 170.

[52] H. C. Ørsted, "Forsøg over Klangfigurerne" (Copenhagen, 1807-1808), *Naturvidenskabelige Skrifter II* (Copenhagen: A. F. Host and son, 1920), 11-34.

In Schlegel's *Kunstlehre*, the sound figures made possible the transition from rhythm to harmony by re-imagining tone as geometric figure rather than quantitative oscillation. In this respect, the sound figures were not just an illustrative example but actually grounded – albeit provisionally – Schlegel's philosophy of art in the real. This article has sought to provide a foothold onto this most provocative aspect of Schlegel's thought. If it is indeed true that Schelling is "a contemporary philosopher" (Grant, 19) then Schlegel's *real*isation of the artwork, so to speak, could have implications for contemporary literary and cultural criticism. It is not too early to begin teasing out these implications; even though this tentative foothold on the real demands fortification with additional scientific examples. For it is precisely this transition into the real that remains so opaque and indeed pressing. Every venture that takes German Idealism for its substrate – beginning with G. W. F. Hegel but including Karl Marx and the Frankfurt School – arguably presupposes the real. This elicits a sobering thought: how much of this tradition simply falls away with the disavowal of *Naturphilosophie*? Now that recent scholarship has delineated Schelling's key contributions and recognised his independence from Hegel, it would remain to explore in greater detail precisely *how* the real was won. And this project would not limit its purview to Schelling himself but that whole subcurrent within Jena – literary, philosophical, scientific and otherwise – which insisted upon nature's objective and independent existence.

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Individuation and Disindividuation

Karoline von Günderrode's Aesthetics of *Naturphilosophie*

Gabriel Trop[*]

ABSTRACT

This paper argues that Karoline von Günderrode's works can be read as individuation and disindividuation experiments within an ontology informed by Friedrich Schelling's naturephilosophy. Günderrode places this naturephilosophical ontology in the service of an ethical and political problematic, namely, how to dissolve the normative claims of oppressive political-erotic categories that seek to regulate and channel the desires of everyday life into prescribed and delineated forms. Günderrode's work does not, however, culminate in a substantive ethics of *Naturphilosophie*, but rather, effectuates a wholesale transvaluation of ethical and political fields of sense, one in which seemingly stable concepts of virtue, the good, and political order are rendered contingent. Her naturephilosophical aesthetics ultimately authorizes and affirms non-standard forms of individuation and disindividuation as legitimate sources of transformation.

Keywords: aesthetics, individuation, *Naturphilosophie*, ontology, politics

RÉSUMÉ

L'article soutient que les écrits de Karoline von Günderrode peuvent être lus comme un terrain d'expérimentation de l'individuation et de la désindividuation au sein d'une ontologie inspirée de la philosophie de la nature de Schelling. Günderrode met cette ontologie relevant de la *Naturphilosophie* au service d'une problématique éthique et politique : celle de savoir comment dissoudre les attentes normatives impliquées par des catégories politico-érotiques oppressives, qui cherchent à réguler et à diriger les désirs de la vie quotidienne dans des formes prescrites et prédéfinies. Toutefois, l'œuvre de Günderrode ne culmine pas dans une éthique substantielle de la *Naturphilosophie* : elle opère plutôt une transvaluation des champs de sens éthique et politique dans leur ensemble, transvaluation qui rend contingents les concepts en apparence stables de la vertu, du bien et de l'ordre politique. Son esthétique dérivée de la philosophie de la nature autorise, et affirme, en définitive des formes non standard d'individuation et de désindividuation comme sources légitimes de transformation.

Mots-clés : esthétique, individuation, *Naturphilosophie*, ontologie, politique

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1. Introduction

A pervasive downward pull traverses the works of Karoline von Günderrode: bodies sink to the ground, plummet from cliffs into churning waters, slide into the realm of the dead. Some, like the wanderer in "The Wanderer's Descent," actively seek out an Orphic journey to the subterranean world, a *katabasis*. Others, like the protagonist of "The Pilot," make an upward climb: an ascent towards sidereal order. Along this trajectory toward the beyond, it is not long before gravity reasserts itself, drawing the individual away from the pure order of the ether back to the earth. Attempts at escape velocity are met with an unyielding reality principle, the law of gravity and the gravity of law. In the words of the final lines of the poem: "The law of gravity / it claims its rights anew."[1]

In Günderrode's works, the realization of an ideal—or *the* ideal—is constantly exposed to failure; the descent into pure matter fails, just as the ascent into pure form fails. But a counterforce becomes palpable in such failures: a force of matter and form nevertheless capable of reconfiguring the elements governing the habitable zone in which humans live out their lives, namely, the field of the earthbound. In Günderrode's essay *The Idea of the Earth*, the earth refers to a matrix of appearance, akin to a phase space of developmental potentiation, or the set of all possible individuated forms as they emerge from and return to preindividuated substance. Moreover, the earth indexes a *problem*—in the form of a disequilibrium between spirit and matter—that the universe itself aims to solve: "perhaps the totality of our entire solar system is dedicated to the resolution of this task."[2] Processes of dynamic emergence as attempts to resolve physical (and metaphysical) problems operate according to a logic that Gilbert Simondon will designate as *transduction*: "transduction does not go elsewhere to seek a principle to resolve the problem of a domain: it extracts the resolving structure from the very tensions of this domain."[3] Günderrode's idea of the earth stimulates transductive operations: processes of individuation and disindividuation that respond to problems inherent in initial conditions.

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[1] Karoline von Günderrode, *Sämtliche Werke und ausgewählte Studien. Historisch-Kritische Ausgabe*, 3 vols., ed. Walther Morgenthaler (Basel: Stroemfeld/Roter Stern, 1990–1991), 1:390. Citations to Günderrode's work (SW for *Sämtliche Werke*) will follow this edition. All translations are by the author unless otherwise indicated.

[2] SW 1:448.

[3] Gilbert Simondon, *Individuation in Light of Notions of Form and Information*, trans. Taylor Adkins (Minneapolis: University of Minnesota Press, 2020), 15.

Dominant strands in Günderrode's entire oeuvre, even in those works that precede *The Idea of the Earth*, can be read as aesthetic individuation and disindividuation experiments within an ontology informed by Friedrich Schelling's naturephilosophy.[4] According to Schelling's *First Outline of a System of the Philosophy of Nature* (1799), individuation—how finite or determinate individuals come to emerge at all given that the natural system strives to be pure process without product (and is thus, to a certain extent, hostile to individuation)—constitutes the "highest problem of the philosophy of nature."[5] The engagement with processes of individuation—along with the inverse operation, that of disindividuation (which also concerned Schelling)—permeates Günderrode's aesthetics such that it would not be implausible to call individuation the highest problem of her work as well.

Ultimately, Günderrode places a naturephilosophical ontology in the service of an ethical and political problematic, namely, how to *uncondition* the real through aesthetic-speculative operations. In *Letters of Two Friends*, the present is conceptualized as a defective system of relations, the result of a pathological status quo endemic to Protestantism, namely in the pervasiveness of "economy" as the dominant cultural category of intelligibility.[6] The cultural logic of economy seeks to apportion out sensuous and spiritual resources and constrain desire such that all subjects are necessarily governed by a constitutive and non-productive lack: "nobody can drink enough to be filled with God, this drop, however, is sufficient for nobody."[7] In a cultural context dominated by procedures and norms privileging economic distribution as a general order of things, the pursuit of the unbound, of unconstrained excess, can only appear as extravagant, illusory, or sick. The

[4] Resonances and divergences in the work of Günderrode with the philosophies of Fichte and Schelling have been investigated in Ruth Christmann, *Zwischen Identitätsgewinn und Bewußtseinsverlust. Das philosophisch-literarische Werk der Karoline von Günderrode (1780-1806)* (Frankfurt am Main: Lang, 2005), as well as in more recent work by Anna Ezekiel, Dalia Nassar, and Karen Ng; see, for example, Anna C. Ezekiel, "Revolution and Revitalization: Karoline von Günderrode's political philosophy and its metaphysical foundations," *British Journal for the History of Philosophy* (forthcoming); see also Ezekiel's introductions to *Poetic Fragments* in Karoline von Günderrode, *Poetic Fragments*, ed. and trans. Anna C. Ezekiel (Albany: SUNY Press, 2016); Dalia Nassar, "The Human Vocation and the Question of the Earth: Karoline von Günderrode's Philosophy of Nature," *Archiv für Geschichte der Philosophie* 104 (forthcoming, 2022); and Karen Ng, "The Idea of the Earth in Günderrode, Schelling, and Hegel," *The Oxford Handbook of Women Philosophers in the Nineteenth Century*, eds. Kristin Gjesdal and Dalia Nassar (forthcoming).

[5] Friedrich Schelling, *First Outline of a System of the Philosophy of Nature*, trans. Keith R. Peterson (Albany: State University of New York Press, 2004), 77. See also Daniel Whistler, "Schelling on Individuation," *Comparative and Continental Philosophy* 8, no. 3 (2016): 329–44; and Yuk Hui, "The Parallax of Individuation" *Angelaki* 21, no. 4 (2016): 77–89.

[6] SW 1:351.

[7] SW 1:351.

idea of the earth posits a liberation from this constraining system of relations by construing the present as a deficient form in which vital energy cannot properly be intensified, harnessed, and directed towards that which is unbound.

The metaphysics of Günderrode's thought, as Anna Ezekiel has argued, can be described as one of elemental separation and recombining in constellations that form ever new assemblages.[8] There have been notable attempts to make explicit the ethical and political consequences of Günderrode's metaphysics as thus expressed. Dalia Nassar, for example, argues that Günderrode, by drawing on Fichte rather than Schelling, invests metaphysics with an ethical task, with a *vocation*, one whereby human beings comprehend themselves in service to the earth;[9] according to Karen Ng, Günderrode's view of the earth as a system that aims to establish a "collective organism" provides a framework for an ethics aimed at the cultivation of a healthy and flourishing ecosystem.[10]

When one examines the metaphysics developed in texts such as *The Idea of the Earth* not merely in dialogue with her philosophical interlocutors (i.e. Spinoza, Fichte, Schelling, Hemsterhuis), but in relation to her other poetic adventures—for example, in line with the more radical tendencies of her *Poems and Fantasies* (1804) and the *Poetic Fragments* (1805)—one is left with the impression that such accounts miss the prevalent attraction in her work to non-standard, even perverse forms of individuation invested with a significant deviant potential. Attempts to recuperate Günderrode's work in the service of a contemporary ideology or normative orientation—ecological co-habitation, for example, or service to the earth—downplay the disruptive attractors of her naturephilosophical ontology. It is certainly possible to draw on her thought as an inspirational source for thinking beyond ecological catastrophism; however, fidelity to the full scope of her speculative ontology also requires finding and preserving whatever in Günderrode is untimely, wild, whatever cannot be integrated into the substantive normative concerns of the contemporary. Precisely the untimeliness of her thought can indicate its most emancipatory possibilities. The energetic feedback loop between earth and individual that Günderrode explores in the *Letters of Two Friends* and *The Idea of the Earth*, for example, can be repurposed to dissolve the

[8] Anna C. Ezekiel, "Revolution and Revitalization" (forthcoming). Ezekiel explores this dynamic in multiple groundbreaking contributions. See also her introduction to *Poetic Fragments*, 19-20; 92.
[9] Dalia Nassar, "The Human Vocation and the Question of the Earth: Karoline von Günderrode's Philosophy of Nature" (forthcoming).
[10] Karen Ng, "The Idea of the Earth in Günderrode, Schelling, and Hegel" (forthcoming).

normative claims of oppressive political-erotic categories that seek to regulate and channel the desires of everyday life into prescribed and delineated forms. According to Joseph Albernaz, Günderrode's idea of the earth erects a "destabilizing common that undoes the enclosures of the world and the universal."[11]

Grasping these elements of Günderrode's thought requires placing the naturephilosophical ontology of the *Idea of the Earth* in relation to the extremities of her work as a whole. In an analysis of the poem "The Bonds of Love" from *Poems and Fantasies*, for example, Amy Jones identifies an inverted vampiric principle at the core of Günderrode's thought: neither female nor male, the inverted vampire's primary function is to redirect the flow of blood rather than simply to drain blood, and thereby to initiate an energy transfer between individuals in such a way that desire can no longer be channeled into patriarchal patterns of behavior.[12] The residues of such non-standard forms of relationality remain operative in Günderrode's naturephilosophical metaphysics. Günderrode's idea of the earth, which potentiates and realizes itself by drawing on the agonistic and energy-intensifying function of individuated beings that it has itself produced, comprises a metaphysical circulatory system that has something equal parts cannibalistic, vampiric, and generative about it: "The totality is enlivened through the destruction of the individual, and the individual lives immortally in this totality, the life of which the individual develops by living."[13]

To grasp the full import of her thought, it will be necessary to invert the teleology typically invoked as the ethical endpoint of Günderrode's metaphysics. Instead of examining how individuals produce a healthy or normative holistic body and what this final body might be, a productive question can be posed as follows: what forms of individuation and disindividuation does such a naturephilosophical holism legitimate and stimulate? In the case of *The Idea of the Earth*, one must therefore distinguish between the ideal produced *in* the text (the realized idea of the earth as an immortal, ideal body) and that which is produced *by* the text (the affirmation of non-standard forms of individuation). What might seem to be the telos of Günderrode's naturephilosophical metaphysics—individuals in ethical

[11] Joseph Albernaz, "Earth Unbounded: Division and Inseparability in Hölderlin and Günderrode," *Nothing Absolute: German Idealism and the Question of Political Theology*, eds. Kirill Chepurin and Alex Dubilet (New York: Fordham University Press, 2021), 126-7.
[12] Amy Jones, "Vampirism Inverted: Pathology, Gender, and Authorship in Karoline von Günderrode's 'Die Bande der Liebe'," *Writing the Self, Creating Community: German Women Authors and the Literary Sphere, 1750-1850*, eds. Elisabeth Krimmer and Lauren Nossett (Rochester, NY: Camden House, 2020), 141-162.
[13] SW 1:360.

service to an end greater than themselves, to ecological equilibrium—obscures the consequences of what this telos itself produces and authorizes. Through the positing of such a telos, Günderrode's thought submits various fields of signification and individuation to elemental recombination: gender, erotics, religion, politics, to name a few such fields. What comes to light in Günderrode's work is thus not a substantive ethics of *Naturphilosophie*, but rather, a wholesale transvaluation of the ethical and the political, one in which seemingly stable concepts of virtue, the good, or political order are rendered contingent, thereby granting to transgressive forms of individuation and disindividuation an increased ontological power of vitalization; precisely these non-standard forms can be most capable of potentiation, planting the seeds of an as yet unknown future trajectory.

The argument will unfold as follows. First, I will examine Günderrode's work as commensurate with the operations of romantic *Poesie* inasmuch as they cultivate speculative counter-practices that aim to deviate from standard forms of intelligibility. Second, I show how Günderrode, in her dialogue *The Manes*, already draws on a naturephilosophical concept of the bond (*Verbindung*) to enable non-hierarchical identifications that suspend operative categories of social intelligibility and transmit a power of action beyond class, gender, and historical-cultural difference. Third, I examine how Günderrode constructs limit points for processes of individuation and disindividuation—potentiated zones from which the human is seemingly excluded—in the respective domains of ether (pure form) and underworld (pure matter); however, Günderrode nevertheless harnesses the generativity of such domains in poetic form, either by bringing the experience of divine order back into the realm of differentiation (in "The Pilot") or by transposing the pure potentiality of matter into the virtuality of the unconscious (in "The Wanderer's Descent"). Finally, I show how Günderrode further develops the aesthetics of *Naturphilosophie* in the *Letters of Two Friends* and *The Idea of the Earth* as a speculative solution to a culture constrained by the exigencies of political economy; the "idea of the earth" ultimately invests potentially deviant processes of individuation and disindividuation with an affirmative power in the pursuit of possible erotic and political fantasies.

2. Romantic *Poesie* as Speculative Counter-Practice

In an essay on Hölderlin's post-1806 poetry, Daniel Whistler approaches textual artifacts written in the wake of Kantian philosophy as speculative or counter-speculative forms. Schelling and Hegel, for example, construct speculative mirrors that intend to reflect the "totality of reality": "it is the

philosopher, her writing practices and the resultant *text* which assume the place of the mirror."[14] Romantic poetry—the infinite productivity of *Poesie* as it emerges in the discourse of Early German Romanticism and concretizes itself in aesthetic products—also incites speculative discursive operations, albeit often in the form of the fragment that constitutively refuses claims to totalization, whether in infinite approximation, or, as Leif Weatherby argues, in the more radical identification of the fragment *with* a basic material and ontological dynamic of incompletion in the real that ramifies into the symbolic, becoming commensurate with textual and communicative acts.[15] Whatever the case may be: Romantic *Poesie* functions as a crucible of speculative operations by producing a view on the world inflected by something alien to standard forms of intelligibility. This feature is critical to the work of Günderrode and ascribes a power of estrangement to the poetic object. Moving through poems as speculative experiments changes the very function of the organs of intellection such that one would not—*could not*—turn back to the world with the same view of things. An extra-terrestrial impulse, one that extracts subjects from the stabilizing self-evidence of normative status-quo ideologies, lies at the basis of Günderrode's idea of the earth.

A consistent tendency of Günderrode's work—from the key poems and fragments of the *Poems and Fantasies* (1804) to those of *Melete*, posthumously published in 1806—posits the poem as a speculative field subtended by a naturephilosophical ontology. Schelling inaugurates the discourse of *Naturphilosophie* in his *Ideas for a Philosophy of Nature* (1797); in its initial formulation, naturephilosophy does not simply apply philosophy to the natural sciences—does not approach the empirical sciences as already formed discourses and then seek to philosophically represent the abstract structure or validity of such discourses—but examines how the natural sciences themselves *emerge philosophically*, are themselves emergent properties of an unconditioned natural process whose dynamics they then make visible. Schelling thereby reinterprets the very concept of natural science (*Naturwissenschaft*): where empirical natural science produces knowledge of nature as a reified object, the natural sciences as redefined by Schelling (later, as *speculative physics*), in their material and semiotic operations, disclose an ontology of becoming: "It is my goal... to let natural science itself *emerge* philosophically, and my philosophy is itself nothing other than natural

[14] Daniel Whistler, "The Production of Transparency: Hölderlinian Practices," *Essays in Romanticism* 23:2 (2016): 156.
[15] For this latter Leif Weatherby, "A Reconsideration of the Romantic Fragment," *The Germanic Review* 92:4 (2017): 416.

science."[16] *Naturphilosophie* transforms the natural sciences and mathematics into a series of operations that philosophy can then interpret. Schelling claims, "chemistry teaches us to *read* the *elements*, physics the *syllables*, and mathematics nature."[17] Ultimately, Schelling's *Naturphilosophie* treats the natural sciences as windows onto an ontological grammar of nature whose dynamics condition the emergence of all individuated forms, including the subjectivity of the subject.

Günderrode's intensive engagement with Schelling's *Naturphilosophie* confronts this non-human ontological ground from which the human mind and body emerges as an inventorium replete with material-semiotic tendencies—attraction and repulsion, conflict (*Streit, Kampf*) and inhibition (*Hemmung*), indifference (*Indifferenz*) and individuality (*Individualität*)—that can be transducted into poetic-generic form; in Günderrode's works, such operations are, in a word, scaled up.[18] Moreover, these operations are already latent in works that predate her engagement with Schelling; as is the case with other romantic poets (Novalis, Tieck, Hoffmann), she does not simply translate Schelling's *Naturphilosophie* into aesthetic form, but develops an idiosyncratic naturephilosophical aesthetics with its own speculative investments.[19]

3. The Aesthetic Ontology of the Bond

The implicit potential of a naturephilosophical ontology to relativize the present—to suspend the categories of intelligibility of a specific cultural moment and to condition the genesis of unforeseeable cultural forms—already comes to light in *The Manes*, one of Günderrode's dialogues in her

[16] Friedrich Schelling, *Ideen zu einer Philosophie der Natur* (Leipzig: Breitkopf und Härtel, 1797), ix.

[17] Schelling, *Ideen*, ix; see also Helga Dormann, *Die Kunst des inneren Sinns. Mythisierung der inneren und äusseren Natur im Werk Karoline von Günderrodes* (Würzburg: Königshausen und Neumann, 2004), 140.

[18] As Helga Dormann claims, "the early romantics do not simply assign to philosophy the role of delivering material." Dormann, *Die Kunst des inneren Sinns*, 146. While philosophy, including Schelling's *Naturphilosophie*, does not provide the "material" of poetry, it nevertheless posits an ontological field within which poetry realizes its mythological potential. To be sure, romantic *Phantasie* disrupts the consistency of naturephilosophical potentiation; but within the framework of a naturephilosophical aesthetics, the disruptive force of poetic fantasy itself would not be located within the subject, but traceable back to ontological material dynamics. This process comes to light in Günderrode's *Idea of the Earth* and in the *Letters of Two Friends*.

[19] According to Dormann, however, Günderrode's work can "neither be grasped as the attempt to illustrate Schelling's philosophy nor as an imitation of his philosophy." Dormann, *Die Kunst des inneren Sinns*, 148.

Poems and Fantasies. This fragment stages an encounter between student and teacher—itself a performative instantiation of the ontological operations that it purports to describe, namely, the manner in which a bond (*Verbindung)* between individuated entities becomes taken up into a chain of causes and effects. What Siarhei Biareishyk calls a "processual transindividuality"[20]—dependent on a Spinozistic materialist strain of German Romanticism that manifests itself in chemical forms of individuation (based on a notion of contiguity or *Berührung*) and the maintenance of a galvanic chain (*Kette*)—also infiltrates Günderrode's speculative semantics. Like Spinoza, Günderrode makes individuated beings commensurate with their power of action; for Günderrode, the continuity of "receiving and acting"[21] designates the degree to which an individual's power can remain operative even after the dissolution of the body.[22] And like Spinoza, the picture of the cosmos thus developed is ultimately affirmative, as the increase in power that comes with aggregate bindings of individual beings invokes a natural order in which the tragedy of loss is no longer a necessary structure of the given: "melan-choly"[23] is thus converted into a sense of future possibility ("prophecy" as a "sense of futurity,"[24] although, strictly speaking, the modality of *possibility* would not have been operative for Spinoza).

The force of this Spinozist strand of Günderrode's work entails a dissolution of socially binding or imaginatively valid normative (status quo) distinctions in favor of speculative forms of individuation and aggregation that maximize energetic intensification and transfer between entities. In *The Manes*, Günderrode rethinks contiguity or *Berührung* in the propagation of a chain (*Kette*) within a semantics of force as action at a distance; later, in *The Idea of the Earth*, conjunction (*Verknüpfung*), attraction (*Anziehung*) and touch (*Berührung*) constitute the principal operations governing the specific vital power of a form of life (*Lebensform*).[25] Moreover, in *The Idea of the Earth*, energy transfer takes place between individuated forms and the substance of the earth itself, as the metastability of substance requires the individual—and the dissolution of the individual—to resolve the tensions of its own virtual

[20] Siarhei Biareishyk, "Rethinking Romanticism with Spinoza: Encounter and Individuation in Novalis, Ritter, and Baader," *The Germanic Review* 94:4 (2019): 294.
[21] SW 1:34.
[22] Jason Yonover argues that Günderrode engages with the emancipatory tendencies of Spinozism even as she recalibrates the Spinozist "bias to existence" to include death as a medium of energy transfer; see Jason Yonover, "Spinozism around 1800," *The Oxford Handbook of Women Philosophers in the Nineteenth Century*, eds. Kristin Gjesdal and Dalia Nassar (forthcoming).
[23] SW 1:30.
[24] SW 1:35.
[25] SW 1:447.

being and thereby potentiate the ground into its ideal form. In this process, the ground produces forms of individuation that diverge from politically and socially sanctioned forms of normativity. That is, in Günderrode's literary-speculative experiments and in her naturephilosophical writings, ethics no longer operates along the axiological distinction *good* / *evil*, but must be redescribed as a heightened form of individuation that affirms processes of disindividuation (the more powerful the individual, the more powerful its force of self-dissolution, and vice versa). This naturephilosophical and speculative imbrication of individuation with disindividuation—and the ethical transvaluation that results from the confluence of these seemingly mutually opposed tendencies—constitutes a persistent thread in Günderrode's work.

Understanding the novelty of Günderrode's thought in *The Manes* requires a closer understanding of what constitutes a bond (*Verbindung*). The operation of the bond provides a solution to a metaphysical and existential problem, that of the finitude of the person, and more specifically, concerning how individuality can remain operative after death. The initial problem that catalyzes the exchange between student and teacher, however, is at the same time a political one inasmuch as it is focused on power as manifest in a supposedly singular sovereign instance. The student wonders: can it be true that political energy of the deceased king Gustav Adolph, whose power of action was responsible for the cohesion of the Swedish nation, simply disappears and is lost to time? The question that preoccupies the student in *The Manes* thus concerns death, conceptualized as an entropy of information, where the effect of individuation seems irrevocably gone, dissipated into nothingness, "Thither! Lost! Departed!"[26] The teacher postulates that this loss can be preserved and transmuted into a further power of action inasmuch as the individual is re-collected and taken up in an internal field of effectiveness (*er-innert*)—translated into thought. One being can enter into a connection (*Verbindung*) with another and function as a channel for the force of individuation inasmuch as an inner mental homogeneity makes one element receptive to another; the human being becomes a medium in a chain of causes and effects that can transmit a power of individuation "inasmuch as you share something homogeneous with [the great person]."[27]

The logic of the bond in this instance is predicated on *homogeneity*. The teacher says: "we stand in relation with *that part* of the spirit world that harmonizes with us; a similar or the same thought in different minds, even if they never knew of one another, is, in the spiritual sense, already a bond."[28]

[26] SW 1:30.
[27] SW 1:32.
[28] SW 1:33.

The teacher postulates thoughts as instantiations of homogeneous fields that operate in excess of physical contact between individuals; an equivalent or similar thought (*ähnlicher oder gleicher Gedanke*) thus creates a bond between individuals—in which effective force can be preserved or transmitted—even if the individuals never know one another, or even if they never know of one another's existence. A transhistorical chain is thereby constructed in the realm of thought over which death has no empire. According to the teacher, "Death is a chemical process, a separation of forces, but not an annihilator; it does not break the bond between myself and similar souls."[29] Death does not eliminate effective force or the medium through which force travels—the homogeneity of thought as the medium for a "harmony of forces"[30]—because the potentiality of a thought is enough to preserve the power of the individual. Every future thought homogeneous with that of another individuated being thus preserves and transmits, whether consciously or not, the forces (*Kräfte*) of this individual.

The chemical interpretation of death—because it separates forces but does not destroy them—enables such forces to transcend seemingly insuperable barriers, such as time, space, gender, and class. A bond (*Verbindung*) establishes a chain of effectiveness—what the teacher calls a "long infinite chain from the cause to all results"[31]—via homologies in thought between individuated entities that, according to the status quo of social-normative logic, would otherwise be separated out in mutually exclusive, and perhaps even oppositional categories: sovereign / subject, male / female, teacher / student (the teacher's own doctrine would seem to entail the de-naturalization of the power relation that governs the logic of the dialogue itself).

The de-differentiation of hierarchical power relations enabled by this conception of the bond founds the basis of a complete restructuring of social and sacred power. The inner sense, which describes this potential zone of homogeneous mediation, conditions the genesis of "religions" and "many apocalypses of ancient and modern times."[32] While the medium of force through which individuation is preserved and channeled into the projects of the future depends on the homogeneity of mental receptivity in the process of bonding, globally, such chains of cause and effect can ramify heterogeneously, that is, with as many multiple harmonizations as there are thoughts and ideas. One ought not to confuse, then, the homogeneity of the

[29] SW 1:33.
[30] SW 1:33.
[31] SW 1:31.
[32] SW 1:35.

transfer mechanism with a homogeneity of thoughts or products, since the teacher speaks of religions and apocalypses in the plural rather than the singular.

The naturephilosophical ontology articulated here is not one in which the homogeneity of thought—one mind that enters into a zone of indifferentiation with another mind—generates a homogeneous reality. On the contrary, the possibility that anyone can be bound to any other person in thought—unconstrained by local conditions of time, place, culture, or even consciousness—can produce multiple and potentially conflicting aggregate forms. The bond (*Verbindung*), as emergent from localized homogeneities, generates global heterogeneities. In this speculative mirror, the operation of *binding* can strategically contract and expand the present according to the form taken by thought; "the positive present" can be reduced to "the smallest and most transient point"[33] just as any thought, as part of a chain of actualizations (*wirken*), can become culturally operative at any moment. That a present moment can be dissolved into nothingness as in so "many apocalypses of ancient and modern times"[34] thus conditions the opening of a sense of futurity—in this instance, as the intimation of a different order of things, as "prophecy."[35]

4. The Unboundedness of Potentiality and the Determinacy of Form

Günderrode explores the dissolving power of an apocalypse—not *the* apocalypse, but one among many potential apocalyptic events—in her "Apocalyptical Fragment." The fragment begins in a state of orientation, specifically in the liminal passage from west to east—"in front of me was the east, behind me the west"[36]—and ends by loosening all cardinal points into form-generating and form-dissolving, individuating and disindividuating processes. The ego appears to itself "no longer myself, and yet more than myself,"[37] at one time "a drop of dew,"[38] and finally "no longer an individual drop,"[39] culminating in the celebration of the "one and all"[40] of eighteenth-century Spinozism after Lessing.

[33] SW 1:31.
[34] SW 1:35.
[35] SW 1:35.
[36] SW 1:52.
[37] SW 1:54.
[38] SW 1:53.
[39] SW 1:54.
[40] SW 1:54.

The temporality of Günderrode's apocalypse is emphatically not eschatological—not about bringing time itself to an end—but about folding the eternal dynamic forces of individuation and disindividuation, the visible and the invisible, into the horizon of the present: "simultaneously time and eternity."[41] This infolding of the eternal into the present is marked by the turn of the visionary voice in this apocalyptic fragment to the determinations of the organs of its audience—the ears—at the moment of highest contraction and expansion, abstraction and generalization: "Thus, whoever has ears to hear, let that person hear! It is not two, not three, not thousands, it is one and everything."[42] "One and everything" must become audible, sensuously focalized.

The mythological potency of the power of dissolution thus depends upon establishing points of earthly, sensuous re-entry from privileged sites of absolute becoming into the boundedness of temporal specificity. Günderrode explores two limit points—boundaries between earthly existence and a realm that would entail stripping away the conditions of earthly existence—as failed or inverted Platonic trajectories: the upward thrust as an ascent towards the ideal in the poem "The Pilot;" and the descent into the cave as a shadowy realm antecedent to knowledge and differentiation in "The Wanderer's Descent." These two poems—which explore contrary tendencies and velocities, descent and ascent, matter and form, potentiality and actuality—designate the limit points for the space of individuation in the work of Günderrode. At the same time, they transmit the disruptive and restorative forces held *in potentia* in their respective domains (underworld / ether) into the sensible order of things in such a way that this order can be suspended, potentially transformed, and thereby stimulate the emergence of differently organized, unfamiliarly individuated beings.

In "The Pilot," the move from an intuition of absolute divine motion back into differentiation, towards the "the boundaries of the earth,"[43] is a function of "the law of gravity."[44] According to notes taken in Günderrode's *Studienbuch* on Schelling's *Naturphilosophie* (sometimes written in her hand, sometimes in a foreign hand, but strewn with her addenda), gravity is associated with specific functions: it expresses a "persistent indifferentiation"[45] [*beharrende Indifferenz*] between opposing activities, i.e. the third force that synthesizes the excess of attractive force in magnetism

[41] SW 1:54.
[42] SW 1:54.
[43] SW 1:390.
[44] SW 1:390.
[45] SW 2.367.

(contraction) and the excess of repulsive force in electricity (expansion); where light is the generative principle, gravity is "the receptive"[46] principle. Gravity designates the tendency of bodies to seek a central point [*Centrumsbestreben*][47]; it indicates an overabundance of "rigidity, dead form"[48] over the life and activity of light (although it is also responsible for cohesion, thus for the consistency of individuated forms). Gravity thus expresses a fundamental ambiguity in Günderrode's reception of Schelling's *Naturphilosophie*: it is at one and the same time the force of limitation and contraction as well as a matrix of receptivity, or that which prevents an individuated being from absolutizing itself as a monomaniacal principle.

Günderrode's poetic naturephilosophy of gravity in "The Pilot" draws upon but redirects the speculative momentum of these operations. Here, as the pilot ascends upward to attain a vision of infinite cosmic order, gravity discloses a pull toward differentiation as a necessary condition of embodied humanity. The body designates a horizon of potentiality and of limitation; when the pilot notes that "none of earthly lineage"[49] can escape the pull of gravity, the conditions through which gravity constrains bodies include the limitations produced by naturalizations of gender [*Geschlecht*]. On the one hand, the downward pull that subjects bodies to the violence of the law frustrates the desire of the pilot to maintain himself (and the subject of the poem is in this instance male, *der Luftschiffer*) in a neoplatonically inflected intuition of cosmic rhythm; on the other hand, it is precisely this descent that brings the vision of one who has "completely divested himself of the earthly domain"[50] back into the world, back into the horizon of differentiation and limitation. Gravity thus designates both the limiting force and the horizon through which the unconditioning of humankind, and, by extension, of the constraints of gender, can enter into the differentiation of discourse, in this instance, of poetic form.

The speculative countermovement to the line of flight towards a desire for a purely intellectual intuition of cosmic order—a desire that is first fulfilled and then frustrated in "The Pilot"—consists in the movement toward the subterranean realm, toward the base materiality of chaos as pure potentiality. Günderrode explores this countermovement in the poem "The Wanderer's Descent." Here, the wanderer's desire pulls him toward the domain of undifferentiated matter (*Materie* as *Mutter* / *mater*, as origin), the

[46] SW 2:385.
[47] SW 2:389.
[48] SW 2:401.
[49] SW 1:390.
[50] SW 1:390.

oblivion of a pre-discursive and pre-individuated (pre-elemental) becoming, from which the birth of new forms can emerge. Addressing the Earth Spirits, whose domain is that of unrealized potentiality or "the unborn,"[51] the wanderer yearns to reverse the arrow of time in order to begin a new timeline. He declares:

> Thus absorb me, secret powers,
> Lull me into deep sleep.
> Wrap me in your midnights,
> I joyfully take leave of the ranks of the living.
> Let me sink into the womb of the mother
> To drink oblivion and new life.[52]

The desire to return to a matrix of non-differentiation represents a point of convergence between death and erotic drives: the wanderer seeks to divest himself from life (*Ich trete freudig aus des Lebensreihn*). He thus aims to forget the differentiation of his specific embodied individuated form, but only so that he can then be repurposed into other forms of emergence (*neues Daseyn*); he seeks to de-potentiate himself so that he can be re-potentiated, die to be reborn. The desire for oblivion, as Ezekiel argues, is thus a condition of possibility for transformation, a kind of transmigration of souls.[53]

The desire for oblivion applies not merely to the self, but to an entire cultural field of sense. The attraction of Günderrode's wanderer to the speculative domain of the subterranean contains a potential index of the unbearability of the real; the very trajectory inscribes itself into the philosophical and metaphorological history of returns to and departures from the cave, as Hans Blumenberg writes:

> Inasmuch as our fears can be based upon memory, the idea cannot be dismissed that forgetting can become commensurate with wish fulfillment. The cry for consciousness is not the only solution to elementary human problems. The right to forget must always be recalled when this cry enters into proximity with unbearability.[54]

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[51] SW 1:73.
[52] SW 1:73.
[53] Ezekiel suggests that death is not merely oblivion, but can be operationalized as part of the transformation of the self; death refers to a discontinuity in a conception of selfhood as "it persists through radical change, periods of dormancy, incorporation of elements previously external to the self, and subjection to forces beyond the individual's control." Anna Ezekiel, "Metamorphosis, Personhood, and Power in Karoline von Günderrode," *European Romantic Review*, 25:6 (2014): 773-791; 782.
[54] Hans Blumenberg, *Höhlenausgänge* (Frankfurt am Main: Suhrkamp, 1989), 45.

The wanderer seeks oblivion, perhaps as an index of the trauma of an intolerable existence. But the wanderer does not find oblivion; the main operation of the poem consists in converting the power of this oblivion—the annihilation of the present—into a form of recollection or *Er-innerung* through a speculative doubling.

This doubling occurs by making the soul into a mirror of the pure potentiality of nature. One of the many semantics through which Günderrode approaches the zone of unformed potentiality in the subterranean realm—in addition to "primordial force"[55] [*Urkraft*], the doubling of life in the womb ("life in the womb of life"[56]), and the mother / child dyad—approaches nature as a "workshop."[57] The workshop signifies a space for the emergence of arts, a *technicity* of nature itself (and one should note the alternative spelling, the *work-city*, *Werkstadt*, of this first occurrence of the word in the poem, an orthography that indexes a collective or political subtext; this spelling was interpreted as a typographical error and "corrected" in Bettina von Arnim's reproduction of the poem in *Die Günderode*).

The impossibility of returning to the preconceptual realm of pure potentiality, of the unborn, with the violation of the mother that this implies, inhibits the wanderer from achieving his desire: he is "already parted from the mother's womb / Through consciousness already separated from dream."[58] Although the wanderer cannot enter into this pre-differentiated workshop of nature external to subjectivity—the workshop from which technicity, as a field of operativity predicated upon differentiation, emerges—he nevertheless harbors an analog of this ground of inorganic chaos in the ground of the soul. The Earth Spirits who confront the wanderer and bar his way into the pure potentiality of matter redirect the wanderer to his own interiority:

> Look down, into the grounds of your soul,
> What you seek here you will find there,
> You are only the seeing mirror of the cosmos.
> There too are midnights that one day will dawn,
> There too are forces that awaken from sleep
> There too is a workshop of nature.[59]

[55] SW 1:72.
[56] SW 1:72.
[57] SW 1:72.
[58] SW 1.73.
[59] SW 1:73-4.

Günderrode suffuses the poem with an explicitly speculative semantics in the form of the mirror. The ground of the soul as a speculative mirror (*des Weltalls seh'nder Spiegel*), however, does not simply make consciousness into a reflection of the real in its contemporary forms. On the contrary, this mirror, which analogizes the anarchic domain of the earth spectacularized in the unconscious, produces a new trajectory: the imperative, thrice repeated (and thus more than doubled), to go elsewhere (*dort*), posits the ground of the soul as the source of a chaotic potentiality that nevertheless generates arts, products, different technical forms. The Earth Spirits emphasize: *There too is a workshop of nature* (here the spelling or workshop, *Werkstatt*, is "normalized"). The generative extra-organic realm where "primordial force"[60] slumbers is thus remembered, *er-innert*, by being transposed onto the virtuality of the unconscious.

Inasmuch as it forms the speculative double of anarchic pre-individuated force, the unconscious is invested with a dual power: an annihilation of form, or the return of forms to states of potentiality, along with the stimulation of an alternative genesis, "new life."[61] The unconscious can thus be repurposed to disrupt accounts of formation (or *Bildung*) that delimit a circumscribed potential of development for individuated beings. Herder's *Ideas for a Philosophy of Human History*—which Günderrode, already in 1799, called "a true consolation,"[62] and whose cosmological perspective made her own affairs appear "not worth a tear, not worth one anxious minute"[63]—links the formation of the human being to the condition of the earth, albeit in such a way that prioritizes the stabilization of individuated forms over unbounded potentiality. When Herder declares in a chapter heading, "OUR EARTH IS A GRAND WORKSHOP FOR THE ORGANIZATION OF VERY HETEROGENEOUS BEINGS,"[64] he grasps the individuation of entities in this "workshop" as already determined according to the order of eternal, inalterable laws:

> Even as everything appears to us in the bowels of the earth still as chaos, as ruins—because we are not yet able to oversee the initial construction of the whole—we nevertheless perceive, even in that which seems to us the smallest and crudest being, a very determinate *entity*, a *forming* and

[60] SW 1:72.
[61] SW 1:73.
[62] Max Preitz, "Karoline von Günderrode in ihrer Umwelt. II. Karoline von Günderrodes Briefwechsel mit Friedrich Karl und Gunda von Savigny," *Jahrbuch des Freien Deutschen Hochstifts* (1964): 165.
[63] Preitz, "Karoline von Günderrode in ihrer Umwelt. II," 166.
[64] Johann Gottfried Herder, *Ideen zur Philosophie der Geschichte der Menschheit*, *Werke in zehn Bänden*, vol. 6, ed. Martin Bollacher (Frankfurt am Main: Deutscher Klassiker, 1989), 55.

> *formation* according to eternal laws, which no human caprice can change.[65]

While Herder's concept of the earth equally ascribes a chaotic virtuality to force (*Kraft*)—"The mass of effective forces and elements from which the earth emerged probably contained as chaos everything that could and should become on the earth"[66]—the unfolding of this chaotic potentiality is guided by natural laws such as the laws of polarity, of attraction and repulsion. Günderrode's naturephilosophical aesthetics as manifest in "The Wanderer's Descent," which indifferentiates nature and mind by doubling the speculative mirror of natural chaos within the unconscious, re-potentializes the primordial forces of emergence in such a way that they enable normative deviation and stimulate divergent trajectories. She transplants and transforms Herder's "workshops" of lawful planetary organization, of *Bildung*, into a workshop of chaotic potentiality.

5. Speculative Naturephilosophy as an Art of Unconditioning

Günderrode's naturephilosophical aesthetics attains some of its most explicit formulations in the *Letters of Two Friends*, documents exchanged between Eusebio and an unnamed friend of Eusebio, and *The Idea of the Earth* (which was partially integrated into the last of the letters). Three of the texts gathered in the *Letters*, including the final letter, belong to the friend rather than to the character Eusebio (the biographical relation of these two figures to Günderrode and Creuzer, a question belabored in the scholarship, will play no role in the speculative dynamic elaborated here).

The first letter, written by the friend of Eusebio, articulates the aesthetic, religious, erotic and political problem of restricted economies that limit the circulation of effective and aesthetic force in the present: the current cultural moment, "this time,"[67] is "poor in inspirational intuitions for every sort of artist."[68] This figure seeks the roots of aesthetic impoverishment in cultural forms of Protestantism according to which "economy in every sense and in all things has grown to such a considerable virtue."[69] The proliferation of economies based on distribution (restricted economies) rather than those based on unconditioned and excessive dispensation, or what Bataille would

[65] Herder, *Ideen*, 55.
[66] Herder, *Ideen*, 31.
[67] SW 1:351.
[68] SW 1:351.
[69] SW 1:351-2.

call general economies, belongs to the "evils of the age,"[70] an age in which subjects are constrained by "narrow relations of nature,"[71] by even "more narrow concepts of the true pleasure of life,"[72] and then finally by political power, "forms of state encompassing all activities."[73] These problem fields—in which the categories of nature, pleasure, and politics are revealed to be insufficient for an unconditioned or general economy—can only be resolved through the cultivation of "powerful, strong forms."[74]

At first, as a provisional solution to this cultural problem, the friend suggests returning to the Middle Ages as a source for powerful forms that would provide a viable alternative to the restricted economy of the present. This possibility is ultimately suppressed in favor of the cultivation of a naturephilosophical idea: the idea of the earth. This idea supersedes the suggestion of the interlocutor Eusebio, who urges the friend to be "modest"[75] and posits the telos of human potentiality as "repose of contemplation in all things."[76]

The friend nevertheless agrees with one of Eusebio's ideas, namely the notion that the repetition of the formative power of the past (i.e. the figurative power of the Middle Ages) cannot provide a viable model of striving in the present that would take aim at the pathologies of the age, at the illness of its restricted economies. The friend's elaboration of the idea of the earth in the final letter ultimately responds to what Rancière would call the political problem of a deficient distribution of the sensible, indeed, to the very idea that the sensible should be constrained by the naturalization of economies of distribution.

Schelling's attempt to think individuation as a result of opposing forces, dispersed across his naturephilosophical writings, provides a speculative paradigm—a series of imaginative and elemental operations—that Günderrode repurposes and inverts as part of a widespread transvaluation of ethical and political action. Günderrode's *Studienbuch* notes that Schelling's model of individuation posits in every entity the manifestation of a productive power that constantly strives to generate "new conditions,"[77] but is impeded

[70] SW 1:352.
[71] SW 1:352.
[72] SW 1:352.
[73] SW 1:352.
[74] SW 1:352. As Ezekiel notes, vitalism plays an essential role in the development of Günderrode's political thought. See Ezekiel, "Revolution and Revitalization," (forthcoming).
[75] SW 1:354.
[76] SW 1:356.
[77] SW 2:365.

by an opposing counterforce of "inhibition."[78] Individuated forms thus become ontologically agonistic fields: "all things only exist through the permanence of their struggle."[79] Cosmological bodies participate in this drama of individuation, indeed, are themselves conditioned by this oppositional tension between self-maintaining and universalizing tendencies. Individuated forms are thus always *doubled*, manifesting a natural process that turns against itself; the *Studienbuch* notes: "The earth itself has this doubled life"[80] inasmuch as it strives to tear itself loose from the sun "in order to completely become an individual," whereby the sun strives to attract the earth to it and thereby to "eliminate its individuality."[81] The ontological dynamic of Schelling's *Naturphilosophie* thus perpetuates a power inequality between beings in which smaller bodies are permanently threatened: "If we think about two beings of unequal size, the larger one will attract and will, so to speak, consume the smaller one."[82] The phenomenality of the earth in the *Studienbuch* lays bare this ontological threat, one in which marginalized bodies are left weakened and potentially overwhelmed.

At one point, the *Studienbuch* posits "a linkage between light and gravity in which the former is *not* overcome and held captive by the latter,"[83] in which case "the relation between both forces consists more in coexisting next to one another than in interlocking within one another."[84] The idea of forces *next to* one another as opposed to *in one another* implies a different model of relationality, one in which individuals are not internally riven by an agonistic imbrication or penetration of forces; each maintains their separate domain of effectivity. In *The Idea of the Earth* and the *Letters of Two Friends*, Günderrode constructs a naturephilosophical process of individuation as a *vitalization* of the universal, thereby eliminating the agonistic relation between individuated form and general process that can be found in Schelling's work. In *The Idea of the Earth*, vitality is measured by the capacity of individuals to form bonds with other elements through an intensification of contact and the force of attraction: "We call life the most intimate mixture of different elements with the highest degree of contact and attraction."[85] This attractive or binding force of the individuated form intensifies the vital energy that then feeds back into and potentiates the substance of the earth.

[78] SW 2:365.
[79] SW 2:365.
[80] SW 2:368.
[81] SW 2:368.
[82] SW 2.388.
[83] SW 2:403.
[84] SW 2:403.
[85] SW 1:446.

Once an entity emerges from the pre-individuated substance of the earth into an individuated form capable of contact or attraction, it becomes loaded with energy in its interactions with other individuated elements. Günderrode uses the ideal of struggle (*Kampf*) as an example of this energetic intensification via individuation: "just as two individuals who steel themselves in a long struggle with one another are stronger at the end of the battle than they were before it began, so too are these elements enlivened, and living force strengthens itself in every exercise; however, every form that this force brought forth is just a development of its life principle."[86] The substance of the earth cannot develop without the vitality that comes from individuated elemental interactions, which in turn channel their developed vitality through the exercise (*Übung*) of attraction and contact back into substance in an energetic circulatory system. In this process, it should be noted that the *erotic* and the *agonistic* represent equally intensifying processes in Günderrode's work; while an agonism need no longer exist between individuated form and universal process (*Erdsubstanz*), it can exist in the relation between individuated elements. Moreover, there can be an agonistic relation between the individuated form and the substance of the earth, although any agonistic relation, as shall become clear, is one that de-realizes the idea of the earth.

The vitality of an individuated form is measured according to the energy it gives back to the substance of the earth upon the individual's dissolution. Individuals thus intensify, store, and redirect energy; only individuals can bring the earth to its full potentiated development, namely, to the point of perfect indifferentiation between mind and body, or an "indifferentiation… in which all body would also at the same time be thought, all thought at the same time body."[87] Attaining the indifference point between thought and body means: an ideal body and a bodily ideal, a body without lack or deficiency and a fully actualized corporeal ideality. As Dalia Nassar argues, each individual thus exists in service to the earth, or rather, to the development of the earth's preindividuated potentiality.[88] Establishing an indifference point between body and mind—which entails an indifferentiation between particular and general, element and process—functions as the ethical ideal of the individual. The more general the self can become *as* an individuated form (in equilibrium with itself, as equal to others as possible, as selfless as possible), or the closer it can produce in itself the ideal

[86] SW 1:447.
[87] SW 1:448.
[88] Nassar, "The Human Vocation and the Question of the Earth: Karoline von Günderrode's Philosophy of Nature" (forthcoming).

state that the substance of the earth seeks to realize, the more the individual pushes the earth toward its own body-spirit indifference point. Another way of expressing the paradoxical economy of this naturephilosophical ontology is as follows: the more extreme the force of disindividuation, the more powerful the energy transference of the individual. The aesthetic experiment with a naturephilosophical ontology thus aims to set individuation and the potentiation of the pre-individuated dynamics of the substance of the earth into a mutually reinforcing and intensifying feedback loop.

Individuals can, however, *inhibit* the potentiation of the substance of the earth inasmuch as they negate the tendency to dedifferentiate body and mind: "Through every deed of injustice, untruth and selfishness, that blessed state is made more remote, and the god of the earth... is bound in new chains."[89] The development of the earth is thus radically dependent on the operations of its individuated forms. The idea of the earth is thus not a teleological system that unfolds according to a predetermined path, although its internal dynamic aims at a telos; only the internalization of this telos (dedifferentiation, equilibrium, perfection without lack) in a particular individuated form—as an ethical ideal—can bring this telos into actuality.

While the idea of the earth exhorts the practice of an ethical ideal, it transvalues the field of normativity by redefining what it means to be equal, just, beautiful, selfless, over and against the dominant tendencies that otherwise govern the contemporaneity of individuated forms. Individuals who have achieved the most extreme forms of dedifferentiation compatible with individuation become ethical paragons. Günderrode's idea of the earth thereby makes deviant, non-standard forms of individuation—those who suspend positive law in favor of a natural law whose only form is that of dedifferentiation between the corporeal and the ideal—into vitalizing elements of mediation.

Günderrode's oeuvre undertakes multiple aesthetic experiments in which the paradoxical formula—increase in disindividuation (as operation) = increase in individuation (as potential energy storage and transfer)—entails a transvaluation of the ethical and political field. Gender, class, bodily capability, national origin no longer function as naturalized forms through which force ought to be mediated (although they still exist in the real as *constraints*); the idea of the earth aims to subject such contingent relations to a process of unconditioning.

[89] SW 1:362. Ezekiel notes that the perpetual struggle against the entropy of political and social forms of life entails perpetual revolution Ezekiel, "Revolution and revitalization," (forthcoming).

Taboos melt away.[90] Take, for example, the *Story of a Brahmin*, in which the Brahmin describes how the potentiation of "primordial force"[91] moved through individuated forms until such forms became "one with [primordial force]… and at the same time remained themselves, in such a way that the divinity and universality of the creator united with the individuality of the creature."[92] The intensification of individuation in tandem with operations of disindividuation transforms not just the ontological ground, but more importantly, the entire field of appearances, which are now structured differently; the Brahmin (not the narrator, but the Brahmin friend of the narrator) says, "the appearances around me took on a new and completely different meaning."[93] The story seeks a transindividual transformation: to produce a chain of Brahmins, albeit extracted from the constraints of the caste system. Force thus moves from the Brahmin-friend within the story, to the narrator as Brahmin, to the potential transformation of the listener (diegetically, the character Lubar) as Brahmin, to the reader, also now a potential Brahmin. This chain of transformations in turn denaturalizes normative systems, de-worlding appearances such that categories of social intelligibility can be re-worlded. Throughout the course of the story, Brahminian *Naturphilosophie* unconditions economic categories of intelligibility (profit = the good); the rationalistic world order that demands the assertion of the ego over the other (Fichtean idealism); and even the agonistic forms of individuation that could be ascribed Schellingian *Naturphilosophie*, or agonistic forces that make individuals into "entities of a contradictory nature."[94] Günderrode's Brahmin, like the aesthetic experiment of the idea of the earth, seeks to resolve the problematic ontological tendencies of Schellingian *Naturphilosophie*—according to which polarities and internal agonisms are naturalized (in the earlier *Naturphilosophie* at least)—and seek out alternative speculative ontologies that would feed back into the restructuring of life practices.

However, the Brahminic form, which alienates subjects from the givenness of the world in order to make the world appear contingent and thus open to reconfiguration, represents only one strategy of individuated disindividuation. Among the set of maximally vitalizing individuals could be

[90] According to Stefani Engelstein, Günderrode's *Udohla* "allows sibling incest to pass as a cultural norm without explicit censure"; Stefani Engelstein, "Sibling Incest and Cultural Voyeurism in Günderode's *Udohla* and Thomas Mann's *Wälsungenblut*," *The German Quarterly* 77.3 (2004): 294.
[91] SW 1:312.
[92] SW 1:312.
[93] SW 1:312.
[94] SW 1:306.

counted figures in Günderrode's works who suspend the ethical of contemporaneous existence: Nikator, who murders the corrupt sovereign and thereby potentially forfeits his own existence; Hildgund, on the cusp of assassinating the tyrant Attila, and who also embraces disindividuation; Napoleon, whose revolutionary force is equally embedded in a cyclical naturephilosophy of emergence (the emergence of light from night and the return from light to night); Piedro, whose overwhelming erotic pull toward disindividuation, toward a unity with the sea as the virtual space of his unconscious desire, manifests itself in a bloody struggle with a beautiful youth, thereby extracting him from the norms of bourgeois heterosexuality; Brutus, who kills Caesar and himself, and whose disindividuation equally maximizes his vitalizing force—stored as information that can be recollected in the medium of the divine:

> Thus did a true priest, Brutus himself,
> Offer a sacrifice to freedom, his god,
> And yet: whoever dies for his god, lives within his god.[95]

Those figures attracted to tendencies toward disindividuation in erotic and political forms—in such a manner that processes of disindividuation are correlated with an intensification in their deviant individualizing power—effectuate a transvaluation of ethical and political fields of sense. Moreover, inasmuch as each element in attraction to or in interaction with others initiates an energy intensification and transfer (circulating into the *Erdsubstanz* and then back into forms of individuation), it is no longer evaluated according to the traditional semantics of ethical judgment—according to the dyad of *good* and *evil*—but according to the relative degree of disindividuation of the element as it approaches the indifference point between body and mind: the absolutely whole body-mind organism, without remainder or lack, without tension or internal agonism, as pure affirmation. The striving for "dedifferentiation"[96] (*Ununterscheidbarkeit*) within the singularity of an individuated form opens a field of political experimentation. In the *Letters of Two Friends,* the idea of earth functions as a speculative solution to the pathology of the time (*Zeitübel*) of politically *restricted economies*, of distributions of resources whereby the strength or power of one element or community depends upon the deprivation of the other. In the first letter of the *Letters of Two Friends*, the problem is framed, perhaps following

[95] SW 1:374.
[96] SW 2:402.

Hemsterhuis, as one constrained by "narrow relations of nature"[97] which in turn generate "narrower concepts of the true pleasure of life"[98] and finally, "forms of the state."[99] The idea of the earth can be repurposed to *uncondition* or dissolve cultural forms—relations of nature, concepts of desire (pleasure) and political structures (*Staatsformen*)—inadequate to intensifying processes of indifferentiation.

The idea of the earth thereby becomes a speculative mirror that gathers utopian erotic and political fantasies into a space of possible appearance: radical equality between individuated forms; freedom as the expression of an affirmative body-mind dedifferentiation; the cultivation of a self-less, asubjective individuality; and the channeling of the anarchic potential inherent in the earth into the dissolution of political forms and their reformation, inasmuch as they would then, as part of their elemental restructuring, permit expansive and vitalizing individuals to maximize their tendencies towards dedifferentiation. The speculative limits of Günderrode's naturephilosophical aesthetics, thus expressed, have not been set; the fully realized idea of the earth could entail the reorganization of the entire horizon of sensible appearances and forms of cultural intelligibility—of natural relations, concepts of desire, and state forms—in ways yet to be imagined.

[97] SW 1:352.
[98] SW 1:352.
[99] SW 1:352.

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What is Life?

At the Roots of Romantic Philosophy: Kant's Philosophical Vitalism

Márcio Suzuki[*]

ABSTRACT

This study is part of a broader research project on the significance of physiology in Kant's thought. It attempts to show that vitalism is an essential hermeneutical key for understanding the meaning of his philosophy. Grounded in essential concepts such as vital force and vital feeling, it aims to give an overview of the critical project. As such, Kant's philosophical vitalism would also involve an interpretative review of post-Kantian philosophies: it implies rethinking the nexus between spirit and life in Fichte, Schlegel and Novalis, as well as understanding the relationship between philosophy and physiology in Schelling and Schopenhauer. The present paper constitutes a first philosophical foundation for leading up to these post-Kantian and romantic thinkers. It also includes an appendix providing a brief sketch of Kant's possible place in the history of vitalism.

Keywords: Kant, vital force, physiology, Unzer, Stahl

RÉSUMÉ

Cette étude fait partie intégrante d'un projet de recherche plus large consacré à l'importance de la physiologie dans l'économie de la pensée de Kant. On tente de montrer ici que le vitalisme est une clé herméneutique essentielle pour comprendre le sens de sa philosophie. L'étude vise à donner une vue d'ensemble du projet critique en s'appuyant sur les concepts essentiels de force vitale et de sentiment vital. Mettre en évidence le vitalisme philosophique de Kant impliquerait de réexaminer également les philosophies postkantiennes en repensant le nœud entre l'esprit et la vie chez Fichte, Schlegel et Novalis. Comme aussi de comprendre la relation qu'il y a entre la philosophie et la physiologie chez Schelling et Schopenhauer. Le présent article constitue un point de départ pour une réflexion qui reste à mener sur ces penseurs post-kantiens et romantiques. Il s'achève par un appendice qui esquisse brièvement la situation de Kant dans l'histoire du vitalisme.

Mots-clés : Kant, force vitale, physiologie, Unzer, Stahl

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MÁRCIO SUZUKI

Der Philosoph behandelt eine Frage;
wie eine Krankheit.

The philosopher's treatment of a question
is like the treatment of an illness.

Ludwig Wittgenstein[1]

The aim of the following pages is to present the interpretative hypothesis that Kant's philosophy not only can, but in great measure must, be read from the viewpoint of *vitalism*.[2] It will be sketched out that the concept of *life* is not just one notion among others in his thinking, but rather plays a fundamental, articulating role within it, since that which differentiates the critical way of philosophizing from the dogmatic one has largely to do with the *physiological* comprehension of what life is. The trouble with dogmatism, as well as with many other philosophical systems, is that it has neglected to understand the meaning of life, while from the critical viewpoint *philosophy is essentially a form of vitalism* – of keeping the flame of life alive.[3] According to this supposition, Kant's philosophy cannot be properly understood without this physiological background. The guiding question for the following inquiries deals with the concept of life present in his work. Some emblematical excerpts from his writings, reflections, and lectures will be hopefully telling enough as to give a general account of the vitalistic input his critical system depends on.

To begin with, a Reflection on Anthropology (Refl. 1539, AA 15: 964) may be recalled. It is quoted by Georges Canguilhem in the second part of *On the Normal and the Pathological*:

> The need to unravel the skein of politics by starting from the subject's duties rather than the citizen's rights has recently been stressed.

[1] L. Wittgenstein, *Philosophische Untersuchungen*, I, 255. *Philosophical Investigations*, translated by G. E. M. Anscombe (Malden: Blackwell, 1997), pp. 91-92.

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[3] Some readers, especially Kantian ones, will not fail to interrupt here and ask: "But what kind of vitalism do we find in Kant?" If they have the patience to go to the end of the present text they will find an appendix that tries to locate the place Kant would occupy in a history of vitalism.

> Likewise it is diseases which have stimulated physiology; and it is not physiology but pathology and clinical practice which gave medicine its start. The reason is that as a matter of fact well-being is not felt, for it is the simple awareness of living, and only its impediment provokes the force of resistance. It is no wonder then that Brown begins by classifying diseases.[4]

Three aspects deserve attention in the above lines. First: medicine does not begin with physiology, but with pathology and clinic. Second: well-being is perceived merely as a "simple awareness of living" (*blos Lebensbewustseyn*). Third: not only promotion (*Beförderung*) but also impediment (*Hindernis*) is beneficial to the maintenance of health and life. These assertions essentially summarize Kant's conception of life and health, which is based on two correlated vitalist notions: *vital force* and *vital sensation (Vitalsinn)* or feeling of life (*Lebensgefühl*).

How does Kant understand the vital sense?[5] According to him, the vital sense can be seen as a kind of sensor that perceives all changes occurring within the organism. This sensor, which indicates the vital intensity by which the body and its parts are affected, is also called by Kant *sensus vagus*[6] or even *vitalischer Sinn*:

> that is the inner feeling through which we actually only feel ourselves. With this sense we are only passive, and it is also everywhere where nerves are spread. The vital sense [*der vitalische Sinn*] aims mainly at everything that promotes our life and sets aside that which can shorten it.[7]

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[4] G. Canguilhem, *On the Normal and the Pathological*. Translated by Carolyn F. Fawcett. (Dodrecht/Boston/London: Reidel, 1978), p. 141. Commenting on this Reflection, Canguilhem considers it an antecedent of his own ideas about the normal and the pathological. Despite the interest of his remarks, Canguilhem's statements will not be discussed in the main section of this paper (cf. however, the appendix).

[5] I. Kant, *Anthropology from a Pragmatic Point of View*. AA 07: 153-54. English translation by Robert B. Louden. In: I. Kant, *Anthropology, History, and Education* (Cambridge: Cambridge University Press, 2007), p. 265. The translator employs *vital sensation* to translate both *Vitalempfindung* and *Vitalsinn*.

[6] I. Kant, *Anthropology from a Pragmatic Point of View*. AA 07: 153-54, p. 265. See Brandt/Starke, Einleitung, AA 25: LXI.

[7] "das ist das inwendige Gefuhl wodurch wir eigentlich nur uns selbst empfinden. Bey diesem Sinn sind wir nur passive und er ist auch ueberall wo Nerven sind ausgebreitet. Der vitalische Sinn geht hauptsachlich dahin alles das zu thun was unser Leben befordert und hinweg-zuraumen das es verkurzen kann." I. Kant, *Anthropologie Pillau*, AA 25: 742. The proximity to a crucial teaching of the Stahlian doctrine is striking, when one remembers, for example, a renowned text on the *motus tonicus vitalis* and how through it the soul inhabiting the body selects what is useful and eliminates what is harmful to it: "Die Causa Efficiens oder dasjenige Wesen, welches den Motum Tonicum eigentlich anstellet und fortühret, ist die

As the soul in Stahl, the vital sense inspects the whole body on a full-time basis, choosing all that is beneficial and avoiding all that is harmful to it, without perception or awareness, i.e., this silent, inside scrutiny does not need to resort to an act of attention or reflection to do its work.[8] According to Kant, the vital feeling oscillates in fact between two limits: at the one extremity, there is health, which is characterized by a zero degree of sensitivity or, as in Reflection 1539, by a minimum of feeling, by a simple awareness of well-being (*Wohlbefinden*); at the other extremity, there is a state of the greatest possible delight (*Wohlgefallen*), or a sum of pleasures that human beings can feel. Between these extremes of *Wohlbefinden* and *Wohlgefallen*, there is an entire gamut of human pleasures and pains, ranging from more physical sensations to more spiritual feelings.

Health does not make itself felt, because in the sound state the vital feeling, as conscious awareness, is close to its zero degree. The source of this idea is the Stahlian vitalist lesson according to which the organism works well, without being noticed, if there is no anomaly that it cannot regulate itself. This leads to a crucial figure in the understanding of Kant's approach to vitalism, namely the physiologist Johann August Unzer (1727-1799), from whom he takes a number of crucial arguments, some of which will be mentioned further below. In his well-known manual of physiology from 1771, the *Celeberrimus Unzerus*,[9] he explains his notion of well-being:

> A person describes a condition of health, by saying that *he is well*; – of sickness, by the expression *he is ill*. This being *well* and *ill* are sensations of what is pleasant and unpleasant. One perfectly in health says that not a finger aches, one out of health, that nothing goes right with him; obviously expressions of what is pleasant and unpleasant, whereby we designate a natural or contra-natural condition of the body.[10]

Seele, in so weit sie das Leben hervorbringet und erhält, und in Ansehung dessen sie insgemein die Natur genennet wird. Eben hierdurch leitet sie die Lebens-Säffte wohin sie will, hierdurch wendet sie die Säffte, zu ihrem gehörigen Endzwecke an, hierdurch sondert sie ab und aus, was dem Leibe nützlich und schädlich ist." Georg Ernst Stahl, *De motu tonico vitali*. German translation in: *Ausführliche Abhandlung von den Zufällen und Krankheiten des Frauenzimmers etc*. (Leipzig: Eysseln, 1735), § 117, p. 609.

[8] How much Kant read Stahl and his followers, is an important historiographical question. Although it is beyond the scope of this paper to analyze this question in detail, some references are provided in the appendix relating to Kant's place in the history of vitalism.

[9] I. Kant, Refl. 1525, AA 15: 924.

[10] "Man beschreibt den Zustand der Gesundheit dadurch, daß man sich wohl befinde, der Krankheit, daß man sich übel befinde. Dieses Wohl und Übel sind die Empfindung des Angenehmen und Unangenehmen. Ein ganz Gesunder sagt, daß ihm kein Finger weh thue, ein Kränklicher schon, daß ihm gar nicht recht sey. Lauter Begriffe vom Angenehmen und Unangenehmen, womit wir den natürlichen und widernatürlichen Zustand des Körpers

This passage from Unzer clearly illustrates the affinity between Kant and the physiologist with regard to the state of health and illness. Kant's descriptions of the healthy state are not all exactly the same, and some variations occurring in his texts are of significance. In any case, it is important to keep this main notion of well-being in mind in order to understand the scale of pleasures and pains that he builds starting from it. Whereas in the *Critique of Judgment*, Kant clearly differentiates between interested and disinterested pleasures, in his anthropology he builds a relatively continuous scale from "impure" to "pure" pleasures. Certainly, the differences between those pleasures and pains directly affecting sensibility, and those arising from more elaborate mental representations are not to be neglected; the latter are not objects of immediate gratification or pain, but of more lasting delight or disgust. Despite their differences, these types of pleasure nevertheless have something in common; namely, they all must affect the *same vital sensitivity*. To that extent, the scale of pains and pleasures varies depending on the intensity of the vital sensation, which, in turn, is proportionally determined by the lower or higher degree of *vital force* contained in a representation. An argument presented by Kant in this context might be helpful to understand this point. In paragraph 29 of his *Anthropology* he makes some considerations about intoxication and drunkenness, in which he asserts that "getting drunk" is a "very widespread inclination" and "its influence on the use of the understanding deserves special consideration in a pragmatic anthropology."[11] What drives him to make such a claim?

1. The Pragmatic Meaning of Getting Drunk

The pragmatic observations about drunkenness compare three kinds of drinks: brandy, beer, and wine. All three kinds, as well as opium, have some effect on the body, but there is a difference between them regarding sociability and silence:

> All *silent* intoxication has something shameful about it: that is, intoxication that does not enliven [*belebt*] sociability and the reciprocal communication of thoughts – of which opium and brandy are examples.

bezeichnet." Johann August Unzer, *Erste Gründe einer Physiologie der eigentlichen thierischen Natur thierischer Körper*. (Leipzig: Weidmanns Erbe und Reich, 1771), § 253, p. 231. In the English translation by Thomas Laycock (*Principles of a Physiology of the Nature of the Animal Organism*, followed by the translation of the *Dissertation on the Functions of the Nervous System*, written by the Austrian-Czech physiologist George Prochaska [1740-1820]. (London: Sydeham Society, 1851), p. 127.

[11] AA 07: 170; trans., p. 280.

> Wine, which merely stimulates, and beer, which is more nourishing and satisfying like a meal, function as social intoxication [*zur geselligen Berauschung*]; but with the difference that drinking bouts with beer make guests more dreamy and withdrawn, whereas at a wine-party guests are cheerful, boisterous, talkative, and witty.[12]

Unlike opium and brandy, wine enlivens sociability and facilitates the exchange of ideas. Drunkenness that promotes life (*belebt*) can be considered to be social, because it establishes a kind of *sensus communis* which is situated somewhere between the *sensus communis universalis* of the judgement of taste and the mere *sensus privatus* of the individual who drinks only to get away from others. The socializing quality of wine also appears in other passages of the *Lectures on Anthropology*. In these, wine is contrasted, on account of its lightness, with brandy, which leads to lifelessness (*Leblosigkeit*), *a decrease of the vital force* (*Abnahme der Lebenskraft*), caused by the dullness of the senses and torpor (AA 25: 922). It is also contrasted with beer, which is considered to be too heavy. The reasons why the pragmatical anthropologist appreciates moderate drinking deserve attention; they are outlined in the following excerpt:

> Our representations are animated through the sensation of a new impression, for example, of a drink. Here we are dealing with the favourable side of the drink, whereby the mind is set into an artificial motion, for the feeling of a greater vivification is joy. The ancients did not have such unfavourable concepts of drinking. Sociable and unsociable drinking must be distinguished; the latter is improper and base. Drinking must be sociable, and if it escalates to a certain degree of liveliness [*zu einem gewissen Grad von Lebhaftigkeit*], then it promotes the arousal of the mind [*erfordert die Erweckung des Gemüths*] and makes it sociable. Moreover, in this way it also removes the propensity for dissimulation, and makes one openhearted. For constraint exists in all societies, to which one has already accustomed oneself through frequent practice. However, as soon as cheerfulness has been aroused in society through a moderate drink, but where the understanding still need not be befuddled, but only a degree of talkativeness is reached, one sets constraint aside and becomes openhearted. If cheerfulness becomes

[12] "Alle stumme Berauschung, d. i. diejenige, welche die Geselligkeit und wechselseitige Gedankenmittheilung nicht belebt, hat etwas Schändliches an sich; dergleichen die vom Opium und dem Branntwein ist. Wein und Bier, wovon der erstere blos reizend, das zweite mehr nährend und gleich einer Speise sättigend ist, dienen zur geselligen Berauschung; wobei doch der Unterschied ist, daß die Trinkgelage mit dem letzteren mehr träumerisch verschlossen, oft auch ungeschliffen, die aber mit dem ersteren fröhlich, laut und mit Witz redselig sind." I. Kant, *Anthropology from a Pragmatic Point of View*. AA 07: 170; Eng. trans., p. 281.

> widespread, then everyone talks about what comes to mind, and no one weighs the other's words. For this reason, a company of such people does not like to tolerate someone who is completely sober among them, since such a person pays attention to them, and *is on the alert with his understanding*.[13]

Moderate drunkenness is beneficial to health as well as to sociability since it elicits the feeling of a great vivification (*das Gefühl einer größeren Belebung*). How do guests at a wine-party come to this positive affection called joy (*Freude*)? When combined with an impression occasioned by the ingestion of wine, some representations stimulate the awakening of the mind, while help to increase sociability among individuals. This simultaneous operation is made possible because wine sets the mind free, relaxes and "dribbles" the sentry of our understanding. It is noteworthy that, in this case, the understanding represents social norms, conventions and dissimulations that hamper life's expansion. As a result, wine provides an escape from the standards of conduct that often embarrass sociability and constitute an obstacle to life. From this description of the pragmatic significance of social drinking, it becomes clear that the effects of drunkenness are very similar to those aesthetic pleasures set free by the artistic genius. There is certainly a difference in degree between them (which will be discussed further); but there are also points in common: while the genius sets creativity free from the bounds of art schools, in alcoholic enlivenment the joyful representation

[13] "Unsere Vorstellungen werden durch Empfindung eines neuen Eindrucks z. E. Geträncks rege gemacht. Wir nehmen hier die vorteilhafte Seite des Geträncks, wodurch das Gemüth in eine künstliche Bewegung gesetzt wird, denn das Gefühl einer größeren Belebung ist Freude. Die Alten hatten nicht solchenachtheilige Begriffe vom Trincken. Es ist zu unterscheiden der gesellige und ungesellige Tranck, der letztere ist unanständig und niedrig. Das Trincken muß gesellig seyn, und wenn es zu einem gewißen Grad der Lebhaftigkeig heraussteigt, so befordert es die Erweckung des Gemüths und macht es gesellig. Ferner so nimmt es auch den Hang zur Verstellung weg, und macht offenhertzig, denn in allen Gesellschaften ist ein Zwanck, den man sich schon aus der öfteren Uebung angewöhnt hat. So bald aber die Fröhlichkeit in der Gesellschaft durch einen mäßigen Trunck aufgeweckt wird, wo aber der Verstand noch nicht benebelt werden muß, sondern nur der Grad der Gesprächigkeit erreicht wird, so legt man den Zwanck ab, und wird offenhertzig. Wenn die Fröhlichkeit überhand nimt, so redet jeder was ihm vorkommt, und keiner legt die Worte des andern auf die Waagschaale, daher eine Gesellschaft von solchen Leuten nicht gerne einen gantz nüchternen unter sich leidet, indem ein solcher auf sie acht hat, und mit seinem Verstand auf der Wache ist, wenn sie aber alle gleich sind, so nimmt einer dem andern nichts übel. Wer aber in solcher Gesellschaft nicht trincken will, weil er die Folge seiner Offenhertzigkeit voraussieht, dem ist nicht viel zu trauen, denn er hütet sich offenhertzig zu seyn, und muß viel zu reserwiren haben, er traut sich selbst nicht, und will dahero die Schildwache seines Verstandes nicht ablösen." I. Kant, *Anthropology Friedländer*, AA 25: 509. English translation: Kant, *Lectures on Anthropology* (Cambridge: Cambridge University Press, 2012), p. 78. Italics added. See also *Anthropology Mrongovius*. AA 25: 1251-1252.

unlocks the mind from the bounds of the understanding, leading to a more expansive state, one that is conducive to sociability. Besides this, while the *sensus communis* can become universalized in the judgment of taste, in drunkenness socialization enjoys a limited generalization; but it is still socialization, because in both cases the individual can overcome the limits of his private sense and attain a *comparative universality*. The analogy between a sociable meal, organized by a host of taste, and aesthetic judgment could not be clearer:

> There is no situation in which sensibility and understanding unite in one enjoyment that can be continued as long and repeated with satisfaction as often as a good meal in good company. – But here the meal is regarded merely as the vehicle for supporting the company. The aesthetic taste of the host shows itself in his skill in choosing *with universal validity*, something which he cannot bring about through his own sense of taste, because his guests might choose other foods or drinks, each according with his own private taste. Therefore he sets up his meeting with *variety*, so that everyone will find something that suits his sense, which yields *a comparative universal validity*.[14]

The conceptual bridge that Kant wants to build is remarkable: the community of judging subjects (*sensus communis*) must be thought of in direct proportion to the degree a representation touches the vital feeling (expressed in the sociable drunkenness as the affection of joy, and in the aesthetic contemplation as disinterested pleasure in a beautiful object). No less remarkable is how he explains that the positive value of reasonable drinking goes beyond the anthropological-pragmatic goal it is apparently aiming for. It would therefore be a mistake to believe that getting drunk in a reasonable manner is only a ritualized, elegant form of socialization; it is much more than that, because one can see in it an emblematic instance of what health is, *a constant and progressive removal of life's impediments*:

> The freedom from care that drunkenness produces, and along with it also undoubtedly the carelessness, is an illusory feeling of increased power of life: *the drunken man no longer feels life's obstacles* [*die Hindernisse des Lebens*], *with whose overcoming nature is incessantly connected (and in which health also consists)*: and he is happy in his weakness, since nature is

[14] I. Kant, *Anthropology from a Pragmatic Point of View*. AA 07: 242; Eng. trans., p. 345. Italics added.

> actually striving in him to restore his life step by step, through the gradual increase of his power.[15]

People who are under the influence of socially shared alcohol experience a kind of freedom that is artificially obtained, that is, an illusory feeling that their vital forces have been expanded (*ein täuschendes Gefühl vermehrter Lebenskraft*). This feeling is in fact a delusion; its fictitious character, however, is essential to its anthropological and dietetic value, because, far from being a mere sedative or even a narcotic,[16] this fiction (like others dealt with below) is effective in gradually increasing forces in order to restore life (*durch allmählige Steigerung seiner Kräfte sein Leben stufenweise wieder herzustellen*). That is why a pragmatic anthropology must point out the *vital* importance of these artifices which, just like social drunkenness, lift the burden from the shoulders and minds of men, for that is what life seems to be about: "all of these means [*Mittel*] are supposed to serve the purpose of making the human being forget *the burden that seems to lie, originally, in life generally*."[17] Nevertheless, by inventing these voluntary or intentional (*willkührlich oder absichtlich*)[18] ways of deceiving themselves, people are doing nothing but acting *under the guidance of nature*, which wants them to continually overcome life's impediments; nature seems even to wish for impediments and pains to arise, as they are necessary to her purpose of keeping human beings alive.[19] Constantly having new hindrances to overcome is therefore the unavoidable condition for obtaining pleasure and, by this means, for life and health:

> *Therefore pain must always precede every enjoyment*; pain is always first. For what else but a quick death from *joy* would follow from a continuous

[15] I. Kant, *Anthropology from a Pragmatic Point of View*. AA 07: 170; Eng. trans., p. 281. Italics added.

[16] "Partaking in intoxicating food and drink is a physical means to excite or soothe the power of imagination. Some of these, as poisons, weaken the power of life (certain mushrooms, wild rosemary, wild hogweed, the Chicha of the Peruvians, the Ava of the South Sea Indians, opium); others strengthen it or at least elevate its feeling (like fermented beverages, wine and beer, or the spirits extracted from them, such as brandy; but all of them are contrary to nature and artificial." I. Kant, *Anthropology from a Pragmatic Point of View*. AA 07: 169-70; Eng. trans., p. 280.

[17] I. Kant, *Anthropology from a Pragmatic Point of View*. AA 07: 170; Eng. trans., p. 280 (italics added; slightly changed). On these artificial expedients for the expansion of vital forces, specially smoking pipe, see "Georg Friedrich Meier e os 'paraísos artificiais' de Immanuel Kant," in *Cadernos de filosofia alemã*, 19, 1 (2014), pp. 105-116.

[18] I. Kant, *Anthropology from a Pragmatic Point of View*. AA 07: 170; Eng. trans., p. 280.

[19] "Nature herself has arranged things so that pain creeps in, uninvited, between pleasant sensations that entertain the senses, and so makes life interesting." I. Kant, *Anthropology from a Pragmatic Point of View*. AA 07: 165; Eng. trans., p. 257.

> promotion of the vital force, which cannot be raised above a certain degree anyway?
>
> *Also, no enjoyment can immediately follow another*; rather, between one and another pain must appear. Small inhibitions of the vital force mixed in with advancements of it constitute the state of health that we erroneously consider to be a continuously felt well-being; when in fact it consists only of intermittent pleasant feelings that follow one another (with pain always intervening between them). Pain is the incentive of activity, and in this, above all, we feel our life; without pain lifelessness would set in.[20]

First of all, it is necessary to avoid the mistake of believing that there can be a continuous and gradual series of enjoyments; such a series would be deadly, as it would only lead to stagnation and boredom. The vital force must always be diminished to some degree in order to renew and grow. This is one of the most important maxims of the anthropological dietary regime, which must guide the individual's entire conduct, so that he can enjoy life and health, even in old age; such a precept teaches a management, an appropriate *usage des plaisirs* (to paraphrase Michel Foucault), and expresses nothing less than the "refined Epicurean intention of having in view an ever-increasing enjoyment":

> This stinginess with the assets of your enjoyment of life actually makes you richer through the postponement of enjoyment, even if, at the end of life, you have had to give up most of the profit from it.[21]

Kant also calls this economy of pleasures with a view to renewing strength and vital feeling by the name of *Cultur*:

> One way of enjoying ourselves is also a way of *cultivating* ourselves; that is, *increasing the capacity for having more enjoyment of this kind*, and this applies to the sciences and the fine arts […] But whichever way we may seek enjoyment, it is a principal maxim […] that we indulge only so far that we can climb still further; for being satiated produces that disgusting state that makes life itself a burden for the spoiled human being […].[22]

Life is, in short, a mix of pleasure and pain, where pain always comes first so that pleasure can be felt. As seen at the beginning of this article, such a

[20] I. Kant, *Anthropology from a Pragmatic Point of View*. AA 07: 237; Eng. trans., p. 276.
[21] I. Kant, *Anthropology from a Pragmatic Point of View*. AA 07: 165; Eng. trans., p. 276.
[22] I. Kant, *Anthropology from a Pragmatic Point of View*. AA 07: 236-37; Eng. trans., pp. 339-40. Italics added.

scheme is also understood in general with disease preceding health. In this way, Kant better explains the meaning of the healthy state or well-being: this is not a uniform, continuous condition; it is, actually, the illusion of this continuity brought about by the incessant alternation of pleasure and pain. This alternation might certainly result in routine. But, precisely, one must always find new artificial ways to fight against, and escape from, this routine.[23] Whatever it is, boredom is also felt as suffering, or even worse than that, because it provokes a kind of vacuum in the vital economy:

> Finally, even if no positive pain stimulates us to activity, if necessary a negative one, *boredom* [*die lange Weile*] will often affect us in such a manner that we feel driven to do something harmful to ourselves rather than nothing at all. For boredom is perceived as a *void* of sensation by the human being who is used to an alternation of sensations in himself, and who is striving to fill up his instinct for life [*Lebenstrieb*] with something or other.[24]

2. What is Spirit / *Was ist Geist*?

As previously suggested, the analysis of the pragmatic meaning of getting drunk gives a good account of how Kant understands the process of life and the feeling of life. Wine favours health and life in a broader, social sense, and not only because it is beneficial to the body (at the time wine could be employed as medicament, as well as tea, coffee, and opium). Kant goes so far as to claim that wine is not just a sociable (*gesellig*) drink, but even a spiritual (*geistig*) one:

[23] Like smoking tobacco, which is an alternation of pain and pleasure, being at the same time comparable to drinking in company: "Tobacco (whether smoked or snuffed) is at first linked with a disagreeable sensation. But just because nature immediately removes this pain (by secreting a mucous from the palate or nose), tobacco (especially when smoked) becomes a kind of company, by entertaining and constantly reawakening sensations and even thoughts; even if in this case they are only fleeting." I. Kant, *Anthropology from a Pragmatic Point of View*. AA 07: 233; Eng. trans., p. 335. Kant's reflections on the role of pain as a sting of activity (leaving one state of mind to enter another) and on the imperceptible transition between suffering and contentment owe much to the Italian philosopher Pietro Verri, nominally cited by him in the *Anthropology* (AA 07: 232; Eng. trans., p. 334). On the role of Verri in the Kantian conception of affections and passions, see M. Suzuki, *A forma e o sentimento do mundo* (São Paulo: Editora 34, 2014), pp. 486-502. The book also discusses Kant's position in relation to the Pascalian problem of *ennui* (boredom) and Locke's and Malebranche's Augustian views on human restlessness (uneasiness/inquiétude).

[24] I. Kant, *Anthropology from a Pragmatic Point of View*. AA 07: 232-33; Eng. trans., p. 335.

> Beer makes a person at once heavy and unsociable, but wine, spiritual.[25]

The word *geistig* is not used here by chance; Kant knows very well that *distilled liquors also have spirit*, they are *spirituous* in the chemical sense of the word:

> [Spirit] is based on this, that the mind is enlivened [*belebt*] by it, since spirit is the basis of vivification [*Belebung*]. In chemistry, water is the phlegm and alcohol the spirit. Who has the talent to enliven [*beleben*], has spirit, for example, [to enliven] a social gathering by conversation.[26]

The comparison between the chemical and the spiritual sense of *Geist* is not a weak, metaphorical, analogy; actually, both are in a great measure the same, since both are forms of enlivening (*Belebung*) occurring through the same nervous system. This lesson is again learned from Johann August Unzer. According to the general explanations presented by the physiologist in paragraph 6 of his *First Principles*, all animal forces (*thierische Kräfte*) existing in animal and human organisms are neural forces that are divided into "nervous forces" (*Nervenkräfte*) and "soul forces" (*Nervenkräfte*), respectively producing movements called "neural effects" and "soul effects" (*Nerven-*, *Seelenwirkungen*).[27] They overlap each other in the nervous system, in such a way that it is difficult to distinguish the one from the other. But this overlap also shows that people have not two, but just one nervous system as well as just one vital sense. This leads Kant to say that a drink has spirit, and so does a conversation, a sermon, or a literary work. There is, nevertheless, a difference between the two ways of enlivening the nervous system, which can be gauged by the greater or lesser intensification of the feeling of life they produce. In other words: although soul forces and nerve forces are both nervous, the intensity of feeling can be differentiated, in that the former are nothing but a physical phenomenon, reaching only sensibility (or memory and imagination), whereas the latter are greater or smaller by quickening a greater or lesser number of higher faculties of the mind and reaching in this way a greater or smaller intersubjective span (*sensus communis*).

A survey of the psychosomatic structure that Kant got to know from his readings of physiological works, especially those of Unzer, are helpful to better understand how vital feeling senses and measures different levels of vivification. Life can be divided into three levels, as he describes in the *Metaphysik Dohna*:

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[25] "Das Bier macht gleichfals schwer und ungesellig, der Wein aber geistig". I. Kant, *Anthropologie Parow*, AA 25: 295.
[26] I. Kant, *Anthropologie Friedländer*, AA 25: 556-57; trans., p. 115 (slightly modified).
[27] J. A. Unzer, *Erste Gründe*, § 6, pp. 5-6; Eng. trans, pp. 14-15.

> Soul is the principle of life in an animal. Animal is something corporal in so far as it lives.
>
> Life is the faculty of having representations of the capacity of desire. Soul is abstracted from matter – it is that which animates –, a particular substance that is connected with the body is called soul. *Anima* could be called *Seele*, the subject of sensation, *animus* could be called *Gemüth*, the subject of thoughts, and *spiritus* could be called *Geist* – as the subject of spontaneity.[28]

As the noun says, the *anima* belongs to the *animal* life of human beings, it is the principle of life in an animal. But the human being has another source of life, which lies in the *Begehrungsvermögen*. This contains the most powerful form of life, it is identified with *Geist*, which arises from the spontaneity of the subject. This physiological connection between life with spirit and the spontaneity of the capacity of desire is fundamental for understanding the definitions of life found in other passages in Kant's texts, such as the definition of life found in the *Critique of Practical Reason*: "Life is a being's power to act according to laws of the power of desire."[29]

Besides the soul and the spirit as principles of life, the complex physical-mental structure of a human being has also another level, the *animus* or *Gemüth* (mind), which lies, so to speak, between the soul and the spirit. It is very difficult to give a precise definition of *animus*, because it is not a power or faculty, but a set of capacities which is not fixed and stable: the *animus* is something in constant change; its features depend on the interplay of its components, that is, the faculties of the subject involved in a particular cognitive, aesthetic, or practical activity; the *animus* is more like a disposition, a *Stimmung*, or a *mood*. And it is in a direct relationship with the vital sense. Both the soul and the spirit act on the mind (*Gemüt*), but *animating* it is one thing (the force coming from the anima), and *enlivening* it is another (the vital

[28] "Seelenlehre – Seele ist das Princip des Lebens in einem Thier. Thier ist etwas körperliches in sofern es lebt. Leben ist das Vermögen Vorstellungen des Begehrungsvermögens zu haben. Seele ist von der Materie abgesondert – das was beseelt – eine besondere Substanz, die mit dem Körper verbunden heißt. *anima*, könnte man Seele, das Subjekt der Empfindung, *animus*, Gemüth das Subjekt der Gedanken, und *spiritus*, Geist – als Subjekt der Spontaneitaet – nennen." AA 29: 679-680.

[29] "Leben ist das Vermögen eines Wesens, nach Gesetzen des Begehrungsvermögens zu handeln." I. Kant, *Critique of Practical Reason*. AA 05: 09. Translated by Werner S. Pluhar. (Indianapolis/Cambridge: Hackett, 2002), p. 15. See also *Metaphysische Anfangsgründe der Natur*, AA 04: 544. "Leben heißt das Vermögen einer Substanz, sich aus einem inneren Princip zum Handeln, einer endlichen Substanz, sich zur Veränderung, und einer materiellen Substanz, sich zur Bewegung oder Ruhe als Veränderung ihres Zustandes zu bestimmen."

force here resides in the spontaneity or *Geist*). Despite appearances, the former kind of action is much weaker than the latter. The soul is in direct, immediate contact with the body; an impression coming from the body through the soul to the mind produces only gratification (*Vergnügen*) or pain (*Schmerz*), exactly as when one has a drink only to cool off or warm up. Solely by itself such a drink has no power to produce affections such as the joy one feels when drinking with friends. The force or intensity of the vivification produced by *Geist* is very different and much stronger: if the representation really has spirit, it changes the disposition (in both meanings of the word) of the *animus* and by this means it can also act back beneficially on physical health. Among many texts in which this point is made clear, Reflection 802 is particularly enlightening, because it also gives a glimpse of the physiological system Kant was familiar with:

> In many cases one can only come to grips with the body through the mind. The right springs from enlivening, which work on the nervous system, and, through it, on the system of fibres, come from the mind; therefore society, play, and entertainment of the senses are powerful dietetic resources. All these motives only act in relation to society, which is why it is considered particularly to enliven. (There are mechanical, chemical, and animating [psychological] moving forces of the body.)[30]

This text recalls that the spiritual activity relates to the body through the *Gemüth*, working through it on the nervous and fibrous systems.[31] Given its importance for understanding Kant's conception of vitalism, it will be necessary to discuss in more detail why representations produced by the spontaneity of the spirit have more vital power than the representations coming from the animal or human life. To do this it is essential to comprehend that *Geist* is employed to designate spontaneity in two senses, that of the reason as the superior power of desire, and that of the free creativity of the artistic genius. This second meaning of *Geist* is more widely known.

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[30] "Man kan dem Körper in vielen Fällen nur durchs Gemüth beykommen. Die rechte quellen der Belebung, welche auf das Nervensystem würken und vermittelst desselben auf das System der Fasern, kommen aus dem Gemüth; daher Gesellschaft, Spiel und Unterhalt der Sinne kraftige diaetetische Mittel sind. Alle diese Triebfedern wirken nur in Beziehung auf die Gesellschaft, daher diese besonders belebt heißt. (Es giebt mechanische, chymische und animirende [psychologische] bewegende Kräfte des Korpers.)" I. Kant, Refl. 802. AA 25: 350.

[31] In the scope of this article, it will not be discussed Kant's assertion that the action of the spirit on the body depends in general on the nervous sap (*Nervensaft*) or on the vital spirits (*Lebensgeister*) – see *Vorlesungen über Anthropologie*, AA 25: 72, 74, 300 –, concepts that he also learned from the physiology of his time.

There is something inexplicable about genius's ability to form aesthetic ideas; somehow it acts according to "the laws that are based on analogy" (*nach analogischen Gesetzen*), but "still also following principles which have a higher seat in reason" (*nach Principien, die höher hinauf in der Vernunft liegen.*)[32] Its products can therefore be called aesthetic ideas, which are a "counterpart of a rational idea" (*Pendant einer Vernunftidee*).[33] As a representation formed by the creative imagination, an aesthetic idea acts in a way that can be compared to the effect produced by wine, because it releases two types of "constraints": in that it reshapes the material given by the sensation, it makes people experience both "freedom from the law of association"[34] and an expansion in relation to the concepts they are in possession of. As no concept is adequate to it, the aesthetic idea evokes a "wealth of thought" and comes very close to the presentation (*Darstellung*) of a rational idea.[35] An inevitable circularity appears here. Thus, expanding the limits of the concept, the *Geist*, which is spontaneity and the rational principle of life, sets in turn reason itself into activity through the imaginative creativity: "Giving aesthetically an unbounded expansion of the concept itself […] the imagination here displays a creative activity, and it sets the faculty of intellectual ideas (reason) into movement."[36]

All this aesthetic explanation of *Geist* should not, however, hide that it also has a connection with the spontaneity of *practical* reason. Among numerous definitions of *Geist* given in the *Anthropology from a Pragmatic Point of View* as the "enlivening principle in the human being,"[37] as "the enlivening principle in the mind"[38] or the "life-giving principle of the mind through Ideas,"[39] the book also expressly affirms that "spirit is *the productive faculty of reason*" (*Geist aber das productive Vermögen der Vernunft*).[40] This statement clarifies how the spontaneity of the spirit relates to the practical faculty or the faculty of desire, which contains life in the pregnant sense of the word, according to its definition in the *Critique of Practical Reason*.

As previously mentioned, rather than being a secondary topic, life is of essential importance in Kant's philosophy: following its traces in his texts, lectures, and reflections, one realizes that physiology is a hermeneutical key

[32] KU, AA 05: 314; Eng. trans., p. 143.
[33] KU, AA 05: 314; Eng. trans., p. 143.
[34] KU, AA 05: 314; Eng. trans., p. 143.
[35] KU, AA 05: 314-15; Eng. trans., pp. 143-44.
[36] KU, AA 05: 315; Eng. trans., pp. 143-44.
[37] AA 07: 225; trans., p. 329.
[38] AA 05: 313; trans., p. 142.
[39] AA 07: 246; trans., p. 349 (modified).
[40] AA 07: 246; trans., p. 349. Italics added.

of the utmost importance for understanding how he conceives philosophy and the tasks it must perform. As an interpretative clue, it can afford a comprehensive view of Kant's philosophical project, which covers not only his three Critiques, but also his anthropology and his philosophy of history. His physiological and medical presuppositions are thus essential for understanding the core and the scope of his philosophical endeavour.

3. Delusions Provoked by Nature

Inserted in the body, the soul receives impressions from the senses and is able to consistently respond to them. But this is not the only means by which the vital feeling is naturally affected. For at this level nature does not intervene merely to regulate the soul in terms of what is immediately healthy or unhealthy for the organism; besides, *nature provokes certain representations which are fundamental to the increase or decrease of the vital force*. Food, for instance, is naturally a means of increasing physical strength; but nature also acts in a more ingenious way by stimulating human beings to confront each other in order to reciprocally develop their competences and skills. *Delusion* (*Wahn*) is the trick nature uses to implement this strategy. Its definition and explanation are set forth in paragraph 86 of the *Anthropology*:

> By delusion, as an incentive of desires, I understand the inner practical illusion of taking what is subjective in the motivating cause for objective. – From time to time nature wants the stronger stimulations of life force [*Lebenskraft*] in order to refresh the activity of the human being, so that he does not lose the feeling of life completely in mere *enjoyment* [*das Gefühl des Lebens gar nicht im bloßen* Genießen *einbüße*]. To this end it has very wisely and beneficently simulated objects for the naturally lazy human being, which according to his imagination are real ends (ways of acquiring honour, control, and money). These objects give the person who is reluctant to undertake any work enough *to keep him occupied* and busy *doing nothing*, so that the interest which he takes in them is an interest of mere delusion. And nature therefore really is playing with the human being and spurring him (the subject) to its ends, while he is convinced (objectively) that he has set his own end. – These inclinations of delusion, just because imagination is a self-creator in them, are apt to become *passionate* in the highest degree, especially when they are applied to competition among human beings.[41]

[41] I. Kant, *Anthropology from a Pragmatic Point of View*. AA 07: 275; Eng. trans., p. 375. Translation modified.

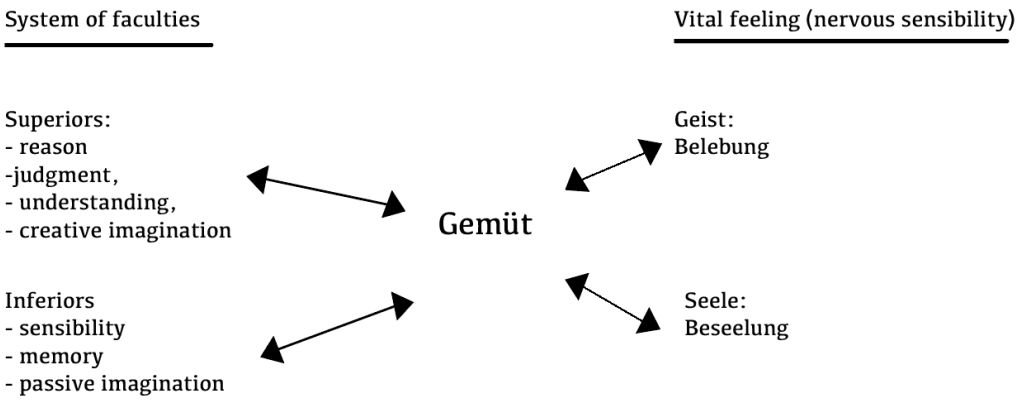
Nature uses imagination's creative power to deceive people so as not to let their vital force run out. For this purpose, the main deceptive representations devised by nature are the illusions of honour, power, and money. It is not just a coincidence that these three delusions are defined as *passions* (*Leidenschaften*) and that these three passions are exactly the same ones described in *Idea for a Universal History with a Cosmopolitan Aim* as the tools nature employs to implement unsociable sociability – that is, the paradoxical stratagem of socially integrating people through the exacerbation of their selfishness, which is, however, also the way to develop their individual talents and abilities. But in contrast to the *Anthropology*, in *Idea for a Universal History* no mention is made of this capital point, namely, that the three main illusions of sociable unsociability *are anchored in physiology*. Nature introduces imaginary illusions in human beings in order to more strongly stimulate their vital forces. These vital forces, however, should not be understood merely as pure biological entities, because they are the physiological-anthropological conditions for the emergence and development of people's capacities and skills (the biological cannot be absolutely separated from the cultural, and vice versa). If these considerations make sense, the critical philosophy could and should be read as *an expanded vitalism*. The pragmatic anthropology shows that this vitalism is rooted in nature and that the philosophy of history is built on the growth of the vital forces.

Nature subtly introduces antagonism in the relationships between individuals, as well as within individuals. According to Kant, this is a lesson to be learned from the physicians themselves: "Enjoyment is the feeling of promotion of life; pain is that of hindrance of life. But (animal) life, as physicians have already noted, is a continuous play of antagonism between both."[42] Physicians explain animal life as an antagonistic interplay between pleasure and pain. A much earlier Reflection had already indicated that illusion, inclination, and conflict, depend on *vital spirits*:

> Some vital spirits set themselves in motion against matter, these are only animalistic; others only set themselves in motion against people, either in disputes, in inclination, and honor, or in jest, and these are spiritual. The latter contain the source of life.[43]

[42] I. Kant, *Anthropology from a Pragmatic Point of View*, AA 07: 231; trans., p. 334.
[43] I. Kant, Refl. 468. AA 15: 193: "Einige Lebensgeister setzen sich gegen die Materie in Bewegung, diese sind nur animalisch; andere setzen sich nur gegen Menschen in Bewegung, es sey im Streit oder in Neigung und Ehre oder im Schertze, und diese sind geistig. Die letzteren enthalten die Quelle des Lebens."

Vital spirits come into activity with respect both to matter and to representations produced by the spirit. In physiological terms animal and spiritual life operate just in the same manner, that is, life takes place only when vital spirits affect the nervous sensitivity by travelling through the nerves and fibres. But this common nervous fund implies no risks: the upper and lower domains (spontaneity and passivity) of the subject remain separated, and the superior powers (their "transcendentality") are not contaminated by the lower ones.[44] Although it is possible and necessary to carefully respect the separation between passivity and spontaneity, this separation does not argue against the fact that there only exists one common vital sensitivity, which prevents the "two sides" of a person from being separated as if by an abyss. The spiritual life keeps its purity and its strength untouched, but at the same time animal and spiritual life meet in the *Gemüth*, touching the vital sensitivity through it.



Kant most likely learned from Unzer that the vital force emanating from reason should be called spirit or *Geist*, and that *Geist* acts on the body but is independent from it; conversely, everything that happens to the soul can only be animal. These differentiations are dealt with, for instance, in two excerpts from Unzer:

> When an internal impression arises from the higher passions, from intellectual conceptions and motives, and from desires and aversions of the will and their satisfaction, the movements it excites, in so far as these intellectual conceptions &c., are unmingled with sensible conceptions, are solely sentient actions, and there is no combined action of the cerebral forces and the nerve forces in their production. They are not

[44] "Alle Triebe zusammen genommen machen das Fleisch, die Bewegungs Gründe der Vernunft aber den Geist aus". *Anthropologie Parow*, AA 25: 410.

> dependent on any external impression, and consequently cannot be nerve-actions induced by the nerve force, and the only other animal forces are the cerebral ones. Nature has granted this higher species of conceptions to the most perfect animals only, whose souls are not simply sensible [*sinnlich*], but spiritual [*Geister*].[45]

> Every sentient animal [or every ensouled animal: *ein jedes beseelte Thier*] must not only be endowed with mind [soul = *Seele*], or the conceptive force [*Vorstellungskraft*], but also with the *vis nervosa* [*Nervenkräfte*] and nerves, and with the cerebral forces and a brain: if the soul is spiritual [*Ist die Seele desselben ein Geist*], that is to say, if the animal be endowed with understanding and will, it is termed a *reasoning animal*, but if the soul be simply sensible [*bloß sinnlich*], then the animal is a *sensible* or *unreasoning animal* (a brute).[46]

In any case, Kant states quite explicitly that intellectual delight (or displeasure) in social communication must affect the same vital sensibility as sensual pleasure or displeasure, as in this passage from his *Anthropology*:

> However, there is a *spiritual pleasure* [*Geistesgenuß*], which consists in the communication of thoughts. But if it is forced on us and still a spiritual nutrition [*Geistes-Nahrung*] is not beneficial to us, the mind finds it repulsive (as in, e.g., the constant repetition of would-be flashes of wit or humour, whose sameness can be unwholesome to us), and thus the natural instinct to be free of it is also called nausea by analogy, although it belongs to the inner sense.[47]

How does Kant understand the passage from the antagonism (sociable unsociability) instituted by nature to the constitution of society, which has been made possible through the efforts of human and spiritual life? Readers of the *Anthropology from a Pragmatic Point of View* tend to think (particularly after Foucault's interpretation of the book) that there is a gap between nature and culture in Kant's assertion that pragmatic anthropology should not be confused with mere physiological anthropology.[48] This interpretation can certainly be relativized. Undoubtedly anthropology cannot be guided by what nature makes of human beings. The pragmatic anthropologist as well as the critical philosopher, however, must be attentive to the directives given by nature, as she reveals to them that even obstacles to life can actually serve as

[45] J. A. Unzer, *Erste Gründe*, § 593, pp. 603-04; Eng. trans., p. 304 (slightly modified). At the end of the passage, Unzer recalls that the differentiation between sensational and spiritual souls (*Geister*) is found in paragraph 590 of Baumgarten's *Metaphysica*.
[46] J. A. Unzer, *Erste Gründe*, § 605, p. 615; Eng. trans., p. 311.
[47] I. Kant, *Anthropology from a Pragmatic Point of View*, AA 07: 157-58; Eng. trans., p. 269.
[48] I. Kant, *Anthropology from a Pragmatic Point of View*, AA 07: 119; Eng. trans., p. 231.

a means of stimulating it. Both the pragmatic anthropologist and the critical philosopher look for the best possibilities people have for developing their talents and skills; both of them realize that properly understood, *the meaning of life is to have more and more life* – a stronger life, in a process that has some resemblance to, but is not synonymous with, Nietzsche's "great health."[49] Indeed, as Canguilhem has well noted, according to Kant illness comes before health, pain before pleasure, the pathological before the normal: nature first establishes a pathological life, in which people are guided by unpleasant sensations and illusory passions. After this stage, however, at the second (human) and third (spiritual) levels of life nature passes the baton to human beings, who are from now on responsible for their own health.[50] This means that at this moment they must leave the passive-pathological state (that is, the state in which they are ordered by natural sensations and passions) and take the reins of conduct in their own hands, by means of pragmatic, ethical and moral rules, which means entering a true state of health. How does this happen? This move is possible because at the anthropological level human beings already have the power to make decisions; their lives can be largely governed by a faculty of desire that privileges life-giving undertakings and entertainment over deadening ones. Anthropology is conceived in this sense as a correction of unsociability; it teaches individuals to abandon their antagonisms and become active members of a collective effort to discover and cultivate new and greater forms of life (to improve and share their knowledge and skills, their aesthetic taste, as well as their moral, ethical culture). Of course, antagonisms will always exist, because people will never fully overcome their selfish inclinations and, therefore, their conflicts. But these conflicts must be appeased in increasingly general forms of consensus, in larger forms of common sense, where divergences are erased, and plurality encouraged.

The choice of more universally valid activities does not only imply an independence from selfish motivations; it also opens up the possibility for coexistence, for an agreement that would stimulate the development *of all talents in general*, and not only those of *a particular* person. Conversely, the conflict between divergent wills is always the greatest impediment to an intensification of life:

[49] F. Nietzsche, *Menschliches Allzumenschliches*, I, Vorrede, § 4.

[50] Kant certainly had to overcome the commonsensical belief that the sensitive motivation is stronger than the pragmatic and moral ones. See, for instance, Refl. 6722: "Die treibende Kraft der moralischen Bewegungsgründe ist die Schwächste; stärker ist die der pragmatischen, noch stärker die der pathologischen" (AA 19: 141).

> The feeling of the spiritual life refers to understanding and freedom, since one has within oneself the grounds for knowledge and choice. Everything that agrees with it is considered to be good. This judgment is independent of the private constitution of the subject. It depends on whether it is possible for the matter to pass through us and consists in the general validity for any will; for usually controversial will is life's greatest obstacle. Everything that pleases us so that we depend on it is so far out of our control and proves to be an obstacle to the highest life, namely the power of will, to have one's condition and oneself under one's own freedom.
>
> [...]
>
> The feeling of life is greater in sensation, but I feel a greater life in voluntary enlivening, and I feel the greatest *principium* of life in morality.[51]

From the viewpoint of life and its gradual expansion, the aim of anthropology and philosophy is the same, with the difference that in philosophy the spirit shows itself in the fullness of its strength. Wine and other artificial inventions of people can temporally free them from mortifying routines, and indicate to them that a path for their *Bildung* and refinement is possible. As noted above, a social gathering is an anticipation of the universal community of subjects, and the host who tastefully organizes a meal can be considered an anthropo-

[51] "Das Gefühl des geistigen Lebens geht auf Verstand und freyheit, da man in sich selbst die Gründe der Erkentnis und der Wahl hat. Alles was damit zusammenstimmt, heißt gut. Dies Urtheil ist unabhangig von der Privatbeschaffenheit des subiects. Es geht auf die Moglichkeit der Sache durch uns und besteht in der allgemeingültigkeit vor jede Willkühr; denn sonst ist eine andre Wiederstreitende Willkühr die größte Hindernis des Lebens. Alles, was uns gefällt, so daß wir davon abhängen, ist so fern nicht in unsrer Gewalt und beweiset eine Hindernis des obersten Lebens, nemlich der Macht der Willkühr, seinen Zustand und sich selbst unter seiner eignen Freiyheit zu haben. [...] Das Gefühl des Lebens ist in der Empfindung Größer, aber ich fühle ein größeres Leben in der willkührlichen Belebung, und ich fühle das großte principium des Lebens bey der moralitaet." I. Kant, Refl. 824, AA 15: 368. Reflection 823 (AA 15: 367) brings an important explanation of the relationship between the vital feeling (pleasure/displeasure) and the principle of life, both linked to the three layers that make up human physiology: "Der Werth des Wohlgefallens und Misfallens beziehen sich auf mögliche Wahl, d. i. auf willkühr, folglich auf das principium des lebens. Was kann ein Gegenstand unserer Wahl sey? Was unser Wohl hervorbringt, folglich die actus des Lebens vergrößert. Das Gefühl also von der Beforderung oder Hindernis des Lebens ist wohlgefallen und Misfallen. (Ob wir das Vermögen es hervorzubringen auch bey uns finden, ist nicht nöthig, wenn wir nur die Gründe, solche, wo sie da sind, in Spiel zu setzen, bey uns antreffen.) Wir haben ein thierisches, ein Geistiges und Menschliches Leben. Durch das erste sind wir des Vergnügens und Schmertzes fähig (Gefühl), durch das [zweyte] dritte des Wohlgefallens durch sinnliche Urtheilskraft (Geschmak), durch das zweyte des Wohlgeffalens durch Vernunft. Epicur sagt: alles Vergnügen kömt nur durch Mitwirkung vom Körper, ob es zwar seine erste Ursache im Geiste hat."

logical version of the artistic genius, as it allows for harmonious coexistence between different individuals with different inclinations and particular talents. However, genius, i.e., spirit or *Geist*, is much stronger as it enlivens *all human talents*, and the conflict of interests can be overcome in a more universal agreement.

> The word spirit can also be used instead of genius. But it is not used with the article. A person not only has skill, but also spirit. Spirit is not a special talent, but an invigorating principle of all talents. You cannot use an adjective to modify the word spirit, e.g., a fine spirit, but these apply to the head and talent; spirit is what enlivens everything.[52]

Just as the host is the anthropological version of the artistic taste, so too the artistic genius can be seen as the aesthetic version of that which occurs in moral wisdom, as the unification and cohesion of all forces in the idea of *freedom and life*:

> Ultimately, everything depends on life; what enlivens (or the feeling of promotion of life) is pleasant. Life is a unit; hence all tastes related to the *principio* have the unity of the enlivening sensations.
>
> Freedom is the original life, and in its connection the condition for the harmony of all life; hence that which promotes the feeling of universal life, or that which promotes the general life causes pleasure. But do we feel in universal life? The universality makes all our feelings agree, although there is no special kind of feeling to this universality. It is the form of consensus.[53]

[52] "Man kan auch das Wort Geist allein statt Genie brauchen. Doch wird es als denn nicht mit dem artikel gebraucht. Der Mann hat nicht allein Geschicklichkeit, sondern Geist. Geist ist kein besonder Talent, sondern ein belebend *principium* aller talente. Man kann zu dem Wort Geist kein Beywort setzen, z. E. feiner Geist, sondern diese Gelten vom Kopf und talente; der Geist ist der, so das alles belebt." I. Kant, Refl. 933. AA 25: 414.

[53] "Es komt doch alles zuletzt aufs Leben an; was belebt (oder das Gefühl von der Beförderung des Lebens) ist angenehm. Das Leben ist eine Einheit; daher aller Geschmak zum principio hat die Einheit der belebenden Empfindungen. Freyheit ist das ursprüngliche Leben und in ihrem Zusammenhang die Bedingung der Übereinstimmung alles Lebens; daher das, was das Gefühl allgemeinen Lebens [vergrößert] befördert, oder das Gefühl von der Beförderung des allgemeinen Lebens eine Lust verursacht. Fühlen wir uns aber wohl im allgemeinen Leben? Die Allgemeinheit macht, daß alle unsere Gefühle zusammenstimmen, obzwar vor diese Allgemeinheit keine besondere Art von Empfindung ist. Es ist die form des consensus." Refl. 6862. AA 19: 184.

4. Towards Perpetual Peace in Philosophy

Although far from being exhaustive, the excerpts from Kant's texts cited so far provide sufficient evidence that physiology plays a major role in the structuring of his philosophy. One last step will be necessary to show how his conception of the *history of philosophy* and the part ascribed to his own philosophy in this history follow a physiological schema that is very similar to the one found in his pragmatic anthropology and his history of philosophy. The importance of vitalism for his understanding of the philosophical systems and their history is revealed in his *Proclamation of the Imminent Conclusion of a Treaty of Perpetual Peace in Philosophy*, from 1796. The text also begins with a physiological explanation:

> Chrysippus says, in his pithy Stoic way: "Nature has given the pig a *soul*, instead of *salt*, so that he should not become rotten." Now this is the lowest level of man's nature, prior to all cultivation, namely that of mere animal instinct. But it seems as if here the philosopher has thrown a prophetic glance into the physiological systems of our own day [*in die physiologischen Systeme unserer Zeit*]; save only that now, instead of the word *soul*, we have taken to using that of *vital force* (and rightly so, since from an effect we can certainly infer to the *force* that produces it, but not forthwith to a *substance* specially adapted to this type of effect); we locate *life*, therefore, in the *action* of animating forces (life-impulse) and the ability to *react* to them (vital capacity), and call that man *healthy* in whom a proportionate stimulus produces neither an excessive nor an altogether too small effect.[54]

The Stoic Chrysippus anticipated the explanation that would be given much later by the physiological systems of Kant's time, which no longer work with a mere chemical element (salt), but with an organic operation of nature (the soul as a substance now converted into vital forces). In any event, just as it affects animals this support of nature also takes place in a person before he reaches his humanity, "merely in order to evolve forces which can subse-

[54] I. Kant, *Proclamation of the Imminent Conclusion of a Treaty of Perpetual Peace in Philosophy*. AA 08: 413; Eng. trans., p. 453 (slightly modified). The English version of this passage deserves some comments: firstly, the option "living force" to render *Lebenskraft* is entirely misleading, the capital physiological notion of *vital* force being lost in translation and replaced by the *physical* concept of "living forces" (*lebendige Kräfte*, *vires vivae*); the same physical orientation appears in the translation of *Lebensreiz* by "life-impulse," whereas "vital stimulus" or even "vital irritability" would be closer to the original. *Reiz* is correctly translated by stimulus, *reizende Kräfte* not incorrectly by "animating forces" (though stimulating, stirring, or irritating would be more literal), but *Lebensvermögen* by "living capacity" is not good enough to render the vitalistic idea of a *vital capacity* or *power* which has the faculty to react to the stimulating forces.

quently turn man to laws of freedom."[55] It is thus not by chance *that the history of philosophy begins before a person becomes human*, that is, it begins with his "merely animal" nature.

The next stage in the history of philosophy is also governed by physiology. Humans beings are endowed with *self-consciousness* "in virtue of which the human being is a *rational* animal." But together with this power of reasoning, the human being also receives an inclination or an "itch" (*Hang*):

> to use this power for *trifling* [*Vernünfteln*] and thereafter to trifle methodically and even by concepts alone, i.e., to *philosophize*; and then also to grate polemically upon others with one's philosophy, i.e., to *dispute*, and since this does not readily happen without emotion, to *squabble* on behalf of one's philosophy, and finally, united in masses against one another (school against school, as contending armies) to *wage* open *war fare*.[56]

The very beginning of thinking is linked with a propensity to provide arguments and reasons in too subtle a way. When arguing in this manner becomes methodical so that it can deal with concepts, this is called "philosophizing." This tendency to *philosophieren* gradually becomes passionate and bellicose, with different schools struggling and disputing with each other. What soon results is a state of war in which one school of philosophy, like an army, seeks to attack and destroy the other. Yet, this war is not nonsensical at all. On the contrary, just as with the sociable unsociability, this war is, so to speak, carefully planned by nature:

> this itch, I say, or rather *drive*, will have to be viewed as one of the beneficent and wise arrangements of Nature, whereby she seeks to protect man from the great misfortune, the decomposition of their living bodies.[57]

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[55] *Idem*, *ibidem*.

[56] *Idem*. AA 08: 414; Eng. trans., p. 453. A better translation would be "propensity" or "tendency," as, for example, in the *Anthropology from a Pragmatic Point of View*: "nature has wisely implanted in him [the human being] the tendency [*Hang*] to willingly allow himself to be deceived." I. Kant, AA 07: 152; Eng. trans., p. 264. "Trifling" is maybe too strong to render *Vernünfteln*. In his translation of the *Critique of Pure Reason* (pp. 380, 587, 589, 619) and the *Critique of Practical Reason* (pp. 4, 117, 191), Werner S. Pluhar translates the term respectively by "subtly" or "subtle reasoning."

[57] "dieser Hang, sage ich, oder vielmehr *Drang* wird als eine von den wohltätigen und weisen Veranstaltungen der Natur angesehen werden müssen, Wodurch wie das großte Unglück lebendigen Leibes zu verfaulen von den Menschen abzuwenden sucht." *Idem*. AA 08: 414; Eng. trans., p. 453.

Nature, once again, lends a hand: she institutes philosophical conflict *so that the living body does not decompose*. In other words, here the philosophical activity, like some sort of refined wine, shows a direct influence on the functioning of the organism. Nonetheless, in a subsequent section the text explains that this help from nature is no longer sufficient to reach the real *status salubritatis* – the *health of reason* (*Gesundheit der Vernunft*), which is "an effect of philosophy." This passage deserves to be closely scrutinized, because it puts two types of health face to face: there is a first kind of health, well known already, which consists of the incessant alternation "between sickening and recovering." "Mere" human health, however, cannot be equated with a real state of *equilibrium*. Although tacitly governing the process up to this point, from now on nature is unable to produce alone a truly healthy condition; neither can an optimal, well-balanced state be achieved with just a "diet." This is the case because in this situation reason needs medical help, a therapy, *which only comes from philosophy acting as a medicine*. However, not all kinds of philosophy are an adequate remedy, and this raises the question of which philosophy should be chosen.[58] Kant therefore proceeds to examine which of the possible "medications" is the most recommendable:

> *Dogmatism* (e.g., that of the Wolffian school) is a pillow to fall asleep on [*Polster zum Einschlafen*], and an end to all vitality [*End aller Belebung*], which latter is precisely the benefit conferred by philosophy [*welche letztere gerade das Wohlthätige der Philosophie ist*].[59]

As medicine, the dogmatism of Wolff and his followers works in the opposite direction to what is expected from a treatment of reason's ills, since it, so to speak, has no active principle; it is more like a soporific, which leads to the paralysis of all activity. Indeed, made a number of years earlier, Kant's famous statement that he was woken from his dogmatic slumber by Hume only acquires its full significance from this vitalist context. It was not a mere rhapsodical remark: sleeping is a form of minus life, very close to death. Yet, besides dogmatism, other forms of philosophy, like scepticism and mode-

[58] "But since human health […] is an incessant sickening and recovery, the mere *dietary* of practical reason (a sort of gymnastics thereof) is not yet sufficient to preserve the equilibrium which we call health, and which is poise upon a knife-edge; philosophy must also act (therapeutically) as a *medicine* (*materia medica*), for the use of which we need dispensaries and doctors (though the latter are alone entitled to *prescribe* such use); in which connection the authorities must be vigilant to see that it is qualified physicians who profess to *advise what philosophy should be studied*, and not mere amateurs, who thereby practice quackery in an art of which they know not the first elements." AA: 08: 414; Eng. trans., p. 454.
[59] AA 08: 415; trans., p. 454.

ratism, are equally ineffective as treatments for curing the controversies that destabilize reason.[60]

There are two ingredients that qualify critical philosophy as the best method for healing reason. In the first place, the critical system is distinguished from all others by the concept of freedom and the categorical imperative, through which the rational Ideas are conceived as postulates for practical-moral realization. Regarding the first explanation, however, certainly well known to most readers of Kant, the text on *Perpetual Peace* presents another view of the critical project, placing it in direct connection with the kind of perpetual peace sought by philosophy in a vitalistic approach:

> This philosophy, which is an outlook ever-armed (against those who perversely confound appearances with things-in-themselves), and precisely because of this unceasingly accompanies the activity of reason, offers the prospect of an eternal peace among philosophers, through the impotence, on the one hand, of *theoretical* proofs to the contrary, and through the strength of the *practical* grounds for accepting its principles on the other; a peace having the further advantage of constantly activating the powers of the subject, who is seemingly in danger of attack, and thus of also promoting, by philosophy, nature's intention of continuously revitalizing him, and preventing the sleep of death [*und so auch die Absicht der Natur zu continuirlicher Belebung desselben und Abwehrung des Todesschlafs durch Philosophie zu befördern*].[61]

Further on, it becomes clear in the text that critical philosophy is an antidote to any weakening of forces that can numb the subject, because it is grounded on the "hyperphysical basis of a person's life." In explaining this hyperphysical support of philosophy, Kant employs again the correlation between *Geist* and the vital principle now well known to the reader:

> By means of reason, the soul of the human being is endowed with a *spirit* (*mens*, *noûs*), so that he may lead a life adapted, not merely to the mechanism of *nature* and her technico-practical laws, but also to the spontaneity of *freedom* and its moral-practical laws. This life-principle is not founded on concepts of the *sensible*, which collectively begin by

[60] "*Scepticism*, which when fully set out represents the exact counterpart of this, has nothing with which it can exert influence upon a nimble reason, since it lays everything aside unused. *Moderatism*, which proceeds from halfway, and thinks to find the philosopher's stone in subjective *probability*, and by piling up a mass of isolated reasons (none in themselves probative) purports to supply the want of sufficient reason, is no philosophy at all; and with this medicine (of *doxology*) it is much as with plague-drops or Venetian theriac, that owing to the all-too-*many good things* that flung into them, right and left, they are good for nothing." AA 415; Eng. trans., p. 455.

[61] AA 8: 416; Eng. trans., p. 455.

> presupposing *science*, i.e., theoretical knowledge (prior to any practical use of reason); it proceeds initially and at once from an Idea of the *supersensible*, namely *freedom*, and from the morally categorical imperative […].[62]

5. "Life" in Post-Kantian Philosophy. Hints for Further Developments

In conclusion, if it is accepted that the Kantian philosophy achieved this feat of transferring on to the philosophical plane what it had learned from contemporary vitalist physiology, then it could certainly be fruitful from the viewpoint of the history of philosophy and the history of ideas to inquire whether German Idealism and German Romanticism suspected a vitalist core to the critical philosophy. The following are just a few hints for a possible further exploration of this topic.

Schiller had a medical background and would certainly have agreed with the idea that a full development of our human skills is the real life or the main goal of life, and that this is to be achieved through the aesthetic education of the human being. In fact, a more precise examination of Schiller's medical texts would reveal many similarities with Kantian vitalism, bringing him closer to Kant than he himself might have envisioned. Notwithstanding, by using the term *Geist* as an enlivening power, were Fichte, Schlegel, and Novalis aware that this concept had these physiological, close-to-life implications? Without being able to tackle the problem here, it seems very suggestive that the production of meaning by the spirit has been linked, in both Fichte and in Romanticism, to what they understand by life.[63] And what about Hegel? In a recently published text, Margit Ruffing has convincingly showed that there is a philosophy of spirit in Kant;[64] to her persuasive argumentation, one can only add that Kant's philosophy of the spirit is at the same time a philosophy of life. Unzer had revealed to Kant that the representations and desires linked to the higher faculties could be called spirit, and this spirit has a connection with the body, although it maintains its entire

[62] AA 08: 417: Eng. trans., p. 456.

[63] A text that points in this direction (of the relationship between meaning and life) is Giulia Valpione's, "Schlegel's Incomprehensibility and Life: From Literature to Politics." In: M. N. Forster/L. Steiner (eds.), *Romanticism, Philosophy and Literature* (Cham: Springer, 2020), pp. 193-215. Novalis points in a very fruitful direction, merging as it were Kant, Fichte and Schiller in a single sentence: "Poësie ist die große Kunst der Construction der transscendentalen Gesundheit. Der Poët ist also der transscendentale Artz." In: Novalis, *Logologische Fragmente*, *Schriften*, 2. Edited by Richard Samuel, H.-J. Mähl and Gerhard Schulz. (Stuttgart/Berlin/Köln/Mainz: Kohlhammer, 1981), p. 535. The author is grateful to Laure Cahen-Maurel for her remarks about medicine in Schiller and Novalis.

[64] Margit Ruffing, "Geist im Sinnlichen. Eine Deutung der transzendentalen Ideen im Ausgang von Kants Anthropologie," in *Revista de Estudios Kantianos*, 4, 2 (2019): 434-51.

autonomy in relation to the latter. It is difficult to imagine that Hegel thought of a connection between the spirit and life in this sense.

Extremely close to the Kantian critical-philosophical vitalism are Schelling's considerations in his works of the intermediate period (1809-1821), mainly the *Stuttgarter Privatvorlesungen* (1810) and *Erlanger Vorlesungen* (1820/21), where he conceives his philosophy as a set of scales, a sensation of well-being (*Empfindug des Wohlseyns*), whereas the other philosophies are pathological, they suffer from the excessive growth of one of the organs of life (*Seele*, *Gemüt*, *Geist*), from diseases that affect the "system" of philosophy.[65] A comparison between Kantian and Schellingian medicine would be all the more interesting on this point when one recalls that the "middle" Schelling had just abandoned the medical theory of John Brown.

Schopenhauer's position with regard to Kant's vitalism is undeniably also extremely instructive. As suggested in the previous pages, it was physiology that made it possible to convert Wolff's representative force (*vis repraesentativa*) into a vital force and to define the causality proper to representation as *life* in the *Critique of Practical Reason*. *In parole povere*: the central Wolffian concept of representation has been *physiologisiert*, and the moment Kant realizes that representation is not only a *vis* in a general, abstract sense, but that it has a life, a vital force, he turns his back on dogmatism, describing it as a soporific if not a fatal form of philosophy. A similar step was taken by Schopenhauer in passing from representation to the will. When Schopenhauer writes in the *Nachlass* that the physiological point of view is a necessary supplement to Kant's transcendentality, because physiology provides a further outside viewpoint to the transcendental considerations,[66] he certainly did not realize that physiology had already been so crucial to Kant's thought. Although Schopenhauer did not know this physiological nucleus of the Kantian philosophy, he still suspected that something was missing, and that the displacement from transcendental to physiology was fundamental. This spiritual affinity is due to the fact that both philosophers were in tune with the physiology of their time. Kant and Schopenhauer are vitalists: it is this that makes their philosophies anti-dogmatic. But both are vitalists in different ways: while Kant has a much more optimistic view, in which reason assumes an important role in maintaining life against death (his final texts on medicine accentuate this aspect), Schopenhauer (probably thanks to Bichat)

[65] F. W. J. Schelling, *Stuttgarter Privatvorlesungen*. Edited by Miklos Vetö. (Turin: Bottega d'Erasmo, 1973), p. 103.
[66] Arthur Schopenhauer, *Handschriftlicher Nachlaß*, IV, § 19. (Oxford: Berg, 1988), vol. 1. Apud Marco Segala, "The Role of Physiology in Schopenhauer's Metaphysics of Nature", in: *Schopenhauer Jahrbuch* 93 (2012): 333.

is much more faithful to Stahl's teaching that life is nothing except a constant struggle not to die. Despite this difference, Kant and Schopenhauer certainly share a great deal in common. As Schopenhauer wrote in a note from the *Nachlass*:

> our walking is a continuously prevented falling; and in the same way the life of our body is a continuously prevented *dying*, and the alertness and activity of our minds a continuously deferred *boredom*.[67]

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Appendix: On Kant's Place in the History of Vitalism

Understandably, Kant's presence in the history of vitalism is generally considered in relation to his contributions on purposiveness or "finality without end", a topic discussed in the second part of the *Critique of Judgment*.[68] This perspective is also to some extent shared by John Zammito, in his recent book on the genesis of romantic biological thought, despite Kant's refusal to be part of the "evolutionist" development that connects the beginnings of the life sciences in Germany with the romantic philosophy of nature. Kant himself retreated from the "daring adventure of reason" that sought to interlink the entire chain of being in a thread of continuity.[69] But perhaps Kant's place in the history of the life sciences can be best understood if one focuses more on the *internal* developments in the fields of medicine and *physiology*, rather than on his general approach to purposiveness or finalism found in *biology*.

In order to understand Kant's vitalism in a more comprehensive way, it is helpful to return to Stahl's medical theory. However, Stahl' theory needs to be evaluated beyond the mere opposition between animism and mechanism.[70] The difficulty for Kantian studies to accomplish this task is due to the

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[67] Arthur Schopenhauer, *Handschriftlicher Nachlaß*, IV, § 117. Apud Marco Segala, p. 330.
[68] See Hans Driesch's classic study: *Geschichte des Vitalismus* (Leipzig: Barth, 1922).
[69] Cf. J. H. Zammito, *The Gestation of German Biology. Philosophy and Physiology from Stahl to Schelling* (Chicago: University of Chicago Press, 2018), Chapter 8, pp. 224-244.
[70] An important step beyond this superficial approach is the publication of the translation of *The Leibniz-Stahl Controversy* by François Duchesneau and Justin E. H. Smith (Yale University Press, 2016). Of great value are the works of the Italian scholar Francesco Paolo de Ceglia: *I fari di Halle, Georg Ernst Stahl, Friedrich Hoffmann e la medicina europea del Primo Settecento* (Bologna: Il Mulino, 2009), *Introduzione alla fisiologia di Georg Ernst Stahl* (Lecce:

fact that the two main passages in which Kant explicitly refers to Stahl (certainly more favourably to him than to Hoffmann, Boerhave, etc.) are also situated in the context of the dispute between the animists and mechanists.[71] Notwithstanding, a number of important topics dealt with by Kant, such as the temperament and vital feeling, have their origin in Stahlian medicine. A certain contempt for these supposedly "minor" topics perhaps explains why they are not sufficiently taken into account, even though when examined in detail they furnish clues for understanding the meaning of "life" in Kant's philosophy. For example, this is the case with the question of the temperament. In the *Anthropologie Friedländer*, there is a long excerpt on this subject, and its initial lines are enough to underscore how deeply Kant was aware of the physiological intricacies of this topic:

> With the body, we can here however especially examine the constitution, complexion, and the temperament. As regard the constitution, this is thus the nature of the solid parts, the edifice, the constitution of the body. Complexion, however, concerns the mixture [*Mixtur*] of the fluid parts. Temperament concerns the principle of life, to the extent it is a combination both of the constitution and of the complexion, both in regard to the fluid and solid parts, to the extent they constitute mechanical powers. (AA 25: 624-25)

Here the temperament arises from the combination of the solid and fluid parts. This conceptualization comes entirely from Stahl and his school. This can be read, for example, in the *Dissertatio medica, qua temperamenta physiologico-physiogno-monico-pathologico-mechanice enuncleantur*, which was already defended in 1697 by Christian Albert Richter, under the presidency of Stahl:

> according to our opinion, temperament is an adequate proportion between the solid and fluid parts of the body in relation to each other, whereby in both due movement, purification and maintenance by separations and segregations in the fluid and solid parts achieves adequate flexibility.[72]

In studies on vitalism, it cannot be overlooked that prejudices surrounding Stahl's animism compromise a real assessment of the historical reach of his doctrine. It could be argued that Stahl's problem is to maintain the soul as

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Pensa, 2000), and the introduction to the translation: Friedrich Hoffmann, *Differenza tra la dottrina di Stahl e la mia in patologia e terapia*. (Pisa: Edizione Plus/Pisa University Press, 2009).

[71] I. Kant, AA 02: 331; AA 15: 943-45.

[72] C. F. Richter, *Dissertatio medica, qua temperamenta physiologico-physiognomonico-pathologico-mechanice enuncleantur*, chapter 3, no pagination. The dissertation was published in Halle by the Henckel press in 1707.

the vital principle that is productive and preserves the body against degeneration. But the complexity and richness of his animism is frequently overlooked. The soul observes the temperament suited to the constitution of each individual, and this has to do with a fundamental distinction that appears in Kant's anthropology. Namely, that which differentiates the *vital sensation* (or *sensus vagus*) from the *organic sensation* (or *sensus fixus*: touch, sight, hearing, taste, smell).[73] This distinction largely corresponds to the conceptualization of *lógos* and *logismós* established by Stahl[74]: the latter is an "objectifying" sense, aimed at the knowledge of external things, while the former refers to the inner life of the organism, noting what is helpful or harmful to it. *Sensus vitalis* is the expression Stahlians commonly use instead of *logos*; that is to say, the soul's capacity to perceive the proper proportion of the solid and liquid parts of the organism.[75] The *sensus vitalis* differs from the *sensus rationalis*, which is the syntagma used in place of the *logismós*, which Kant will call organic or fixed sensation. Here's how the Stahlian Johann Daniel Gohl explains the differentiation:

> [The *sensus vitalis internus*] is not, however, what the *sensus rationalis* is: for the *sensus vitalis* perceives [literally "listens": *vernimmt*] only what goes on in it and its principle and how it rests simply in a delicate contact of the nervous tissue scattered throughout the body : on the other hand, the *sensus rationalis* perceives [*vernimmt*] all external objects by means of organs correctly suited for this, and presents their images in the imagination, so that one can reflect, judge and decide what should be done.[76]

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[73] I. Kant, Anth AA 07: 153-54. Cf. Anth/Mron, 25: 1242; Anth/Busolt, 25: 1451-52.

[74] "Therefore, I think that one must distinguish between *lógos* and *logismós*, [between] the simple intellect or intellect of the simplest things, especially the subtlest, and reasoning and the comparison of many things" [Ergo distinguendum esse arbitror inter lógon & logismon, intellectum simplicem, simpliciorum, inprimis autem subtilissimorum, & ratiocinationem atque comparationem plurium [...]" G. E. Stahl, *Theoria medica vera*, I, I, 1, § 21, p. 208. Cf. G. E. Stahl, *Propempticon inaugurale de differentia rationis et ratiocinationis et actionum, quæ per et secundum utrumque horum actuum fiunt in negotio vitali et animali.* Halle, 1701.

[75] Cf., for example, the testimony of Haller: "Sensumque vitalem vocant, perceptionem proprii corporis, cujus statum mens per divisos undique nervulos ita percipit, ut ejus non sit conscia". Albrecht von Haller, *Elementa physiologiae corporis humani*, Lausanne: Grasset, 1759, vol. 5, p. 536. In Johann Samuel Hallen's translation, *Anfangsgründe der Phisiologie des menschlichen Körpers* (Berlin/Leipzig: Voss, 1772), vol. 5, p. 1053.

[76] Johann Daniel Gohl, Aufrichtige Gedanken über den von Vorurtheilen kranken Verstand, insonderheit in der Materie von den spiritibus animalibus. (Halle: Waisenhaus, 1733), pp. 31-32. As Francesco Paolo de Ceglia warns, Stahl's True Theory of Medicine was much more known through his followers than through the physiologist's own texts: "Stahl fu fin da subito un autore molto commentato, con finalità diverse, sia da sostenitori sia da detrattori. Non fu però molto letto, perché le sue opere, soprattuto la Theoria medica vera,

Kant operates, therefore, with crucial Stahlian notions, and by following them in his courses and reflections he allows us to see how his *sensus vitalis* (*Vitalsinn* or *Lebensgefühl*) consolidates itself as *the feeling of pleasure and displeasure* in the *Anthropology from a Pragmatic Point of View* and the Third Critique. This signifies that Stahl's physiology has entered the critical edifice and occupies a systematic place there. This can be observed by looking at the division of the *Anthropology from a Pragmatic Point of View*. Its first part (Anthropological Didactics) is divided, as is well known, into three books: 1) the faculty of knowing; 2) the feeling of pleasure and displeasure; 3) faculty of desire. This division, which is likewise well known, corresponds to the triadic structure of the three Kantian Critiques, the second entry corresponding to the *Critique of Judgment*. In the Third Critique Kant explicitly states that the feeling of pleasure and displeasure is a kind of feeling of life:

> To apprehend a regular and appropriate building with one's cognitive faculties, whether the mode of representation be clear or confused, is quite a different thing from being conscious of this representation with an accompanying sensation of delight. Here the representation is referred wholly to the subject, and what is more to its feeling of life [*Lebensgefühl*] – under the name of the feeling of pleasure or displeasure – and this forms the basis of a quite separate faculty of discriminating and judging, that contributes nothing to knowledge. All it does is to compare the given representation in the subject with the entire faculty of representations of which the mind is conscious in the feeling of its state.[77]

Obviously, the present overview of Kant's Stahlianism cannot detail numerous other aspects (such as the meaning of the vital feeling for the whole of his thinking), because they deserve an independent treatment. In addition to Stahl, in order to understand Kant's vitalism it is also fundamental to pay attention to the influence of Unzer. The latter of often forgotten in studies on the Kantian conception of life.

Appraising the place that Unzer occupies in the history of vitalism is particularly important for seizing the trajectory that physiology pursued in the development of Kant's thought. But defining precisely what kind of

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erano scritte in un latino difficile e prolisso. Furono dunque i testi dei suoi discepoli, considerati 'ispirati' dal maestro, ad esseri assunti come fonte primaria. Erano sia opere in latino, sia in tedesco. Le prime erano in genere riservate all'ambiente accademico segnatamente medico. Le seconde avevano come pubblico d'elezione la communità di quanti non avevano ricevuto un'istruzione formale di livello superiore o comunque non possedevano una formazione medica". F. P. de Ceglia, I fari de Halle, pp. 94-95.

[77] I. Kant, *KU*, AA 05: 204; Kant, *Critique of Judgement*, English translation by James Creed Meredith (Oxford: Oxford University Press, 2007), pp. 35-36.

vitalism Unzer professes is not an easy task. Georges Canguilhem also points out the difficulty of classifying Unzer's physiology: "It is exceedingly difficult, it appears to us, to apply a classificatory label to Unzer's theories. We see why Fearing placed him among the mechanists."[78] However, Canguilhem seems to complicate matters by locating Unzer's philosophical position too close to the metaphysics of Leibniz and Baumgarten.[79] Hans-Peter Nowitzki has a more balanced approach when he claims that Unzer's dynamic vitalism leaves behind Krüger's still mechanical vitalism and comes rather close to a sort of neurophysiological vitalism.[80] Nowitzki reconstructs the evolution of Unzer's physiology (as well as Krüger's), providing landmarks for under-standing Kant's adoption of the physiological thinking of the time.[81] Indeed, Unzer managed to avoid a vitalism linked to the idea of the soul, without falling back into mechanism; he finds in the ganglionic system vital centres that act independently, in coordination but not in subordination, with the brain. Therefore, his approach is much more radical than Haller's. This is because the Swiss physician and poet's muscular explanation of the organic process (mainly as irritability) remains stuck in a mechanical paradigm, while Unzer explains the sensorimotor thanks the *sensibility* of the nervous system.

This pre-critical text on mental illness concludes by defending the idea that the seat of diseases affecting the head is not to be found in the brain, but rather in the viscera. This hypothesis had been presented in issues 150, 151 and 152 of the journal *Der Arzt*, a popular scientific journal written entirely by Unzer. Kant accepts this explanation as plausible, but, more important,

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[78] "Il est bien difficile, nous semble-t-il, d'appliquer sur les théories d'Unzer une étiquette de classification. On voit bien pourquoi Fearing le range parmi les mécanistes", G. Canguilhem, *La formation du concept de réflexe aux XVII^e^ et XVIII^e^ siècles* (Paris: Vrin, 2015), p. 112.

[79] *Ibid.*, p. 113. Canguilhem rightly argues that it is necessary to pay attention "Unzer's loyalty to the idea of a Leibnizian-Wolffian philosopher [that is, Baumgarten]" (à la fidélité dont Unzer témoigne à l'égard des idées d'un philosophe leibnizo-wolfien) (*ibid.*, p. 112). But perhaps not so for the reasons he claimed. Unzer's closeness to Baumgarten is due to his friendship with Georg Friedrich Meier. As Matthias Reiber has shown, Unzer met Meier and Krüger at the Friedrichs-Universität in Halle. The meeting with Baumgarten's disciple was decisive for Unzer's conception of a cooperation between medicine and philosophy. It also helped him strive for a more popular form of presenting medical ideas to the public. This culminated in the huge success of his magazine *Der Arzt*. See Matthias Reiber, *Anatomie eines Bestssellers. Johann August Unzers Wochenschrift "Der Arzt"* (Göttingen: Wallstein, 1999), pp. 25f.

[80] H-P. Nowitzki, *Der wohltemperierte Mensch: Aufklärungsanthropologie im Widerstreit* (Berlin: de Gruyter, 2003), p. 34.

[81] It took Unzer about 25 years to undergo the transition from "mechanism and psycho-vitalism to dynamic vitalism in the guise of nervosism" (Mechanismus und Psychovitalismus zum dynamischen Vitalismus im Gewande des Nervosismus). H.-P. Nowitzki, *Der wohltemperierte Mensch*, p. 88.

his acceptance is not merely of a passing interest. This is because Kant clearly understands its key implication; namely, that the brain is not the only centre of vital activity. Thus, the pathology of mental diseases shows us that there are many other foci of life in the organism that function independently of the central nervous system.

His essay on mental illnesses explicitly mentions Unzer, but there are other texts revealing that Kant is fully aware of the scientific-philosophical transformation occasioned by the independence of the peripheral nervous system. In his own way, he carries out that "Copernican revolution" in the physiology of movement that Georges Canguilhem talks about. It is a revolution associated with the development of the concept of reflex actions. Here Unzer is one of the most prominent names:

> The Copernican Revolution, in the physiology of movement, is the dissociation of the notions of the brain and the sensory-motor center, the discovery of eccentric centers, the formation of the concept of the reflex. This revolution did not happen all at once, without hesitations, without concessions to the traditional conception of animal motility [...] From Descartes to Prochaska and Legallois, it was necessary to form with difficulty the idea of a neuro-muscular apparatus which is not only a system, but a system of systems. Consequently, while assuring the functioning of the organism as a whole, this allows a certain independence of partial automatisms and institutes the coordination of sensibility and movement, not from the top down, as in a monarchy of divine right and by delegation of the central power, but from the bottom up as in a federal republic and by the integration of local powers. A vitalist conception, or if one prefers, an organicist conception of the animal body, eventually proved more favorable to the fruitfulness of such a way of seeing than a mechanistic conception. An organism can be composed of parts which are themselves organized and whose *consensus* depends, at each degree of complication, on links capable of subsisting even after their liberation from the highest center of integration and control.[82]

It is not fortuitous that in these same pages Canguilhem quotes the letter to Sömmering, in which Kant underscores the absurdity of all attempts to locate the seat of the soul.[83] This Kantian objection, as Canguilhem is well aware, already appears in the *Dreams of a Spirit-Seer*. But in this context it becomes umbilically linked to the history of vitalist physiology, which has only been briefly sketched here. The following passage from Kant's *Metaphysics* could

[82] G. Canguilhem, *La formation du concept de réflexe aux XVII^e^ et XVIII^e^ siècles*, pp. 127-128 (Eng. trans. D. W. Wood).
[83] *Ibid*., p. 128.

similarly have been cited by the French epistemologist to illustrate his idea of a Copernican revolution in physiology:

> A living being has only one soul, this is a grounding principle in psychology. From the consciousness of my subject, there already follows the consciousness of the unity of my soul. If we also think of several life principles in the body, which are in union, that therefore many lives unite into one, then this is still only one soul. One wants to explain irritability from the mechanical qualities of the body. This is still doubtful. The cause of this is perhaps a secreted liquid from the nerves that looks like slime and coats the muscles. A cut wasp grabs the abdomen with its head and the abdomen defends itself with its sting. The earth crab can be guided by its claws, and these then still pinch away the body, which it has seized. It is therefore not improbable that multiple lives are concentrated in the body under a single principle. Therefore, there are not several animals, because several life-principles are in different parts of the animal.[84]

It should not be imagined that the organic unity disappears because of the different vital principles at work in the same organism: an animal can be constituted by many animalistic elements without ceasing to be a single animal (this is what Canguilhem calls "a system of system"). The examples of animals that are decapitated (the wasp) or with their limbs separated from the rest of the body (the crab) illustrate that the organism or parts of it can continue to function without the directive of the brain. It is true that the literature of the time was replete with examples like these, but the context is undoubtedly Unzerian. For it not only concerns the independence of the parts, but also their unity within a single system. Furthermore, animal physiology reveals another aspect that is fundamental to Kant's philosophy. Eccentric centres ("centres excentriques", according to Canguilhem) also exist in the simplest organisms that are devoid of brains. In these, the vital activity existing in their multiple ganglia satisfactorily replaces the cerebral functions. In this regard, Canguilhem states that Unzer's originality consists in maintaining that the reflection points (*Reflexionspunkte*) for reflex activity are not only to be found in the spinal cord, like in Whytt, but already at the level of the ganglia and plexuses; in short, in the "sympathetic centers, where we actually know today that certain reflexes find one of their anato-mical conditions."[85]

According to Unzer, because they lack the force of representation (*Vorstellungskraft*), brainless animal organisms perform all their actions due to

[84] I. Kant, V-Met-K2/Heinze, AA 28: 753 (Eng. trans. D. W. Wood).
[85] G. Canguilhem, *La formation du concept de réflexe aux XVII^e^ et XVIII^e^ siècles*, pp. 127-128.

external sense impressions. Thus, everything that "thinking animals" (*denkende Thiere*) do voluntarily, these *hirnlose Thiere* exclusively carry out via the natural forces of their nerves. In short, "they can act orderly, purposively, and reflectively, as it were, as if they thought."[86] Note the expressions used in this sentence: "purposively", "as it were", "as if" (*zweckmäßig*, *gleichsam*, *als ob*). And not just with regard to their content: an ear attuned to Kantian language quickly detects that Unzer has anticipated by almost two decades the terms deployed in the Third Critique to explain *Zweckmäßigkeit ohne Zweck*. It is therefore clear why physiology is so crucial for understanding the concept of life in Kant's philosophy. It was from the sphere of human and animal physiology that the philosopher grasped the autonomy of the organism and a teleology that is not finalistic or purposive, or established by the superiority of the human intellect.

[86] "[...] daß die hirnlose Thiere, ob sie gleich, aus Mangel der Vorstellungskraft, ganz unempfindlich sind, dennoch durch die äußern sinnlichen Eindrücke, die unaufhörlich in sie wirken, alles, was denkende Thiere sinnlich willkührlich thun, bloß durch die natürlichen Kräfte der sinnlichen Eindrücke bewerkstelligen, und kurz, ebenso ordentlich, zweckmäßig, und gleichsam überlegt handeln können, als ob sie dächten [...]". Johann August Unzer, *Erste Gründe einer Physiologie der eigentlichen thierischen Natur thierischer Körper* (Leipzig: Weidmann, 1771), § 439, pp. 443-444.

Translations

Übersetzungen

Traductions

Traduzioni

Symphilosophie

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On the Pythagorean Square in Nature

Or the Four World-Regions

(1798)

Franz von Baader

Translated and introduced by Carlos Zorrilla Piña*

Certain facts from Benedikt Franz Xaver Baader's life let themselves be easily set down. He was born on March 27, 1765 in Munich, at the heart of a traditional Bavarian Catholic family. Following his father's wishes, he first pursued an education in medicine and then, honoring his own preference, in natural science, including in chemistry and mineralogy. This latter pursuit would see him study for some time under Abraham Gottlob Werner, in the famous Mining Academy in Freiberg which also counted Alexander von Humboldt and, some time later, Novalis as its students. Looking to gain experience and continue refining his craft, Baader then spent some years in England and Scotland. Upon his return to his homeland, in 1797, Baader found his fair share of success as a mining intendent, quickly rising up the ranks of state service and eventually being ratified as a member of the Bavarian Academy of Sciences and promoted to a minor nobility rank in 1808. In what is furthermore a testament to his experimental keenness, he developed a novel method of glass production, the patent of which he subsequently sold to the Austrian government for what was then a relatively sizeable sum.

It would not be his experimental keenness, however, which would stake Baader's claim to fame, but much more so that of his theoretical speculation. Already during the travels of his youth, in Scotland, Baader had begun to

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read Kant and to gradually but irrevocably reorient the bulk of his intellectual efforts towards philosophy and theosophy. That reorientation would prove enduring and fruitful. Even as he was still working his way up the rungs of his practice, Baader quickly became one of the most perspicacious readers of the new philosophy that developed in the wake of Kant's critical revolution and began advancing his own nuanced position in laconic but insightful publications. Thanks to the attention these latter garnered him, he had occasion to cultivate intellectual dialogue and even friendships—though not all of them long lasting—with figures such as Friedrich Jacobi, Schelling, Johann Ritter, Joseph Görres, and Hegel, all of whom he lastingly influenced. Following the founding of the University of Munich in 1826, he was appointed honorary Professor of Philosophy and Speculative Theology. In time, Baader's ideas would even leave a mark in the social and political developments of his day, as he played a decisive, albeit discrete, role in the formation of the Holy Alliance after the final defeat of Napoleon Bonaparte, and was also one of the first voices to speak against the material and spiritual dispossession of the proletariat of the new industrial order, well over a decade before Marx appeared on the intellectual scene. Seventy-six years old and still tirelessly writing, Baader died on May 23, 1841, without a numerous band of followers, but with a few congenial disciples convinced of his speculative brilliance.

The task of summing up Franz Baader's philosophy is however not as easily dealt with as that of the events of his life. In the most general terms, one can say that his lifelong ambition was to develop a philosophy which, though thoroughly rational, resisted any form of rationalistic desire to do away with religion and revelation. Theosophically inclined, Baader considered the disclosures of reason and revelation to be intimately entwined and both only meaningful by recognizing the traces of divine life in the workings of a thoroughly dynamic nature. Beyond this, a more detailed picture would need to consider the fact that Baader boasted a particularly rich and encompassing intellectual upbringing, whose heterogeneous sources he skillfully welded together in creating a highly sophisticated and highly idiosyncratic view of existence and of the human being's place in its midst. Familiarity with classical sources such as Plato, Proclus, Augustine, and Thomas Aquinas undergirded his reception of his contemporaries' philosophical advances and was carefully informed by an attention to recent scientific developments, prominent among which were those dealing with chemistry and physiology, as pursued e.g. by Antoine Lavoisier and Albrecht von Haller. The already complex set of philosophical convictions that this yielded was articulated in light of the always commanding presence of Scripture, even if the latter was

often read through the decidedly unorthodox lens of the theosophical teachings of figures such as Paracelsus, Oetinger, and—above all—Jakob Böhme and Louis-Claude de Saint Martin. Adding to the difficulty of tracing the coming together of all of these aspects of Baader's thought is the fact that, while his sophisticated views of existence and the human being may at base form a coherent whole, its presentation in Baader's work decidedly does not. Readers approaching Baader's work with any degree of systematic ambition must therefore be prepared to take upon themselves the task of making manifest the many connections which their author never managed or never chose to put on paper. Since such a systematic reconstruction lies well beyond the purview of this short introduction, we will content ourselves for now with touching on those aspects of Baader's philosophy which are most relevant to his 1798 "On the Pythagorean Square in Nature, or the Four World-Regions," whose translation into English is offered here for the first time.[1]

Already the assertion in the work's opening paragraph—that mass is ultimately to be thought in terms of a forceful obstruction of the expression of another's force—should provide a hint that Baader's natural philosophy belongs to the tradition of ontological dynamics which in the context of modern philosophy was inaugurated by Leibniz's paradigm-changing suggestion to think of substance under the guise of force. As with Leibniz, the motivation behind this appeal to force stems from the theoretical possibilities it offers in articulating an ontology wherein the ideal domain of representation and the more manifestly physical one of bodies and their interactions can be harmoniously integrated. Of course, Baader stands firmly on the other side of Kant's critical reworking of the project of ontological dynamics. He generally supports the latter's bid for a self-aware metaphysics which proceeds under the banner of a rational anticipation of possible experience and harbors no naïve ambition of transcending the sphere of phenomenality. The crucial point, however, and in this he draws no small amount of inspiration from Herder, is that Baader takes issue with the overly subjectivist character of Kant's critical philosophy (not to mention of the "completion" it underwent in Fichte's hands) and emphatically resists the overly deflationary characterization of both nature and God sanctioned by it. In Baader's eyes, indeed, while it is true that there can be no direct or unmediated cognition of natural and divine substance, the possibility of the transcendental subject itself remains unaccounted for, and so all cognition

[1] This English translation is based on the original 1798 German edition of Franz von Baader, "Ueber das pythagoräischer Quadrat in der Natur, oder die vier Weltgegenden", reprinted in: *Sämmtliche Werke* (Leipzig: Bethmann, 1852; hereafter SW), vol. III:248-268.

pursued on its basis remains ungrounded, unless a symbolic cognition of both what is under and above the subject be pursued. For no amount of epistemological prudence circumvents the fact that the subject's complex constitution is owed to a natural formative process, and her ultimate subsistence and actuality to God. In a letter to Jacobi written shortly before "On the Pythagorean Square in Nature" appeared, and in whose light one may better understand the title of that work, Baader claims: "When Herr Fichte counts one, there I already count four, namely: as a You facing my I, thus too I find one above me and one under me, without being able to place either the one or the other before me, or to explain them away as stemming from my I itself.—I swear, that is, as a Pythagorean by that holy *Quaternarius*, and hope again to step into it (as my homeland)…" (SW XV:192–193) This explicit ambition to elucidate the ontological situatedness of the I is again evident in the preface to "On the Pythagorean Square in Nature", the declared general goal of which is to reinstate the fourfold of principles—or, in the topological tenor of the text, of world-regions—on the basis of which alone existence in all its variety can be properly explained, and in reference to which alone philosophy and the subject may sufficiently orient themselves.

It is within the context of that general purpose that the more specific advance which this short text seeks to make should be understood. That specific advance, as also the preface announces, is to offer an alternative to the Newtonian conception which seamlessly identified gravity with attraction and therewith to revise the two-force construction of matter which Kant had proposed on the basis of Newton's model. For despite its undeniably positive contributions, it was also clear to Baader that Kant's construction, based exclusively on the two forces of repulsion and attraction, had ultimately reduced matter to homogenous mass and therewith stripped it of any capacity for qualitative differentiation and self-complication. The itinerary of the reduction is an intricate one, but can be summed up by its two main stages. In the *Critique of Pure Reason,* Kant argued that, as the sensibly given in our cognition, matter constitutes the ultimate anchoring point for our representation, or the spatially appearing "*substantia phaenomenon*" (A277/B333). In the 1786 *Metaphysical Foundations of Natural Science*, in turn, he explicitly foreclosed the possibility that an intensive determination could pertain to this substance of the phenomenon itself, i.e. independently of how it made itself known to the human transcendental subject of cognition. Prompted by the inability of his two-force construction to reconcile the conflicting and yet equally pressing demands of thinking matter as infinitely divisible and yet capable of keeping its opposed constitutive forces from annulling one another, Kant thereby declared the project of dynamically

grounding specific differences in matter unsusceptible of a priori rational construction, submitting instead that "matter has no other magnitude than that consisting in the aggregate of manifold [parts] external to one another, and hence has no degree of moving force at a given speed that would be independent of this aggregate, and could be considered merely as intensive magnitude." (Ak. IV: 539) Content with transcendentally justifying Newtonian mechanics, Kant was undeterred by the fact that this reduction voided matter of any inner locus from whence its organization could autonomously follow, rendering the production of different existential types unintelligible in the absence of subjective intervention, and ultimately exposing the transcendental standpoint to the kind of metacritique Herder levelled at it: that it either severed itself from the rest of existence and remained unexplained, or else in explaining its origin risked the *petitio principii* of relying on the very thing it wanted to explain in the first place.

In response, Baader's text begins precisely by undoing the aforementioned reduction of matter to purely external relations. Setting out from a consideration of the conservation of momentum as showcased by Newton's third law of motion, he argues for an alternative—or, more exactly: for a more general—understanding of the inertial resistance that a given material existent presents to the action of any other. In his eyes, that resistance should not primordially be thought in terms of the resisting body's quantity of homogenous mass points but as the expression of its unitary energetic value, or in his words: of its specific energy. Resisting the notion of a haphazard aggregation of a multiplicity of homogenous, mutually external parts, Baader's suggestion crucially implies that every single existent is first and foremost determined in its being by an intensively couched unitary principle which underwrites and organizes the efficacious forces through which that existent consequently fills a space. It is this unitary organizing principle in each existent that Baader conceives as its specific gravity and which—in departing from all previous theorizations of nature—he rigorously distinguishes from the efficacious, motion-inducing force of attraction. Attraction and repulsion, Baader emphasizes, are extensive forces whose operations are immediately manifest on the level of material existents. Gravity, on the other hand, is an altogether different dynamic principle. Subsisting at an internal remove from the spatial externality of material existence, gravity first makes the latter possible insofar as it provides the unifying medium for the other two forces and, without itself directly manifesting, serves as the "common ground of their definite and persistent presence." (SW III:258) In every existent as well as in existence as a whole, gravity thus designates a topologically and functionally distinct aspect of

existence: a ubiquitous bearing center or leverage point to the periphery that is matter per se.

In Baader's thematization of nature, gravity thus grounds matter and relieves it of the role of *substantia phaenomenon*, itself becoming the common currency whose conservation guarantees the rationality and rule-boundedness of interactions between existents. As Baader himself insists, however, gravity is not just the bearing principle; it is also the one which allows for specific formation and determinate configuration. Admittedly, Baader's arguments towards substantiating this claim are less convincingly expounded than those for accepting gravity's role as intensive natural substance. In the text under consideration, they all too suddenly pass over into the symbolic and—with the sibylline claim that "our respect towards this invisible earth-principle […] becomes well-nigh veneration when we discover in it the source of all forms and formations" (SW III:264)—they will foreseeably do little to satisfy the reader's question of how exactly that determination from within could take place. Those interested in alleviating this lack and further pursuing the question can nonetheless do so by turning to Baader's 1797 "Contributions to Elemental Physiology," the work from which the present one developed and whose main insights it partially refines and partially repeats in condensed form. Together, both works provide just enough light to reconstruct how exactly Baader's overhaul of gravity paves the way for a robust understanding of a matter the rational anticipation of which may respect nature's production of existential types and avoid any threat of either a stark substance dualism, or else a physicalist or idealist reduction of existence. Without pursuing the details of that reconstruction, it can nonetheless be noted that its key lies in the topological complication of phenomenal being involved in Baader's account. Indeed, as previously intimated, Baader's insistence on an intensive measure of essence entails the need to recognize "an interiority analogous to that of the stuff of our inner sense in every corporeal configuration." (SW III:216) This objective interiority does not constitute an irruption into the noumenal, but rather the acknowledgement of both the depths demanded by a consistent and non-reductive elucidation of the phenomenal itself, as well as of nature's rationality qua "configurating artist [*Bildnerin*]"—a rationality that certainly does not render nature intelligent, but which, phenomenally understood, nonetheless respects its intelligibility as anchored "in its own original state as well as in its continued existence." (SW III:216)

Crucially, once such an interiority of phenomenal existence is acknowledged, the possibility is thereby opened that a given existent's allotment of essence may be expended for the sake of a preponderance over alterity of a

kind entirely different than that of physical interactions. For just as a being that lays claim to a high disposition of essence can externalize it as objective or quantitative preponderance, *viz*. as inertial mass, it could also rather retain the majority of that ontological capital for the sake of qualitatively elevating the internal or subjective side of its being. In the latter case, no mass accretion and physical hegemony would follow; but in their place, that existent would acquire a more complex specific kind of being, directly connected with how much of an interior life it would have, or with how much self-determination would be shifted, as it were, to the ideal, representative side of its being. Importantly, since essence is formally given under the guise of zero-sum distribution of gravity, then even in cases where the disposition of essence were thus exponentiated for the sake of internal complexity a conservation law at the basis of the community of existence would nonetheless hold, and a certain equivalence with alterity would still be kept. The inward complication of essence would thereby result in a being which, having eschewed massiveness, would not only stand opposed to and elevated above everything that is massive, but would do so while remaining in identity with it. Only, this identity would not manifest in merely mechanical and kinematic terms—as a momentum-conserving reaction to extrinsic impulsion—but rather on an ideal level, i.e. by allowing what is internally complex to dispose of what is opposed to it as the material for its truth-preserving representation. As put forth in these early texts, the intimation of Baader's philosophy is thus that the rational anticipation of nature's formative capacity from basic, more material beings, unto higher, more spiritual ones, lies precisely in the two "operative modes [*Wirkungsweisen*]" (SW III:211) of its production and in how these unitarily ground both a self-less as well as self-endowed manifestation of essence. The question as to whether the actual dynamical process whereby these two modes of operation coalesce into a fully formed existent is sufficiently elucidated by Baader's perfunctory treatment of the fourth principle of the Pythagorean square—which he calls "the all-animating principle" and symbolically designates as "air" (SW III:267)—can only be marked here as one still needing to be addressed. Readers of Schelling may perhaps take this as their cue to argue that, although undeniably capitalizing on Baader's insights, it is Schelling who first articulates the formative logic of nature by explaining light's role as the reconstructive, actualizing principle without which the succession of potencies would never be drawn out of the ground.

Finally, in the context of the invitation for the long overdue reengagement with Baader to which this translation hopes to contribute, I cannot resist the temptation of leaving off with a last, somewhat daring, thought.

Even the most distracted reader will notice that Baader's complication of the classical formula for momentum (from $p = mc$, to $p = emc$) takes steps in the direction of Einstein's famous $E=mc^2$ equation and of what, from a contemporary perspective, would be called a relativistic physical theory. In fact, Baader's formulation entails that $E^2=(p/mc)^2$; contemporary relativistic physics are built on the tenet that: $E^2=(mc^2)^2+pc^2$. The obvious differences notwithstanding, the proximities and similarities are striking. And they are, of course, not coincidental. The very title of Einstein's 1905 paper where the formula was introduced—"Does the Inertia of a Body Depend on its Energy Content?"—shows that the question which motivated his inquiry was essentially the same lying at the basis of Baader's protestations against Kant's Newtonianism. Einstein's conclusion, moreover, that "[t]he mass of a body is a measure of its energy content", reads like a paraphrase of Baader's "[t]he degree, the strength, or the magnitude of the countering or resistance determines the degree, strength, magnitude, or, if one prefers, the multiplicity of the mass…" (SW III:251) Adding to this Baader's transformation of space into "the open marketplace (the passage) of the single or whole traffic of these depths" (SW XV:165), as well as also his theorization that, based on its relative energetic preponderance, each existent will exercise on all others an "an assimilation-force (equation) of its own inner time-unity" (SW III:208), thereby curving their otherwise straight motion to a "not-straight […] heteronomy of energy" (SW III:218), one cannot avoid the realization that the road later travelled by Einstein was one whose beginning was first explored by Baader. Of course, exaggerating or misjudging this connection would be as pernicious as failing to recognize it. At stake is not the spurious claim that there is no distance between Baader and our contemporary science; but rather that our contemporary science may still very fruitfully draw from Baader's insights in the search for the deeper meaning of the facts it uncovers. More so, in fact, considering that Baader's speculations on the gravitational depths of nature are pursued at one with the question of how every discrete existent crystallizes into its determinate form out of a prior state of fluid indeterminacy, and can do so only by virtue of its informative intake of alterity. The prospect that the resolutions of some of contemporary physics' outstanding challenges and long-protracted theoretical unifications may benefit from a reconsideration of speculative sources long thought to be outdated cannot therefore but beckon to us as a serious and promising one. This path is open and more than worthy of being pursued, though it must be tread with the utmost caution and rigor, and only on the basis of a genuine collaboration across disciplines the likes of which we are still far from putting into practice.

On the Pythagorean Square in Nature

Or the Four World-Regions

Franz von Baader

{III:249} This small text originated while reading Herr Schelling's recently published work (*On the World-Soul*), which I gratefully welcomed as the first herald of an approaching spring, i.e. as the first felicitous expression of physics' reawakening from the death-slumber of atomism. Since by now nature-philosophy has correctly comprehended the dualism of nature (its inner dichotomy), and hence already recognizes two regions (namely midday and midnight) in the world at large as well as in each individual smaller one (their polarity), so it has only one further step to take in order that, after the discovery and recognition of the two remaining world-regions (of dawn and dusk), it may fully orient itself. — An attempt at how this step may at any rate be taken over and beyond current school physics, is contained in the following small text, admittedly very incipiently and only in draft. To this end, one would above all have to regard the phenomenon of gravity from an entirely different standpoint as has hitherto been the case (since Newton), and thereupon also to free the manifestation of dualism in the all-encompassing phenomenon of heat and cold from the remnants of atomistic hypotheses, so as to secure for it its original dignity as purely dynamical phenomenon. Primarily, though, instead of looking for the source of gravity in the compressive basic force, one would have to {250} recognize in the latter the positive principle of cold again—which, one knows not why, has long been forgotten in physics. Indeed, as far as this principle of cold is concerned, I do not find any mention of it by a single one of our recent writers (who nevertheless all recognize a compressive basic force, and regard the essence of heat at the same time as the expansive force that counteracts it), with the exception of the author of the *Metaphysical Heresies* [viz. Karl Heinrich von Gleichen], of whose remaining original and interesting ideas (especially about his given view on the connection of cold with salt and light) I will make use at a later opportunity, and in the pursuit of the path of ideas here laid down.

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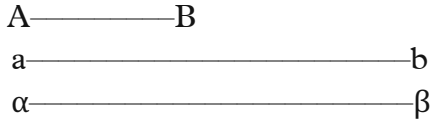
> There are two classes; but in these two classes, union cannot take place without rupture. Are there not two forces in opposition: one to stop union, one to promote it? Are there not additionally the principle which gives and the principle which receives?

One can easily give a more general meaning to the common expression (MC = mc) found in mechanics to designate the momentum or magnitude of motion (the strength of what moves or the mass of what is movable) so as to apply to the momentum of any (finite) action whatsoever, if one but considers that: insofar as every action is a reciprocal or counteraction, one can understand by mass or M that which resists the expression of force of any forceful thing, and which therefore can itself only be the counteracting of a likewise forceful thing—as is also meaningfully expressed by the word: object. — The degree, the strength, or magnitude of the objection or resistance determines the degree, the strength, the magnitude, or—if you will—the multiplicity of the mass (of the load or of the weight, etc.). If one now takes all working causes as of the same magnitude in terms of energy, as is in fact the case in the above formula, then MC expresses the twofold mode of an increase (intensification) and weakening of momentum in general. For if M = m, or if the working causes are the same in number, or the same amount of parts of a working cause are in play, then the degree of their exertion or disposition (temperature)—which as always is assumed to be variable, and which {252} is here designated by C, or by the velocity of the action[1]—will give a difference of momentum. And if on the contrary this degree of disposition or exertion is equal, then only M or the quantum, the magnitude or amount of working causes, can be the decisive factor. Now admittedly (according to the proposition of phoronomy) "the momentum of a working [cause] from greater specific energy is equal to the momentum of many joint working [causes] of a weaker specific energy", and from this it indeed follows that the mathematician can to that extent abstract from the specific differences of the working causes; but it by no means follows that he

[1] In the case of forces which are variable in their action, the expression C = s/t [*celeritas est spatii per tempus divisi* = speed equals distance over time] gives the degree of the action, or the tension in which the agent finds itself. Thus, e.g., a higher degree of expansive or compressive force (a higher degree of heat or cold) fills the same space faster or decreases the same filling of space in like measure faster—which is in part proven by Lavoisier's experiments on this issue.

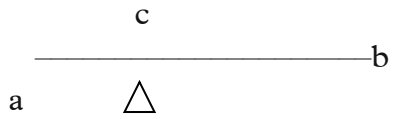
can impose his hypothesis or assumption (of the specific sameness of energy of natural forces) as a proposition on natural science. — In order to sufficiently convince oneself of this, one only needs to make the above phoronomical proposition intuitable by means of an example.



A moving point A,[2] whose action has a determinate energy, externalizes it with a velocity or {253} degree of its exertion = AB. One can then conceive it as divisible in its substance (in the two points a and α) of which each possesses only half of that energy, and which therefore will need a double velocity or exertion (ab = 2AB) in order to bring about the same momentum as A. In the same way, if one conversely thinks of a union of two points a and α, a deceleration or relaxation of their action (a decrease in their velocity) must occur if the newly created unity A is to perform only the same which each of the individual points a and α could perform separately and by itself, but with double the effort or exertion of its force. The specific energies (strengths) therefore behave inversely to the degrees of exertion (the velocities) in cases of equal momentum; and if we designate the specific energies with E, e, then instead of the above formula we arrive at: MEC = mec, where namely M indicates the multiplicity of working causes, E their specific energy, and C the degree of their exertion, tension, or velocity. Since in the phoronomy (as mere mathematics) of Professor Kant's [*Metaphysical Foundations of*] *Natural Science*, there is no mention of the concept of specific energy, I here had to first and foremost justify the general use, of which I am immediately in need of as much by a consideration of the action of motion as well as by that of expansion and condensation. Incidentally, by a consideration of the above formula one arrives at the insight of the permanence or persistence of the total momentum—or of the absolute of each of the working causes of nature—throughout all its variations which result in the constant

[2] Instead of the actual motion (as successive change of place or however else one wants to define it), one can also choose as an example of every action in general that of extension, or the opposite one of condensation; for I presuppose that one correctly notices the difference of these actions, and does not want to reduce all actions in nature, with the atomist, to that of motion in the narrower sense above. The scholastics already distinguished between *motu lationis* and *motu alterationis*. Our outer sense can of course not be affected by anything but motion in the first sense; but our inner sense (which is the sense for relative quality, strictly understood) is not affected mechanically like the former, but only dynamically. More on this in the sequel.

change of the specific momenta and express themselves precisely in that change—i.e. throughout all separation (isolation) and unification of its action.[3]



{254} To begin, we want to consider the interaction of moving causes in the simplest case, the lever. Since one arm of the lever is not movable without the other one being simultaneously moved in the opposite direction, then the moving in a counteracts the moving in b as the mass of the load, and likewise the moving in b counteracts the moving in a. But the lever is in fact movable only from its point of motion or support c; and consequently b, in that it has to move (lift) a, can act only from c, just as a does in that it strives to move b. In c, therefore, both b acts on a and a on b; and since the end of the lever b has to traverse twice as much space in the same time as a, the moving part in a must of course perform twice as much as the moving part in b.[4] Now admittedly here a specific difference in the energies of the moving causes does not seem to come into consideration, whether one represents dead bodies (weights) or living bodies (animate) as acting on both ends of the lever. For since the bodies are not subject to any change in the specific energy of their own motions (of gravity), (in that this very persistence constitutes what is substantial in them, qua phenomena), then of course any external cause which manifests itself in them as inducing motion cannot strengthen the momentum of this their action of motion otherwise than by more highly determining the degree of its exertion, which inner higher determination is outwardly manifested by means of being moved faster. But from this it does not yet follow (according to the previous considerations) that every material point's own action of motion (if you will) is of equal magnitude in its energy {255} to that of every other even at the same speed. Rather, the experience of specific gravities leads us just as much to the recognition of a similar

[3] As a consequence of the above, I further provisionally remark here that with the unification by mutual total dissolution or interpenetration of two fillings of space, one already concedes that mass (as a quantum) can in no way be constructed as a multiplicity outside of, i.e. next to, one another. Incidentally, the concept of a dissolution (*solutio continui*) in general is still indeterminate because one does not here recognize the negative of true connection as (systematic) unification.

[4] This view of the lever also seems to me the simplest and most natural. One can easily give it the necessary generality for every system of opposite moving forces, if one but considers that in a system of forces every single one acts on all the others only from the common center of motion or action.

specific difference of what is substantial in the fillings of space (namely, of what moves and what is moved), as the recently discovered specific temperatures proved to us a difference in the energies of their expansive forces. Now since, in my opinion, only the misjudgment of the connection of the gravity of all bodies of the same system with that of their inertia (as opposability or resistance against any other than their own movement) made the above truth inaccessible,[5] then by a correct application of the concept of positive and negative forces, I want to try to determine the true point of view from which every matter's own motion must be regarded [together] with its relative immobility, or the resistance against any foreign one.

An actual motion (as an action, and hence including the striving) in a given direction is a negative one (a negation, hence a positive counter-striving by that same moving thing or thing striving to move) in any other direction.— By this, incidentally, I do not want to be understood in such a way that one imagines the conflict as Herr Prof. Kant constructs it in the *Natural Science*, in that it is not here a question of e.g. a reciprocal motion present before impact (which motion is merely ideal), but only of the motion (as action which merely expresses itself as striving) present at the moment(um) of and continually generated during the conflict, whether that which inhibits motion is a matter, or whatever other motion inducing thing it may be. This resistance, qua reaction which is generated at the moment(um) of interaction or community, must naturally be greater (stronger) the greater the disturbing influence itself is, i.e. {256} the faster the body moves in any other direction than in its own direction, and the more it is to be set away from the latter in any other direction, i.e. the more opposite the directions are. With other words: bodies therefore only show inertia, they therefore only resist as mass everything which moves them, because they are heavy; and hence the momentum of their specific inertia lets itself be a priori regarded as fully equal to that of their specific gravity, because namely we are only designating one and the same thing with both terms. — That thing, or the substance of each matter (as individual and for itself movable filling of space) is thus one and the same thing as the momentum with which it vindicates its own original motion (as heavy). It must consequently be seen as an expression of force with which every single matter vindicates the relative rest (unity of a certain motion or position) with regard to the system (of which that matter is a member) and so partially also the independence of that system. — If,

[5] Thus, not seldom e.g. does one find matter regarded as merely inert, and not furthermore as heavy. One therefore considers in such a case something spatially movable and moving (for both are inseparable) without any actual definite motion; i.e., one professes a true absurdity.

however, one now considers the entire mass of the system (of our planet qua individual) as a unity whose action is each time only separated or individualized into as many partial actions as there are individually and unitarily movable (hence relatively immovable among themselves) fillings of space in it (whose number will therefore also each time be a definite and finite one),— then one neither needs to assume a really completed division or separation of this one material substance into infinitely many,[6] nor otherwise and in general, to represent to oneself in a mechanical or transfusionist way the concept of a {257} substance qua constancy (holding or persistence) of the momentum of that unity with regard to the perceptible intensification of energy in individual points of its virtual presence and the decrease thereof in others (i.e. the abidance of absolute gravity throughout all change in the specific ones). The meaning of the word substance as self-standing, self-bearing, or self-positing bearer (in opposition to the non-self-standingly posited, positioned, or borne) already prepares us not to regard the force or invisible omnipotence which radiates and spreads from the center (mass-point) of our planet as an effect of sorts of the mere aggregation of a countless amount of non-self-standing particular causes. For this aggregation would be so little in a position to create an active center common to all, as would all the individually scattered and then gathered peripheral points to create the mid-point which creates, positions, and bears them.[7] We should much rather regard gravity as the immediate expression of the individuum which dwells in all singular or for-itself-movable bodies, individualizes each of them, and uninterruptedly posits, bears, and systematically orders them all (as a priori

[6] Admittedly Herr. Prof. Kant gives a proof of this actually completed division of matter into infinity (in the *Metaphysical Foundations of Natural Science*) from the continuity of the expansion of a single material substance. — But the efficacy of the expansive forces of one and the same matter is not there constructed dynamically, as the nature of the issue actually requires, but mechanically: as an effort of several matters to move away from one another, which manner of conception (exactly as the atomist wants) would as such deny all true decrease and increase of expansion with constant continuity and would explain it away as mere appearance. It would perhaps be better to postulate a complete division of the material substance in the liquid; only here, too, this inner drive towards endless disunification is as such only present *in potentia*, and is always suspended by a hastening, cohesive force; so that here, too, each time only one actual matter, i.e. a finite filling of space, moves and strives to move at once and with each other.

[7] In making use of the sphere and its center point as a symbol, one usually thinks of the latter only as the mathematical point, whereas one should conceive by the actual center of the periphery the generating inner one in contrast to the externally appearing many (individuals). To this then it is owed that so many fancy to have to be at least as small as a mathematical point in order to be simple or not extended, as the author of the *Metaphysical Heresies* very naively expresses.

principle).[8]—An individuum which precisely therefore {258} does not itself appear (as matter) because it gives all of those bodies permanence, content, and truth; is that in which they all have their ground, manifesting in each of them (qua so many particular peripheries) as center; and is that which with a determinate momentum holds them fast, bears, posits, and therewith, so to speak, substantializes them. The degree of actuality of each matter is the degree of its efficacy as moving itself or resisting motion in space, and the absolute indestructibility of matter is by no means due to it itself (for every matter is mortal and temporal by its nature), but only to its inner principle, whose independence from matter is incidentally as certain as the dependence of the latter on it. — It is easy to see from this true view of the phenomenon of gravity that its source and thus also the source of matter's own motion is neither to be sought in its compressive basic force, nor in the latter's unification with the expansive one acting against it, insofar as one would explain this unification of both forces from them themselves, but rather in a third one which is itself precisely the cause, what unifies those forces, and the common ground of their definite and persistent presence itself. — Before I now elaborate on this concept, I find it necessary to recall something of both the other already recognized forces of nature.

One understands by the temperature of a matter the momentum of its expansive force (or that of its extension, considered as action) in relation with that of another matter. Individual {259} matters enter with one another into community of their temperatures (they share these with each other), if they come into noticeable community with the spheres of action of their expansive or compressive forces; and they set themselves in equilibrium in terms of the former when they reciprocally balance out the momenta of their expansive forces among themselves (through relaxation and tension of their action). — If we thus consult our latest physical writings on this topic, we find that the unmediated and purely dynamic influence of matters on each other which takes place during the distribution of temperature is still generally misunderstood. For the hypothesis of a separate warmth or warmth-generating matter is nothing more than a mechanical-atomistic manner of conception, which is

[8] In passing, I remark here that in this way alone one may hope to obtain information about the existence and subsistence of our planet as the individual *par excellence* compared to all individuals produced by it. On the contrary—as Herr G[eheimer] R[at] Jacobi remarks—with the usual machinistic conceptions of the origin of our mother earth from a general basic mush, form is taken to arise in a truly miraculous manner *per generationem aequivocam* out of pure unform (chaos), unity from below upward out of endless rupture, life from death. — *Totum (Unum) parte prius* etc. — These gentlemen seem not yet to be as far advanced as those savages who could indeed count up to 2 or 3, because they have not even begun to count, since one must in any case start with the unit.

only still retained because one has not noticed that in this case an interaction of single, moving, pressing, etc. matters does not explain anything at all; and that one must simply recognize here that an unmediated interaction of forces of matter, radiating and penetrating at certain distances from the latter without all mediation of a reciprocal impenetrability of something spatially moving, occurs as such. — Since, however, one has only recently begun to speak of a dynamic influence in contrast to the mechanical one,[9] the reten-

[9] Since this double influence must be deduced from the double affectability of each particular (individual) in general, namely from the outside and from the inside, I find it necessary to devote a somewhat lengthy note to its consideration here. Imagine, for example, a body A, which for the time being you endow with the ability to sense and move; and now let another body B as such enter into community with it, i.e., as moving or as expressing its individual space-filling presence against the first. Now, since the place of influence or interaction is always only in the boundary of mutual repulsion (of movement) or in their mutual impenetrability, i.e. outside of both, so the former [A] will relate this sensation of B to the latter qua something acting outside of itself. But let B or whatever other thing is taken as agent not act by mechanical contact on A, but rather in it as e.g. by warming. Then A (as a spatial presence or as an individually movable thing) will be penetrated by the action B. Thus apprehended in itself, in its substance (as a spatial I), the body A will, since the place of the influence falls within its own I, admittedly recognize the presence of an agent as before; but it will not recognize it in the same sense as outside of itself, like the first time. Only, it also cannot recognize it as something that is in itself, except insofar as it perceives itself in turn comprehended in it. In this respect, the objective presence (being) of this agent for A is just as true as it is incomprehensible. For since we give the latter only a capacity for motion, and here no movable, graspable reacting thing offers itself, the influencing thing cannot fall within the sphere of what is actually cognizable or intuitable for it; for the eye sees only in front of itself and from there on out, where hand and foot work. — I break off this consideration here, in order to provisionally anticipate some conclusions from it: 1) All quality of matter is one and the same with its interior (as also Herr Schelling already asserted) and in all changes of quality, it is not bodies or individual matters, but higher principles that are effective, to which therefore belong all dynamic phenomena, the chemical, the life processes etc. 2) We must distinguish in every bodily essence (insofar as the meeting point of receptivity and spontaneity is within it itself, and does not fall outside of it e.g. in the mass point of the earth) a double sense: the actually external or mechanical one, which accompanies the feeling of the mutual impenetrability of e.g. our body as moving or movable against any other moving etc., and which only persists with an actual expression of one's own capacity for motion (more passive or more active). This sense or this feeling is the actual sense of the body. On the other hand, we sense all dynamic influences and interactions of our own matter with a foreign one, where no motion or striving thereto takes place (in seeing, hearing, smelling, tasting, feeling warmth etc.), even though motion accompanies them, by means of the dynamic inner sense. And if in this case we relate the actually acting to a movable outside (body), then this relation happens just as generally, as in particular the whole life process is related to the living body (as proceeding in it), but not as attributed to it (as cause; see Schelling). This sense for forces in general (if you will), in contrast to the sense for bodies, is of course still until now as good as unknown, because one still tries to explain it away as a mere modification of the latter (as though one for finer matters or bodies). To this end, the well-known emanation and vibration hypotheses were invented, which are neither individually admissible nor in their combination, because they both set out only from a mechanical principle. — 3) Individuals of the same class must of course, as members of the same system, perceive each other reciprocally as impenetrable, thus in their

tion of the above misunderstanding in the {260} doctrine of heat is less disconcerting to me than the denial of a proper principle of cold, which one nevertheless admits under the term of a condensative basic force, thus only under another expression. {261} If, that is, (as is generally done at present) one considers the actual expansion which takes place in the [thermal] steady state as an effect of the equilibrium of both basic forces, then one proceeds at least very inconsistently if one speaks of the action of the one (of heat) without mentioning the other which is inseparably connected with and opposed to it (cold). Indeed, a body cannot warm a second one (by communication) without just as much getting itself cold before it, and cannot cool it without just as much getting warm before it. Consequently, the interplay of the expansive and compressive forces of two matters which set themselves in thermal equilibrium must be conceived in such a way that the higher tensed expansive force of the warmer matter A is counteracted by the higher tensed compressive force of the colder B as mass, load, or weight; or that the expansive and compressive forces of both matters, in this way united, act against each other. — Concerning this interaction or the communication of temperature, the above formula MEC = mec or (since M does not come into consideration here) EC = ec gives the law of equilibrium. It can be seen from this, that the degree increase (C) behaves inversely to the specific energy, and that one should not speak of any specific heat capacity[10] {262} without speaking of the cold capacity standing in inverse relation to it. For the positive element can only become or be specifically more energetic (more excitable, more irritable) in the same ratio in which the negative has become less excitable, and vice versa. For example, in the mixture of colder mercury with warmer water, the easier heatability of the former and the lower stability of its cold principle are just as evident as, conversely, in the mixture of colder mercury, the greater stability (inertia) of the cold principle of water with the lower excitability of its heat principle. — Incidentally, I have considered here the conflict of nature's reagents only in the communication of temperature, and must save the consideration of the phenomenon of the flame or of

interaction as outside each other; whereas an individual of a lower class is in the above sense not impenetrable to an individual of a higher one, but rather penetrable, which leads to the already noted perceptibility of a higher individual as within the lower one, and again of the lower one in the higher one. Likewise, the interaction of these essences (in impulse, for example) must turn out to be quite different from the above between two of the same class. 4) Since the sphere of the properly intuitable is narrower and smaller than the sphere of what can be felt, so the priority of the latter follows from this. — Finally, this remark provides a commentary to that well-known sentence: *Deus est sphaera, cujus Centrum ubique, circumferentia nusquam* [God is a sphere whose center is everywhere and whose circumference is nowhere].

[10] The term 'capacity' owes its origin to the transfusionist system, and therefore cannot properly be retained.

burning, as belonging to a higher order, for another occasion—its consideration, meanwhile, could until now not give satisfying results precisely because one did not recognize the negative to light (qua positive).

In ancient writers, one finds these two basic forces, whose never settled strife and duel make the life of visible nature itself,[11] and {263} to whose recognition now also our nature-philosophy has risen, designated under the names: fire and water. But they associate a third principle (the earth) to them, whose existence is actually already tacitly conceded with that of those two. Thus, for example, Herr Eschenmayer has already very beautifully compared these two forces of nature with those of a lever, in that they, like the two counteracting forces of the latter, are only able to express themselves in the state of their separation or distribution (as, e.g., especially their appearance in electricity and magnetism shows). And in his masterpiece (on the origin of the general organism), Herr Schelling distinguishes even more clearly the grasping, fixating principle from the two grasped elements. It is therefore time to also recognize this third principle in nature as that which engenders the bearing and supporting point in the lever of nature, and thereby grounds and constitutes the latter. — This bearing or supporting point meets us namely at every point of space filled by matter (as weight)[12] and we apprehend only in and through it those two forces, which it unifies (holds together) by separately holding them apart, and separates in order to unify them, thus as it were compels them against their will to operate together on one point

[11] The author of the *Metaphysical Heresies* significantly calls them half-forces. — As a supplement to the use of the word spirit made by the same author, I note the following here. The concept of a spirit in contrast to the body (as only its negative) is that of the undivided, unpartitioned, i.e. unextended unity, in contrast to the divided, separated, extended one. — In this sense, Hemsterhuis makes use of the somewhat adventurous sounding and yet true expression of calling the body a coagulated spirit, and the corporeal universe a coagulated God. Since every action is immediately preceded by a synthesis of the elements or forces, the essence that is extended within itself necessarily experiences a suspension, and it must first overcome the resistance that opposes the totality or congruence of all its individual forces. This *solutio continui* must therefore be accompanied by pain, and is actually for us the suffering of time. — For example, the human being finds will and deed disunited within himself, and this disunity or sundering in his essence constitutes precisely his dissatisfaction with the world.

[12] The first principle commences the action, the second limits or moderates it, and the third realizes or carries it out. Number, measure, and weight according to the ancients.

and to bring forth the appearance of matter.[13] We therefore have the uninterrupted energy of this third principle, as bearer (substance) of the remaining two, to thank for the consistency and permanence of matter. {264} But our respect towards this invisible earth-principle (our common mother Rhea or Vesta) becomes well-nigh veneration, when we discover in it the source of all forms and formations. — For the determinate form (the discrete body-formation or individual) comes about (as already Herr Schelling showed) only through the determinate way of the being-bound of those two elements. — By means of a determinate binding of the two quarreling elements of nature, that principle thus creates the phenomenon of a persistent (resting) individual filling-of-space; just as the constant and determinate mode of release of those two reagents maintains a certain, individual process (life) in and on this body, which, as it were, emerges as a funerary monument out of that life, and dams and sets banks to the latter's stream. — Since, by the way, these three principles give a threefold equilibrium as well as a threefold disturbance (conflict) of the former, then the particular existence of the three kingdoms of nature presents itself to us as a commentary and evidence of their presence. Thus, for example, in the animal the fire principle, in the plant the water principle, and in the mineral the earth principle is the dominant, characteristic one; and in a similar way, the threefold chemical character or quality of matter (as combustible, salty, and earthy) is explained. —

One and the same principle is therefore the forming and supporting (positing) one—and since above I already derived the gravity and substantiality of bodies from it (our earth-individual), so I only need to draw here the conclusion which follows from this derivation, and to explain the inner and hitherto still unexplained difference of the solid from the liquid, of the formed individual from the unformed stuff. The relative immobility of rigid matter is indeed nothing more and nothing less than the unity (coherence) of its gravity, i.e. the unity of its own motion or the unity of its substance. — That this latter {265} came about (in the free original formation of the body) by articulation or individualization of what is substantial, in that here each part relates efficaciously to the whole, and the whole to each part, can be instructed by appearances themselves, to which also then belongs the simultaneity of the generation of stuff and form in every original true formation or generation of a body, which thus can only be

[13] Thus the poet (who so often reveals himself as the prophet of philosophical truths) says: "…like nature certain forces in distaste — compellingly conjoins and contending bodies creates." [Goethe, *Auf Miedings Tod*]

directly comprehensible from the liquid.[14] — In so far as the liquid proves itself apt for the formation or birth (the crystallizing outcrop) of solid bodies, it can be regarded as the general seed of the latter, since in it the earth or formative principle is still undeveloped or undifferentiated as in the germ. — Coherence in the liquid itself is nonetheless obviously only that of expansion (of expansive forces) and not that of substance (of the movable and moving), as can be shown from several observations and experiments,[15] and as the everywhere separating and individually expressing force of gravity shows us already at the first sight. The ideal of the liquid, however, as boundless segregation or disunification of the substance would give (as already noted above) everywhere a 0 of the latter, or no noticeable spatial presence of it at all. — That impotence and inner lack of consistency nonetheless must have been the original state of matter (insofar as all bodies originated from the liquid, from *l'eau mère*) and therefore gives a {266} significant symbol of the non-unity or confusion[16] which preceded the foundation of this world. —

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Having now convinced ourselves of the presence of three principles, beginnings, or elements of matter which everywhere and in every point of it are to be found already together, we have indeed the complete elements for the construction of matter.[17] But considered more closely, we see that if left to themselves, these three elements would nonetheless eternally begin nothing, and their being together (as inert) would only be able to produce a relative equilibrium, and to constitute the 1^0 as the basis, so to speak, and the substance of all potencies or expressions of force. Left to itself, the great lever of nature would remain in eternal rest, i.e. in the 0 of its action and actuality,

[14] As is well known, we owe to Herr [Carl Wilhelm] Nose the introduction of this principle as a basis for the critique of geology. But its application goes incomparably further.

[15] The spherical form, e.g., which the liquid showcases in smaller portions, is obviously an effect of elasticity (which strives for the greatest possible self-contact under the smallest possible external one). — To this also belongs the decrease of fluidity with increase of the separation etc. etc. and several phenomena related to tension etc. in cases of tearing of the liquid.

[16] From this, however, the concept of dissolution (*solutio continui*) can be deduced, as well as the different ratio (or efficacy) in which the earth principle finds itself in relation to both other elements in the liquid, as opposed to that in the rigid or solid. —

[17] In Herr Schelling's *Ideas for Nature-Philosophy*, there is a consideration of the necessary coexistence of three acting causes in order that a self-standing result, persistent interaction, be given. In his proof that galvanism accompanies the life process, Herr Wilhelm Ritter comes across one and the same idea, — which is at home in higher philosophy, in that it is a priori demonstrable that a self-standing thing which circulates within itself is only possible through the interaction of three counterpoints (as so many individual inner members). —

if something external to it, penetrating it, did not put it into play from within and maintained it thus by the alternating conferred predominance of one action of its forces over the others.[18] With this exhalation from above, life and movement course into the statue of dead Prometheus, and the pulse of nature (the interplay {267} of its dualism) beats. — Everything which exists and works, lives only from the inhalation, the breathing, of this all-animating principle—air!

And so we would have found the fourth principle of nature, its fourth or actually its first world region, the dawn; or at least we would have shown the possibility of this finding, and in it an opposition (in every small world just as the one at large), which is by no means, as our recent philosophy believes, to be mixed up with the dualism of its two reacting forces which withstand one another in struggle. — In so far as to orient oneself means nothing else than to find and keep in sight everywhere this point of the dawn (of absolute spontaneity), then philosophy first has to look for the original schema of this *quaternarius* which, as is well known, Pythagoras presented to his students as the key to nature, and by which they swore;— Or (if I otherwise wanted to part ways with this philosophy) I would express myself with a very viciously defamed author as follows: look to explain the subsistence of the One in the Three through the subsistence of the Three in the One.

Where namely the "in" means being under something as in the power of another, so to speak; insofar as in the first case the conflicting three do not serve the unity, stepping under it and submitting and surrendering their will over to it, but rather each of the three strives to bring itself up to the place of this unity and to bring the latter down; whereas in the latter case (where three subsist in one) precisely the opposite takes place.

Some years after this text was published, Professor [Adam Michael] Birkholz in the *Universal Catechism*, published in 1803, and an unnamed person in the *Essay on the Nature of Things*, published in 1804, made known a construction of the *quaternarius* from and through the *ternarius*, which stems from [Andreas] Rüdiger, and which I recommend to the reader as pursuing the topic under discussion here much further. This construction {268} consists mainly therein, that if one e.g. calls the compressive (involutive) force a, the

[18] This relation of the three principles to the fourth which animates them is almost universally misunderstood by placing all four of them next to each other as one order, and thus distorting them all. In the well-known symbol (△) this relation is correctly indicated.

evolving force b, and the one unifying both (the bond in Schelling's language) c, one obtains through the evolution of this *ternarius* a circuit with four counterpoints, in that e.g. the acme of a and b (of winter, night; and summer, noon) must be interspersed by two other acme's of c, in one of which c leads the b that has gone down in a upward (spring, morning), in the other of which the same c leads b back to a (autumn, evening). — Just as important, and illuminating, is the proposition noted here: that three numbers can be rearranged only five times [viz. six total permutations], in relation to which the author of the *Essay on the Nature of Things* has already registered some conclusions. — For knowledgeable readers, whose number should be rather small here, I further remark only the following: 1) That *ternarius*, which as the radius, so to say, of the esoteric unity evolves here into the *quaternarius* as its periphery, already has that unity as a mover within itself, and so, as a still latent quaternary, the designation △ fits it. 2) In the extra- and supra-temporal system, those two times of day or seasons, in which the bond (the spirit) is predominant, of necessity eternally coalesce; dawn, ascending and dusk, descending; spring, morning and autumn, evening. Blossom and fruit meet here incessantly; and neither a nor b are individually able to rise to dominance.

Symphilosophie

Rivista internazionale sulla filosofia romantica

Sul solido e sul liquido

(1808)

Franz von Baader

Introduzione e traduzione di Alberto Bonchino*

Il breve testo *Ueber Starres und Fliessendes* fu pubblicato per la prima volta da Franz von Baader (1765–1841) nel secondo fascicolo del terzo volume degli «Jahrbücher der Medicin als Wissenschaft» (1808, pp. 197-204) ideati e diretti da Adalbert Friedrich Marcus (1753–1816) e Friedrich Wilhelm Joseph Schelling (1775–1854). Con questa rivista i due curatori si proponevano «di istituire la "medicina speculativa" quale parte della "fisica speculativa" sì da mostrare in modo scientifico e razionale la costituzione dell'organismo umano».[1]

Baader, che già da tempo è un appassionato lettore degli scritti del mistico e teosofo Louis Claude de Saint-Martin (1743–1803), approfondisce in questo periodo lo studio della teosofia di Jacob Böhme (1575–1624) e di Friedrich Christoph Oetinger (1702–1782). Sono gli anni dell'amicizia con Schelling e con il fisico Johann Wilhelm Ritter (1776–1810), entrambi membri della Reale Accademia delle scienze di Monaco, e dei tentativi condotti insieme con questi d'indagare e riprodurre i fenomeni del magnetismo e del sonnambulismo. Questa connessione di empirismo e speculazione filosofico-naturale dalle forti connotazioni mistico-simboliche rappresenta uno dei tratti distintivi di quella che in seguito fu denominata «Münchner Romantik».[2]

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[1] Giuseppe Semerari, *Introduzione a Schelling*, Bari, Laterza, 1971, p. 127.

[2] Ad esempio: Philipp Funk, *Von der Aufklärung zur Romantik. Studien zur Vorgeschichte der Münchener Romantik*, München, Kösel & Pustet, 1925; Hans Graßl, *Aufbruch zur Romantik. Bayerns Beitrag zur deutschen Geistesgeschichte 1765–1785*, München, Beck, 1968 e Sigrid von

Lo scritto baaderiano trovò immediatamente riscontro negli «Heidelbergische Jahrbücher der Literatur» (2/3, 1809, pp. 260s.) che, nei primi anni della loro esistenza, rappresentarono un forum ampiamente riconosciuto e un organo di revisione del Romanticismo tedesco, non solo per gli scrittori ma anche per i ricercatori di tutte le aree delle scienze naturali del tempo. Il medico e docente Theodor Alexander von Hagen (1778–?) – autore della recensione cumulativa del terzo volume della rivista di Marcus e Schelling – mette in luce in poche battute il nucleo essenziale dello scritto di Baader. L'opposizione tra il rigido e il fluido – scrive von Hagen – scompare nella loro unione, risultando in un terzo che pur dando sussistenza (*Bestand*) a tutto rimane in sé né tangibile né palpabile. La realtà vivente di questo terzo in quanto continuità più perfetta corrisponde alla più stretta e pura connessione di materia e forma: in sé l'effettivamente reale. Sola forma o sola materia come tali non esistono. Sono da considerarsi come astrazioni non riconducibili alla logica dei processi vitali. Rappresentano infatti la morte assoluta e, dunque, sono da considerarsi alla stregua di reagenti chimici e mai come prodotti della sostanza vivente.

Le idee generali dello scritto baaderiano sono presenti *in nuce* già in alcune opere precedenti. In questa occasione però – data la sede di pubblicazione – vengono chiarite non solo concettualmente ma anche terminologicamente in una prospettiva chimico-fisiologica con implicito riferimento al concetto di malattia (intesa come stato di separazione o distacco dal processo organico di realizzazione vitale). Partendo dall'idea che, all'interno dei fenomeni sostanziali di generazione e corruzione, la costituzione della vita organica si fondi sulla coappartenenza ontologica di salute (vitalità) e malattia (distruttibilità), Baader specifica lo stato patologico dell'organismo in quanto affezione contagiosa e infiammatoria, interpretando infine per analogia la questione dell'origine del male metafisico come disfacimento o suppurazione di uno stato precedente di salute.

Recuperando alcuni motivi della tradizione filosofico-naturale medica e mistico-alchemica (soprattutto Paracelso e Böhme) che interpretava la natura esterna come una corporeità vivente guidata all'interno da processi elementari contrastanti (forze repulsive e attrattive continuamente all'opera raffigurate anche tramite gli elementi della tradizione platonico-aristotelica), Baader evidenzia la struttura che è alla base di ogni processo sia organico sia spirituale. Lo stato patologico sia fisico che morale viene a determinarsi per Baader come il sollevamento unilaterale e degenerativo di uno degli elementi

Moisy (a cura di), *Von der Aufklärung zur Romantik. Geistige Strömungen in München*. Ausstellung München 26.6.–24.8.1984 (= Bayerische Staatsbibliothek, Ausstellungskataloge 29), Regensburg, Pustet, 1984.

costitutivi della totalità organica o come alienazione patologica di uno dei momenti integranti o strutturali del processo di crescita dell'organismo. Tanto nel microcosmo materiale quanto nel macrocosmo metafisico una disfunzione o alterazione egoistica a discapito del tutto rappresenta così il modello di fondo che conduce tutte le cose (la totalità) alla rovina. Il tratto caratteristico di una tale interpretazione è «l'accentuazione della coappartenenza di salute e malattia, male e bene nella natura e nell'uomo e il rinvenimento della radice ultima di questo nesso tra opposti in Dio».[3] Il breve scritto baaderiano venne subito compreso e accolto favorevolmente dal curatore della rivista Schelling, che lo utilizzò l'anno successivo in un punto fondamentale delle sue *Ricerche filosofiche sull'essenza della libertà umana* citandolo testualmente.[4]

[3] Francesco Moiso, *Vita, natura, libertà. Schelling (1795–1809)*, Milano, Mursia, 1990, p. 325.
[4] Friedrich Wilhelm Joseph Schelling, *Philosophische Untersuchungen über das Wesen der menschlichen Freiheit und die damit zusammenhängenden Gegenstände*, a cura di T. Buchheim, Hamburg, Meiner, 1997, p. 39.

Sul solido e sul liquido*

Franz von Baader

Come la vitalità si basa, in generale e ad ogni livello di vita, sull'unità di materia e forma, così la sua distruttibilità, mortalità o immortalità (individualità da indivisibilità) si basa sulla loro separabilità o inseparabilità. La condizione [*das Moment*] della vita coincide del tutto, e ad ogni livello, con la condizione d'intensità interiore [*Innigkeit*] di questa unione. In tal senso vale allora *par excellence* il detto: *vis conjuncta fortior etc*. proprio perché la *vis* diviene o nasce solo in e attraverso la relazione [*Conjunction*]. Questa condizione infine [198] contrapponendosi alla violenza o forza separante fornisce proprio (come uno zoometro) la misura della stabilità (sostanzialità) della vita. Nel solido come nel fluido o liquido, presi in quanto tali, è data invece la separazione della materia e della forma raffigurando il primo la forma senza la materia e il secondo la materia senza la forma. Il solido infatti mostra ed esprime certo continuità, ma non intensità [*Penetranz*], qualità o quella sottilità o leggerezza penetrante capace di sciogliere o di assorbire altre cose. Di contro il liquido, in maggiore o minore grado, manifesta questa forza di penetrazione ma non possiede alcuna continuità. Pertanto, nella misura in cui e fin tanto che il primo mantiene la sua forma (continuità) non è in grado di penetrare (*corpora non agunt chemice nisi soluta*).[1] Il fluido, all'opposto, penetrando (ovverosia agendo come qualità o elemento) non può rivendicare alcuna forma. Di qui allora l'impotenza (la chiusura, la latenza) chimica (dinamica) del solido insieme alla sua potenza meccanica, così come l'impotenza meccanica del liquido insieme alla sua potenza o apertura chimica.

Perciò, laddove il solido, o il fluido, appare e si presenta esclusivamente in quanto tale, lì la vita si è spenta oppure – che qui è lo stesso – non è ancora iniziata. Rigidità e fluidità in sé [199] escludono la vita. Viceversa, dove la vita è sorta, rigidità e fluidità in quanto tali devono essere già tramontate o,

* In *Jahrbücher der Medicin als Wissenschaft*, a cura di A.F. Marcus e F.W.J. Schelling, 3/2 (1808), pp. 197-204. La traduzione segue il testo stabilito in Franz von Baader, *Texte zur Naturphilosophie (1792–1808)*, a cura di A. Bonchino, Brill/Schöningh, Leiden/Paderborn 2021, pp. 185-191 senza tuttavia riportare le aggiunte e le correzioni delle edizioni successive (seconda edizione 1809 e terza edizione 1830).

[1] Notoriamente finora si è rappresentata questa torpidezza o impotenza del penetrare come manifestazione positiva della forza, ma ciò è del tutto sbagliato perché essa come tale è solo indiretta. [199]

precisamente, devono essere state elevate ad un terzo, il quale non permette la realizzazione né dell'una né dell'altra di quelle due forme reciprocamente escludentesi, sopprimendo ovvero mantenendo latente la loro continua tendenza [all'estinzione reciproca] e contenendola incessantemente. Se si potesse dimostrare uno stato solido assoluto o uno assolutamente fluido, in entrambi i casi avremmo documentata la morte assoluta. Ma questo è impossibile perché né l'uno né l'altro può sussistere di per sé, dal momento che anche nel caso più estremo di solidità esistente è sempre presente un residuo di fluidità, o piuttosto tramite quest'ultima una latenza di rigidità, e, allo stesso modo, nel più alto grado di fluidità che possa esistere è ancora presente una qualche rigidità o latenza di fluidità. All'opposto però, se si verificasse l'unione più profonda tra la continuità assoluta e completa con la leggerezza estrema (intensità [*Penetranz*]), che è l'unione più intima della forma e della materia, si realizzerebbe allora la sostanza più viva. Questa infatti – in quanto né tangibile né racchiudibile, ovvero come autentico corpo spirituale – sarebbe equidistante sia dalla più grande grossolanità e torpidezza del nostro solido sia dalla massima discontinuità del nostro fluido. E qualsiasi cosa solida o fluida che fosse ancora pertinente a questa sostanza, benché non in questa ulteriormente afferrabile o tangibile e racchiudibile (anche nel grado più minimo), non coinciderebbe in alcun modo con l'essere di essa stessa. Così si capisce anche perché nessuna delle cosiddette forme del tangibile [200] (rigido o solido, liquido e gas) possa rimuovere o favorire in modo esclusivo l'insita presenza di quella sostanza. Perciò la fisica farebbe molto meglio a tale riguardo, al posto di quella sterile *sequela* delle tre forme (che poi non sono affatto *tre*), se postulasse il solido e il liquido come due modi del tangibile in *opposizione* reciproca e mostrasse che questa opposizione viene meno solo nella loro unione. Tramite essa si manifesta difatti un terzo che non è né solido né fluido e pertanto nemmeno, nel senso comune, tangibile o materiale [*handgreiflich*], e ciononostante è il reale propriamente detto: questo solo infatti conferisce al solido o al fluido esistenza in senso materiale.[2] [201] Però una seconda conseguenza non meno importante di

[2] Solido e fluido hanno ognuno in sé gli stessi due fattori della sostanza vivente, solo che in ognuno è presente in prevalenza solo un singolo fattore, mentre l'altro è tenuto sottomesso, in modo che l'uno è rivolto verso fuori e l'altro invece verso l'interno, cioè stanno girati l'uno rispetto all'altro (di schiena). Entrambi infatti costituiscono certamente la sostanza vivente, ma solo se voltati l'uno rispetto all'altro ossia in concordia. Su ciò si basa ora la ridestabilità della vita in ciò che è solido e fluido, quantunque poi abbiano bisogno della reciproca assistenza perché il liquido solo nel solido è in grado di destarsi alla vita e di conservarsi in essa come, viceversa, il solido solo nel liquido. Chi non vede qui la legge generale di tutte le *semi-forze* della natura il cui manifestarsi isolato (come nell'elettricità e nella forza sessuale) sottostà parimenti solo a una tale condizione, e secondo la quale tuttavia il vero detentore dell'uno o dell'altro sesso è soltanto la conclusa natura androgina? [201]

quanto detto sopra sarebbe quella che, se rigidità e fluidità generano la vita soltanto nella loro unione, allora una vita autonoma o indipendente può corrispondere solo all'unione autentica di questi, così come quella eteronoma [può corrispondere solo] ad una puramente dipendente (che equivale ad un mero essere aggregati ovvero come se materia e forma venissero trattenute assieme).

Solido e fluido (quindi ogni cosa materiale [*handgreiflich*]) sono pertanto dovunque, nella misura in cui essi si diano come puramente ed essenzialmente tali, non *edotti* della sostanza vivente, bensì solo *prodotti* della sua vita ormai spenta, cadaveri (in un certo senso meteoriti) in cui quella sostanza già morta si dissolve. Dal momento che però la vita è eterna, ovvero non è spiegabile da nessun'altra cosa (dalla morte), allora l'emergere separato del solido e del fluido (la creazione della terra e dell'acqua) non testimonia sicuramente alcuna nascita della vita prima e originaria. –

Gli antichi hanno dimostrato l'opposizione di solido e fluido tramite il fuoco e l'acqua,[3] in quanto assegnarono a quello la funzione del secco, e con ciò quella del corpo o forma, a questa quella del riempimento.[4] Poiché vediamo sempre sparire (con[202]sumarsi) l'essenzialità (specifica) di tutti i corpi, laddove si manifestano fuoco (elettricità) *e* acqua, allora il loro essere-stati-latenti e quindi esser-stati-uniti deve aver funzionato proprio da base per l'esistenza di quella essenzialità. Infatti, laddove fuoco e acqua compaiono in quanto tali nel loro dualismo, lì si mostrano subito l'uno nemico dell'altro (il fuoco per così dire come idrofobo etc.). Ma così come questo loro essere separati risulta soltanto da e attraverso il declino di ogni essere individuale specifico, in tal modo il loro sparire coincide (per così dire in quanto riunificazione di forze sessuali separate o semi-forze) viceversa con il sorgere o la crescita dell'essere vivente. E qui, di nuovo, fuoco e acqua non sono edotti ma prodotti e potevano, pertanto, essere insiti nella sostanza vivente solo nella loro latenza. Tuttavia non bisogna tralasciare a riguardo che lo stimolo e l'oggetto, in cui la vita stessa si eleva, si appresta o [203] accrescendo si rivela, è proprio il principio [*Ansatz*] che ritorna eternamente ed ininterrottamente (il principio del fuoco che si eleva in quanto volatile e centrifugale dalla sua latenza e quello dell'acqua invece che

[3] Si pensi qui alla duplice forza che crea nell'eterna luce dello Zend Avesta persiano così come al mondo di fuoco e di acqua, o al Musspel e Niffelheim degli antichi germani nell'Edda. Cfr. Das Licht vom Orient 1808. [202]

[4] Perciò infatti, come nota molto giustamente *Ritter* in uno dei suoi lavori, i nuovi esperimenti sull'elettricità hanno rovinato, ai recenti difensori dell'ossigeno, sia la festa che il sistema. E poiché l'acqua dopo un breve esilio ha nuovamente riacquisito lo stato che le è dovuto, in tal senso anche l'*aria*, dopo esser stata cacciata via dai *gas*, dovrebbe rivendicare entro breve i suoi antichi diritti. [203]

ricade dalla sua elevazione o evoluzione nella sua latenza).[5] In che modo altrimenti potrebbe manifestarsi e comunicarsi (dimostrarsi) l'unità in quanto tale cioè come *unente* dove non ci fosse nulla (nessuna molteplicità contrastante) da unire? Come potrebbe rivelarsi la luce in sé ossia come lucente o rischiarante, dove niente, nessun buio o nessun portatore di luce le andasse incontro e si sottoponesse a lei servendola? Come potrebbe nascere la gioia della vita *ritrovata* se non vi fosse da qualche parte un sofferente da redimere dalla sua pena e un timoroso dalla sua angoscia? Come potrebbe rivelarsi *Dio* senza *necessità*? –

In breve, come potrebbe esserci o manifestarsi un *organismo*, che non spuntasse fuori da, all'esterno di, in contrasto a e al di sopra della radice nascosta di un *non-organismo*?[6] Al [204] generale riconoscimento di ciò si oppone soltanto, nell'attuale procedere della nostra filosofia, la confusione, facilmente evitabile, dell'edotto con il prodotto.

[5] Vivre, disse Rousseau in modo più profondo di quanto sospettasse, c'est s'empêcher de mourir – cioè se alla vita le si toglie il suo opposto, questa sprofonda per così dire dentro di sé nella noia, ritorna nel silenzio del suo nascosto abisso senza fondo, e sparisce come vita ossia come manifestazione e rivelazione di questo abisso – ammutolita!

[6] Un istruttivo chiarimento al riguardo lo dà il fuoco comune (come incandescenza violenta, distruttiva e penosa) a differenza del cosiddetto calore vitale organico e benefico, in quanto *qui* fuoco e acqua si associano all'interno di un fondamento (crescente), ovvero entrano in congiunzione, mentre *lì* si separano in discordia. Dunque nel processo organico né fuoco né acqua erano presenti in quanto tali ossia come sfere separate, bensì quello era come centro (mysterium), questa come il manifesto o la periferia in esso, e proprio l'apertura [204], l'insurrezione, l'infiammazione del primo insieme al rinchiudersi della seconda diede la malattia e la morte. Così, in generale, l'egoità, l'individualità è, in vero, la base, il fondamento o il centro naturale di ogni vita creaturale, ma, altrettanto vero, è che non appena lo stesso smette di essere e di servire da centro, spostandosi in modo dominante nella periferia, qui prende fuoco in quanto furia tantalica della brama di sé e dell'egoismo (dell'egoità infiammata). Da ☉ diviene ora 🌑 – vale a dire: in un singolo posto del sistema planetario è rinchiuso, latente, quel centro oscuro della natura, il quale, pertanto, serve solo in quanto portatore di luce al sopraggiungere del sistema superiore (irradiazione di luce o rivelazione dell'ideale). Proprio perciò questo posto è il *punto aperto* (sole – cuore – occhio) all'interno del sistema – e se anche qui insorgesse o si aprisse il centro oscuro della natura, allora si chiuderebbe eo ipso il punto luminoso, la luce si trasformerebbe all'interno del sistema in oscurità ovvero il sole cesserebbe di esistere! –

Symphilosophie

Rivista internazionale sulla filosofia romantica

Sulla fisica

(1798)

Friedrich Schlegel

Introduzione e traduzione di Giulia Valpione*

Friedrich Schlegel era solito appuntare le proprie riflessioni sotto forma di frammenti e i quaderni che raccoglievano le sue note lo seguirono nei suoi spostamenti: a Jena, Weißenfels, Berlino, Dresda, e poi Parigi fino a Colonia, gli appunti crescono fino al 1806. Quelle pagine testimoniano lo sviluppo del suo pensiero, scandito nelle varie sezioni – alle quali venne dato, nelle rielaborazioni successive del manoscritto, il titolo di *Epoche*. Dalle primissime riflessioni su Fichte, attraverso la filosofia della natura verso la morale, la politica, la religione, la metafisica e l'idealismo, questi frammenti sono incredibilmente preziosi per scoprire l'evoluzione del pensiero romantico.

Non si tratta infatti solamente del racconto di una biografia intellettuale, dall'ingenuità fino all'apice della consapevolezza filosofica, bensì di una sistematica raccolta di frammenti di una filosofia vivente, come si voleva la filosofia di Schlegel. "Vivente" perché in continua rielaborazione seguendo i sempre nuovi interessi del filosofo, ma anche perché questi frammenti costringono il lettore ad una sempre nuova lettura, interpretazione, costruendo nuovi legami tra le entrate, i concetti, le sezioni stesse.

Sono pagine di difficile lettura, a causa delle frequenti abbreviazioni e dei simboli usati – questi resi più comprensibili grazie allo splendido lavoro compiuto da Ernst Behler[1] per l'edizione critica –, ma anche a causa del carattere sperimentale di tutta la filosofia schlegeliana, che qui trova il suo

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[1] Friedrich Schlegel, *Kritische Friedrich-Schlegel-Ausgabe* [KFSA], Bd. XVIII-XIX, hrsg. von E. Behler, München–Zürich, Schöningh, 1963-1971.

apogeo.[2] Ciononostante, la loro importanza è innegabile: esse contengono il cuore di tutta la filosofia romantica di Schlegel.

Inizialmente pensati come semplici appunti personali, Schlegel iniziò comunque presto a pianificarne la pubblicazione; tali propositi continuarono ad essere ideati e poi rimandati fino alla morte del filosofo nel 1829. Il desiderio di pubblicare frammenti di grande respiro filosofico era sorto nel 1797: quell'anno il filosofo aveva promesso a Fichte e Niethammer di consegnare loro i materiali già contenuti nei suoi *Anni di apprendistato filosofico* affinché venissero pubblicati all'interno della rivista da loro curata *Philosophisches Journal einer Gesellschaft Teutscher Gelehrten*. I due editori vennero però delusi in quanto non ricevettero mai, nemmeno in bozza, tale opera. Successivamente, Schlegel pensò di pubblicarli nella rivista *Athenäum* che dirigeva con il fratello e nella quale era già stata presentata al pubblico la sua raccolta *Fragmente*. La brevità della vita della rivista, però, lo obbligò a rimandare ulteriormente.

Nei primi anni del 1800 Schlegel cominciò la rielaborazione delle sue annotazioni: la divisione in *Epochen* e il titolo (*Philosophische Lehrjahre*) vennero così stabiliti.[3] La scelta del titolo non può stupire. Infatti, si tratta di un tributo ai *Wilhelm Meisters Lehrjahre* scritti da Goethe e che erano stati dichiarati da Schlegel una delle tendenze della propria epoca – così suona l'entrata 216 dei *Fragmente* pubblicati nell'*Athenäum* nel 1798.[4]

A partire dal 1804, trasferitosi a Colonia, Schlegel rifletté sulla possibilità di pubblicare un *Sistema della filosofia* che condensasse quanto possiamo leggere negli *Anni di apprendistato filosofico*. Con il passare degli anni, però, anche il progetto di un'opera maggiormente sistematica venne abbandonata per lasciare nuovamente spazio al piano di una vasta pubblicazione di frammenti, che nel frattempo crescevano di numero. Alla morte del filosofo, anche la moglie Dorothea Veit-Schlegel rinunciò ad un piano di pubblicazione, consegnando tutti i quaderni a A. C. J. Windischmann. Alla morte di quest'ultimo, i quaderni vennero riconsegnati alla famiglia Schlegel.

Il gruppo di frammenti qui pubblicato appartiene alla *Erste Epoche* e venne scritto nell'estate del 1798 a Dresda, dove Friedrich si recò con il

[2] «Die *Methode* der Philosophie ist also erstlich ein *Experimentiren*», Friedrich Schlegel, *Transcendentalphilosophie*, KFSA XII, p. 19.
[3] Ernst Behler, *Einleitung*, KFSA XVIII, p. XI.
[4] Friedrich Schlegel, *Frammenti*, in August Wilhelm Schlegel, Friedrich Schlegel, *Athenäum 1798-1800*, a cura di G. Cusatelli, tr. e note di E. Agazzi e D. Mazza, Milano, Bompiani, 2009, p. 181.

fratello August Wilhelm per incontrarvi Caroline Schlegel, Novalis, Schelling e Fichte.

Dopo le sezioni precedenti dedicate a Fichte e a Kant e che testimoniano i primi passi nella filosofia trascendentale del filosofo romantico, Schlegel si avvicina alla filosofia della natura, e se ne trova qui evidente traccia. Le speculazioni sulla fisica non sono accessorie o accidentali, semplice indicazione di un incontro casuale con il dibattito scientifico del suo tempo. Esse infatti rappresentano il tentativo di Schlegel di «aprire la filosofia al fuori di sé»,[5] in un passaggio che deve succedere all'autoriflessione di stampo trascendentale.

La filosofia della natura è una porzione portante del pensiero di Schlegel, quindi. Le attente letture di Baader, Schelling, Ritter, Goethe così come l'influenza di Novalis, Werner, Mesmer, John Brown risuonano nella raccolta di frammenti qui tradotti. E già in queste righe si trovano alcuni dei punti fondamentali che caratterizzeranno tutta la sua *Naturphilosophie* successiva: l'unità della natura, la collocazione dell'uomo all'interno di essa, la metafisica del divenire, la centralità del concetto di "vita".

Questi frammenti sono cruciali per avvicinarsi alla sua concezione della natura, ma anche per comprendere lo sviluppo di tutto il pensiero romantico. Novalis infatti ebbe la possibilità di leggere questi frammenti già nel settembre 1798 – le sue annotazioni ne portano testimonianza[6] – e a dimostrazione dell'importanza che essi ebbero all'interno del circolo primoromantico, i due filosofi progettarono di pubblicare la discussione che ne seguì in un'opera a quattro mani dal titolo provvisorio *Symphilosophie mit Hardenberg in Briefen*.

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Il gruppo di frammenti qui pubblicato appare per la prima volta nella sua interezza in traduzione italiana. Alcuni sono già presenti nella traduzione italiana delle opere di Novalis a cura di Moretti e Desideri,[7] in quanto erano stati riportati da Novalis nei propri quaderni e corredati di annotazioni.[8] La

[5] «La filosofia […] doveva creare sé stessa a partire da sé, e poi doveva uscire da sé», Friedrich Schlegel, *Transcendentalphilosophie*, KFSA XII, p. 49.

[6] Novalis, *Schriften*, hrsg. von R. Samuel, H.-J. Mähl, G. Schulz, Darmstadt, Wissenschaftliche Buchgesellschaft, Bd. 3, p. 87-91, 1968.

[7] In Novalis, *Opera filosofica*, vol. 2, Torino, Einaudi, 1993, p. 80-84.

[8] I frammenti già presenti nell'edizione italiana delle opere di Novalis sono: n. 249, 252, 254-257, 263, 264 (parziale), 268, 270 (parziale), 273 (nell'edizione delle opere di Novalis il frammento di Schlegel è modificato rispetto a quello dell'edizione critica di Schlegel), 276,

traduzione lì pubblicata è stata presa in considerazione nell'edizione che qui si introduce.

I frammenti di F. Schlegel mostrano anche nel loro aspetto un carattere editoriale non definitivo: la presenza di abbreviazioni, l'ortografia non sempre corretta e i segni di interpunzione spesso carenti, rendono quest'opera di difficile approccio. Nella presente traduzione si è scelto di riportare per intero i termini indicati con abbreviazioni, sigle e formule matematiche, aggiungendo invece tra parentesi quadra quanto si ritiene necessario per una lettura scorrevole del testo: si vuole così rendere il carattere incompiuto dei frammenti evitando però allo stesso tempo che questo possa ostacolare il lettore.

Tra parentesi quadre e in corsivo vengono riportati invece termini che si è ritenuto necessario indicare anche nell'originale tedesco.

277 (parziale), 280 (parziale), 289, 295, 296, 298, 304, 306, 307, 309, 315, 318-320 (parziale), 322, 326 (parziale).

Sulla Fisica*

Iniziato nell'estate del 1798 a Dresda

Friedrich Schlegel

[249] I *fiori* sono le scintille elettriche e i raggi del mondo vegetale. Le piante hanno soprattutto arguzia [*Witz*] e umanità.

[250] Non ha forse il movimento della luce qualcosa di assoluto, e il movimento dell'acqua qualcosa di trascendentale?

[251] Il moto e la materia non [sono] certo totalmente diversi.

[252] Nella cosmologia si dovrebbe iniziare con la costruzione dell'animalità, poi del vegetale e dopo del minerale. Tutta la natura *non* vegetale o animale è minerale, perciò l'intera natura è organica. Non dovrebbe la natura umana, oltre ad animale, essere anche vegetale e minerale? Forse è tutto qui ciò che è proprio dell'animale umano in quanto tale. *Fisiognomia*, individualità; più margine di gioco per la mostruosità la cui origine è comunque sempre vegetale e animale.

[253] L'*etere* degli antichi è un gas, e più precisamente pensato [come] animale.

[254] Il *disseccarsi* delle piante è molto affine alla gotta. La *febbre* sembra avere principalmente l'animalità dell'origine e del carattere. La *tisi* sarebbe un disfacimento, ma a partire dall'interno verso l'esterno; [è] dunque un concetto originariamente minerale.

[255] Le *pietre preziose* sono fiori minerali.

[256] Perché la *follia* ha maggiormente un legame con la febbre e con il veleno animale? Questo dimostra un carattere molto animale. I *coralli* forniscono un esempio di continuazione dall'animale al minerale attraverso il vegetale.

* In: KFSA XVIII, p. 144-151.

[257] La *figura femminile* è totalmente fiori e frutto – i sepali e il calice fiorale dominano nel suo corpo. L'organizzazione più spigolosa dell'uomo è forse maggiormente minerale.

[258] La pelle esterna dell'essere umano ha molto di un *fiore*, i capelli [hanno molto] del fogliame.

[259] Il *fiore* è più interamente completo in sé rispetto ad un albero, della pianta stessa.

[260] La donna è magnetica verso l'esterno ed elastica verso l'interno. – Le *mani e piedi* sono fragili organi del sentimento come il naso, la bocca[,] gli occhi, le orecchie. –

[261] *Granito*, *basalto* ecc. forse sono tutti animali pietrificati.

[262] Le pietre preziose sono nel mezzo tra la roccia di cristallo e il metallo. Forse dalle pietre preziose è possibile fare l'oro. Sotto la terra c'è l'archivio della natura. Antichità della natura; deve aver attraversato già molti stadi.

[263] La donna si avvicina alle piante anche a causa della sua minore mobilità.

[264] Forse una famiglia insieme costituisce innanzitutto *un* animale umano. Il mito platonico [è] letteralmente vero.

[265] Una *Razza* [*Raçe*] di esseri umani deve essere considerata come una pianta, come un intero vegetale proveniente da un seme.

[266] Tutte le rocce [sono] forse animali pietrificati da uno stadio precedente della natura formante.

[267] Le piante vivono direttamente degli elementi puri. Nel punto centrale di un pianeta non ci si attende [di trovare] della terra. – Quando un pianeta sviluppa luce, allora esso è forse maturo. –

[268] La natura è un animale infinito; la natura è una pianta infinita; la natura è una pietra infinita.

[269] Ogni *uomo* è un animale del proprio genere. Così tanta forza formativa verso l'esterno a partire dall'interno quanto viceversa per la donna. La *somiglianza* dei metalli [è] qualcosa di molto sublime e divino. – Nell'uomo più Dio e più animalità – separati – nella donna totalmente fusi. Il vero carattere animale dell'uomo non è la voracità insaziabile?

[270] La natura elementare è migliore di quella minerale. La natura *termina* con gli elementi, non inizia affatto con essi – elasticità[,] magnetismo [ed] elettricità sono il processo vitale della natura elementare. Cristallizzazione è procreazione e propagazione di questo stato. I metalli forse [sono] i frutti della natura elementare.

[271] Quando ancora mancavano i materiali, la prima espressione di forza degli animali doveva essere la morte.

[272] Gli *elementi* sembrano essi stessi ancora essere l'altro estremo, così come da un lato l'*essere umano*. – La Terra consiste dunque dell'essere umano ed è pienamente ossatura. La *montagna* è stata considerata spesso la *struttura ossea* della Terra. Ciò che *Moses* descrive è solo lo strato superficiale del nostro pianeta.

[273] Gli elementi sono i risultati della natura minerale, essi sono le nature maggiormente divine.

[274] Ogni alimento elaborato cerca di *elementarizzare* il più possibile le materie animali o vegetali. L'essere umano si nutre quindi certo di simili come gli animali, ma tende verso il divino anche nel proprio alimento. Le piante si nutrono certo anche degli elementi ma di [elementi] simili, non di individui che sono mescolati dagli elementi.

[275] L'esperimento organico dell'animale è il mangiare, quello chimico la procreazione, l'astratto (meccanico) è il senso, la percezione. Questo è l'esperimento maggiormente divino dell'animalità.

[276] *Per percepire un oggetto, devo prima mangiarlo*, e accoppiarmi a lui, *poi porlo come seme*, *fecondarlo*, *accoglierlo e partorirlo*. L'analisi filosofica grossolana ha molta somiglianza con l'onanismo.

[277] La *follia* [è] forse pazzia mineralogica. La *sciocchezza* un male narcotizzante, la gotta dello spirito.

[278] Come poco chiara è la somiglianza della passione con la *febbre*! Essa è triviale dal punto di vista comune, per il filosofo però nulla è triviale.

[279] Tutte le immagini del poeta sono letteralmente vere; ogni nostro sentire, provare, percepire è un poetare.

[280] Il nostro poetare è animale, il nostro pensiero minerale, la nostra vita vegetale ["]come la genesi delle foglie["] [*hos phyllon genee*]. Amore è vita della vita e quindi estremamente vegetale. La sua essenza è fiore, il suo fine concrescere. Cautela e precisione nel cogliere la cosa giusta; altrimenti al posto di grandi scoperte c'è una poltiglia di immagini.

[281] La vita si divide forse in volere, amare e agire. I sentimenti sono fatti [*Facta*], il tendere [è] un semplice sperimentare, le sensazioni [sono] risultati. Nei pensieri [c'è] solidità simile a quella del metallo, nel pensiero stesso [c'è] decorso cristallizzante.

[282] Il lavoro è economia[,] mangiare, assimilare. *Fare incantesimi* è agire senza fine, l'agilità di Fichte.

[283] Il vero amore non è un singolo fiore che viene trovato e appassisce, bensì un produrre meraviglioso in un intero di grandi e piccoli fiori di vita.

[284] Forse la cosiddetta *plasmabilità* del corpo umano [è] pienamente minerale. Il lento crescere al contrario è una somiglianza con le piante.

[285] Se il chimico non considera una cosa come un intero, per il fatto di poterla scomporre, lo stesso è quanto il cattivo critico può fare con la poesia. – Il mondo non si è sviluppato a partire dal *muco*? –

[286] *Respirare* è un mangiare divino, un nutrirsi dell'etere.

[287] Prima della trinità [di] animalità[,] vegetabilità[,] mineralità (ovvero organico[,] chimico[,] meccanico) c'era il caos, ma animalizzato; Esiodo va più in profondità di Moses.

[288] Ogni malattia è certo contemporaneamente stenica e astenica.

[289] Il generare è un mangiarsi reciproco. *Dormire* è digestione delle impressioni sensibili e dei movimenti. *Vegliare* è mangiare dell'astratto[.] I

Sogni emergono attraverso il movimento vermiforme delle impressioni nelle viscere del cervello. Il *sognare vigile* è la condizione suprema, viene comunque detta beata.

[290] Ci sono luci e voci pure, che sembrano così spirituali e trasparenti e certo penetrano fino al midollo.

[291] Tra tutti i processi umani l'astrazione è quello supremo, ma la vegetazione quello più bello.

[292] La *malattia* è originariamente un concetto etico. In senso proprio solo l'essere umano è malato. Evidentemente gli animali e le piante resi domestici [e] umanizzati sono maggiormente propensi alla malattia rispetto a quelli selvatici.

[293] Aforismi come appunti della sinfilosofia interiore.

[294] La *creazione dal nulla* un'immagine etica. Formazione della stessa dal caos attraverso un demiurgo è immagine poetica; eternità del tutto cui appartiene anche l'assoluta classicità [è] immagine filosofica.

[295] La natura in quanto animale deve mangiare, accoppiarsi, e sognare, vegliare e dormire. – Gli individui sono *visioni oniriche* o *concezioni* della natura. Solo lei mangia sé stessa, così come genera, e feconda sé stessa. Così come deve risvegliare sé stessa. Attraverso il suo mangiare nascono i regni della natura. La pianta è l'animale che si è digerito e così il cristallo.

[296] La filosofia della fisica non contiene nient'altro che una caratteristica della natura[,] di un animale, di una pianta e di un minerale infiniti. – Questa è la storia naturale della natura.

[297] La natura ha solo rappresentazioni come un animale; i *fini* sono sotto la sua dignità.

[298] Filosofia della matematica in cui il corpo viene rappresentato come assoluto caos di cifre, figure, forze.

[299] Dall'accoppiamento con sé della natura emergono i generi. Ogni genere ha la facoltà divina *dell'accoppiamento con sé* trattato come unità e in opposizione con altri generi.

[300] Certe cose che nella natura a noi sembrano casuali e arbitrarie sono il suo vegliare e dormire, e sognare. – Tutto ciò che la natura è nel particolare lo è anche nell'intero. – Il vivere e il morire dei singoli è il vegliare e dormire della natura. Essa veglia e dorme attraverso se stessa, entrambi eternamente e ovunque contemporaneamente in successione. –

[301] *Isolare*, *armare* [*Armiren*],[9] e *mettere in contatto* sembrano essere le grandi operazioni dello sperimentare. La poesia arma il proprio oggetto, la filosofia lo isola, l'etica [lo] mette in contatto.

[302] L'uomo è alla verità come [illeggibile, *N.d.T.*] è all'oro; se lui la afferra con le mani non riconosce la sua ricchezza e pensa che essa sia paccottiglia e immagine. –

[303] La natura respira sé stessa – se sente sé stessa, sorge affinità.

[304] Tutta la natura si divide in *prodotti*, *processi ed elementi*. Questa [divisione] attraversa tutti e tre i regni. – La cosiddetta mineralogia, chimica e fisica sperimentale sono solo *Una* scienza.

[305] Cos'è propriamente la *fermentazione*? Forse il mescolamento di tutti i processi animali – forse la condizione intermedia tra il mangiare e il crescere (digerire) tra il generare e il ricevere. La fermentazione ha molta affinità con il sogno.

[306] Tutte le grandi scoperte sono emerse attraverso il mescolamento delle scienze fisiche particolari (sintesi) – tutte attraverso la trattazione fisica della fisica.

[307] Per quanto concerne la costruzione dell'intera natura, forse era un grande errore, volerla costruire *per sé*. Ciò può solo essere parte della caratteristica dell'universo.

[308] Considerare la natura come un intero in sé infinitamente conforme ai fini.

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[9] *N. d. T.*: probabile è qui la ripresa da parte di Schlegel del frammento n. 88 della raccolta *Polline* di Novalis pubblicata qualche mese prima (maggio 1789) sulla rivista *Athenäum*. Sul termine *Armieren* in questa ricorrenza si veda Jocelyn Holland, *Novalis' "Werkzeug" and the Making of Romanticism*, «MLN», vol. 121, n. 3, *German Issue*, (Apr. 2006), p. 623-4.

[309] La fisica può solo divenire, mai essere presente.

[310] La luce[:] l'elemento elementare.

[311] Ovunque appare il concetto matematico di un corpo, della cosa nella fisica.

[312] Nell'epoca attuale si tende solo alle *leggi* della natura – cosa si vuole con ciò? In tal modo si tratta la natura come una macchina.

[313] *Spazio e tempo* forse solo modi dell'*estensione*.

[314] Evidentemente nell'antica fisica magica agiscono e imperversano gli ideali di una pietra, di una pianta, di un animale infiniti (pietra filosofale – medicina universale si rapporta all'ideale animale). Tutti questi sono però solo *prodotti*. La fisica scientifica si occupa forse solo di *processi*.

[315] Alla *pietra infinita* sembrano appartenere più proprietà di quelle generali dei corpi. Solo ad essa si può attribuire una completa impenetrabilità e inerzia, che non si confà per niente alla cosa matematica. – La pietra infinita non può né urtare né essere urtata, probabilmente essa urta e spinge se stessa. Solo lei resta immobile, lei è il ["]*datemi un punto d'appoggio*["] [*dos moi pou sto*] di Archimede.

[316] La quantità eternamente uguale della materia non appartiene per nulla alla fisica, poiché la natura non è per niente, essa diviene solamente.

[317] La cristallizzazione è il processo della pietra. – La creazione della luce, fuoco, aria, acqua, terra è l'ultimo processo della natura cristallina. Per questo sono elementi; non a causa di una semplicità immaginata.

[318] Tutti i movimenti fisici sono certo azioni a distanza. La coesione [è] un crescere fissato. – È molto strano che la fermentazione *contagi*. L'*urto* è coesione secernente[;] si deve pensare all'attrazione[,] coesione assimilante come ad uno scambio fissato.

[319] La natura non *è* infinita, ma *diventerà* infinita. *Baader* animalizza tutto, Schelling chimicizza tutto; il primo è migliore.

[320] La filosofia di Hardenberg vuole inghiottire la fisica. La sua prassi una miscela di *Brown*, *Fichte*, *Sophie*. La religione ha in lui radici profondissime. La religione è totalmente poesia [e] non etica, la religione etica non è per niente una vera religione.

[321] Quando è emerso l'errore, secondo cui la matematica è semplicemente la scienza della grandezza? –

[322] Tutte le costruzioni sono una sintesi dell'infinito e del finito.

[323] La morte non dovrebbe essere un semplice inganno? Ogni morte è parziale, ma c'è una vita totale e il totale può solo vivere. L'eclissi solare può solo sembrare intera, [invece] il sole è intero. Perché gli esseri umani trovano *solo* i loro sogni così tanto significativi, quanto dovrebbero trovare tutto [significativo]? Si accorgeranno quindi, che essi sono per sempre estranei a sé stessi. –

[324] Le lune sono una *specie* di corpi celesti totalmente diversi dai pianeti. –

[325] Il padre ama i figli se la madre smette; prima solo per il bene della madre, poi per quello della loro indole.

[326] *Essere umano* è ciò che è *contemporaneamente* sia animale[,] sia pianta[,] sia pietra. Lo stato è una massa mineralogica di esseri umani, il singolo uomo deve formarsi come pianta. La più alta morale è vegetale e l'umanità è un fiore. La famiglia è un animale di uomini. Da ciò risulta allo stesso tempo ciò che è la *naturalezza*. È quando qualcuno è fisicamente in tutte queste relazioni. In ciò convergono ogni voluttà e passione. – Quindi lo stato è qualcosa di naturale e un essere umano appartenente ad uno stato può certamente essere un uomo naturale.

[327] Già il pensiero della natura scalda la nostra intera essenza e pone il nostro spirito ed animo in una forte voglia creativa. Lieve battito dell'infinità.

[328] Forse nel prossimo periodo più esseri umani diventeranno un Uno, fusione e scioglimento di spiriti. Non è forse quella naturalezza la migliore preparazione per la prossima vita – non diventerà più selvaggia, forte, piena[,] sregolata di quella attuale? – Quanto è sciocco quindi non sopportare le piccole dissonanze di questa vita intermedia e sperare [di trovare] *lì* la tranquillità!

[329] L'inerzia originaria dell'essere umano forse non [è] negativa, bensì [è] solo un tendere degenerato verso l'armonia. O forse non c'è nessuna Urania, poiché Venere viene chiamata anche Pandemos?

[330] Ogni membro di un animale infinito [è] a sua volta un animale.

[331] Tra le materie, l'*oro* è in un certo senso classico. Il *cristallo* e ciò che è cristallizzato, vuole andare nella vita o viene dalla vita. I metalli sembrano piuttosto poetici; il fuoco è totalmente religioso.

[332] Il *Mondo* nella sua interezza e originariamente è una *pianta* e deve anche diventare nuovamente pianta. Anche l'umanità nella sua interezza è una pianta.

[333] Le pietre preziose hanno individualità; da ciò [deriva] il loro valore.

[334] Alcuni spiriti sono minerali e progressivi, altri [sono] animali e ciclici. I più elevati [sono] però certo vegetali. Se la morte non concerne anche il corpo essa è per lo *spirito* forse precoce e naturale. Ogni morte è e deve essere naturale. Tutti gli esseri umani muoiono nella vecchiaia, cioè deperiscono, perché sono maturi.

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Mathematical Fragments

(1798-1800)

Novalis

Translated and introduced by David W. Wood*

The following is a series of notebook entries from 1798-1800 containing the reflections of the romantic poet-philosopher Friedrich von Hardenberg (Novalis) on pure and applied mathematics. Although this selection is not exhaustive, it does try to collect together for the first time into English Novalis's most significant mathematical fragments. There has always been a fascination about Novalis's thoughts on mathematics. This is partly due to the fact that his most well-known definition of romanticizing is based on a mathematical operation – that of exponentiation, or raising an element to a higher power. Hence, to know more about Novalis's views on mathematics is to better understand his conception of romanticizing.

That said, because Novalis is primarily known as a romantic poet there exists a certain amount of scepticism about his mathematical knowledge. Dilthey notoriously stated in 1905 that Novalis's mathematical musings are more like "hymns to mathematics and ultimately unfruitful," rather than actual rational reflections.[1] Nevertheless, Novalis's notes generally arose from his studies of mathematics and the natural sciences at university and other higher institutes of learning, such as the Mining Academy in Freiberg. Research since Dilthey's time has not only presented Novalis's writings on this topic in more accurate and faithful German editions, but confirmed the true extent and competency of his mathematical understanding and training.[2]

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[1] Wilhelm Dilthey, *Das Erlebnis und die Dichtung* (Leipzig: Reclam, reprint 1991), p. 251.
[2] Among others, see the recent studies by Franziska Bomski, *Die Mathematik im Denken und Dichten von Novalis* (Berlin: Akademie Verlag, 2014). David W. Wood, "The 'Mathematical' Wissenschaftslehre: On a Late Fichtean Reflection of Novalis," in: *The Relevance of*

Hopefully this small selection in English translation will further contribute to dispelling some of the misconceptions and ignorance. A number of the notebooks clearly show Novalis not wildly speculating out of the blue, but consulting and working his way through various contemporary textbooks on mathematics, and forming many of his poetic ideas in direct reaction to these works, as well as from his reading of philosophers like Immanuel Kant and J.G. Fichte. Here the reader can follow Novalis's reasoning and imagination oscillating from mathematics to poetics and back again.

The following notes are selected from seven different notebooks or texts. They may be classified into three main groups in which the idea of exponentiation could be taken as a unifying guiding thread:

a). Science: notes on textbooks. These concern the factual discipline of mathematics itself, mostly containing citations from works and textbooks of the period (see especially sections 2 and 5). As mentioned, Novalis read these writings and made observations on them, particularly noting specific mathematical procedures and operations, including that of exponentiation. Nevertheless, his thinking sometimes takes them in completely new directions. Some of the unchanged citations from the textbooks he consulted are also translated here, but reproduced in a smaller font size to distinguish them from Novalis's thoughts.

b). Art: here mathematical operations are transferred to the field of poetry and literature, with exponentiation forming again the basis for Novalis's main poetic method of romanticizing the world (see, for example, section 4: Logological Fragments II and Anecdotes). That is to say, an element from "ordinary" empirical life may be depicted in a more poetic or "higher" manner by means of a person's talent and imagination. Apart from some of the following fragments, this poeticization of the sciences and everyday life is perhaps most evident in Novalis's published texts, such as the 1798 fragment collection *Pollen* and the 1800 lyrical cycle *Hymns to the Night*, or in the two unfinished novels, *Henry of Ofterdingen* and *The Disciples of Saïs* (see James Reid's new translation of the first half of this latter text in the present issue of *Symphilosophie*).

Romanticism: Essays on German Romantic Philosophy, ed. Dalia Nassar (Oxford: Oxford University Press, 2014), 258-274. Howard Pollack-Milgate, "'Gott ist bald $1 \cdot \infty$ – bald $1/\infty$ – bald 0": The Mathematical Infinite and the Absolute in Novalis," *Seminar: A Journal of Germanic Studies* 51/1 (2015): 50-70; and Lucia Perrone Capano, "Matematica e poesia in Novalis," in: *Parole, formule, emozioni. Tra matematica e letteratura*, eds. P. Maroscia, C. Toffalori, F.S. Tortoriello, G. Vincenzi (Turin: Utet, 2018), 227-244.

c). Religion: these are the so-called "hymns to mathematics" (see section 1 & above all the final section 7). Similar to the sphere of poetry, Novalis perceives how various mathematical operations share affinities with the domain of religion, the hierarchies, and *prisca theologia*. These fragments remain rational enough, as soon as one sees his emphasis on mathematical *activity* as such or hears that his historical references include Orphism, Pythagoreanism, Judaism, Christianity, and the Greek, Egyptian, and Indian religions.

Philosophically, therefore, it could be argued that these mathematical fragments organically belong in the Platonic and Neo-Platonic tradition, extending back to older works like Plato's *Meno* and *Timaeus* on the one hand, and down to contemporary texts like Hemsterhuis's *Simon* and *Aristée* on the other.

A number of these translations have earlier appeared in print, but all have been revised for this issue of *Symphilosophie*. Some have never appeared in their entirety in English before, such as section five on "Universal Arithmetic (*arithmetica universalis*)," which is originally from the 1798/99 *Freiberg Natural Scientific Writings*. The idea of a universal arithmetic is related to a universal science, or a *mathesis universalis*. It is a key component of what Novalis named "encyclopedistics," a modern form of universal knowledge *par excellence*,[3] and again should be viewed at the crossroads of science, art and religion, i.e. as an astronomical, musical, and Orphic variation on his romantic philosophy of "magical idealism."[4]

The original German texts can be found in many of the earliest editions of Novalis's works. To aid reference, I will simply cite the standard edition of Novalis, *Schriften – Historische Kritische Ausgabe* (HKA) (Stuttgart: Kohlhammer, 1960ff.), eds. R. Samuel, H.-J. Mähl, G. Schulz, *et al*.

[3] For recent perspectives of Novalis's life and work in this regard, see Olivier Schefer, *Novalis* (Paris: Éditions du Félin, 2011), and Jean-Christophe Bailly, *La Légende dispersée* (Paris: Bourgois, 2014).

[4] On the philosophy of "magical idealism", see Laure Cahen-Maurel, "Novalis's Magical Idealism: A Threefold Philosophy of the Imagination, Love, and Medicine," *Symphilosophie: International Journal of Philosophical Romanticism* 1 (2019): 129-165.

1. Mathematical Notebook, 23 June [1798][1]

The study of *machines* educates the mechanist – and accustoms the spirit to skilful discoveries and combinations.

(The forces are inversely related, like their velocities).

Mechanics is the mathematics *of forces*. Geometry is the mathematics of *forms*. Optics is the mathematics of *light*. *Basso continuo* is the *mathematics* of *acoustics*. Perspective – the mathematics of *vision*.

Is mathematics the art of finding and determining from *data* or *facts*, other *dependent* and *connected* data and facts – simply general *analysis* and synthesis?

Numerical system of nomenclature in arithmetic.

All sciences should become *mathematics*. Mathematics up to now has merely been the first and simplest expression or revelation of true scientific spirit.

The numerical system is the *model* for a genuine system of linguistic signs – The letters of our alphabet should become numbers, our language, arithmetic.

What did the Pythagoreans really understand by the forces of numbers?

Poetics of mathematics.
Grammar of mathematics.
Physics of mathematics.
Philosophy of mathematics.
History of mathematics.
Mathematics of *philosophy*.
Mathematics of *Nature*.
Mathematics of *poesy*.

[1] Selections. The original German text of this section is entitled "Mathematischer Heft. 23 Junius [1798]," and can be found in Novalis, HKA III: 50-53. An earlier English translation is in Novalis, *Notes for a Romantic Encyclopaedia: Das Allgemeine Brouillon*, edited and translated by David W. Wood (Albany, NY: State University of New York Press, 2007), pp. 194-196.

Mathematics of *history*.
Mathematics of *mathematics*.

Spirit of mechanics – is surely the spirit of the whole, without any connection to the parts – or to the individuality.

(Living force – absolute force – relative force – effective force).
By means of *power* the body is forced out of its relations – into a freely living state. Life in turn is also – physical life, specific life – absolute life – *living life*. The expression 'absolute' is in turn relative. *Absolute absolute* or *absolute*^{2} is the highest and the ultimate.

Nature incessantly adds, subtracts, multiplies, raises to a higher power etc. The applied mathematical sciences show us nature as a mathematician. Physics is *real* mathematics.

General principles, which are already applied in universal arithmetic. Principles of general addition, subtraction – multiplication and division etc.

Velocity is the quotient of space: time.

Levels of fluidity. Treatment of the solid as a fluid – and of the fluid as a solid. Liquido-statics – liquido-mechanics. Solido-statics – solido-mechanics.

Friction is a mechanical secretion. Thrust is a *mechanical inflammation* or nourishment – a body in motion is a *mechanically living*, combustible body – There may exist several mechanical stimuli simultaneously in a body – Together they constitute a mixed stimulus. On their diverse mixtures – in opposed directions – their reciprocal expansions – and diminishments. (Brown and his adherents belong among the *mechanical* physiologists, just as humeral physiologists belong among the chemists).

2. Mathematical Studies on Bossut and Murhard (1798)[2]

[Charles Bossut,
Traités de calcul différentiel et de calcul intégral. Paris 1798]

A quantity can be *unknown* (*undetermined*) *and be constant or unknown (undetermined) and invariable*. [p. 1]

(Determined, variable, determined, constant).
(An unknown quantity can be absolutely unknown, like algebraic quantities in general – or relatively unknown or undetermined. – I prefer the latter word instead of 'unknown'.)

A *function* in general is every product of a mathematical *operation*. The *function in specie* of every product, which includes a variable quantity. [p. 3f.]

(A variable quantity = mathematical *life*).
(Function *in specie* = an organic or living quantity).

One has to be careful about confusing the exponential powers of the differentials with ordinary exponents. [p. 7f.]

Δx^2 is very different to $\Delta^2 x$.

(Quantities of quantities are quantities of the second power, or the power squared. Theory of the origin and classification of quantities.)

In order to simplify and reduce the elements belonging to the solution of a problem, and to indicate a well-ordered problem, we often study analytical operations, quantities, by means of an abstraction of their relations – however, these relations do not cease. [p. 91]

One transports, as it were, the whole into a part, in order to better understand the nature of the part, and then indirectly to understand better the nature of the whole. For example, the contemplation of the human being and his variations in the State and in an isolated environment – or *alone on an island*. This is merely done to simplify the solution of civil problems – It is the view

[2] This section contains excerpts from the notebook: "Mathematische Studien zu Bossut und Murhard;" that is to say, Novalis's reflections on mathematical texts by Bossut und Murhard. The texts in a smaller font size and with page numbers in square brackets are the texts and pagination from Bossut's and Murhard's works. The original German is to be found in: Novalis, HKA III: 115-124; An earlier English translation in Novalis, *Notes for a Romantic Encyclopaedia*, pp. 204-206.

of the *simplest States* – the molecules of the State, the principles for the education and development of a State).

Murhard
[*System der Elemente der allgemeinen Grössenlehre* (*System of Elements of the General Theory of Magnitudes*. Lemgo, 1798)]

Higher *mathesis* is also called analysis. It consists of higher arithmetic, geometry and trigonometry. Its *finite* (common) part includes algebra and its application, its infinite or higher (idealistic) part- includes differential and integral calculus and its application. [p. 8]
(Higher analysis is also at once higher synthesis – and hence it is the basis for the whole of mathematics. What comes at the end in teaching and empirically, comes at the *beginning* in pure science).

With regard to the *essential, individual character* of the mathematical method, Kant maintains that the mathematician is not discursive like the philosopher – but proceeds *intuitively* – he doesn't *infer* from *concepts*, but constructs his concepts – presents them in a *sensible* manner – yet actively sensible – or forms pure intuitions. [p. 28]
(Here too I believe that the mathematician's procedure is not unique. He sculpts the concepts in order to fix them, and thereby to be able to take a clearly designated and secure *course* and *return course*. Shouldn't the philosopher do likewise – or even every scientific expert? – In every science one should self-actively sculpt. The sculptural method is the genuine experimental method. We shouldn't merely be active in One world – but be *simultaneously* active in both – not *think*, without also *reflecting*, not *reflect* without also *thinking*. The inverse method, the mathematical method, consists in the *construction of intuitions* (in contrast to concepts) – in the non-sensible, *immediate* presentation of intuitions – in *active* thinking – in the development of *pure thoughts* – in the fixing of *intuitions* (reflections) by means of thoughts – to also be capable of carrying out that secure progression and regression, that revision etc. The method of comprehending, or the cognitive method, is none other than the genuine
method of observation.

Figures etc. are necessary in the former – words etc., in the latter.

In the former, reason delineates and reflects upon (external senses) its inner motions etc. – and vice versa in the latter.

In the former, reason *reflects from without –in the latter, from within*.

Words and figures determine one another in constant alternation – audible and visible words are actually word figures – Word figures are the ideal figures of other figures – All figures etc. should become literal or linguistic figures – just as *figurative words* – are the inner images etc., the ideal words of other thoughts or words – they all should become inner images.

Therefore imagination, which fashions *figurative words*, especially deserves the predicate "genius".

That will be a Golden Age, when all words become – *figurative words* – myths – And all figures become – linguistic figures – hieroglyphs – When we learn to speak and write figures – and learn to perfectly sculpt and make music with words.

Both arts belong together, are indivisibly connected and will become simultaneously perfected).

3. Mathematical Fragments (1798)[3]

The *highest* and the *purest* is the most common and the most understandable. Hence, *elementary geometry* is higher than higher geometry. The more difficult and more intricate a science, the more derived, the more impure, and the more mixed.

The so-called physico-mathematical sciences are, like neutral salt or other chemical combinations, a mixture of physics and mathematics – that assume a new *Nature* – and which in another sense may be called *higher* Nature.

The former is the *elementary highest* – the latter is the *mixed highest*.

Two-fold path, from the latter to the former, or vice-versa.

Definitions are either *external* (characteristic records), or internal (elementary records), or a mixture. They are *formulae for constructions*. *Indirect definitions*

[3] Excerpts from "Mathematische Fragmente," Novalis, HKA III: 125-128; Earlier English translation in Novalis, *Notes for a Romantic Encyclopaedia*, pp. 206-207.

are prescriptions. Experimental instructions, or *descriptions*, belong to the prescriptions./ Positive and negative definitions./

Propositions should say something *new* – something that is not contained in the *definition*/ an indication of its own inherent nature./ Following the terminology, they must be synthetic.

/ Supplements, explanations, expositions, applications./

The greatest clarity – or repetition of this truth – fresh declarations of the same theme using different words – are to blame for the apparent obscurity and difficulty for the learner. The rigorous scientific path would be easier here.

Better *theses* /Definitions/ would render countless propositions superfluous.

A proof is an indirect construction – a mathematical experiment – a prescription.

(Most) mathematical propositions are all equal to the proposition a=a. Every mathematical proposition is an *equation*.

(/Determining the square of the volume by using its weight when investigating specific gravities./ Submerging a ball into water, and determining its volume using a cubic foot of water).
[…] The external is the common. The internal, is the particular./ The integration is much more difficult than the differentiation. *In relation to physics* and philosophy./

The science that joins and puts both into contact with one another – that instructs in deriving the particular from the common, and the inverse, as well as with the external and internal aspects – this science is the *connecting* – and *higher* science.

If the first is quantitative mathematics, and the second qualitative mathematics, then the third is relative mathematics – which appear in four systems of elements and in a single universal system.

/ Categories. Fichte's *Wissenschaftslehre*.

Concept of factor, quotient, sum, difference, potency, root, logarithm, function, series etc. fraction – exponential.

The smaller the curve of the section of the circle, the more it approaches a straight line – an infinitely small curve *is a straight line*. Here we can apply the Pythagorean theorem.

Even the *irregular* is lawful, like curves. The difference between rational and irrational quantities.

Pure algebra doesn't contain any numbers.

The combinatorial analysis of physics might be the indirect art of invention that was sought by Francis Bacon.

4. Logological Fragments II & Anecdotes (1798)[4]

Is there such a thing as beautiful *mathematics*? Mystical mathematics. Musical Mathematics. Does mathematics merely have a finite purpose? Isn't mathematics purely theoretical? Genuinely pure mathematics? Quantities are constructed through quantities.

—

The world must be romanticized. This yields again its original meaning. Romanticizing is nothing more than a qualitative exponentiation. In this operation, the lower self becomes identified with a better self. Just as we ourselves are an exponential series of this kind. This operation is still entirely unknown. By giving a higher sense to the ordinary, a mysterious semblance to the everyday, the dignity of the unknown to the known, and the appearance of the infinite to the finite – I romanticize it. For what is higher, unknown, mystical, infinite, ones uses the inverse operation – by means of this interconnection it becomes logarythmized. It receives a typical expression. Romantic philosophy. *Lingua romana*. Reciprocal raising and lowering.

—

[4] Cf. *Vorarbeiten*, nos. 95, 105, 308, 309 (HKA II: 543, 545, 593-594.)

Higher mathematics and *philosophy* / or the theory of ideas, of the infinite etc./ share lots of analogies. Series of *curves*. / *elements*. 3 axes.

Baader[5] is a *real psychologist* and speaks the genuine psychological language. Real psychology is also perhaps a field that could suit me.

3 invariable quantities and qualities or forces. If I am the one, then the others have to orient themselves in line with me.

—

Appearances are the differentials of ideas. It is very difficult to differentiate ideas and integrate appearances.

5. Universal Arithmetic (*arithmetica universalis*)[6]

Newton. Bezout. Burja. Vieth.
Mönch. Stahl. Kästner's Analysis
finitorum. Hindenburg's Writings
and others as well.
Schulzen's Mathematics.

Materials.
Klügel. From: Hindenburg's Polynomial Principle.

My Observations.

Counting is an analytic-synthetic operation. It is the unity of a group of elements. It is both a homogenising and heterogenising – both a *compre*-hending and *distinguishing* – and in alternation.

Calculating in general is likewise a composite action. An action that is solely composed of actions. The composition is only possible through the polarization of the elementary actions – for through this they first become *composable*.

Undetermined calculating – determined calculating.

[5] Franz Baader; see the translation of his "On the Pythagorean Square in Nature" by Carlos Zorrilla Piña in this issue of *Symphilosophie*.
[6] HKA 3: 167-169.

A mode of calculating is a *particular* manner of calculating – an individual modification of calculating in general.

There are no modifications in perfect calculating.

Imperfect *calculating* is calculating – where the elementary actions of calculating are separated – where the modification of an elementary action is not represented by the opposite, and vice versa – where one proceeds in an irregular – irrational way – where each analysis does not at the same time correspond to a synthesis, and inversely – where the elements work disproportionately and simultaneously.
Imperfect calculating partly cancels itself out – and disputes its own purpose.

If we *could* perfectly polarize imperfect calculating, then we could cancel out one error by means of another – and the two results would together yield a result in which the errors reciprocally destroy each other, and the *remainder* would be the pure, sought after, and intended goal of the two. This type of calculating could perhaps be called *indirect calculating*. An example is differentiation and integration.

The *proof* is the calculation, whose result is the proposition that is to be proven. Calculating and thinking are one and the same. There are as many cognitive actions and as many compositions of them, as there are modes of calculating. Only imperfect calculating is different from thinking in general – just as imperfect or particular thinking is different from thinking in general.

> (Imperfect and individual are one and the same – via an extremely long period – or until the imperfect or the individual become absolute.)

The question regarding the possibility of mathematics divides into two parts:

1). Is it possible? 2). How is it possible?

A well-ordered solution of the *task of mathematics* indirectly involves all the other mathematical tasks to be solved.

> (Kant's procedure with metaphysics – which is synonymous for him with mathematics. His famous question.) (It is the question concerning the possibility and method of construction of philosophical genius).

Fundamental problem of mathematics.

> (Is there a mathematical genius (life?) *How* is it possible? The solution to the first question furnishes the *proposition* – the second furnishes the *proof*, its *method of construction*.

Genius is the synthesizing principle, the genius makes the impossible possible, and the possible impossible – the unknown known – and the known unknown etc. In short, it is the moralizing element – the *transubstanizing principle*. (Life and the inspired principle or genius are one and the same.) (Imperfect genius.).

Dividing – ordering – counting – distributing – calculating – subtracting and repeating *–writing*, are more or less synonyms.

> *Synthetic calculating*, e.g. adding and subtracting – adding and multiplying – adding and exponentializing – subtracting and multiplying – subtracting and dividing – adding and subtracting with multiplying – adding and subtracting with dividing – adding and subtracting with multiplying and dividing and so forth. Exhausting the types of calculating through the combinatory art. In order to carry this out in a proficient manner one has to first critically study the concepts of the individual calculations.

Ordinary arithmetic calculating on the whole is a combinatory adding etc. – a *distributed calculating* – a successive – partial calculating – actually a *synthesizing* calculating – from the elements to the whole. (The different meanings of the expression 'synthesis').

6. Mathematical Reflections from: *Das allgemeine Brouillon* (1798/99)[7]

MATHEMATICS. The exposition of mathematics must itself be mathematical. / Mathematics of mathematics.

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[7] Entry nos. 42, 69, 238, 348, 487, 495, 719, 977, 1006, 1016, 1026, in: HKA III: 245, 251-252, 281, 303, 346-347, 349, 407, 453, 457-458, 459, 460-461; Cf. Novalis, *Notes for a Romantic Encyclopaedia: Das Allgemeine Brouillon,* pages 6, 11, 35, 52, 86, 87, 133, 170, 174, 175, 176.

MATHEMATICS. In the end, the whole of mathematics is certainly not a special science – but only a general scientific instrument – a beautiful instrument is a *contradiction in terms*. It is possibly nothing more than the soul-force of the intellect fashioned into an *exoteric*, external *object and organ* – a realized and objectified intellect. Isn't this perhaps also the case with many or even with all the forces of the soul – that through our efforts they should become external instruments? – Everything should be drawn out of us and rendered visible – our soul ought to become *representable*. – The *system of the sciences* should become the *symbolic body* (organ system) of our inner life. – Our soul ought to become a sense perceptible machine – not within us, but outside us.
/ Inverse task with the external world. /

—

MATHEMATICAL PHILOSOPHY. (GRAMMAR). The categories are the *alphabet cogitationum humanarum* [alphabet of human cognition] – in which each letter comprises an action – a philosophical operation – a higher (mathematical) calculus. – The philosophy of the categories is of the utmost importance.

—

MATHEMATICS. The inner living character of mathematics. *Magic of numbers*. Mystical doctrine of Pythagoras – Personification of 3 – of 4 etc.

—

PHILOSOPHICAL ENCYCLOPEDISTICS. The philosophy of a science arises through the self-*criticism* and self-*system* of the science. (A science becomes applied if it serves as the analogous model and stimulus for a *specific self-(post)* development of another science. Through the genuine raising to a higher power, every science can pass over into a higher philosophical science, since it is an element and function of a series.
In the end, mathematics is only *common, simple* philosophy, and philosophy, is higher mathematics in general.
In *particular*, higher *mathematics* connects common mathematics with the system of mathematics, while the latter borders on the philosophy of mathematics—or philosophical mathematics, just as systematic science is generally always the precursor and boundary of a higher degree of science—of the philosophical degree. (*Degrees of scientific character*. The highest degree of scientific character would be termed philosophy). The philosophical

degree again divides into 3 parts and immediately—passes over into the higher series, or into the higher degree of the philosophy of philosophy, and so on.
(Just as the man of nature passes over into the common and complex human being, so too pure science into the common and *higher*. Higher science is the transition to a system, just as the scholar, or complex man is the transition to the systematist).

—

MATHEMATICAL LOGIC. Application of mathematics to the theory of thought – *swiftness* – and *richness* of thinking – not merely strength of thinking. Degrees of thinking. Language is a thought-meter. Acute thinking – penetrating thinking.

—

[…] (Has philosophy originated from the contemplation of mathematics?) Philosophy is universal—or higher mathematics—the animating principle of mathematics—poetical mathematics—Or the substance, if mathematics is the form. Mathematics is merely objective philosophy—formal philosophy—and so- called philosophy—is merely subjective philosophy or mathematics—real philosophy. By combining them in a manner analogous to that of the combination of chemistry and mechanics—there arises substantial—synthetic—philosophy—or mathematics, or physics. Contrasted with philosophy, physics is mathematics— while contrasted with mathematics—it is philosophy.

—

All the *universal* sciences—e.g. physics and mathematics, etc., really resemble philosophy in one respect—they are Proteusses—universal *substances*—*indications* etc.

—

The mathematical method is the essence of mathematics. Whoever fully understands this method, is a mathematician.
As the *scientific method in general* it is extremely interesting, and perhaps supplies us with the most accurate model for the classification of knowledge, or for the *faculty of experience*.
Axioms and postulates denote the theoretical (*a*.) and practical (*b*.) cognitive faculty as such. Problems denote the desire. Solution and proof, the analytic (*ad a*.) and synthetic (*ad b*.) ability. Explanations and corollaries also have

their significance. This reveals that our desire for knowledge is the intelligence's *desire for life*, a play of intellectual forces.

—

All historical science aspires to be *mathematical*. The mathematical force is the *ordering* force. Every mathematical science strives in turn to be philosophical – to be *animated* or rationalized – then poetical – lastly moral – and ultimately: *religious*.

—

The calculus of *variable* quantities is a kind of *mechanics* – the theory of *con*figuration and *com*motion.
Mathematics is genuine science—because it contains *created knowledge*—the products of its own spiritual activity—and because it *methodically inspires*.
It is *art*, because it has fashioned inspired procedures into rules—because it teaches one to be a genius—and because it replaces *Nature with reason*.
Higher mathematics is concerned with the *spirit* of quantities—with their *political principle*—with the *world of quantities*.

7. Final Mathematical Fragments (1799/1800)[8]

The whole of mathematics is really, by and large, an *equation* for the other sciences.

Mathematics is to the other sciences, what logarithms are to it. The concept of mathematics is the concept of science in general.

Hence, all the sciences should become mathematics. Our current mathematics is little more than a special empirical *organon*.

Mathematics is a substitute for convenient reduction – an aid to thought.

Its complete applicability is a necessary postulate of its conception.

Mathematics is the most valid testament of the idealism of nature.

[8] "Mathematische Fragmente," Novalis, HKA III: 593-594.

The inner relationship, the sympathy of the universe, is the basis of mathematics.

Numbers are – like signs and words – appearances, representations *kat exoxin*.

The relationships of mathematics are world relationships. Pure mathematics is the conception of the intellect as a universe.

Miracles, as facts contrary to nature, are a-mathematical – yet there does not exist a miracle in this sense, and what is thus called is comprehensible precisely by means of mathematics, for nothing is a miracle to mathematics.

Genuine mathematics is the true element of the magician.

In music, mathematics appears formally, as revelation – as creative idealism. It legitimizes itself here, as a heavenly messenger, *kat anthropon*.

All enjoyment is musical, and therefore mathematical.

The highest life is mathematics.

There can be supremely ranked mathematicians who cannot calculate.

One could be a great calculator without having an inkling of mathematics. The true mathematician is an enthusiast *per se*. Without enthusiasm there is no mathematics.

The life of the Gods is mathematics. All divine messengers must be mathematicians.

Pure mathematics is religion.

One only advances to mathematics through a theophany. Mathematicians alone are fortunate. The mathematician knows all. He could know it, even if he did not already.

All activity ceases when knowledge enters. The state of knowledge is eudemony, the blessed peace of contemplation – heavenly quietism.

NOVALIS

True mathematics is at home in the East. In Europe it has degenerated into a purely technical science.

Whoever does not take hold of a mathematical book with devotion, and read it as the word of God, fails to understand it.

Every line is a world axis.

A formula is a mathematical prescription.
Numbers are the drugs.
Arithmetic is its pharmacy.
In the end, mathematics only contains *methods of abbreviation*.

Symphilosophie

International Journal of Philosophical Romanticism

The Disciples of Saïs

(1798)

Novalis

Translated, introduced, and annotated by James D. Reid*

The following is a translation of nearly half of Novalis's unfinished, two-part novel *Die Lehrlinge zu Saïs*, including the brief first part (The Disciple) in its entirety and the second (Nature) up to the beginning of the fairy tale of Hyacinth and Rose Blossom, as it appears in the first volume of the Critical Edition (Erster Band: Das dichterische Werk, 79-91).[1]

The manuscript has not survived. Novalis's brother Karl von Hardenberg discovered it in the possession of Novalis's second fiancé Julie von Charpentier. She gave it to him, but only on the condition that he would return the manuscript to her after making a copy, which also has been lost. The text as we have it today, based upon Karl's transcription, was first published in late 1802 in the second part of the first edition of the posthumously published *Novalis Schriften*, edited by Tieck and Schlegel.

There is some uncertainty regarding the history of its composition. The first mention of it (probably its first part only) comes in a letter to F. Schlegel dated 24 February 1798, where Novalis describes it as "a beginning under the title The Disciple of Saïs – fragments, too [the letter included the manuscript of the collection of fragments that would be published as *Pollen*] – only everything in relation to nature."[2] References to the second part can be located in various contexts from May 1798 through early 1800, but by

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[1] Novalis, *Schriften – Historische Kritische Ausgabe* (hereafter HKA) (Stuttgart: Kohlhammer, 1960ff.), eds. R. Samuel, H.-J. Mähl, G. Schulz et al.
[2] HKA IV, 251.

then Novalis had set the work aside in order to complete *Heinrich von Ofterdingen/Afterdingen*, which also remained unfinished.

What can be claimed with greater confidence is that *The Disciples of Saïs* was the fruit of Novalis's intense engagement with the natural sciences as a student at the Freiberg Mining Academy, where he studied under the influence of the geologist and mineralogist Abraham Gottlob Werner and immersed himself in mathematics, physics, and biology as well. In keeping with his longstanding interest in figuring the whole, the text reveals an investment in how diverse perspectives on the natural world (including religious and aesthetic points of view) might be seen to cohere in an overarching vision of the universe. Despite the poetic form of Novalis's reflections on nature, *The Disciples* is related to the more discursive *Freiberg Natural Scientific Studies* and his ambitious notes for a Romantic encyclopedia of the sciences, *Das Allgemeine Brouillon*.

The train of thought is dialogical and ends in no totalizing point of view, in line with Novalis's Kantian conviction, announced at the very start of the *Vermischte Bemerkungen* (Assorted Remarks or Miscellaneous Observations) that our search for the unconditioned is never to be satisfied: "We *seek* the unconditioned everywhere and always *find* only conditioned things."[3] In the end, our partiality and finitude are essential to the sorts of creatures we are, whether we are seeking unity in our political and moral lives or in our scientific endeavors to explain the natural world.

The first part of *The Disciples* is written from the first-person point of view of a single initiate, puzzling over the apparent incomprehensibility of the natural world and the promise of a teacher to reveal the mysteries of the cosmos. The disciple is unsure of himself and sees the outward path of natural inquiry as a way into himself. How to understand the relationship between mind and world is a constant in Novalis's philosophy as a whole and in his reflections on nature and the scientific knowledge of nature in particular.

The portion of the second part translated below offers a philosophical history of the philosophy and science of nature, beginning with a postulated era of pre-reflective unity of mind and world and concluding with attitudes toward nature characteristic of the modern, enlightened age, where human agency and the promise of scientific mastery of the natural world have come to dominate the intellectual scene. Along the way, Novalis weighs in on ancient (probably Greek) myth and the transition to reason in classical antiquity, pre-Socratic efforts to reduce the diversity of the phenomena to

[3] HKA II, 412.

one or more basic principles, and the attitudes toward nature on the part of the various philosophers of freedom in the era of Enlightenment.

It is hazardous to saddle the text with any definitive conclusions. But the train of thought does seem to settle, at least provisionally, upon the convictions that the natural sciences call for poetic modes of reflection and expression in order to inch toward completion and that scientific, poetic, and philosophical articulations of the natural world serve the purpose of making an otherwise alien reality over in an image of home. The natural world is our habitat, and the proper study of nature, at once scientific and poetic, far from alienating us from the universe, reveals our kinship with it. Philosophy (and its scientific derivatives) is essentially homesickness, a longing to be at home everywhere in the world.

The Disciples of Saïs[1]

Novalis

I

The Disciple

Human beings travel along various paths. Whoever pursues and compares them will see strange figures emerge, figures that seem to belong to that great cipher script [*Chiffernschrift*][2] that we glimpse everywhere, in wings, eggshells, clouds, and snow, in crystals and formations of stone, on freezing waters, on the inside and outside of mountains, plants, animals, and humans, in the lights of heaven, on scored and painted discs of pitch and glass, in the iron filings around a magnet, and in strange conjunctions of chance. We divine [*ahndet*] in them the key to this miraculous writing, its grammar; but the presentiment [*Ahndung*] assumes no fixed forms and seems unwilling to

[1] I depart from Manheim's translation of the title with 'disciples' rather than 'novices' for *Lehrlinge*, following the lead of G. Bianquis's French translation of the text (*Les disciples de Saïs* [Paris: Aubier, 1947]). As the word suggests, a novice is a beginner, whereas a disciple may be rather far along in an occupation or course of study. 'Student' isn't bad, and also keeps with the German (*Lehre* = teaching, *lehren* = to teach), but it doesn't convey the gravity (bordering on the religious) associated with being a *Lehrling*. 'Apprentice' could also be used, but the term does not carry the epistemic meaning that attaches to 'disciple,' which stems from the Latin *discere*, 'to learn.' Saïs is the Greek name for an ancient Egyptian city located in the western Egyptian delta. Some scholars believe that the city was an important religious center at the very beginning of Egyptian history (ca. 3100 BCE). Osiris, god of the dead, was one of several divinities worshipped there. Saïs is mentioned by several ancient Greek authors, including Herodotus, Plato, and Plutarch. According to Plutarch, the shrine of Athena/Isis in Saïs bore the inscription "I am all that has been and is and will be, and no mortal has raised my veil." The image of a veiled goddess as an emblem of nature's secrets predates Novalis by more than a century. But the idea that nature prefers to hide can be traced back at least as far as Heraclitus of Ephesus who wrote (fragment 123): Φύσις κρύπτεσθαι φιλεῖ. According to legend, Heraclitus deposited the book that contained these words in the temple of Artemis of Ephesus, the very goddess who would eventually come to be identified or fused with the Egyptian goddess Isis. For a helpful account of the idea of nature as veiled, with some useful remarks on Novalis, see Pierre Hadot's *The Veil of Isis: An Essay on the History of the Idea of Nature*, tr. Michael Chase (Cambridge: Harvard UP, 2008).

[2] Novalis may have derived the idea of a *Chiffernschrift* from the Dutch neo-Platonist Hemsterhuis. See HKA II, 267. But the term also appears in Kant's third *Critique* and, as Christian Jany usefully notes, Novalis might have been influenced by 18th-century physiology and ancient practices of divination. See *Scenographies of Perception: Sensuousness in Hegel, Novalis, Rilke, and Proust* (Legenda: Studies in Comparative Literature, 2019), p. 151, n. 7.

become a higher key. An alkahest seems to have been poured over the senses of human beings.[3] Their wishes, their thoughts seem to condense, if only for a moment. Thus, their presentiments emerge, but after a short while everything swims again before their eyes, just as before.

I heard it said from afar: incomprehensibility is only the consequence of incomprehension; it seeks what it has and hence can never discover more. We do not understand language, because language does not understand itself and does not want to understand itself; the genuine Sanskrit would speak in order to speak, because speaking is its joy and its essence.[4]

Not long after someone spoke: "Holy scripture needs no explanation.[5] Whoever truly speaks is full of eternal life, and his writing appears to us wonderfully allied with true mysteries, for it is a chord from the symphony of the universe."

The voice certainly spoke of our teacher, for he understands how to gather together the characteristics that are scattered everywhere. A peculiar light is kindled in his eyes when he lays the worthy rune [*hohe Rune*] before us and peers into our eyes to see whether the stars that make the figure visible and intelligible have arisen in us, too. When he sees us grieve that night will not relent, he comforts us and promises future happiness to the diligent and faithful seer. He has often told us how as a child the drive to exercise his senses, to occupy and fulfil them, gave him no peace. He looked to the stars and traced their paths and positions in the sand. Ceaselessly he observed the ocean air and never tired of contemplating its clarity, movements, clouds, and lights. He collected stones, flowers, insects of all sorts, and laid them in rows of various kinds. He paid attention to humans and animals and sat by the seashore seeking shells. He listened carefully to his own mind and thoughts. He did not know where his longing drove him. When he was older, he roamed about, saw foreign lands and seas, new skies, strange stars,

[3] An alkahest was thought by alchemists to be a universal solvent, the so-called *menstruum universale*. The term appears to have been coined by Paracelsus. The search for it dominated alchemical theory and practice throughout the latter half of the 17th century. Novalis encountered the idea in his readings as a student in Freiberg, and it appears already in Fragment 57 of the *Assorted Remarks* (in the metaphorical sense as wit). In his scientific studies from the period, Novalis sees in it a power to combine all things, a "universal means of combination [*allgemeine Verbindungsmittel*]" (HKA III, 85).

[4] Novalis would have learned of William Jones's research on Sanskrit through Georg Forster. As the editors of the critical edition note, "The romantics regarded Sanskrit as the original language of humanity" (HKA I, 594).

[5] 'Holy scripture' translates *heilige Schrift*. Since the speaker should not be presumed to mean the Christian Bible, this could also be translated as 'sacred writing.' The following fragment (#108) from the *Assorted Remarks* is consistent with a generous conception of sacred writings: "If the spirit sanctifies, every genuine book is a Bible."

unknown plants, animals, human beings, descended into caves and saw how the earth was built in shelves and colorful layers, and pressed clay into curious rock formations. Everywhere he now discovered the familiar again, only wonderfully mixed, coupled, and thus peculiar things often ordered themselves within him. He soon began to notice combinations in everything, encounters and meetings. Soon he saw nothing by itself [*allein*] any longer. – The perceptions of his senses pressed themselves into great colorful images: he heard, saw, touched, and thought all at once. He delighted in bringing strangers together. Soon the stars were human beings and human beings were stars, stones were animals, and clouds were plants; he played with forces and appearances, he knew where and how to discover this or that, and let them appear, and plucked the strings in search of tones and phrases.

What became of him since then he does not say. He tells us that, led by him and our own pleasure, we will discover what happened to him. Several of us have left him. They have returned to their parents and studied to pursue a trade. Some he sent away, although we do not know where; he chose them. Some were only with him for a short while, others longer. One was still a child, and barely there when he handed the class over to him. He had great, dark eyes with sky-blue whites, his skin gleamed like lilies and his curls like small bright clouds when evening comes. His voice penetrated our hearts, we would gladly have given him our flowers, stones, feathers, everything. He smiled with infinite earnestness, and we felt strangely happy with him. "One day he will return," said the teacher, "and dwell among us, then our lessons will end." – He sent another with him, someone who often taxed us. He always looked sad, he was here for many years, nothing turned out well for him, he found it difficult when we searched for crystals or flowers. He was nearsighted and he did not know how to arrange colorful rows well. He broke everything easily. Still, nobody had such a drive for and delight in seeing and hearing. But once, – before the child entered our circle, – he suddenly grew cheerful and clever. One day he departed in sadness, he did not return and night set in. We were very troubled on his account; suddenly, as dawn arrived, we heard his voice in a nearby grove. He sang an exalted, joyful song; we were all amazed; the teacher looked eastward with a gaze the likes of which I will never see again. Soon he stepped into our midst and, with inexpressible bliss in his countenance, brought a humble little stone of strange shape. The teacher took it in hand and kissed it for a long while, then he looked at us with watery eyes and placed the little stone in an empty spot, in the middle of other stones, precisely where the many rows converged like spokes.

I will never forget these moments. It was as if we'd had a bright, fugitive presentiment of this wonderful world in our souls.

I am also clumsier than the others, and the treasures of nature seem more reluctant to let me discover them. Still, the teacher is well-disposed toward me and lets me sit in thought when the others go seeking. It has never been for me as it is for the teacher. Everything leads me back into myself. I well understood what the second voice once said. I take joy in the wonderful crowds and figures in the halls, and to me alone it is as if they were only images, garments, ornaments, gathered around a wonderful divine image, and this is always in my thoughts. I do not seek them, but in them I often seek. It is as if they should show me the way to where the maiden sits in deep sleep, the one for whom my spirit longs. The teacher has never spoken of this to me, and I can confide nothing in him, it seems to me an inviolable secret. I would have gladly questioned that child, I found kinship in his features; in his proximity everything seemed to grow inwardly brighter. Had it lasted longer, I certainly would have experienced more within myself. And perhaps my heart would finally have opened, my tongue been set free. I would gladly have gone with him, too. It was not to be. I don't know how long I will stay here. It seems to me that I might remain here forever. I scarcely dare to admit it to myself, but faith stirs too deeply within me: someday I will find what constantly moves me; it is present. If I move around here with this faith, everything comes together in a higher image, a new order, and everything tends toward one region. Then everything becomes so familiar to me, so dear; and what appeared strange and foreign to me suddenly becomes like a household utensil.

Precisely this strangeness is strange to me, and so this collection has always repelled and attracted me at once. I cannot and may not understand the teacher. He is just so incomprehensibly dear to me. I know he understands me; he has never spoken against my feeling and my wish. He wants us rather to pursue our own way, because every new path goes through new lands, and each one finally leads to these dwellings, to this sacred home. Hence, I will inscribe my figure too, and if, according to the inscription, no mortal can lift the veil, we must seek to become immortal; whoever does not want to lift it is no genuine disciple of Saïs.[6]

[6] If some iconographers in the 17th century read the veil of Isis as an emblem of the inaccessibility of the deepest truths of nature – reserved, perhaps, for the Creator – others began to see the rise of modern mathematical natural science as a triumph of the human mind over the mysteries of the natural world. Novalis could be seen as a proponent of this view, under some description. In any event, interpreters of Novalis's 'magical idealism' cannot afford to ignore those passages in the corpus that express confidence in human reason and admiration for those who aspire to remove the veil from nature's countenance.

II

Nature

A long time must have passed before human beings thought to designate the manifold objects of their senses with a common name and to set [*zu setzen*] themselves in opposition to them. Through exercise, developments were furthered, and in all developments separations and divisions occur that can be readily compared to the splitting of a ray of light. It was only gradually that our inwardness split into such manifold forces, and with continued exercise this splitting will also increase. Perhaps it is only the sickly disposition of later human beings, that they lose the capacity to mix the scattered colors of their spirit once more, and to restore at will the old, simple, natural state or to effect new, manifold combinations of them. The more united they are, the more united, complete, and personal does every natural body, every appearance flow into them: for the nature of the senses corresponds to the nature of the impression, and hence to those earlier humans, everything seemed human, familiar, and companionable, the freshest originality must have been discernible in their views, each of their utterances was a true breath of nature, and their representations must have corresponded to the world around them and presented a faithful expression of it. We can therefore consider our forefathers'[7] thoughts about the things of this world as a necessary product, as a self-portrait of the state of earthly nature at that time, and from these thoughts, as the most fitting instruments for the observation of the universe [*des Weltalls*], we can surely take away the chief relation of the same, the relation at that time of the universe to its *inhabitants* and its inhabitants to the universe. We find that precisely the noblest questions first occupied their attention and that they sought the key to this wonderful edifice sometimes in a principal mass of actual things, sometimes in the poetized object of an unknown sense. Noticeable here is the common presentiment of this key in the liquid, the vaporous, the

[7] The compressed history of conceptions of the natural world that Novalis proceeds to offer suggests that by 'our forefathers' he means the ancient Greeks. To be sure, this sketch of a history of early Greek philosophy, along with other details from subsequent eras in European intellectual history, subverts the idea that the novel is set in ancient Egypt, as the title would lead one to think. As always, Novalis's appeals to the past and his various histories are not meant to capture the way things actually were but to occasion reflection upon the future and the redemptive potential of the present.

formless.[8] The inertia and helplessness of solid bodies no doubt inspired the faith, not without significance, in their dependence and baseness. But soon enough, a pondering mind hit upon the difficulty of explaining form on the basis of formless forces and oceans.[9] He attempted to loosen the knot by a kind of unification, whereby he made the first beginnings fixed particles with definite shapes but small beyond all conception, and now out of this sea of dust, he thought he could complete the immense structure, but not without the help of cooperative creatures of thought, of forces of attraction and repulsion.[10] Earlier still, one finds not scientific explanations, but fairy tales and poems full of remarkable imagery, of human beings, gods, and animals as cooperative builders, and the most natural way in which the world emerges ceases to be described.[11] At the very least, one experiences the certainty of an accidental, *handicraft* origin of the world, and even for those who despise the unregulated products of the imagination, this representation is meaningful enough. To treat the history of the world as human history, to find only human happenings and relations everywhere, is a nomadic idea, conspicuous in novel form in the most distinct eras, and it seems to have held permanent rank for its marvelous effect and ease of conviction. The contingency of nature seems of itself to fit in with the idea of human personality, too, and is ultimately most willing to be understood as a human being. Hence the art of poetry has been the dearest instrument of authentic friends of nature, and the spirit of nature appears brightest in poems. When we read and hear genuine poems, we feel the movement of an inner understanding of nature and hover, like its heavenly embodiment, at once in it and above it. Natural scientists [*Naturforscher*] and poets have always shown themselves to be one people by way of one language. What the former gathered into a whole [*im Ganzen*] and arranged in great, ordered masses, the latter have worked into daily fare and need for human hearts and have split that immeasurable nature and formed it into manifold, small, agreeable natures. While the poets have pursued the liquid and fugitive with a light heart [*Sinn*], the natural scientists

[8] This appears to be an allusion to Thales, Anaximenes, and Anaximander: the first made *water* the first principle (what Aristotle would call the 'material cause') of all things, the second *air*, the third what he called *to apeiron* (the unlimited or the formless).

[9] The "pondering mind" is almost certainly Democritus, who reduced the material world to a collection of atoms moving about in a void.

[10] The editors of the critical edition are surely right that Novalis has "mixed up Empedocles's doctrine of hate and love [repulsion and attraction] as causes of movement and the mixing of elements with the atomism of Leucippus and Democritus" (HKA I, 595).

[11] The view that the period of the emerging philosophical *logos* (reason, discursive thought) was preceded by more ancient *muthoi* (stories, myths, poetic accounts) became a fixture in German scholarship during the 19th century. In Novalis's way of figuring the past, the earlier poetic orientations have advantages over their scientific counterparts.

sought to explore the inner structure and relations among the members with sharp cuts of the knife.[12] Under their hands friendly nature died and left behind only dying, quivering remnants, while the poet animated her as with an inspiring wine until she uttered the most divine and sprightly notions and, raised above her everyday life, she soared to heaven, danced and prophesied, welcomed everyone, and squandered her treasures with a gay heart. And so she enjoyed heavenly hours with the poet, and only summoned the natural scientist when she was sick and burdened by her conscience. Then she answered each of his questions and treated the serious and strict man reverently. Whoever would know her mind rightly must therefore seek it in the society of poets, where she is open and pours out her wonderful heart. But whoever does not love her from the bottom of the heart, but admires and strives only to experience this or that in her, must visit her sickroom, her charnel house [*Beinhaus*].

Our relations to nature are as incomprehensibly various as our relations with human beings; and as she shows herself childlike to the child, and presses herself fondly to his childlike heart, so she shows herself to be divine to the god and attuned to his elevated spirit. One cannot say, without speaking exaggeratedly, that there is one nature; and all striving for truth in discourse and conversation about nature only removes us further from naturalness. A great deal is already gained when the striving to comprehend nature completely is ennobled to longing [*Sehnsucht*], to tender, unassuming longing that prefers to indulge the strange, cold creature, if only it can count on days to come of more familiar intercourse [*vertrauteren Umgang*]. There is a mysterious force [*Zug*] tending in all directions within us, spreading itself everywhere [*rings*] from a midpoint infinitely deep. If wondrous nature, sensible or insensible, surrounds us, we believe this force to be an attraction of nature, an externalization of our sympathy with her: but behind these blue, remote forms, one person still seeks a home that they conceal from him, a beloved of his youth, parents, siblings, old friends, lovely times past; another thinks that unknown glories await him out there, and he believes that a future full of life is hidden in it, and he longingly stretches out his hand toward a new world. A few remain calmly in this glorious environment and seek only to grasp it in its fullness and concatenation [*Verkettung*], not forgetting about the isolation of the shimmering thread that links the members in a row and forms the holy chandelier, and they find themselves blessed in the

[12] The image of natural scientific inquiry as murder has a long history. In English romanticism it reaches something of a poetic head in Wordsworth's lines in "The Tables Turned": "Sweet is the lore which Nature brings; / Our meddling intellect / Mis-shapes the beauteous forms of things: — /We murder to dissect."

contemplation [*Beschauung*] of this living ornament hovering over the depths of night. Hence manifold contemplations of nature emerge, at one end the sensation of nature becomes a pleasurable notion, a banquet, at the other end it is transformed into the most devout religion, giving direction, bearing, and meaning to an entire life. Even among the childlike peoples, there were serious minds for whom nature was the face of the divine, while other gay hearts only prayed to her at table; to them the air was a refreshing drink, the stars were lights to dance under at night, plants and animals only tasty dishes, and so nature seemed to them not like a silent, wonderful temple, but like a jolly kitchen and pantry. In between, there were other, more ingenious [*sinniger*] souls who discerned in present-day nature only great but overgrown gardens and occupied themselves day and night in the creation of models of a nobler nature.[13] – They divided themselves up convivially for this great work, some sought to awaken the subsiding and lost tones in air and forests, others set down their presentiments and images of more beautiful races in bronze and stone, shaped more beautiful rocks into dwellings, brought back to light the treasures hidden in the crypts of the earth; tamed the unruly streams, populated the inhospitable sea, led glorious plants and animals to desert zones of old, dammed the forest floods and cultivated the nobler flowers and herbs, opened the earth to the touch of fructifying air and the kindling light, taught colors to mingle and order themselves into charming shapes, taught wood and meadow, springs and crags to unite again in pleasing gardens, breathed tones into loving things, that they might unfold and move in joyful rhythms, took under protection those poor, forsaken animals amenable to human ways, and cleansed the woods of savage monsters, the misbegotten creatures of a degenerate fantasy. Nature soon learned friendlier mores [*Sitten*] again, she became gentler and more refreshing, more willing to favor human wishes. Gradually her heart was stirred humanely again, her fantasies became brighter, she was affable again, and answered the friendly questioner gladly, and so the Golden Age seems to have returned, in which she was the human being's friend, consoler, priestess, and enchantress, as she dwelled among them, and a heavenly intercourse made humans immortal. Then the constellations will visit the earth again, which they once stared at angrily in days of darkness; then the sun will lay down its stern scepter, and become a star among stars again, and all the races of the world will unite again after long separation. Old orphaned

[13] By those who create "models of a nobler nature" and embrace the project of "taming" the natural world, Hardenberg probably means to include early modern philosophers such as Descartes, as well as certain representatives of the European Enlightenment, including those dedicated to fine art. It is worth noting that the narrator views the task in a sympathetic light.

families will then find each other, and each day will see new greetings, new embraces; then the former inhabitants of the earth will return, on every hill embers will be rekindled, everywhere flames of life will blaze, old dwelling places will be newly built, old times renewed, and history will become the dream of an infinite, everlasting present.

Whoever is of this race and faith, and also wants to contribute something of his own to this taming [*Entwilderung*] of nature, frequents the workshops of the artists, eavesdrops on that poetry [*Dichtkunst*] that unexpectedly breaks forth everywhere, in all conditions, never tires of contemplating nature and conversing with her, pursues her hints everywhere and shuns no arduous course when she beckons, even if he must enter the musty tomb: he surely discovers ineffable treasures, his candle finally stands still, and who knows in what heavenly mysteries a charming subterranean native may initiate him. Certainly, no one strays further from the goal than he who imagines that he already knows the strange realm and can fathom its composition in a few words and everywhere find the right path. No one who tears himself loose and makes himself an island gains understanding without toil. Only children or childlike humans, who know not what they do, can experience this. Long and steady intercourse, free and artistic contemplation, attentiveness to subtle hints and traits, an inward poetic life, seasoned senses, a simple and god-fearing heart – these are the essential requirements of a genuine friend of nature, without which none of his wishes will blossom. It does not seem wise to want to understand and comprehend a human world without full, flowering humanity. No sense must slumber, and even if they are not all equally awake, still they must all be animated and not suppressed or fatigued. Just as one beholds the future painter in the boy who crowds every wall and all the smooth sand with drawings [*Zeichnungen*], and combines bright colors into figures, so one sees a future philosopher in the one who pursues and investigates all natural things without rest, attends to everything, collects whatever is noteworthy, and is joyful if he becomes master and possessor of a new appearance, a new force and cognition.

Now to some it seems not worth the slightest effort to pursue the endless divisions of nature and, furthermore, a dangerous undertaking, with no end [*Ausgang*] or fruit.[14] We will never find the smallest grain of a solid body, never the simplest thread, because all magnitude loses itself forward and backward in the infinite, and this also holds for the species of bodies and

[14] The way of thinking on display in this paragraph is probably modeled on Pascal, but the available evidence of Novalis's interest in Pascal is slim. There is only one reference to the *Pensées* in the critical edition, which occurs in a calendar entry on 14 January 1797 (HKA IV, 27).

forces; here, too, one turns up new species, new combinations, new appearances, and so on into the infinite. They seem to stand still only when our diligence is spent, and so one squanders precious time in futile contemplations and tedious enumeration, and this finally becomes true madness, a permanent dizziness facing the terrible abyss. And no matter how far we advance, nature always remains a terrifying mill of death: everywhere dreadful reversals, indissoluble eddying chain, a voracious kingdom of wildest presumption and measureless malevolence; the few bright spots illumine only a night all the more horrible, and terrors of all kinds frighten the spectator into insensibility. Death stands like a savior by the side of the unfortunate human race, for without death the most insane would be the happiest. Precisely this striving to fathom this immense mechanism [*Triebwerk*] is already a march toward the abyss, an incipient vertigo: for every stimulus seems an expanding vortex that soon assumes total control over the unfortunate and carries him away through a terror-filled night. Here is the cunning pitfall of the human understanding, which nature seeks everywhere to destroy as its greatest enemy. Blessed is the childlike ignorance and innocence of human beings, which keeps them from perceiving the dreadful dangers that surround their peaceful dwellings on all sides, like terrible storm clouds that threaten to break out over them at every moment. Only the inner disunity of nature's forces has preserved humans so far, but that great time cannot fail to arrive when all human beings will, by a great, common resolve, tear themselves away from this painful situation, from this terrible prison, and, through the voluntary renunciation of their worldly [*hiesigen*] possessions, rescue their race from this misery once and for all and escape to a happier world, to their ancient father. Hence, they would end in a manner worthy of them, and arrive at their necessary, violent destruction, or still more terrible degeneration into beasts, through the gradual destruction of their organs of thought, through insanity. Intercourse with natural forces, with animals, plants, rocks, storms and waves must necessarily make human beings resemble these objects, and this resembling, transformation, and dissolution of the divine and human into unbridled forces is the spirit of nature, this terrible, devouring power: and is not everything that one sees already a rape of heaven, a great ruin of bygone glories, the remains of a terrible feast?

"Very well," say the more courageous, "let our race conduct a slow, well-conceived war of annihilation against this nature. We must seek to get the better of her with insidious poisons. The natural scientist [*Naturforscher*] is a noble hero who plunges into the open abyss in order to save his fellow citizens. Artists have already dealt her many covert blows, continue down this

road, take possession of the secret threads, and make her lust after herself. Use this strife so that you can bend her to your will, like the fire-spitting bull. She will come to obey you. Patience and faith befit the children of mankind. Distant brothers are united with us for one end, the wheel of stars will become the spinning wheel of our lives, and then, with the help of our slaves, we will be able to build ourselves a new Djinnistan.[15] With inward triumph, let us behold her devastations, her tumults, she shall sell herself to us, and pay a heavy fine for every violent deed. Let us live and die with an enthusiastic feeling of our freedom, here the stream surges that will someday submerge and tame her and let us bathe ourselves in it and refresh ourselves with renewed courage for heroic deeds. The monster's rage does not reach this far, a drop of freedom is enough to lame it once and for all and to set its devastation a limit and an end."

Several others agree: the talisman lies here or nowhere. We sit at the source of freedom and watch; it is the great magic mirror in which the entire creation reveals itself purely and clearly, in it the tender spirits and reflections of all natures bathe, and here every chamber is receptive to us. Why do we need to journey tiresomely through the dismal world of visible things? The purer world lies indeed within us, in this source. Here the true sense of the great, multicolored, confused spectacle reveals itself; and if we step into nature full of such vistas, everything is familiar to us, and we surely recognize every shape. We don't first need protracted investigation; an easy comparison, just a few lines in the sand, are enough for us to understand. Hence everything is a great script [*Schrift*] to which we hold the key, and nothing comes to us unexpectedly, since we know the course of the great clockwork in advance. We alone enjoy nature with our full senses, because she does not destroy them, and we are not frightened by feverish dreams, but bright reflection makes us confident and calm.

"The others are mistaken," replies a serious man.[16] "Don't they recognize in nature the faithful copy [*Abdruck*] of themselves? They devour

[15] Or the land of the jinns (spirits), often Anglicized as genies. The origins of belief in jinns are obscure, but they play a role in Arab belief during pre-Islamic times and occur somewhat frequently in the Qur'an. The term occurs on more than one occasion according to the critical edition. In a poem probably written in 1789 to his friend Conradi, for instance, Novalis writes: "You fly away to Djinnistan/To the land of genies and other, smaller spirits/Where Wieland is king" (HKA IV, 69). In this context, Djinnistan stands for Weimer, where the German poet and Enlightenment author Christoph Martin Wieland (1733-1813) resided. Wieland published a series of tales called *Dschinnistan oder auserlesene Feen- und Geister-Mährchen* between 1786 and 1789. According to the editors of the critical edition, Novalis employed the term "as a synonym for Eden or Paradise" (HKA I, 595).

[16] To judge by the vision and the language on display in this paragraph, the "serious man" is probably Fichte, although the editors of the critical edition maintain that "this is N[ovalis]

themselves in wild thoughtlessness. They do not know that their nature is a play of thought, a desolate fantasy of their dreams. Indeed, to them nature is a terrible beast, a strange, hazardous mask of their own desires. The one who is awake sees this brood of his unregulated imagination without shuddering, for he knows that they are hollow specters of his own weakness. He feels himself lord of the world, his I hovers [*schwebt*] powerfully above this abyss and will for all eternity hover in exaltation over this endless succession. His inwardness strives to announce and spread harmony. As he advances into the infinite, he becomes more at one with himself and his surrounding creation, and with every step he beholds the eternal, all-embracing efficacy of a high, moral order of the world, the citadel of his I, emerge evermore brightly. Reason is the meaning of the world: it is there for the sake of reason, and if the world is initially the battleground of a childish, developing reason, it will someday come to be the divine image of its activity, the theater of a true church. Until then, let the human being honor the world as the symbol [*Sinnbild*] of his mind, both of which are ennobled together in indeterminable stages. Therefore, whoever will take cognizance of nature should exercise his moral sense, act and shape in accordance with the noble core of his inwardness, and nature will open itself to him of her own accord. Moral action is the great and singular experiment in which all the puzzles of the most manifold appearances are solved. Whoever understands this and knows how to pursue it in rigorous trains of thought is an eternal master of nature."

The disciple hears the crossing voices with alarm. Each seems to him in the right and a peculiar confusion overcomes his mind. Gradually the inner turmoil subsides, and a spirit of peace seems to hover over the dark, crashing waves, the arrival of which announces itself through renewed courage and contemplative cheerfulness in the soul of the youth.

A sprightly playmate sporting roses and ivy on his brow came leaping in and saw the disciple sitting sunk into himself. "Brooder," he shouted, "you are on the wrong path. Hence you will make no great progress. The best thing is always mood. Is that truly a mood of nature? You are still young. And do you not feel the commandment of youth throughout your veins? Do not love and longing fill your breast? How can you just sit in solitude? Does nature sit alone? The solitary one flees joy and yearning: and without yearning, what is the use of nature to you? The spirit is at home only among human beings, invades all of your senses with a thousand bright colors, and embraces you like an invisible beloved. At our festivals its tongue is unleashed, it sits on

himself, not Fichte" (HKA I, 595). They cite Mähl, who argues that the passage contains "the only decisive rejection of Fichte that N[ovals] has handed down to us."

high and strikes up songs of gayest life. You have still not loved, poor child; at the first kiss a new world will open itself to you, and life will run through your enchanted heart in a thousand streams."

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Sur la chimie et l'astronomie

(1804-1806)

Karoline von Günderrode

Traduction, présentation et notes de Laure Cahen-Maurel*

Poète, dramaturge et philosophe, Karoline von Günderrode (1780-1806) est avec Novalis ou Friedrich Schlegel une autre romantique qui allie la science à la poésie. Elle n'a publié essentiellement que deux recueils poétiques, *Gedichte und Phantasien* (« Poèmes et Fantaisies », 1804), *Poetische Fragmenten* (« Fragments poétiques », 1805). Et pour cela il lui aura fallu emprunter un pseudonyme – « Tian » – afin de contourner l'exclusion tacite des femmes des sphères littéraire et philosophique de l'époque. Or dans les documents laissés par Karoline von Günderrode ont subsisté un *Studienbuch*, « recueil d'études », avec d'autres ensembles de notes prises à des fins personnelles, dont une sélection se trouve aujourd'hui dans l'édition allemande historique et critique de ses œuvres établie par Walter Morgenthaler[1]. Ces quelque 200 pages de notes montrent que Günderrode s'est instruite en autodidacte en s'adonnant aux études les plus diverses. L'étude de la métrique et des déclinaisons latines, mais aussi de la géométrie, de la chimie, de la physiognomie de Lavater, de la logique et surtout des idées et débats de la philosophie de son temps : entre autres les pensées de Novalis, Fichte, Hemsterhuis, l'*Athenaeum* des Schlegel, la philosophie de la nature chez Schelling et Steffens, la philosophie de la religion de Schleiermacher.

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[1] Karoline von Günderrode, *Sämtliche Werke und ausgewählte Studien, Historisch-Kritische Ausgabe*, Bd. II: *Varianten und ausgewählte Studien*, éd. Walter Morgenthaler, Bâle, Francfort, Stroemfeld/Roter Stern, 1991. Leur transcription est la reprise partielle des notes éditées pour la première fois par Doris Hopp et Max Preitz en 1975 : Doris Hopp, Max Preitz, « Karoline von Günderrode in ihrer Umwelt III. Karoline von Günderrode's *Studienbuch* », *Jahrbuch des Freien Deutschen Hochstifts* (1975), p. 223-323.

Günderrode était donc encline à la scientificité, au langage de la science, à la vérité scientifique aussi bien qu'à l'art et à la fiction.

Nous avons choisi de prélever dans ces études quelques fragments de ses propres réflexions sur la philosophie de la nature et l'intégralité de ses notes de lecture sur la chimie, jusqu'ici inédits en français[2]. Les notations que nous traduisons sur la philosophie de la nature connaîtront un développement ultérieur : d'abord une esquisse de texte intitulée « Idée de la nature », puis le manuscrit « Idée de la Terre » (1805-1806), paru de façon posthume. Une traduction intégrale de ce corpus proprement philosophique existe désormais en langue anglaise grâce au travail tout récent d'Anna C. Ezekiel[3] ; une traduction italienne du manuscrit posthume « Idée de la Terre » a par ailleurs été publiée dans le numéro 2 de *Symphilosophie*[4]. Pour notre part, nous avons mis l'accent, dans cette réflexion spéculative, sur les notations touchant plus spécifiquement à la science. En l'occurrence, chimie et astronomie.

La chimie, surtout, innerve la métaphysique de Günderrode. Pour la poète et philosophe, chaque être individuel, chaque forme de vie sur terre est composée d'une multitude d'« éléments » mobilisables indéfiniment, lorsque l'une ou l'autre de ces entités individuelles meurt ou se décompose, pour la composition de nouvelles entités. Günderrode identifie et interroge ces processus de synthèse et de dissolution comme clé d'une philosophie renouvelée de « l'identité » des opposés : en un sens, sa pensée est le prolongement-dépassement de la philosophie de Schelling, pour qui il s'agissait de concilier les points de vue de la philosophie transcendantale et de la philosophie de la nature[5].

Les fragments par lesquels s'ouvre la présente traduction attestent que Günderrode s'est penchée sur la définition technique des principaux termes de la chimie de son temps, « analyse », « synthèse », « attraction » et « répul-

[2] De Günderrode, n'ont été traduits en français (à notre connaissance) qu'un ensemble de lettres (voir Geneviève Bianquis, *Caroline de Günderode 1780–1806 : Ouvrage accompagné de lettres inédites*, Paris, Alcan, 1910 ; et, plus récemment, Karoline von Günderode, *La faim, nous l'appelons l'amour : lettres*, trad. et annoté par B. Badiou et J.-C. Rambach, Aix-en-Provence, Alinéa, 1985), ainsi que ses poésies (voir Karoline von Günderrode, *Rouge vif : poésies complètes*, trad. O. Apert, Paris, La Différence, 1992).

[3] Voir Karoline von Günderrode, « Philosophy of Nature », « The Idea of Nature », and « The Idea of the Earth », trad. A. C. Ezekiel in Dalia Nassar, Kristin Gjesdal (eds.), *Women Philosophers in the Long Nineteenth Century. The German Tradition*, Oxford, Oxford University Press, 2021, p. 75-84.

[4] Voir Karoline von Günderrode, « Idea della Terra », trad. G. Valpione, *Symphilosophie. Revue internationale de philosophie romantique*, vol. 2, 2020, p. 222-228.

[5] Sur ce point, on se reportera à l'article de Karen Ng, « The Idea of the Earth in Günderrode, Schelling, and Hegel », à paraître dans *The Oxford Handbook of Women Philosophers in the Nineteenth Century*, édité par Kristin Gjesdal et Dalia Nassar.

sion » moléculaires, « affinités chimiques », « cohésion », « fluides élastiques », « combustion », « oxydation »… Et qu'elle s'est intéressée à des phénomènes empiriques susceptibles d'être traités comme des corps, élémentaires ou composés, obéissant à la force d'attraction : chaleur, lumière, atmosphère, eau, gaz, acides, sels, etc. La date de rédaction effective de ces fragments ne saurait être établie avec certitude mais Morgenthaler les situe dans les années 1804-1805, avant l'époque où Günderrode prend connaissance, de première main, de la philosophie de Schelling[6]. Ils documentent la lecture qu'elle aurait donc faite, sinon en amont, du moins en parallèle à la rédaction de ses propres réflexions sur la philosophie de la nature, du grand œuvre du chimiste français Antoine-François de Fourcroy (1755-1809), *Système des connaissances chimiques, et de leurs applications aux phénomènes de la nature et de l'art*.

Cette somme, onze volumes parus en 1800-1801, a largement contribué à populariser la chimie comme science moderne. Fourcroy est le représentant d'une chimie technique, opératoire, instrumentale. Il a isolé des principes chimiques à partir de sources minérales, inorganiques, mais aussi et surtout à partir de sources organiques, végétales et animales. Il fut également le tenant de la chimie nouvelle de Lavoisier contre la doctrine phlogistique de Stahl. La traduction de la somme de Fourcroy en langue allemande date de 1801 ; elle est l'œuvre du médecin et chimiste Christian Gotthold Eschenbach[7]. C'est sur cette traduction allemande que se fondent les notes de Günderrode ; celles-ci ne recopient pas littéralement des extraits du texte mais les reformulent en y mêlant parfois des résumés ou des notations personnelles.

Dans la philosophie spéculative de Günderrode sur la nature, les connaissances rassemblées sur la chimie ne font pas retour uniquement en tant que vérités sur les processus intrinsèques à la matière terrestre : le discours chimique sur la lumière, la chaleur, la cohésion entre aussi dans des considérations plus cosmologiques sur les corps astraux et les forces célestes, en lien avec l'astronomie. La métaphysique de Günderrode, qui part du postulat de la « double existence », particulière et universelle à la fois, de toute chose de la nature ou de la Terre, s'intéresse en effet plus largement, comme le montrent les extraits qui suivent, aux rapports entre la Terre et le Soleil, entre la Lune et la Terre, aux mouvements de rotation et de révolution des planètes, à la polarité Nord-Sud et au magnétisme. Il s'agit de comprendre

[6] Morgenthaler les place pour cette raison avant les fragments sur la philosophie de la nature. Voir Karoline von Günderrode, *Sämtliche Werke und ausgewählte Studien,* vol. 2, p. 358.
[7] Voir *System der theoretischen und practischen Chemie. In Tabellen entworfen von A. F. Fourcroy. Herausgegeben von D. Christian Gotthold Eschenbach, Professor in Leipzig*, Leipzig, Reinicke & Hinrichs, 1801.

l'interaction des deux grands principes de l'être, le particulier, l'universel, et comment leur opposition ou tension selon un équilibre ou une « prépondérance » différente produit les phénomènes non seulement caloriques, magnétiques, électriques, mais astronomiques.

Précisons, pour finir, qu'il ne s'agit pas de fragments entièrement autographes de Günderrode : Walter Morgenthaler a établi qu'on avait affaire à plusieurs strates rédactionnelles de mise au net, où l'on trouve trois écritures différentes mais indissociables, une écriture dite « écriture D » dans la transcription de l'édition historico-critique, une écriture non identifiée et, enfin, l'écriture de Günderrode, parfois sous forme de simples additions ou de corrections. Nous indiquons ces changements d'écriture en faisant figurer tous les passages qui ne sont pas écrits de la main de Günderrode dans une taille de caractères plus petite et renvoyons le lecteur à l'édition allemande pour plus de précisions[8].

[8] Voir Karoline von Günderrode, *Sämtliche Werke und ausgewählte Studien*, vol. 2, p. 357.

Sur la chimie et l'astronomie

Karoline von Günderrode

Chimie

La chimie nous apprend à connaître la nature intime des corps, détermine le nombre et les propriétés de leurs éléments constituants, nous fait voir les moyens de séparer ces composants et de les unir au gré de combinaisons nouvelles.

La chimie a pour objet tout corps pouvant être contenu dans un récipient. Toutes les opérations chimiques se réduisent à deux opérations : la décomposition (analyse) et la composition (*synthèse*).

Il y a deux méthodes de décomposition[1]. L'analyse *simple*, c'est quand on parvient à isoler les éléments d'un corps dans leur pureté absolue et que leur réunion reproduit parfaitement le même corps ; on appelle ces éléments qu'on sépare par une analyse simple « éduits » (*Edukte*). L'analyse composée[2] est la méthode la plus ordinaire, elle permet d'obtenir les éléments sous de nouvelles liaisons ; on les appelle « produits » (*Produkte*).[3]

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[1] Il convient de relever ici une inconséquence du texte allemand. S'il n'existe bien, selon Fourcroy, que « deux » grands « moyens généraux » auxquels la chimie tout entière se réduit « pour connaître l'action intime et réciproque des corps de la nature » – à savoir l'analyse et la synthèse, entendues comme deux opérations opposées –, le chimiste français énumère une pluralité d'espèces différentes d'analyse (ou décomposition) : « soit par la manière même dont on les opère » (analyse mécanique, analyse spontanée ou naturelle, analyse par le feu, analyse par les réactifs), « soit par les résultats qu'on en obtient », ou encore « par la nature des corps auxquels on l'applique » (analyse minérale, analyse végétale, analyse animale). Au plan des résultats, Fourcroy distingue entre quatre genres d'analyse : « l'analyse immédiate ou prochaine », « l'analyse médiate ou éloignée », « l'analyse simple ou vraie » et « l'analyse compliquée ou fausse ». A.-F. Fourcroy, *Système des connaissances chimiques, et de leurs applications aux phénomènes de la nature et de l'art*, Paris, Baudouin, 1801, t. I, Section I., Art. 5, « De l'analyse chimique », p. 55-61.

[2] *Die zusammengesezte Analyse*. L'expression peut, là encore, sembler surprenante, si on considère que la « composition » est la définition même de la synthèse, soit le contraire de l'analyse. Il faut cependant souligner que Fourcroy rabat lui-même l'analyse dite « compliquée » sur la notion de synthèse : « Telle est l'idée exacte qu'il faut prendre de l'analyse fausse ou compliquée, dont la naissance, les produits étrangers en quelque sorte aux premiers composés qui les fournissent, ne sont véritablement dus qu'à une série de combinaisons ou de synthèses qui s'opèrent en même-temps que la décomposition a lieu. » (*ibid*., p. 63).

[3] La préposition « pro » dans *Produkte* est entendue au sens latin de « en avant », soit ce vers quoi on avance, le résultat, ce qui naît, par opposition à *Edukte*, littéralement « sortis de », les éléments dont on part. Cette terminologie employée par le texte allemand en vue de restituer la distinction établie par Fourcroy entre ce qui est séparé par analyse et ce qui est engendré par synthèse ne correspond toutefois pas aux deux termes français différents utilisés par Fourcroy lui-même. En effet, il écrit dans le *Système des connaissances chimiques* : « Pour bien entendre ces distinctions, il faut remarquer que ce qu'on sépare par une analyse,

Tous les corps de la nature ont deux forces en propre : l'*attraction*, la *répulsion*. La force qui fait se tenir entre elles les molécules des corps elles-mêmes, qui en assure plus ou moins la cohérence, a pour nom « force de cohésion ».

La force d'attraction qui existe entre les molécules de deux corps de nature différente s'appelle « affinité chimique » ; elle se différencie de la « cohésion » en ceci qu'elle a lieu entre les parties similaires mais pas identiques de deux corps hétérogènes, tandis que la cohésion opère uniquement entre les parties de même nature d'un même corps.

Seuls les corps dont les parties ont une affinité entre elles se laissent chimiquement décomposer et composer. Cette affinité n'est pas nécessaire pour une décomposition mécanique, laquelle n'est pas non plus une décomposition proprement dite mais une simple division, au sens où elle ne fait que *séparer* les éléments des corps sans les dissoudre. Une *composition* chimique *combine* les composants d'un corps ; une composition *mécanique* ne fait que les *mêler*.

Il existe toutefois des degrés de parenté plus ou moins *proche* ou lointaine. Quand ils font l'analyse d'une substance, la plupart du temps les chimistes se servent de cette différence de degré. Lorsque, par exemple, j'ai *chimiquement combiné deux corps, A et D*, ayant une affinité entre eux et que je *veux les séparer* de nouveau, je dois procéder de la sorte : j'ajoute le corps B (qui est plus proche du corps A que ne le sont entre eux A et D) ; aussitôt après, A et D se désagrègeront ; A et B, du fait de leur affinité plus grande, s'uniront ; et D formera un *précipité*, qui soit se déposera, soit, s'il est d'une espèce plus légère, restera en suspension ou encore se volatilisera sous forme de gaz.

Du calorique

Le calorique est un fluide élastique, impénétrable et existant par lui-même, dont aucun phénomène ne permet de mesurer la pesanteur.

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quelle qu'elle soit, se nomme en général produits, parce que ce ne sont pas toujours des principes. » (*ibid.*, p. 55). L'Introduction à la *Philosophie chimique, ou vérités fondamentales de la chimie moderne* distingue, quant à elle, le « produit » du « résultat » : « On donne plus particulièrement le nom de produit à tout ce qui est fourni par une analyse et celui de résultat aux combinaisons formées par la synthèse. » (A.-F. Fourcroy, *Philosophie chimique, ou vérités fondamentales de la chimie moderne, destinées à servir d'éléments pour l'étude de cette science*, Paris, Bernard, 3e éd. 1806, p. 14).

Le calorique se combine avec tous les corps de la nature, à un degré ou à un autre ; en vertu de sa parfaite expansibilité, il pourrait se laisser dilater à l'infini s'il n'existait une force pour s'opposer au mouvement qui l'anime. Cette force, c'est la *cohésion*.

Le rapport entre ces deux forces détermine la forme extérieure des corps. Quand la cohésion l'emporte, les corps sont fermes ; si elle est plus faible, les molécules des corps seront plus écartées les unes des autres et l'étendue du corps augmentera. Enfin, si le calorique a écarté les molécules à tel point qu'elles finissent par se trouver hors de leur sphère d'attraction, *soit* elles prennent la forme de condensats, soit elles se convertissent en gaz. Cependant, s'il n'existait que ces deux forces, les corps, avec l'augmentation de la chaleur, passeraient immédiatement de l'état solide à l'état gazeux – seule la pression atmosphérique les maintient à l'état intermédiaire d'un condensat[4].

Le calorique est toujours mélangé à d'autres corps, on ne peut l'obtenir dans son état de pureté ; il ne devient perceptible à nos sens que lorsqu'il est forcé d'abandonner le corps avec lequel il était combiné et qu'il se transmet à d'autres corps. La combustion de corps gazeux constitue la flamme

, la combustion se forme lorsque le mouvement rapide par où le calorique se dégage d'un corps s'accompagne de lumière.

De la lumière[5]

La lumière n'a pas encore fait l'objet d'une analyse chimique ; on n'ignore même s'il est possible de la séparer du calorique pour obtenir de la lumière pure ; la principale modification qu'elle entraîne dans les corps sont les couleurs, qui semblent puiser en elle la source de leur existence.

La lumière est un corps élastique.

De l'électricité[6]

De l'air

On appelle « atmosphère » le corps fluide qui ceint le globe terrestre, dans lequel sont plongés tous les corps existant à la surface de la terre et qui les pénètre tous, à un degré ou à un autre.

L'air est un corps élastique.

On peut, en se servant de certains métaux, décomposer l'air en deux parties principales. La *première* est formée d'oxygène et du calorique inhérent à tout corps. On nomme cette partie de l'air « air vital » ; isolé de l'autre partie de l'air qu'on nomme « mofette

[4] *Tropfbare Flüssigkeit*.
[5] Le texte allemand modifie ici l'ordre d'exposition adopté par Fourcroy dans l'original français, où la lumière est traitée avant le calorique, comme « le premier » des corps naturels simples ou indécomposés.
[6] Abordée au tome V du *Système des connaissances chimiques*.

atmosphérique[7] », l'air vital accroît et prolonge la vie animale et sert au développement des végétaux. La part la plus importante de l'atmosphère se compose d'air vital

, l'air vital est donc un corps dissous en gaz, dont l'oxygène est le principe[8].

La mofette atmosphérique est formée d'azote et de calorique ; elle tue la vie animale, entrave la croissance des plantes et le feu s'éteint aussitôt en elle

, l'azote est le principe de la mofette

Air vital et mofette s'entassent dans l'atmosphère en fines strates, leur entremêlement n'est donc que mécanique, pas chimique.

Lorsque des corps s'enflamment au seul contact de l'air vital, on les appelle « pyrophores » ; mais l'inflammation nécessite généralement une augmentation de la température.

Parmi les gaz qui se rencontrent d'ordinaire dans l'atmosphère, les plus répandus sont la vapeur d'eau et l'acide carbonique[9] ; l'acide carbonique est produit essentiellement par la respiration des animaux.

Tous les gaz connus ont une affinité avec l'eau et la dissolvent.

De l'eau

L'eau est un corps peu élastique que l'on peut diviser en deux parties.

La première se compose d'oxygène

, lequel constitue le principe de la première partie de l'eau ; la seconde est un type de gaz inflammable très léger, dont l'hydrogène sert de principe.

Du règne minéral

Le règne minéral se divise en : 1) sels, 2) terres, 3) matières inflammables, 4) métaux.

Les sels sont ces corps solubles dans l'eau pure mais insolubles dans le feu ; ils ont une saveur prononcée.

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[7] *Stikluft*, littéralement « air irrespirable ». Le nom de « mofette atmosphérique » a été donné par Lavoisier « d'après le mot italien donné aux gaz délétères qui se dégagent de la terre et se ramassent dans ses cavités » (A-F. Fourcroy, *Système des connaissances chimiques*, t. 1, p. 161).
[8] *Grundlage*.
[9] *Luftsäure*, littéralement « acide de l'air ».

Il y a des acides, des alcalis et des sels neutres issus du mélange des deux premiers types de sel.

Il y a dix acides minéraux : 1) sulfate ou vitriol, acide sulfurique ; 2) salpêtre, acide nitrique ; 3) sel de table, chlorure de sodium ; 4) acide carbonique ; 5) acide boracique ; 6) acide fluorique ; 7) acide succinique ; 8) acide de l'arsenic ; 9) du molybdène ; 10) du tungstène.

Acides des végétaux : 1) du vinaigre ; 2) du sucre ou acide oxalique ; 3) de la crème de tartre ; 4) des pommes de chêne ; 5) du citron ; 6) de la pomme ; 7) du benjoin ; 8) du charbon de bois ; 9) du caramel ; 10) du camphre.

Acides du règne animal : 1) du phosphore ; 2) du lait ; 3) du lactose ; 4) des fourmis ; 5) des graisses ; 6) cyanure d'hydrogène ; 7) acide de la chenille ; 8) des calculs urinaires.

Tous les acides sont des corps à part entière ayant un lien avec le principe de l'air vital.

Les alcalis ou bien *résistent au feu* (ne se laissent pas changer en gaz sous l'action d'une source de chaleur), ou bien sont *volatiles* (revêtent la forme d'un gaz simplement sous l'action de la chaleur atmosphérique). Les alcalis *résistant* au feu sont : 1) le *potassium*, 2) *le natron*. Dans la catégorie des alcalis *volatiles*, il n'y a que l'*ammoniac*. L'ammoniac est un composé d'azote et d'hydrogène.

Les *sels neutres* : acide combiné à un alcali

Sels moyens terreux : sels issus d'un acide et mélangés à de la terre

Sels moyens métalliques : combinaison d'acide et de métal

Le salpêtre est un sel neutre qui se compose d'un acide et de potassium. On en trouve dans certains massifs montagneux, mais on peut également le fabriquer artificiellement et, lorsqu'il est mélangé à d'autres corps, obtenir de nouveaux produits, comme par exemple la *magnésie*, un médicament ayant la propriété d'absorber les acides, ou l'eau-forte, un acide nitrique dilué.

Astronomie et philosophie de la nature

Toute chose est, en quelque sorte, une présentation[1] finie de l'infini et donc toute chose a aussi, à un degré ou à un autre, une double existence[2] : une existence individuelle limitée, dans la mesure où elle forme pour elle-même un être[3] indépendant ; et une existence universelle, en ce sens qu'elle est dans la dépendance de et en relation avec l'univers, et fait ainsi, en même temps, partie intégrante de l'infini. Cette double existence est le principe de tout être : chacun des corps, chacune des matières de la terre est pour soi une existence individuelle ; et en même temps, c'est une existence plus universelle, étant un élément du grand Tout de la terre. La Terre a elle-même cette vie double : son mouvement individuel est son mouvement de rotation propre autour de son axe ; elle s'efforce de s'arracher au pouvoir du Soleil pour devenir un individu à part entière, mais le Soleil, avec toute la puissance de son magnétisme, s'efforce de l'attirer à lui, de l'unir à lui et d'anéantir ainsi sa particularité. Du combat entre la force attractive du Soleil et la force de la Terre, en vertu duquel cette dernière cherche à conserver cet être soi, naît le double mouvement de la Terre autour du Soleil et autour de son axe. La Lune est bien plus soumise à la force d'attraction de la Terre que celle-ci ne l'est à l'attraction exercée par le Soleil. L'effet de la force exercée par la Terre sur la Lune est si puissant qu'elle ne lui autorise aucun mouvement propre : la Lune n'est pas capable d'une rotation propre sur son axe, elle ne peut que suivre l'orbite décrite par la Terre. Plus les planètes sont proches du Soleil, plus leur mouvement individuel est faible et plus il s'agit de simples satellites du Soleil : leur vie – qui gagne en cela en universalité, comme une tendance supérieure, plus universelle leur est conférée – perd en individualité. Et inversement : avec leur éloignement du Soleil, le caractère-propre des planètes augmente à mesure que leur universalité diminue ; leur révolution autour du Soleil est plus lente, la rotation autour de leur axe plus rapide et plus puissante ; elles ont plusieurs lunes et leur force propre est bien plus grande que ne l'est celle des planètes qui sont proches du Soleil.

[…]

[Note de bas de page]
Les calculs astronomiques sont exacts sans que l'on ait au préalable fait l'expérience de leur concordance avec les mouvements des astres.

[…]

Philosophie de la nature

[…]

[1] *Darstellung*.
[2] *Dasein*, soit l'être réel, empirique.
[3] *Wesen*.

Sur notre planète, *lumière* et *chaleur* (les facteurs de l'universel ou du solaire) imprègnent[4] tout ce qui est particulier, toutes les matières terrestres (facteurs du particulier). Les deux principes, l'universel et le particulier, apparaissent en conflit dans presque toutes les configurations sensibles[5]. Dans les corps où l'universel est prépondérant, la cohésion [# attraction] relative (laquelle montre clairement l'universel comme opposé au particulier afin de l'anéantir) ou la force d'attraction du solaire (par laquelle l'universel s'efforce de mettre en relation le terrestre avec le Soleil et de le subordonner à celui-ci) surmonte la cohésion absolue des corps (soit ce par quoi ces derniers existent comme individus, la force qui fait se tenir entre elles les parties internes des corps). La chose peut se produire de la sorte : lumière et chaleur pénètrent un corps à tel point que la connexion de ses parties (cohésion absolue) s'en trouve détruite ; lumière et chaleur cherchent à l'atteindre partout, à le dissoudre, et si sa cohésion absolue n'est pas capable de résister à cette cohésion relative, alors il se dilate quant à sa forme (lumière et chaleur accessibles en tout lieu), mais devient transparent (traversé de part en part par la lumière) quant à sa qualité.

Au contraire, les corps dont la cohésion absolue est plus forte que la cohésion relative résistent davantage à l'afflux de la lumière et de la chaleur ; certes, ils absorbent cet universel en eux, mais ses effets se perdent dans leur caractère-propre, ils demeurent [quant à leur forme] fermes, froids, opaques, en vertu de la force de leur cohésion absolue.

[…]

Puisque l'oxygène est la condition de toute combustion, tout processus de combustion tendra à une indifférenciation entre l'universel (hydrogène) et le particulier (oxygène), dans la cohésion relative ; ou, dans la cohésion absolue, à une indifférenciation entre d'un côté l'universel (azote) et le particulier (carbone) et de l'autre le particulier de la cohésion relative (l'oxygène).

[…]

L'air est une relation d'indifférence entre l'universel (azote) de la cohésion absolue et le particulier (oxygène) de la cohésion relative [par suite brûlé].

[4] *Sind eineingebildet in*. Cette formulation évoque les expressions *Ineinsbildung*, « formation-en-un », *Hineinbildung*, « implantation », ou encore *Einbildung*, « uni-formation », qui se trouvent dans la philosophie schellingienne dite de l'identité.
[5] *Darstellungen*, habituellement traduit par « présentations », voir *supra* note 9.

[…]

Le magnétisme est la cohésion absolue à son plus haut degré d'activité. Lorsque l'on rapproche deux corps homogènes (qui ne sauraient se compléter du fait de leur identité, attendu que seul ce qui n'est pas de même nature peut constituer les deux côtés d'une totalité), chacun de ces deux corps se ramasse davantage en lui-même ; dans le magnétisme, c'est donc l'être en soi des corps qui s'exprime, leur aspiration à l'individualité. Le magnétisme en tant qu'aspiration à la cohésion est ce qui détermine la longueur du remplissage de l'espace ; ce qui résiste au Soleil ; et, eu égard à la Terre, la polarité Nord-Sud. Il marque en même temps l'uni-formation[6] de l'unité dans la multiplicité, chaque élément de cette pluralité se posant comme être en soi. Le magnétisme a un pôle négatif et un pôle positif ; son pôle positif doit être celui dans lequel l'universel est prépondérant [car le magnétisme exprime l'être en soi (la particularité).]

Lorsque deux corps hétérogènes sont rapprochés, ils aspirent à se compléter, à former une totalité. Cette aspiration est réalisée par le frottement. Le contact irrégulier du frottement détruit la cohésion des corps qu'on frotte, ils perdent l'équilibre qui est le leur lorsqu'ils demeurent en repos. Dans l'un, la cohésion se renforce (le particulier devient prépondérant) ; dans l'autre, elle diminue (l'universel devient prépondérant). Le particulier attire à lui ce qui est son agent dans l'air (oxygène) ; l'universel, au contraire, se combine à son facteur atmosphérique (l'azote) (car les éléments de l'air sont séparés mécaniquement sous l'action du frottement). Et c'est ainsi qu'une combustion se produit dont le degré minimal constitue les phénomènes électriques. La combustion est un passage de la cohésion absolue à la cohésion relative (celle soumise au solaire). Par suite une fonction de l'extension, la lumière et la chaleur pénétrant et dilatant les corps de toutes parts dans la combustion. L'électricité est donc l'aspiration à l'identité de corps différents entrant dans une relation de cohésion relative. Ou l'activité de la cohésion relative.

[…]

Là où nous voyons les forces s'équilibrer entièrement (s'attachant et s'abolissant les unes les autres, en quelque sorte), l'activité, le mouvement, la vie sont nuls ; il n'y a qu'un seul être, quelque chose qui subsiste en soi. Mais là où les forces entrent dans une certaine mesure en conflit (sont prises dans

[6] *Einbildung*. Voir *supra* note 12.

une polarité active), là est l'activité, le mouvement ; et lorsque ce conflit des forces revêt une forme déterminée permanente, il y a vie.

[…]

L'activité chimique de la Terre se décompose en deux processus continuels : l'oxydation et la désoxydation. Les volcans sont les principaux lieux de production de l'oxydation. Les matières combustibles s'enflamment sous l'action de l'air qui pénètre dans les cratères [avalent l'air pénétrant dans les cratères, dont l'oxygène enflamme les matières oxydables], causant ainsi les énormes feux qui répandent sur la terre ces flots de matières oxydées, en même temps qu'ils rejettent l'autre partie de l'air avalé, l'azote. Mais l'eau et l'air produisent aussi constamment des oxydations en ce que les matières oxydables absorbent leur oxygène.

Symphilosophie

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Premonishment to the Physical-Chemical Treatises

(1806)

Johann Wilhelm Ritter

Translated and introduced by Jocelyn Holland*

In 1806, Johann Wilhelm Ritter published a three-volume collection of what he referred to as his "physical-chemical writings."[1] The publication appeared the same year as Ritter's induction into the Royal Bavarian Academy of Sciences and the speech he gave in honor of that occasion, "Physics as Art." At the beginning of the first volume, Ritter writes a short dedication to the Royal Academy and a somewhat longer "Vorerinnerung," translated here for the first time, to his readers and the broader community of scientists.

"Vorerinnerung" is a temporally precarious word in a way that the English translation "Premonition" (the translation usually given in dictionnaries around 1800) does not quite convey. It is doubly oriented toward the past (through the notion of a reminder, or remembrance – *Erinnerung*) and the future (through the spatiotemporal orientation of the prefix *vor*-). For present-day readers familiar with Ritter's monumental *Fragments from the Estate of a Young Physicist*, published four years later in 1810, Ritter's choice of a time-bending genre might not sound so strange, given the fiction of a doubled pre- and posthumous position Ritter occupies in the preface to the fragments.[2] And there are other connections to be observed as well between

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[1] *Physisch-Chemische Abhandlungen in chronologischer Folge* (Leipzig: C. H. Reclam, 1806).

[2] For a bilingual edition of Ritter's fragment project, along with "Physics as Art" and his essay on the history of chemistry, including explanatory essays, see Jocelyn Holland, *Key Texts of Johann Wilhelm Ritter (1776-1810) on the Science and Art of Nature* (Leiden: Brill, 2010).

the two projects, such as the theme of writing a portion of one's own life, a *Selbstbiographie*. In the *Vorerinnerung*, Ritter writes that because he is presenting a chronologically complete record of his scientific works, readers will "in this manner receive a *literary self-biography*, and this is where the perfection of the present work primarily resides." The term *Selbstbiographie* already appears with reference to the *Physical-chemical Writings* in a letter from Ritter to Hans-Christian Ørsted dating from February 2nd, 1806,[3] and the idea of a biography of the self appears again in correspondence relating to the preface to the fragment collection.[4] It is also noteworthy that in the "Vorerinnerung," as in the preface to the fragments, Ritter states a significant component of his life story is to be told with reference to his teachers.

Not only does Ritter connect these two substantial projects under the auspices of a *Selbstbiographie*, they also share another common feature which, in retrospect, makes it seem as if the *Physical-chemical Writings* are a kind of literary-experimental testing ground for the fragment project: the use of fictional personas. This is a well-documented feature of the preface to the fragment project, where Ritter refers to "the physicist" throughout using the third person, along with other, more subtle sleights of hand which are left for the reader to decipher.[5] In the earlier *Physical-chemical Writings*, Ritter barely finishes attesting to the chronological completeness his enterprise in containing *all* of his published works when he abruptly switches voices, heralded by the parenthetical remark: "(One will note that the author generally tries to speak in the name of the physical writer.)" This raises the question of who, exactly, is speaking in the next few paragraphs, which are set off from the rest of the *Vorerinnerung* by quotations. This "physical writer" uses both the first and third person pronouns and speaks in a notably different tone, reminiscent of the one Ritter uses in the *Physics as Art* speech, with its grand gestures and flowery language. For all of his lofty rhetoric, however the "physical writer" concludes his remarks on a decidedly pragmatic note by commenting on the upsurge in the number of scientific journals and praising their ability to disseminate scientific discoveries more rapidly than ever.

Aside from the various connections, the "Vorerinnerung" does differ from the preface to the fragment collection in at least one important regard. As it turns out, Ritter's introduction to the *Physical-chemical Writings* also has

[3] See *Correspondance de H. C. Örsted avec divers savants*, vol. 2, ed. M. C. Harding (Copenhagen: H. Aschehoug, 1920), p. 147.
[4] Ibid., p. 229.
[5] See "The Workshop as Monument. Fragments from the Estate of a Young Physicist," in *Key Texts of Johann Wilhelm Ritter*, pp. 3-19.

an epistemological axe to grind: though he refers to the sustaining adulation of the public, he also takes a defensive stance with regard to those detractors who have accused him of errors in his scientific publications. This defense begins with a Baconian plea for the usefulness of errors in general (including at least one reference to a particular occasion – the development of phlogiston theory). It then extends to complaints against Ritter's own theories (he mentions his work on conductivity, the charging of conductors and the decomposition and recomposition of water through different kinds of conductors, and the specific properties of quicksilver.[6] So eager is he to right these assumed wrongs, he has to deliberately rein himself in so as not to turn the "Vorerinnerung" into a scientific treatise.

With regard to the translation: those who already know that Ritter's writing style can pose certain challenges (and the occasional headache) will find their expectations have been met. The translator has attempted a delicate balance act of conveying the sentence structure without sacrificing comprehensibility. For readers who are up to the challenge, however, the "Vorerinnerung" offers ample reward. Although a short text, it encompasses the most important dynamics of Ritter's thinking of the years between "Physics as Art" and the fragment project: the uninhibited and at times playful literary style; the dream of constructing far-reaching historical narratives reminiscent of one whom he admired greatly, Johann Herder; and the keen desire to be taken seriously as one of the foremost scientific thinkers and experimenters of his day in the fields of physics, chemistry, and galvanism.

[6] See, for example, text number 30 in volume 3 of the *Physical-chemical Writings*, "Neue Versuche und Bemerkungen über den Galvanismus; -- in Briefen an L. W. Gilbert. Erster Brief; -- in Gilbert's *Annalen der Physik*. Vol. 16, pp. 293-335.

JOHANN WILHELM RITTER

Premonishment [*Vorerinnerung*]

What I hereby present in this work, to the public, is already partially known. Another, just as sizeable part of it, however, appears in print here for the first time, even though it is closely connected to already known material. Together, both parts encompass pretty much everything that I have up to this point treated in individually published essays, as opposed to being contained in specially edited writings. For also the part of it which has not yet been printed was not completed just now, but rather, in each case in tandem with my published work, which automatically determines its place in the series of the whole.

Such a collection of all my small labors within a single work has long been desired by the public, although for the most part people could only mean those essays scattered in the various journals. Because to possess or procure for oneself the journals to the extent necessary for the knowledge of all these published works can not be done by everybody, and least of all by someone who is entering into science for the first time. Beyond that, it was also convenient not to have to go first through however many volumes in order to finally bring *such* separate things together into the connection which, although it was always latent, was not always so visible that one could have guessed it without further help; whereby the connection I want to realize often went missing or, if not, could only be maintained with an effort most people did not possess.

I merely repeat here what I have not infrequently been told, and if from the beginning I had been able, or permitted, to presuppose the attention of the public, the kind and degree of which constantly exceeded my expectations (as to which degree, all along, was only that completely reserved feeling of my service of [the public], a feeling much inclined to moderation) then I would not have allowed the fragmentation [*Versplitterung*] of that which would have been much better off forming a whole.

But nevertheless, there was still another reason at hand to be pleased by [the public's attention]. To indicate this reason, the following passage, which I recently read somewhere, may be particularly useful, and one is certainly authorized to relate what one will of it back to me, as long as one, by the same token, only permits me to agree with *this* part, but certainly releases me from accountability for the rest, which, however, I cannot avoid because of its connection.

(One will note that the author generally tries to speak in the name of the physical writer.)

"In order to grant all our works" – says the physical writer – "the success and usefulness which the world, which turns its eyes to us, demands and expects, it is almost unavoidably necessary to be intimately familiar with what is continuously the most current state of things. For not only (what would be the very least) do we in this way avoid repetitions which would hardly have been worth their expense, subsequently, we are (what is much more important) in the position to connect our works to those *of our contemporaries*, and thereby to attract them to be interested in *ours*, to facilitate for them their judgement of us, just as our judgement of *them* must remain comprehensible to them as well; in short, only in this way do we have the capacity of building an authentic and prosperous whole with the rest of the natural-scientific world."

"The time for the science of nature [*Naturwissenschaft*] seems to have passed, where every truth, whatever its status may be, and from whatever distance it has been presented to the public, would thusly always already be recognized, and with lively force assimilated to the whole, simply *because* it is truth. *This* talent for knowing and connecting presupposes much more by far than what is to be found at the present time, generally speaking, and perhaps that time has never been, -- at least, it went by precisely in the same pace in which science spread extensively. The *passions* of man are that to which [science] for a while now has owed almost everything; one must honor *them* if one will promise oneself more of it. The slightest gift must be taken as equal to the greatest, not a single one can be left unattended; only thusly may one hope with reason to stoke the sparks into flame. Also, it is almost of no consequence, *how* science comes to be, *as long as* it just comes to be – altogether, even if it were just as possible that passions only appeared as such as they are idly pursued natural drives, which, if exercised as they demand to be, completely lose that name and become what is most noble and worthy of respect in mankind, and are even prior to this ennoblement capable of advancing it and are to be treated as such. The most excellent rule, however, which emerges from the above every time, is not to want to effect change by leaps, but rather here as well to remain true to nature, which allows for all subsequent things to follow strictly from earlier ones and, just as the future always comes from the present, so too allows the fruit only to appear after the blossom, and never before it."

"I have mentioned the necessity for us to be familiar with the present and lingered for a long time by the reasons for this. From the same reasons, however, something else has followed, namely the *way* in which up until now,

and primarily in recent times, the natural sciences and their progress, particularly physics and chemistry, have been brought to the notice of the public. *Journals* are what these sciences have poured themselves into, and within which they live almost exclusively. *Curiosity* has *produced* them; for it is nice to be certain of learning something new regularly every month. *Narcissism* [*Eigenliebe*] helps *sustain* them; for it is not less nice to know that what one discovered today may be spread through the whole world in thirty days, yes – one even *discovers* for this very reason. – Yet both [curiosity and narcissism] are once again of no matter, particularly if it at the present time it were really the only possible way; the truth is: that, in order to keep oneself actively connected with our sciences, step by step, according to their respective circumstances, *attention to the journals which contain them is indispensable.*" –

Very often, thus all too often, one will have noticed how I too have had to conform myself to this necessity and acknowledge its reasons. Even beyond them I was compelled to follow this necessity. The work in which for five years I took it upon myself to be the most serious and complete, my *Contributions* [*Beyträge*], even these should lend themselves to the form of a journal, and I gladly admit that this printing and its unavoidable consequences, so contrary to the purpose of the whole, were almost solely the reason that neither the experiment itself succeeded, nor that in general I later, only when with the final pieces the form again became irrelevant, dedicated myself to the work with the same love with which I began it, and with which I should have stayed with it. Not less often was I shamed by the indulgence with which the public still tended to honor me, and I will long have reason to express my gratitude toward it.

I therefore rejoice now to have received the opportunity to right, somewhat, this mistake as well as those others forced by time, and one will not mistake my effort to do this to the greatest possible degree I am able to. I have already said how that which I presently accomplish has long been a wish of many. For it did not escape their notice that what the *Contributions* really seemed to them and to me initially to be did not survive, and could not linger on for the reasons indicated above; a fleeting, general survey of this work betrayed the intention just as truly as it betrayed the failure that soon followed. Coherence, whose friend I had declared myself already in the *Proof* [*Beweis*], was damaged; that I had not relinquished this coherence one must also believe according to the insight of such a confession; the cohesive part was therefore to be sought *elsewhere*. But how to encompass it in its fragmentary state? – How to successfully realign the part, which is still

incomplete, to the first one which is present? – Only a strict, chronologically organized sequence was capable of conveying this, a sequence in which what was unprinted was also incorporated, and this [previously unincorporated material], just like that which was really already printed, would consistently be placed before or after the material published as an individual piece of writing or within one (here just listed according to title); -- and such a chronological sequence is what I above all had the intention of pursuing in the present work. Thus the disadvantage which arose for me and the reader, and above all for science, would be removed from the above named, unavoidable evils as far as circumstances were able to allow. At the same time, one will in this manner receive a *literary self-biography*, and this is where the perfection of the present work primarily resides, that I posit the whole that should emerge in that way, and also in which way it should be posited by all those who know that science, as well as life, completely emerge from and are comprised, where they should be as one, like here, only from its history.

I have also been true in the presentation of the whole, and have had to be, once there was any talk at all of its history. At no point have I mixed up the time, that is, I have at no point included notes from a later time, least of all from the present time; I have neither changed nor omitted anything, even what is obviously a mistake, or seems to be one. In the case of the still unpublished essays this would have been particularly easy, but I left those as they were as well, whereby the proofs will certainly sufficiently be found in them. With such good will as mine, I will never hesitate to admit that I have made a mistake, and certainly, its unconcealed admission will even become a duty if, as indeed in the empirical sciences (—and have we any other?—), the path to truth is just as instructive as the final truth itself. For few paths to truth do not go through error, and were this not already in itself a law, to which even nature is generally required to subject itself, then we would, regarding its validity for us, already have less to complain about, because the example would likely still be lacking where error did not lead to new knowledge which, without it, would have been put aside. It could even comprise the technique of the scholar, to confront error with resolution because in that way it would reveal itself earlier than otherwise; -- and it can brashly be said that more truth rests in the mistakes of humans than all that has been accounted for up to now. For example, if the anti-phlogisticians had taken a sharp look even once as to how it really came about that *Priestley*, a man who could so little deny them their *facts* because he provided most of them himself, nevertheless could make *phlogiston* the conviction of his life,

and even in its famous *burning* could only find an efficient proof of its existence: — they would have been the founders of a chemistry, compared to which their current one is truly only a shadow play. No one who converted to their side has gained without losing, and nothing is more pernicious than completely ignoring the mistakes one has made.

I had in mind to send out in advance already of this first volume of essays a kind of critique of all my works up to date, as far as I was first able to deliver them myself immediately, and really most of them have already gone through for this purpose. To be able to do this, however, presupposed that the reader had the initial essays here [in this first volume] all together in front of him, as was initially intended. Soon, however, the latest war produced disruptions, as did other more recent articles that are yet to be completed, which did not allow for more than the first volume to be published by the time of the book fair [*Messe*]. The same circumstances were also to blame that the critique could not be completed. Certainly, however, the other volumes are already being printed, and they can be sent to Johannes the Younger. Still, in any case I have to send them afterwards instead of in advance, and this should occur as soon as it is possible.

I will also, in such a way, take notice of the complaints made against me regarding this and that, as long as their recognition is of advantage for science. And consequentially, all the more regarding those complaints, which are only to be removed by complete refutation, as the one mentioned above, and, concerning subjects whose affirmation is of particular importance, have come to me from various directions. Above all belongs here the electrical capacity [*Ladungsfähigkeit*] of conductors, as it has been studied by *Volta* and recently, in a different way, by *Brugnatelli*. For if these men were correct, then galvanism would be denied one of its greatest results, namely that of having paved the way upon which soon all bodies are subjected to the fate of water, that is, just like water, that they may be dissolved into nothing but oxygen and hydrogen, and what is more, with the loss of all particular form of them, that cannot be corrected through any composition, — somewhat in the same manner that chemistry has managed, from the most glorious and varied organic forms still little more than to pull hydrogen, carbon, nitrogen [*Azot*] and oxygen into scarcely different relations without on the other hand to be in a position of being able to successfully put back together even the simplest broken form. In my next experiments to be set up at the soonest possibility, — since *strong* batteries will be required for it, — I will start with metals, and certainly with fluid ones, and among these again with *quicksilver*, and in order to not leave the question which has arisen among many concerning the *how* of its dissolution completely without a preliminary answer, I note that I won't

have to do anything except build that great battery such that the quicksilver, in relation to the battery's own body, conducts more poorly in approximately the same degree as is generally already the case for water (and watery fluid) with batteries of usual size, where it is dissolved by the battery into hydrogen and oxygen. For the charging [*Ladung*] of the conductor discussed above, as has also only been first known from my earlier essays about it, (and I have added much since that time), in fact is already *partially*, what here should be made *totally*; *that* is, it [*die Ladung*] too merely occurs through such an only *partial* dissolution of the body into oxygen and hydrogen, through which meanwhile these two, after their separation, in order to still remain in connection with the body providing them, oxygen with its one part or end, hydrogen with its other part or end, and precisely to carry out its charges in these connections, are still capable, even under these circumstances, of a reunion or evening out which does not have water as its product, but rather a part like its previous body, a part coming back together with it again. Also *water* has to first make it through this stage of its partial dissolution into oxygen and hydrogen before it delivers such dissolution completely such that they are completely separated from each other and itself; but water's ability to join with oxygen on the one hand and hydrogen on the other (its capacity) is, according to already known experiments, so slight that it can soon come to pass that it releases both, either as gas or to other bodies, completely separate from it [water]. As soon as quicksilver, for example, is being exposed to such a strong action, such that it, in a given time, is separated into more oxygen and hydrogen than its sides or ends, according to their capacity, can keep attached, and oxygen's and hydrogen's ability to join together again [i.e., when detached from quicksilver] is always in the position to lead back to quicksilver, then the excess of oxygen and hydrogen that thereby emerges will completely detach itself from quicksilver, or be pushed away by it and thus appear as gas, or enter into new connections with other bodies than the same oxygen and hydrogen delivered by the water. Both, quicksilver and water, are then to be compared very appropriately, because, in the end, they can be compared literally with a Leidener flask, which would maintain the charge constantly in a degree which they would not be in a position to encompass nor through discharge towards the inside consistently and properly to reduce, [and] they consequently would be required to let the excess electricities from both sides proceed through continuously, as an outflow, in what with the battery are these opposed electricities, in the case of water and quicksilver, under similar circumstances, are oxygen and hydrogen. Still, I have to break off if I don't want to get into a formal treatise, where one least belongs.

I have still to supply a few more remarks on the style of editing of the essays appearing in the next volumes of this work.

I have avoided repetitions as much as possible. For that reason, entire essays are occasionally lacking. But I have always noted where their contents can be found again. This occurs in the *comments*, which, marked by this word, and printed with larger letters than those notes belonging to the text itself, come before or after the removed essay. In the case where individual *parts* of essays appearing in the volume have appeared before or after somewhere else, then notes incorporated into the text itself provide the required documentation. Examples of this are found on pages 46, 53, 90, 200, etc.

The previously mentioned *comments* serve further, and above all, to place in chronological order that which has been printed in the volume with that which is not contained within it. Similarly, the comments to number I and to numbers IV, VIII-X, XII, and XIII belong to this category.

That the articles themselves are ordered with their numbers according to the time of their preparation, I do not need to mention.

In the case of all previously published essays, as are numbers IV, V, VII, IX, X, and XII-XVI of the first volume, I have not only indicated every time in the title where they were previously located, but also allowed the page numbers of the journal in question to be incorporated into the text itself. Such numbers are, for example, those found in volume I, page 93, lines 3 and 24; page 94, line 24; page 95, line 23 etc. In each case they stand at the beginning or end of that line with (or, more often, within which) the new page began in the earlier printing, and the number itself indicates the new page that begins here. I also applied this to the notes; compare for example volume I, pages 108, 112 and 113, 115 and following. In this way I achieved a dual purpose: first, prevented from undertaking the revision myself because of the distance from the place of publication, and thus prevented from introducing anything additional in the subsequent sheet of paper, which was often provided by the one just before it, simply taking the reference from one essay and placing it into the other one, and not according to this current printing, but rather according to the prior initial one in the particular journal, to be able to leave them the way they were, without thereby confusing the reader, who can easily find the provided page number of the original; secondly: in this way all quotations appearing in these writings [*Abhandlungen*], and individual passages within them, remained in my particular works, though likely not in the works of so many others, complete and in their original usefulness, and even what is still being cited, not according to this [latter] printing [in the collected works], but rather according to the first printing in the journal is to be found again with the

same ease, without needing to possess the journal. And finally, in order to facilitate all cross-referencing of this kind to the utmost, I will, at the end of the third or fourth volume of this work, have an index follow all of those places which return again here so that one is immediately in the position of knowing whether or not the given citation can find its parallel.

I have also added in parentheses [ ] the page number and table of the *figures* belonging to the writings [*Abhandlungen*] to the page number which they would have in the engraved table [*Kupfertafel*] of the present work the first time they appear again so that their citation retains its usefulness. Thus, for example, the addendum to figure 12 in volume I, page 197, means that this figure is the same as table V, figure 1, in *Voigt's* magazine, volume V. In time, a similar index of these figures will follow, as I have promised for the journals and their page numbers.

Before every essay I have placed a particular specification of its contents. I know from personal experience how gladly one has such a thing; it also takes the place of a register to some degree, when one is not included.

Up until now I have merely spoken of that which, as it has already occurred, should be contained in the present work, and within just a few months it also really will be found there. Yet my purpose would be only halfway met were I to leave it at this – I would only have set down in it the first decade of my scientific life, and certainly the most incomplete one; as little, however, as I consider my life's path to be thereby completed, to the contrary, that I see it in every regard as only just begun, and during [this decade] I see myself only first beginning to orient myself upon and especially with a perspective above it, do I dare hope for a long continuation of it: so greatly emerges from it also my duty, to offer to the public the ever riper fruits of this future in its history, according to which I here, with its permission, encouraged by its recent attentiveness regarding the earlier, certainly less ripened fruits of the past, already these fruits do I dare present to the public, most confident of a good reception.

For indeed, I take into my second decade relations which the first one could only enjoy at its conclusion, and I would certainly like to add here, for my own recollection, that from now on I will have fewer excuses at my disposal than previously, – should I have wanted to take advantage of them – only too often! Up until now I set aside many things with hope of a better future for them, and if I thereby came to owe a debt to the public, I did it only with the hope of at some time being able to pay it back all the more. Let

it happen from this point onward; – and should one notice that I pursue new initiatives to less of a degree than long-since undertaken earlier ones: then may the history of my race in general serve as a justification, since it only repeats in the individual and knows to maintain eternal youth in the eternal renewal of this history, the most beautiful use of the gift of recollection.

What I thus think to complete above all, apart from that which the time in which I live will unavoidably demand and keep from me, will be a history of my *teachers*. I will therefore make an effort to depict, in its integrity, the best ones of the past century. I will also honor with gratitude those who survived it, and who, in their old age, the force of youth strengthened me with their living word. And to this belongs a careful critique of everything that *Winterl* lectured on. Not in order to pay tribute to the fashion of the time, according to which he is spoken of, irrespective of *how*? – *if* he can be spoken of (and to that purpose there is certainly no shortage of material at the present moment), but rather clearly and as determined as possible, to let him extract from himself what he has wanted, has done, and has yet to do, because it has already occurred: this will be the object of my work. I know that many people do not desire such a work from me; by the same token, however, I know that – once completed – it will be something which, even if it does not please, at least appeases not only them, but also the author who desired it in the first place. For that will remain true for a while, that for a long time, no single person has spurred on physics and chemistry to new self-contemplation to such a degree as he has.

Finally, as far as my own efforts are concerned, I have recently dedicated myself to giving a strict accounting of them and their results, in that I first published part of these results on almost the same day upon which, ten years earlier, I first of all began to free myself from the compulsion of nature and instead freely subjugate myself to her law. These results appeared under the title: *Physics as Art*; *or an Attempt to Interpret the Tendency of Physics from its History*; – (for the institutional celebration of the Royal Bavarian Academy of the Sciences on March 28, 1806); -- and the dissatisfaction with which people for the most part observed the results gives me pleasure, because it most strongly attests to the desire to become familiar with that to which they must lead. And disregarding the latter, which was nothing new, but rather was witnessed and proclaimed by many, and already at the most different times: thus do I still believe in a repeated satisfaction of that desire, as the language of contemporary physics now allows it to sufficiently honor itself, science, and me, in order for that reason to be moved to spare no effort to complete that which I have set out to do in any case with its incitement.

What could better gild the work of the week than to worthily prove Sunday's consecration and not – merely to be a Copernican in astronomy!

Whatever now, after this speech that was conceived as a commentary, and then after the remainder of what has been promised, the further continuation of these writings [*Abhandlungen*] can or should still contain, I must set aside for future consideration, due to time and its demand, when, as one in general will be able to accept the manner with which I speak of myself (longer than I am accustomed to, or will be for a long time) until then, when that point in time excuses the speech and promptly me as well, and will have better explained than has been accorded to me at this time of my life.

Finally I will still mention that of from the present work, after its early advancement to this year, in every following year at least one volume, perhaps even two, will certainly be published.

Munich
On the 4th of May, 1806.

*

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Symphilosophie

Revue internationale de philosophie romantique

Des règnes de la nature, leur vie et leur parenté

Un essai physiologique

(1818)

Carl Gustav Carus

Traduction, présentation et notes de Charlotte Morel*

Co-fondateur de l'académie de médecine et de chirurgie de Dresde, médecin personnel du roi de Saxe et conseiller médical à la cour, Carl Gustav Carus (1789-1869) est une de ces figures qui ont de quoi saisir les consciences par la multiplicité et la profondeur de leurs dons. Bien qu'il soit aujourd'hui passé dans l'ombre des grands noms qui ont jalonné son propre parcours, Schelling, Goethe ou encore Caspar David Friedrich, son travail propre a laissé une marque réelle aussi bien dans l'histoire de la physiologie animale (il découvre le système circulatoire des insectes), de l'anatomie comparée (*Grundzüge der vergleichenden Anatomie und Physiologie*, 1828 ; *Zootomie*, voir ci-dessous), de l'histologie, de la gynécologie (dont en 1820 il compose le premier manuel systématique, et fait une discipline à part entière), de la psychologie (les *Vorlesungen über Psychologie*, en 1831, puis *Psyche*, en 1846, donnent à l'idée d'inconscient une place centrale dans la vie psychique), de la peinture et de l'esthétique (*Neuf lettres sur la peinture de paysage*, parues en 1831 après une longue gestation).

Un objet central fait pourtant converger ces orientations à première vue buissonnantes : la nature, interrogée selon tous les aspects envisageables de sa dynamique propre, source organique aussi bien de phénomènes vitaux que d'interactions créatrices avec l'esprit. Et c'est alors aussi du côté de la philosophie de la nature (*Naturphilosophie*) que Carus cherche à cerner synthétiquement les principes qui font de la nature un tout organique, tout autant

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qu'à en déduire des axes directeurs pour les sciences en tant qu'elles ont pour objet tel ou tel type d'être naturel[1].

Le texte ici présenté appartient à la toute première phase de la pensée d'un jeune homme formé au cœur de la mouvance romantique, il est ainsi représentatif de cette *Naturphilosophie* qui, avec Schelling, mais aussi Goethe, place la réflexion spéculative au fondement des catégories directrices et opératoires de la science, y compris dans ses démarches empiriques. Il paraît la même année que la *Zootomie*, monumentale entreprise comparatiste dédiée à la structure anatomique des différents embranchements et classes du règne animal – à laquelle Carus donne cette épigraphe goethéenne empruntée à deux vers du poème intitulé *La Métamorphose des plantes* : « toutes les formes sont analogues, aucune n'est semblable à une autre ; et c'est ainsi que le chœur décèle et montre une loi cachée[2] ». Là où la *Zootomie* doit « déboucher sur un panorama véritablement philosophique du règne animal » (*Zootomie*, t. 1, § 7), en mettant en œuvre ce qui prendra plus tard nom de principe d'homologie, le présent « essai physiologique » replace ce dernier dans la perspective de la nature comme tout. C'est cette fois le tableau complet des « règnes de l'inorganisé » et des « règnes de l'organisé », dont les animaux et les végétaux, que Carus déploie à partir du principe de la « manifestation […] d'une unité idéale à travers une multiplicité réelle ». Ou, selon ses propres termes, à partir du principe général de la *vie* – celle-ci outrepassant donc, comme puissance productrice, la sphère de l'*organique* qui n'apparaît que comme l'un de ses produits au sein d'une nature conçue comme « grand Vivant ».

Les principes philosophiques de la conception générale de la nature, qui donne ici son fondement à toutes les thèses subordonnées, sont ceux de Schelling tels qu'on les trouve exposés dans *De l'âme du monde* (1798) ou l'*Esquisse d'un système de la philosophie de la nature* (1799) : conception

[1] À ce texte de jeunesse fait encore pendant, dans les toutes dernières années de la longue vie de Carus, l'écrit intitulé : *Natur und Idee oder das Werdende und sein Gesetz. Eine philosophische Grundlage für die spezielle Naturwissenschaft*, Wien, Braumüller, 1861.

[2] Goethe, « *Die Metamorphose der Pflanzen* » in « Gott, Gemüth und Welt » *(Gedichte, Ausgabe letzter Hand. 1827)* : *Sämtliche Werke* I. 2 (*Gedichte 1800-1832*), ed. K. Eibl, Frankfurt am Main, Deutscher Klassiker Verlag, 1988, p. 495. L'ouvrage de Carus est explicitement une réplique zoologique à l'essai de Goethe : *Versuch die Metamorphose der Pflanzen zu erklären*, Ettingersche Buchhandlung, Gotha, 1790. Carus lui-même rédigera une recension de l'édition française du texte de Goethe en 1831. La seconde édition de cet ouvrage, en 1838, verra l'influence à maints égards concurrente d'Oken et de son « schématisme » prendre place aux côtés de celle qu'avait exercée la conception goethéenne de la métamorphose dans la première édition (voir Olaf Briedbach, « Einleitung » du 1er tome des *Gesammelte Schriften* de Carus, Hildesheim/Berlin/New York, Olms/Weidmann, 2009, p. XI-XIII, p. XIX).

dialectique de l'idéalisme et du réalisme[3] ; correspondance entre l'unité des principes et la « diversité infinie des actions particulières[4] » ; nature conçue comme un « organisme général[5] » ; théorie des puissances de la nature[6] ; principe général de polarité[7] ; couple polarisé de la lumière et de la gravité[8]. La thèse d'une continuité et d'une « série graduée » (*Stufenfolge*) entre monde inorganique et organique, puis au sein du monde organique lui-même, est un des articles importants de la *Naturphilosophie* schellingienne[9]. Dans l'*Esquisse d'un système de la philosophie de la nature* on trouvera notamment l'énoncé du problème suivant : exhiber la « *continuité des fonctions organiques* » prise comme « principe d'ordonnancement » que « devrait […] suivre la simple description de la nature ». L'ouvrage se propose donc de « déduire *a priori* une série graduée dynamique dans la nature en général », tâche qui pour Schelling « réunit tous les problèmes de la philosophie de la nature[10] ».

Comme Lorenz Oken, dont il fera la connaissance en 1821[11] mais dont étaient déjà parus plusieurs ouvrages influents, dont le *Manuel d'histoire naturelle* de 1813, Carus reprend à cette discipline le terme classificatoire de « règne », tout en lui donnant une signification qui excède radicalement ce statut de principe de classification[12]. En présentant l'articulation et la

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[3] *Cf.* not. l'avant-propos à la seconde édition de *De l'âme du monde*, en 1806 : « *Über das Verhältnis des Realen und Idealen in der Natur oder Entwickelung der ersten Grundsätze der Naturphilosophie an den Principien der Schwere und des Lichts* » (trad. M. Szymkowiak, A. Pernet, V. Stanek in *Philosophie*, vol. 101, 2009, p. 10-18 ; *Bruno*, *oder über das göttliche und natürliche Prinzip der Dinge* (1802), HKA I/8, p. 366-374).

[4] Citation ici du tout début de *De l'âme du monde* : Schelling, *Von der Weltseele* [1798], HKSA I/6, p.67 ; trad. S Schmitt : *De l'âme du monde*, Paris, Éditions rue d'Ulm, 2007, p. 7.

[5] Voir par exemple dans le même texte, HKA I/6, p. 69, trad. fr., p. 9 ; *Entwurf eines Systems der Naturphilosophie* [1799], HKSA I/7, 1re section, V, p. 117-118, 3e section, II, 9. p. 208.

[6] De façon formalisée à partir de l'*Einleitung zu dem Entwurf eines Systems der Naturphilosophie* de 1799 : voir not. § VI, 4., n) (HKA I/8, p. 57 *sq*.)

[7] Voir par exemple *Von der Weltseele*, 1re partie, V, HKA I/6, p. 151 *;* trad. fr., p. 89 ; 1re partie, VI, not. 8.-9 (HKA I/6, p. 176-180 ; trad. fr. p. 114-118) ; pour ce qui est en particulier du monde organique : 2e partie, II, C. (HKA I/6, p. 192-197 ; trad. fr. p. 128-131) ; 2e partie, III, 11, a. (HKA VI/6, p. 232 ; trad. fr. p. 164).

[8] Là aussi on peut se référer au même texte : Schelling, *Von der Weltseele* 1re partie, HKA I/6, p. 78-80, trad. fr. p. 14-17.

[9] La continuité des mondes inorganique et organique est énoncée dès les premières pages de *De l'âme du monde* : HKA I/6, p. 70 (trad. fr, p. 10) sous forme d'une unité de leur principe, il est rappellé dans le paragraphe final de l'ouvrage : HKA I/6, p. 257 (trad. fr. p. 185. Concernant le monde organique, c'est la continuité des *fonctions* qui se voit accentuée (*ibid*., HKA I/6, p. 256, trad. fr. p. 184 ; 2e partie, III, 10, HKA I/6, p. 228 *sq*. (trad. fr., p. 162 *sq.*)

[10] HKSA I/7, p. 116-117 : 1re section, fin de la sous-section IV et titre de la sous-section V. Voir aussi plus loin dans la 3e section, III, HKA I/7, p. 210 *sq*.

[11] Ils seront l'un et l'autre membres fondateurs de la très importante *Société des naturalistes et médecins allemands* (*Versammlung deutscher Naturforscher und Ärzte*), dont la première assemblée se réunit en 1822 à Leipzig.

[12] Lorenz Oken, *Lehrbuch der Naturgeschichte*, Leipzig, Reclam, 1813, t.1, p. 12-13.

continuité elles-mêmes organiques de tous les « règnes », le présent texte de Carus vient-il lui-même répondre à la tâche énoncée par Schelling, cette fois non plus du côté de la déduction *a priori*… mais en visant à fournir de cette déduction sa confirmation par les données empiriques réunies et interprétées par l'anatomiste comparatiste ?

La réponse pourra être nuancée. Car si les principes sont communs, il est intéressant de constater certaines divergences dans les thèses subordonnées. Ainsi, le Schelling de l'*Esquisse* avait bien posé une continuité entre plante et animal[13]. Mais cette continuité, telle que Carus la reconstruit, est-elle configurée de la même manière ? Le positionnement des fonctions végétales au sein de la globalité des fonctions organiques apparaît différent : là où Schelling décrit la « végétation » (ou fonction végétative) comme le « processus inverse de la vie », le « dégagement du principe vital », si bien que dans sa vision « la plante en elle-même n'a pas de vie » mais a seulement « l'apparence de la vie au moment de ce processus négatif[14] », Carus, qui, lui, fait ici usage de ses connaissances de pointe en matière d'histologie et de physiologie végétale, ne rééquilibre-t-il pas la place de ce règne quant à son positionnement dans l'ordre du vital, et dans l'« organisme de la nature » ? Et cela même si, pour autant, il reste tributaire d'une conception hiérarchique des êtres vivants qui lui fait voir dans l'organisme animal le seul véritable achèvement de « l'idée d'un organisme individuel[15] » – réalisant dialectiquement la prédominance de l'unité sur la multiplicité, quand la plante exhiberait le contraire[16].

Carus tranche également autrement que ne le fait Schelling dans la « polémique » concernant la « sensibilité des plantes[17] », en leur déniant ce que son prédécesseur accordait à « toute la nature organique[18] » et en concevant tout autrement que lui – plus linéairement et moins dialectiquement – les relations des grandes fonctions vitales : force reproductive, irritabilité, sensibilité.

La façon dont Carus esquisse enfin « l'influence réciproque » des règnes les uns sur les autres (sans se contenter d'en suivre l'ordonnancement

[13] Voir *ibid*., 3e section, III, « Folgesätze », p. 218-219.
[14] Schelling, *Von der Weltseele*, HKA I/6, p. 185 (trad. fr. p. 121). Schelling en conclut du même coup qu'il pourra ensuite se concentrer sur l'animal, sans évoquer davantage le végétal.
[15] Voir infra, p. 351.
[16] De même, au sein du règne animal, l'homme reste pour Carus la pointe la plus élevée de la réalisation des puissances de la nature.
[17] *Cf.* Schelling, *Entwurf eines Systems der Naturphilosophie*, 3e section, II, 2), HKA I/7, p. 181 ; III, A., *Beweis*, c), p. 213-216, p. 215 sur la « polémique » concernant la « sensibilité des plantes ».
[18] *Ibid*., p. 214.

théorique sur le plan de la structure et de l'idée) se fait cette fois sans recours particulier à la spéculation, mais d'une façon bien plus directe où se révèle une conscience assez saisissante de ce qui prendra nom, bien plus tard, d'« écosystème » : est mise en avant l'interaction réelle de toutes les grandes composantes de la nature, qui cette fois éloigne du schéma idéel de leur ordonnancement hiérarchique. À une exception toutefois, et de taille : dans cette interaction, la place dévolue à l'homme correspond à son statut de « sommet de la nature » et la perception de cette dernière reste en définitive parfaitement anthropocentrée : pour Carus, en 1818, la présence et l'activité humaines sont la condition du plein développement des potentialités d'un milieu naturel – loin de l'idée qu'elles puissent en constituer une perturbation. Serait-ce que la philosophie idéaliste n'imagine pas que l'activité propre à l'être rationnel, avec son horizon d'infinité, échoue en même temps, pour finir, à s'*auto-limiter* ?

Des règnes de la nature, leur vie et leur parenté. Un essai physiologique

par le Dr. Carl Gustav Carus[1]

[…][2]. À cette fin, représentons-nous d'abord une partie seulement de l'infinie diversité de formes que présente tout ce qui vit. Considérons par exemple comment la plante se développe à partir d'une graine à peine visible, de par une tendance (*Trieb*) intérieure et sous l'effet des circonstances extérieures,

[1] L'essai paraît en 1818 chez Gärtner, à Dresde. Dans l'ensemble du texte, « formation » traduira *Bildung* ; « force formatrice », *bildende Kraft* ; « s'exposer », *sich darstellen* ; « multiplicité », *Mannigfaltigkeit* ; « autonomie, autonome », *Selbstständigkeit, selbstständig* ; « modification, modifier », *Veränderung, verändern* ; « transformation, transformer », *Verwandlung, verwandeln*. Le terme *real* est rendu par « réel », avec l'idée que le vocabulaire de Carus n'a pas le même degré de distinction dialectique que celui de Schelling et que n'y vaut pas nécessairement la distinction *reel/real*. Le terme *Erscheinung* est rendu par celui de « phénomène », à l'exception des cas où il a semblé indispensable d'insister sur la dimension processuelle du terme (*-ung*). Pour le verbe *erscheinen*, nous avons opté pour expliciter cette dimension d'une apparition « dans le phénomène », alors que dans un contexte moins philosophique la simple idée d'« apparaître » est suffisante et moins lourde (du fait de cette lourdeur nous plaçons entre crochets les termes qui viendront expliciter qu'il s'agit alors d'une entrée dans la « phénoménalité ». Une exception figure p. 347 : *das Erscheinen und Verschwinden*, dans la mesure où le second verbe, lui, n'est pas un terme philosophique technique). – Enfin, pour *Körper*, voir ci-dessous la note 3.

[2] À titre introductif, le texte commence par exposer la nécessité dans laquelle se sent l'homme d'« expliquer » (*erklären, Erklärung*) les « rapports » qu'entretiennent le « plus intérieur » de son être et la « multiplicité de formes des phénomènes extérieurs » (p. 1-2) : sans quoi on ne pourra penser en lui ni « harmonie vraie », ni « véritable équilibre intérieur », et « la nature et le moi humain devront rester deux êtres (*Wesen*) éternellement séparés ». Cette motivation, analyse Carus, a été « depuis bien des siècles » le fondement des recherches menées pour « déterminer le rapport entre les phénomènes de la nature et les lois de la raison ». Explicitant ensuite le sens d'« expliquer » et « prouver », il résume ce faisant les principes gouvernant son propre positionnement : « il ne peut y avoir de geste démonstratif (*Beweisen*) et de science que pour ceux qui reconnaissent une [instance] positive et suprême (*ein Positives und Höchstes*) » ; « […] la *conscience* immédiate d'une unité suprême et éternelle est […] l'étalon originaire [permettant] en tout de distinguer le juste, le vrai et le beau, sans lequel nous nous verrions simplement incapables et d'une quelconque recherche, et d'un quelconque jugement ». La « fin visée par la recherche scientifique » (en tant que précisément elle doit « expli[quer] ») n'est alors pas de « déterminer et démontrer le suprême fondement », mais de « ramener à ce dernier », d'« exposer le rapport harmonieux entre nature et raison, ou d'atteindre la connaissance de l'unité qui, dans la multiplicité des phénomènes, se déploie selon des lois ».

comment le nombre de ses parties ne cesse de croître, comment l'organisation de ces parties **[3]** se raffine continûment, pour culminer dans la fleur, et comment c'est là, qu'enfin, la force formatrice se concentre à nouveau dans la graine : c'est dans la formation de cette graine que la plante elle-même avait eu son commencement, et elle y montre cette fois le cycle de son être se refermant sur lui-même. Dans toute cette chaîne de phénomènes nous trouvons distinctement un principe interne et englobant, un certain enchaînement déterminé, une forme de légalité qui nous contraint à poser que tous ces élans, modifications et développements sont des parties d'un tout, les effets de ce qui, intérieur et universel, contient le fondement de tout le particulier. Si nous demandons quelle est la nature de ce principe causal (*Ursachlichen*), de cet essentiel noyau intérieur, il est clair qu'il ne peut pas s'agir là de quelque chose qui soit lui-même quoi que ce soit de *singulier*. Ce ne peut pas être, par exemple, simplement la masse corporelle (*Körper*[3]) de la plante, ou simplement le métabolisme chimique, ni simplement la force motrice de ses fluides, encore moins simplement l'action des facteurs externes – mais *tout cela* à la fois, un quelque chose dans lequel tout cela est fondé comme en une cause commune, et que nous désignons comme formant une unité sous une dénomination commune, la *vie*. Par là on reconnaît combien il serait erroné de commencer par imaginer une masse corporelle, celle de la plante par exemple, et de vouloir ensuite, à cette masse corporelle, attacher la vie comme un attribut, et par conséquent, comme quelque chose d'extérieur à l'essence, par exemple comme une machine qui ne fonctionne pas par elle-même (car on l'assemble d'abord à partir de ses éléments) puis qu'on met en marche une fois achevée. Car bien au contraire, la vie est nécessairement l'élément originaire, mais la masse corporelle est seulement un certain phénomène de la vie, et c'est justement pourquoi ce corps n'a absolument rien de durable, au contraire il est engagé dans une constante modification que la langue désigne de très belle manière par le terme de *formation*, c'est-à-dire quelque chose qui est formé autant qu'il se forme lui-même. Nous savons, par exemple, qu'après un certain nombre

[3] Selon les occurrences et leur contexte, nous traduisons *Körper* soit par « corps » dans un certain nombre de cas où c'est la traduction la plus logique (corps humain, corps naturel, corps organique, corps élémentaire, corps céleste…), soit par « masse corporelle » pour accentuer la propriété d'inertie qu'il véhicule. À noter que le terme allemand peut aussi recevoir un sens plus abstrait que ne le permet le terme de « corps » en français, pour ne garder que l'idée d'individuation dans l'espace : si bien que le « *geometrisches Körper* » ([5], p. 343) devra cette fois être rendu de façon plus neutre par « entité ». Au contraire, dans les cas où nous traduisons par « masse corporelle », cela vient souligner le fait que la dimension matérielle s'attache intrinsèquement à cette « manifestation » ou « phénomène de la vie » dont il est question ici.

d'années le corps humain est intégralement autre que celui qu'il était auparavant, au point que dans le corps de l'adulte, en aucun cas on ne retrouvera ne serait-ce qu'un seul atome présent dans le même individu en son état fœtal, et nonobstant le noyau intérieur, le moi, la vie, cela est identique[4] – comme chacun en a le témoignage avec sa conscience propre – et seuls se sont transformés les phénomènes de la vie, auxquels le corps vivant (*Leib)* ressortit justement aussi (comme l'indique déjà le fait que ce mot dérive du mot *Leben*[5]).

Par conséquent, si de ce qui précède il s'ensuit que la vie n'a rien d'un singulier, d'un réel, rien de subsistant par soi, nous devrons tout d'abord la définir, en général, comme la manifestation constante d'une unité idéale à travers une multiplicité **[4]** réelle, c'est-à-dire comme le phénomène d'un principe interne, d'une loi – à savoir, afin qu'un exemple vienne illustrer cette conception, exactement de la même façon que notre noyau intérieur (ce que nous nommons *âme*) n'est ni telle ou telle pensée singulière seule, ni non plus la simple suite des pensées ou suite de quelque chose[6] mais justement la totalité de notre vie psychique en général, c'est-à-dire l'acte continu dans lequel s'exprime, se manifeste l'unité interne – celle de la conscience en sa plus grande profondeur, celle du moi – à travers l'infinie multiplicité des sentiments et représentations.

Si maintenant nous nous tournons vers l'ensemble de la nature qui nous environne, la diversité absolument infinie des phénomènes qu'elle comporte est indéniable, et de même qu'il y a, pour la raison, contradiction à penser un nombre quelconque tel qu'il n'y en ait pas de plus grand, auquel aucun nombre ne puisse encore être ajouté, de même nous n'avons nulle part de limites de la nature, ni vers un maximum ni vers un minimum, sinon le point

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[4] La traduction respecte la formulation allemande (« *dasselbe* ») avec son équivoque : c'est avant tout *à soi-même* que chacun des termes listés reste identique (*cf.* le sens général de l'argument de Carus), mais ici rien n'exclut non plus une identité des trois termes *entre eux*.

[5] *Leben*, vie. Le dictionnaire Grimm atteste en effet d'une étymologie commune entre *Leib et Leben*, de même que les dictionnaires étymologiques actuels. *Leib*, que nous traduisons donc par corps vivant, vient sémantiquement (et traditionnellement) faire contraste avec *Körper*. Cependant nous trouverons aussi une expression composite : « *das lebendige Thierkörper* » (voir *infra,* [26]). Qu'elle soit possible est peut-être un corrélat de la position panvitaliste de Carus : la vie transit tout corps naturel, même un corps inorganique ; même si ce dernier n'est pas encore *Leib*, le principe vital universel introduit entre les termes une continuité possible. En toute rigueur, dans ce cadre, le *Leib* est non seulement corps vivant (*lebendiges Körper*)… comme tout corps, mais encore corps vivant *organique*.

[6] « […] *die bloße Folge der Gedanken oder des etwas* » : nous rendons l'expression mot à mot. L'absence de majuscule sur ce dernier terme rend la formule encore plus étrange et difficile à saisir. Plus haut ([3]), « *ein Etwas* » était employé pour désigner le terme dans lequel tous les phénomènes venaient se « fonde[r] comme en une cause commune », terme indéterminé immédiatement explicité comme : « la vie ».

auquel l'infinie divisibilité nous ramène derechef dans l'incommensurable. Nonobstant toutes ces infinités sont renfermées dans l'unique concept de l'Univers, il n'y a qu'un Univers [même la langue ne peut mettre au pluriel le mot « Univers[7] »], et l'idée de cet Univers, nécessairement, *inclut en même temps en elle la* multiplicité (et même l'infinité) *interne*, car ce serait bel et bien une contradiction de ne penser l'Univers, *sur le plan réel*, qu'en tant qu'unité – dans la mesure où bien plutôt, c'est justement *sur le plan réel* qu'il englobe intégralement le concept de l'infinité d'individus. – Par conséquent nous trouvons qu'en vérité la nature entière exprime le sens de la vie, c'est-à-dire la révélation constante d'une unité par une multiplicité, et par là même nous nous voyons contraints à considérer la nature entière comme un grand vivant, et même un vivant incommensurable dans lequel, par suite, c'est aussi une mort véritable, une mort absolue qui devient impensable, mais où ce qui sera possible n'est que l'extinction d'une certaine *forme* de la vie de la nature, une disparition de la forme de vie singulière et extérieure au sein de la vie universelle de la nature.

Après cette vue d'ensemble, continuons pour considérer maintenant les êtres naturels singuliers. Tout d'abord, il est clair que tous ces individus, en tant qu'ils sont parties *intégrantes* de la nature entière, participent aussi à un degré plus ou moins grand de ce qui fait son essence et doivent pour partie répéter en eux ce que l'ensemble de la nature entière était essentiellement[8]. De là vient que tout être naturel se montre, comme la nature en général, d'une part comme unité (ce par quoi il devient justement un individu), d'autre part comme pluralité, en tant qu'il est divisible à l'infini et que ses interactions avec les différents autres individus peuvent être pareillement infinies. **[5]** – Toutefois, il s'ensuit en outre qu'un tel individu se rapproche d'autant plus du concept de la nature en général que la multiplicité qui s'expose dans son unité est plus différenciée, plus remarquable. Ainsi, par exemple, il est patent que ceci vaut beaucoup moins d'une substance qui n'est infiniment divisible et n'adopte une diversité de formes que dans l'espace, tout en étant invariable dans le temps [pensons ainsi à une entité géométrique[9]], que d'un corps qui dans le temps également se transforme constamment, croît, se sépare des autres, comme le font la plante ou l'animal. Si par suite, comme on le montre dans ce qui précède, le concept de vie doit

[7] Il s'agit ici bien sûr de la langue allemande, avec le terme ici utilisé : *das All*.

[8] « […] *das, was der gesammten Natur wesentlich war* » : la présence du prétérit ici peut évoquer une sorte de décalque de la formule grecque du *τὸ τί ἦν εἶναι*.

[9] Le texte original compte quelques occurrences de passages entre crochets. Nous les restituons, et pensons qu'il s'agit vraisemblablement de notes de l'éditeur – par opposition aux notes de l'auteur qui répondent à des appels de note. Dans les extraits ici traduits, la seule se trouve dans l'avant-dernier paragraphe ([40], p. 353).

être attribué à la nature en son ensemble, si bien qu'à cet égard on ne peut penser absolument aucun corps naturel sinon comme membre vivant du tout, il y a pourtant une formidable différence entre les individus selon que dans les uns l'idée de la vie se répète en son intégralité – et apparaît comme une vie *qui leur appartient en propre* – tandis que d'autres ont une moins grande autonomie, et au contraire ne sont appréhendés que comme parties nécessaires à d'autres individus.

Il est maintenant clair que le concept de vie et le concept de l'organisme sont identiques quant à l'essence : nous nommons justement *organisme*, corps *organisé*, une unité qui se développe perpétuellement, *en* et *à partir* d'elle-même, en une multiplicité réelle, dans la mesure où elle produit des moyens pour se révéler elle-même, soit, en d'autres termes, où elle se crée ses propres instruments, des *organes* ; et nous nommons *organique* ce qui appartient à ce corps. On appelle *vie organique* en revanche l'activité que l'organisme exerce *en tant que tel*, et *corps vivant organique* le produit spatial de cette activité vitale. Par conséquent nous sommes contraints de reconnaître la nature elle-même comme l'organisme suprême, le plus achevé, l'organisme originaire – *mais* de *ne désigner comme organismes*, dans[10] *la nature*, *que ces individus qui, en tant qu'unités, se développent continûment en une multiplicité réelle,* en *et* à partir de *soi*[11], *à la faveur de conditions extérieures données, c'est-à-dire dans leur rapport à d'autres unités naturelles*.

Cela concerne alors en tout premier lieu les systèmes que forment les corps célestes eux-mêmes – dont notre planète – qui sont, tels qu'ils se présentent, impliqués dans une formation et un mouvement constants ; mais *sur cette planète*, ce sont les plantes et les animaux. Or de même que dans un animal un fragment d'os, de muscle ou de peau, ou bien dans la plante un fragment de bois, de feuille ou de fruit peuvent bien être considérés comme organiques (*i.e*. appartenant à l'organisme), mais pas comme organismes, **[6]** c'est-à-dire comme capables d'un développement qui s'accomplit *en* et *à partir de* soi, de même nous devons aussi qualifier d'*organiques*, de parties *d'un vivant*, mais pas de vivants pour soi – *pas d'organismes* – les substances dont on constate la présence sur et à l'intérieur du globe terrestre, en plus des animaux et des plantes[12], et ce dans la mesure où elles sont des parties de l'organisme terrestre. – D'après notre perception sensorielle, nous devons

[10] Dans le texte original, ce terme est pour ainsi dire en « double italique » : le terme lui-même est en italique, dans une fin de phrase également surlignée par un écartement plus grand des caractères que nous rendons par l'italique moderne.
[11] Même remarque ici pour l'expression « *in* und *aus* sich », où les deux prépositions sont doublement mises en avant.
[12] *Erdkörper*. Le terme répond à *Weltkörper*, corps céleste.

toutefois compter au nombre de ces êtres qui, en tant qu'unités, ne se développent pas en multiplicité – soit au nombre des non-organismes : 1) toutes les substances qui appréhendées de façon purement mécanique sont divisibles à l'infini, mais qui ne sont aucunement capables de se développer en parties hétérogènes en affirmant par-là leur être individuel ; par conséquent tous les corps élémentaires, tels que l'oxygène, l'hydrogène, le carbone, le métal, le soufre etc. 2) toutes les substances dans lesquelles une dissociation ou un développement en parties constitutives dissimilaires abolit l'existence individuelle, par exemple, l'eau, qui cesse d'être eau dès qu'elle est dissociée en gaz oxygène et gaz hydrogène (au contraire de la plante qui, lorsqu'elle se développe en feuillage, branchages, fruits, reste toujours la plante même – voire ne le devient véritablement qu'avec tout cela). Ajoutons la plupart des acides, des sels etc., et bien sûr les parties constitutives des corps organiques eux-mêmes, qui une fois décomposés dans leurs substances élémentaires, sont en même temps totalement abolis en tant que corps organiques. 3) Tous les corps qui n'ont pas eu de genèse et ne se sont pas multipliés par un développement propre, mais – par la nature ou artificiellement – se sont vus *composer* à partir de parties distinctes déjà achevées : par exemple les couches géologiques alluviales, les édifices confectionnés par les animaux, tous les automates, les machines…

Or, nous voyons aussi que dans les organismes véritables se rencontrent à nouveau des sphères subordonnées et distinctes – ou organes –, qui répètent jusqu'à un certain degré l'idée du tout ; et même on voit que dans les organismes inférieurs l'unité, le lien qui maintient ensemble les parties une fois développées, est encore si faible que, séparée du tout, dans le phénomène la partie apparaît véritablement comme un tout (comme, par exemple, les pousses qu'on a séparés du pied-mère, un polype sectionné deviennent souvent de nouvelles plantes, de nouveaux polypes) : et comme nous le voyons assez souvent parmi les corps naturels qui n'apparaissent pas phénoménalement comme organismes dans la mesure où ils sont cette fois des parties d'organismes plus grands, c'est alors de la même façon que se répète, jusqu'à un certain degré, l'idée du vivant auquel ils appartiennent. On y place par exemple la formation des gouttelettes, qui en tant que phénomène d'une certaine force de gravité (c'est-à-dire d'une relation à l'unité interne), partage ce qui constitue son fondement essentiel avec le processus par lequel les corps célestes se configurent en sphères ; **[7]** et encore la cristallisation, comme répétition du processus de formation géologique à partir des liquides ; la germination métallique etc. Mais par cette attention portée à de telles ébauches de vie individuelle jusque dans les non-organismes, nous rencontrons à nouveau l'idée de la vie universelle répandue

à travers toute la nature, et cette fois de façon plus déterminée ; nous nous voyons contraints à reconnaître le rôle des relations que les non-organismes entretiennent aux vivants en soi – lesquels, hors de cette liaison et sans tous les autres rapports entretenus avec la nature toute entière, n'existeraient tout simplement pas ; pour finir tout ceci nous amène alors à penser la liaison – disons même : l'interdépendance (*Verflechtung*) – universelle, nécessaire, l'indispensable interpénétration de toutes les forces naturelles, qu'elles se prêtent un concours amical ou bien se fassent ennemies les unes des autres, pour former un tout d'une grandeur et d'une splendeur incommensurables – interpénétration qui par ailleurs ne serait pas même possible si justement *tout* n'était originellement pénétré d'*une seule* vie, si tout n'était, à *cet* égard, apparenté et homologue.

[…][13]

[13] Avant le début de la première section, se trouve encore un paragraphe soulignant que l'on passe alors de l'introduction proprement dite (dédiée à des « déclarations générales ») à l'objet propre de la recherche : l'examen de la distinction des règnes naturels, des « spécificités » qu'y manifeste dans chaque cas la vie, ou plutôt, comme Carus le formule, « leur » vie ; mais tout aussi bien il s'agit de faire émerger ce qui rendra en même temps manifeste leur « parenté ». Pour cela toutefois il faudra partir méthodologiquement de leur claire délimitation préalable : Carus synthétise alors le tableau général de la nature en succession de dichotomies délimitant, de façon emboîtée, les ensembles et sous-ensembles suivants :

1) corps astraux / corps terrestres
2) corps organisés / corps inorganisés
3) concrétions (*Fossilien*) et condensats (*tropfbar Flüssiges*) / gaz et vapeurs
4) corps végétaux (*vegetabilisch*) et corps animaux

déterminant alors la subdivision parallèle de l'« étude de la nature » (*Naturforschung*) en : géologie (« règne terrestre »), atmosphérologie (« règne aérien »), phytologie / botanique (« règne végétal »), zoologie (« règne animal »).

[8] *Des règnes de l'inorganisé*

[…][14]

[15] […] Et ainsi donc nous ne nous croyons pas dans l'erreur si, ayant considéré ces curieuses transformations, comme auparavant dans un examen plus général du non-organisé, nous nous voyons à nouveau reconduits à la proposition déjà fondée antérieurement, à savoir : toute la multiplicité de la nature repose dans *une* unité ; par conséquent, dans la nature ne peut nulle part se trouver une différence *absolue* (car celle-ci rendrait justement inexplicable de telles transitions), mais nulle part non plus une homologie *absolue* ; et si l'on accepte de nommer *substance* le réel, ou ce qui conditionne les phénomènes naturels, on dira que cette substance éternelle en soi fonde *par ses seules transformations* le mouvement d'apparaître et disparaître (car apparaître et disparaître véritablement, pour sûr cela est tout aussi impossible à penser que ne le serait une limite de la totalité), la mutation (*Wechsel*) perpétuelle de toutes choses naturelles.

Des règnes de l'organisé

On retrouve au sein des corps organisés, entre le règne animal et le règne végétal, le même rapport qu'en tant qu'unités qui se développent en multi-

[14] Notre traduction ne reprend qu'au paragraphe final de cette première section du texte. Dans celle-ci Carus rapporte les « masses élémentaires » du globe terrestre à des « forces », dont l'origine est double, d'une part elle-même terrestre (gravité), mais aussi « céleste » : la « lumière » (qui dans sa nature se voit donc traitée dynamiquement). L'interaction de ces deux forces, leur combinaison selon une « prépondérance » différente engendre les phénomènes caloriques, électriques, magnétiques et galvaniques. Carus souligne le rôle de l'élément liquide comme élément d'« indifférence » entre atmosphérique et terrestre, également apte à opérer la « liaison de l'inorganisé et de l'organisé », et comme tel milieu central pour le vivant, à la fois dans son émergence et son fonctionnement. Comme c'était déjà le cas chez Schelling (voir *infr*a, note 17), le phénomène de cristallisation est également souligné comme « s'approchant de la forme de l'être organique ». Dans ces pages Carus se réfère à Heinrich Steffens (pour la géologie), à Gottfried Reinhold Treviranus pour ce qui prend, avec lui justement, le nom de « biologie ». La « liaison de l'inorganisé et de l'organisé » donne lieu à une longue présentation d'observations de la « matière verte » (ainsi baptisée à la fin du XVIII[e] par Joseph Priestley) témoignant de l'apparition dans un milieu aqueux de formes de vie organiques qui pour Carus semblent « hésiter entre plante et animal » (alors que Priestley lui-même a fini par reconnaitre dans le dépôt organique de ses expériences une forme végétale). Dans l'ensemble de la section, Carus s'est donc bien effectivement efforcé de souligner de multiples manières les « phénomènes de transition » sur lesquels il revient dans le paragraphe conclusif.

plicité les corps organisés en général entretiennent aux corps naturels inorganisés : car exactement comme on remarquera, dans l'activité des organismes terrestres individuels, non seulement une force qui leur serait propre comme *organismes* (vie organique), mais en même temps cette activité qui leur revient comme parties de la nature tout entière (vie physique, où entrent force de gravité, forces chimiques etc.) – on trouvera aussi dans le règne animal, outre la vie spécifique à l'animal, et concomitamment, les forces vitales, répétées à partir de la plante. De plus, nos recherches précédentes montrent combien peu l'organisé et l'inorganisé se laissent distinguer l'un de l'autre, tant essentiellement que dans toutes leurs relations, et qu'au lieu de cela l'organisé ne fait qu'exposer l'inorganisé à une puissance supérieure, dans une unité et une autonomie plus rigoureuses : semblablement, il y aura tout aussi peu de différence entre l'animal et la plante dans leur essence fondamentale (*Grundwesen*), et bien plutôt il ne faut considérer l'animal que comme la plante parvenue à une unité interne, une autonomie et une liberté plus rigoureuses – le considérer, pour ainsi dire, comme la plante à une puissance supérieure. Les preuves plus exactes de ces affirmations **[16]** se présenteront lorsque nous soumettrons, dans ce qui suit, la vie végétale aussi bien qu'animale à un examen plus détaillé.

Règne végétal

Nous disions du cristal qu'il se forme, certes, par une vie intérieure, qu'à peine formé, toutefois, il apparaît en tant qu'individu comme un phénomène inerte, tandis que les organismes ne révèlent au contraire leur vie véritable qu'une fois parfaitement développés (quand bien même ils ne sont pas moins impliqués dans une constante métamorphose, une formation en continu (*Um- und Fortbildung*)). Voici alors ce qu'on est par ailleurs en droit de dire de la plante, en comparaison avec l'animal : certes, alors qu'elle est pour partie formée en vue de vivre, précisément même la plante développée ne tend elle aussi qu'à une formation organique continuée, un développement réel, comme à sa fin vitale suprême ; dans l'animal cette fois ce n'est plus la simple *formation organique*, mais la *libre détermination* de la formation et le développement *idéal* qui dans le phénomène apparaît comme le but posé à l'activité vitale tout entière. Proposition qui peut donc aussi s'exprimer brièvement par ce qui suit : de même que nous devons distinguer, dans l'Univers et dans chaque être singulier membre de la totalité, entre unité interne (loi) et multiplicité externe (c'est-à-dire celle du phénomène sensible) – dans la plante c'est encore la multiplicité qui l'emporte sur l'unité, mais dans l'animal en revanche, l'unité sur la multiplicité. Dès lors, dans la mesure

où un corps (qui possède en lui-même une moindre unité) devient par là-même *partie intégrante* d'un tout supérieur avec une détermination plus grande, tandis qu'une plus grande unité interne le fait phénoménalement apparaître, pour soi, davantage comme un tout – dans ce qui précède nous identifions en même temps la raison pour laquelle la plante doit nécessairement être plus étroitement liée à l'organisme terrestre que ne l'est l'animal, et c'est en se plaçant du point de vue de ce dernier[15] que l'intégralité des caractéristiques les plus éminentes des organismes végétatifs pourront être expliquées.

[…][16]

[15] Dans l'original allemand comme ici dans la traduction, la syntaxe fait que « ce dernier » semble désigner le dernier masculin nommé, soit « l'animal ». Toutefois le sens plaide pour voir ici plutôt une construction un peu approximative de la part de Carus, « ce dernier » désignant alors l'« organisme terrestre » : c'est le « point de vue du tout » qui est l'*explanans* des caractéristiques des genres subordonnés. La première phrase du paragraphe suivant, non traduit, renvoie par exemple la constitution de la plante à la double « direction » des « forces fondamentales de l'organisme terrestre », à savoir : lumière et force de gravité. Une autre possibilité serait de rattacher le relatif au substantif principal du groupe nominal, « ce dernier » pouvant alors désigner le « fondement » mis en avant pour la déduction.

[16] Cette section et la suivante seront identiquement structurées : Carus y présente d'abord une liste des caractéristiques de l'être organique végétal (ou animal, pour la section correspondante : respectivement p. 16-18, p. 26-30), présentées comme « conséquences » de la « caractéristique fondamentale » déterminant la distinction des deux règnes, à savoir ce qui vient d'être énoncé : dans la plante « la multiplicité […] l'emporte sur l'unité, mais dans l'animal en revanche, l'unité sur la multiplicité » (le trait est donc très différent de l'approche de Schelling pour qui c'était le rapport chimique d'oxydation/désoxydation qui à maints égards occupe ce rôle de propriété fondamentale dont pourront être déduites les autres trait distinctifs du végétal et de l'animal – voir par ex. l'*Âme du mode*, 2e partie, I., Addition, HKA I/6, p. 185, trad. p. 121 ; III, 1., HKA I/6, p. 196-197, trad. p. 132 ; 4., fin de la *Remarque* , HKA I/6, p. 202-203, trad. p ; 137). Puis Carus se tourne vers la « structure et la composition » de l'être organique dans chaque règne (pour la 1re section : p. 18-22 ; pour la seconde : p. 30-35), et enfin vers les formes de son « activité » (p. 22-25 ; p. 36-39). – Dans la liste des « spécificités originaires » du végétal (p. 16-18), Carus évoque successivement : l'organisation globale de la plante selon la polarisation générale des « forces fondamentales de l'organisme terrestre » (gravité et lumière) ; son manque d'une « unité » vraiment « close » dans sa conformation spatiale – dont le « type originaire » est la « ligne » ; sa dépendance accusée à la « vie de la terre » du fait de son ancrage en un lieu déterminé de celle-ci ; le caractère de « *pars totalis* » du bourgeon : étant lui-même en quelque sorte une plante dans la plante, il manifeste qu'en cette dernière l'« unité » est encore « imparfaitement atteinte ». Toutes ces caractéristiques renvoient donc effectivement à ce qui était mis en avant comme « caractéristique fondamentale » du végétal : la polarité organique s'y structure en « dualisme ». – S'agissant de la composition des végétaux Carus mobilise les éléments et principes déjà mis en exergue dans la section sur les êtres inorganisés : terre, air, lumière, gravité, liquides ; pour leur structure il met en évidence, pour le niveau microscopique, le « tissu cellulaire » (*Zellgewebe*) et les « conduits spiralés » (éléments de la fonction circulatoire dans le végétal). Au niveau macroscopique il commente l'évolution des organes du végétal lors de son développement comme un « raffinement » (*Verfeinerung*) progressif de la forme

[…] Ainsi il nous faut encore, pour finir, méditer l'impact que le règne végétal exerce sur la vie de la terre. Car même si l'on ne voulait pas considérer que la naissance du règne végétal en lui-même indique nécessairement une époque importante dans la formation de la terre, de même que la génération d'un organe singulier – par exemple, dans le développement de la plante, celui de la fleur – a un impact décisif sur la plante en son ensemble : on ne pourra d'aucune façon ignorer, néanmoins, la façon dont d'énormes masses de substances végétales s'incorporent au globe terrestre sous forme de dépôts rocheux ou ligniteux ; la formation en continu de couches géologiques à partir de dépôts de tourbe, ainsi que d'humus ; et pour finir l'impact décisif de la végétation vivante sur la constitution de la surface et de l'atmosphère terrestres. – Sur ce dernier plan, on considérera notamment avec intérêt la façon dont ruisseaux et torrents naissent grâce à l'attraction accrue de l'humidité atmosphérique dans les régions montagneuses et boisées : raison pour laquelle il n'est pas rare de voir ces torrents s'assécher lorsqu'on a dépouillé le lieu où jaillissait leur source de sa couverture forestière. C'est d'une telle situation que les voyageurs de notre temps font découler la constitution désertique de la Grèce actuelle, où bien des fleuves d'importance mentionnés par les Anciens ont disparu pour laisser derrière eux sécheresse et stérilité, après que les boisements couvrant les montagnes dans lesquelles s'originent leurs sources eurent été dévastés et anéantis par l'incurie qui les a fait retourner à l'état inculte (*Rohheit*). Mais si on cherche encore à mesurer à quel point la présence des cours d'eau ou leur interruption a un impact essentiel sur la conformation de la surface terrestre, comment des contrées entières sont le produit de leurs fleuves, comme par exemple la Basse-Égypte est le produit du Nil, les régions de l'Amérique situées dans la partie inférieure du Mississipi sont le produit des crues de ce dernier – ici encore on trouvera indiqué avec suffisamment de clarté le lien établissant une relation de réciprocité, une parenté qui vient nouer ensemble les corps terrestres organisés et inorganisés.

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lue selon la polarisation générale – qui toujours fait se répondre gravité et lumière, terre et atmosphère : la polarisation orientée de la plante, de la racine à la fleur, exprime ici la tendance de tout être organique à « s'élever », à même le jeu de l'interaction dialectique des pôles, de celui qui se détermine comme inférieur à celui qui se détermine comme supérieur. – S'agissant de l'« activité », le végétal connaît l'activité physiologique, qui suppose l' « unité réelle » des organes par rapport à un « centre organique », mais pas l'« unité idéelle » manifestée dans la capacité à « se reconnaître soi-même comme unité ». Carus lui dénie alors la véritable sensibilité (*Empfindung*), distinguée à cet égard de l'« irritabilité » (*Reizbarkeit*) qui lui revient en revanche en propre comme « faculté d'être affecté par les déterminations externes », en tant qu'elle « excite une activité organique ».

[26]

Règne animal

On pouvait considérer la plante comme un cristal se développant continûment[17], impliqué dans un métabolisme continu ; dans le corps animal vivant s'expose pareillement une plante dont la pleine maturation a atteint une unité supérieure et une auto-détermination, de sorte que l'on obtient ceci : bien que l'animal reste membre, lui aussi, d'une unité supérieure et que les besoins vitaux le lient étroitement au globe terrestre, pourtant cela, en tant qu'il est affirmé de l'animal par contraste avec la plante, ne reste exact que *relativement* (*weniger*), avec le même écart que lorsqu'il s'agit de la plante en comparaison du corps inorganisé. Or c'est précisément ce qui fait que, parmi tous les corps naturels intégralement offerts à notre perception sensorielle, c'est dans l'animal que le concept de l'organisme (comparer ici à la p. **[5]**[18]) se voit pour la première fois rempli dans toute l'étendue possible de sa compréhension[19]. Et exactement comme il est possible de faire mathématiquement la démonstration de ce qu'il n'existe que trois nombres cardinaux, à savoir l'unité, sa division dans la dyade et la réunification de la dyade et de l'unité dans la triade (nombre cardinal qui, dans l'intuition de l'espace, se voit exprimé par les trois dimensions que sont longueur, largeur et profondeur) – de la même façon se répète aussi, dans la gradation triple de l'inorganisé, du végétatif et de l'animal[20], la série des membres dont la réunion donne le concept de l'organisme, à savoir la *multiplicité*, le *développement* et l'*unité*. Or, comme ce n'est que lorsque l'idée de l'unité vient s'y adjoindre que le concept de l'organisme est complet, de même qu'il n'y a pas de corps tant que la profondeur n'est pas venue s'ajouter à la longueur et à la largeur, c'est aussi seulement dans l'unité du corps animal que l'idée d'un

[17] L'analogie entre cristal et phénomènes organiques est très fréquente dans la science romantique. *Cf.* par exemple dans l'*Âme du monde*, HKA I/6, p. 189, trad. mod. p. 125 : « […] le penchant mécanique de la nature à la cristallisation *s'épure* jusqu'à des formations végétatives et vivantes » – même si Schelling déclare alors que l'on comprend moins bien ce mouvement « ascendant » que le mouvement inverse, soit : « la manière dont la tendance formative (*Bildungstrieb*) universelle de la nature finit par *mourir progressivement* dans les productions inanimées ».

[18] Voir le début de cette page [5], p. 343.

[19] Le terme d'*Umfang* appliqué logiquement à un concept a changé de signification depuis l'époque où Carus l'emploie ici : ici, ce dernier désigne non pas l'extension, mais bien l'intension ou compréhension du concept.

[20] Seul emploi du terme d'origine latine dans ce texte : toutes les autres mentions de l'animal ou de l'animalité utilisent la racine allemande *Thier* (*Thier, thierisch, Thierheit*).

organisme individuel est parfaitement atteinte, qu'elle est devenue effective. – Mais antérieurement nous avions trouvé que les caractéristiques de la plante se laissaient toutes très bien dériver du défaut d'autonomie interne qui est le sien, et c'est désormais de façon toute semblable, à savoir à partir de l'idée de l'unité plus parfaite exprimée dans l'animal, que peuvent aussi se déduire les caractéristiques de *cet* organisme – pour partie déjà évoquées rapidement dans ce qui précède.

[…][21]

Enfin, pour clore ces recherches qui visent à montrer l'émergence progressive de l'animalité à partir des règnes inférieurs de la nature, tournons à nouveau notre regard sur les modifications que ces règnes naturels subissent en retour du fait du règne animal : ici aussi, nous trouverons matière aux considérations les plus variées ; et comme nous nous avisons que le règne végétal est alimenté par la sphère de l'inorganisé, tout en modifiant lui-même à nouveau, à maints égards, la vie de la surface terrestre et de l'atmosphère, nous trouvons le règne animal, à son tour, dans l'interaction (*Wechselwirkung*) la

[21] En strict parallèle avec les caractéristiques du végétal présentées dans la section précédente (p. [16-18]), celles de l'animal sont : l'absence d'ancrage terrestre (à la prévalence du terrestre pour le végétal répond celle de la lumière pour l'animal) ; au niveau de la structure organique, la conception de l'animal comme « plante involuée », qu'on pouvait déjà trouver chez Boerhaave (voir une remarque de Schelling : *L'âme du monde*, 2e partie, I., Addition, HKA I/6, p. 185, trad. p. 121) : les organes digestifs assurant le métabolisme général de l'animal sont présentés (schéma à l'appui) comme le « retournement vers l'intérieur » du système racinaire de la plante (le « type originaire » de la conformation organique de l'animal sera donc cette fois la sphère) ; l'intégration de la dualité dans une « unité » plus achevée que celle du végétal appelle la présence d'un « centre organique » (la dualité n'est alors pas abolie mais elle-même ordonnée par ce centre) ; eu égard au système reproductif, l'animal apparaît comme « une nature végétale sublimée » qui présente lui aussi la polarité de la sexuation (mais l'activité de ce système est aussi présentée comme ce qui, au sein de l'animal, ressortit lui-même à la « sphère végétative ». – S'agissant de la structure de l'organisme animal, Carus revient de façon détaillée sur ce qui correspondra concrètement au « type originaire » de la « sphère » : c'est la cellule qui est la réalisation du type, et l'animal entier est présenté comme un « agrégat » de ces « micro-sphères vivantes », « infusoires innombrables mais toutefois unis en une vie commune ». Dans l'évolution de cette structure, abordée dans des considérations relatives à l'embryon, Carus voit encore la marque d'une continuité entre végétal et animal : le développement embryonnaire tel qu'il l'évoque manifeste comment « l'animal ne devient animal, pour ainsi dire, qu'en sortant de la plante ». – Quant à l'« activité » organique de l'animal, il souligne toujours doublement sa spécificité (se marquant dans de nouvelles fonctions que ne possède pas le végétal), et ce qui tient à la continuité des règnes par la « reprise » concomitante des fonctions végétatives. Ainsi notamment, dans la sensibilité qui lui appartient en propre, l'animal reprend l'irritabilité végétative, mais il y introduit en même temps un élément central intermédiaire entre action et réaction (système nerveux), et en cela l'élève à une puissance supérieure : ou plus précisément, c'est « l'expression de l'unité » qui, par là, s'est intensifiée.

plus vivante avec le monde végétal, les substances terrestres et atmosphériques. Nous voyons le fond de l'océan surélevé du fait de créatures animales apparemment insignifiantes, jusqu'à former des barrières de corail et des îles, dont certaines, datant de l'époque préadamique, présentent aujourd'hui l'apparence de massifs continentaux. Nous voyons le règne végétal s'immiscer jusqu'à des endroits qui sur terre paraissent inaccessibles à toute créature vivante (voir sur ce point les observations que Treviranus a su tirer de façon si instructive des relations d'autres naturalistes [*Biologie* t. 2 p. 7 sq.]). Et enfin, de même que, suivant le cycle de la nature, le point le plus haut confine toujours au plus bas et que le corps humain lui-même finit par tomber en poussière, nous trouvons l'aspect et la culture du sol, le cours des fleuves, la couverture végétale, et même la façon dont ils sont peuplés de différentes espèces animales transfigurés, en bien des manières, par l'activité humaine. Comparons donc **[40]** avec leur actuelle désolation l'état des contrées qui à l'époque où florissaient leurs peuples présentaient une vie intense, alors qu'à présent, suite au déclin de ces nations, elles sont au moins en partie soustraites à la diligence des hommes – et l'on se convaincra (comme un auteur d'aujourd'hui[22] le déclare en traitant de ce sujet) que ce n'est pas seulement l'homme qui a besoin de la terre pour vivre et déployer son activité, mais que la terre, elle aussi, a besoin de l'homme.

Pour notre part nous croyons avoir atteint la fin poursuivie par le présent travail, s'il a montré à nouveaux frais – bien qu'à petite échelle et seulement pour certains aspects de la nature incommensurable jusqu'ici moins étudiés – comment la liaison constante ainsi que l'éminente beauté et légalité que présentent les phénomènes en l'homme et autour de lui sont ce dont la contemplation doit surtout justement nous stimuler, d'un côté, à pénétrer toujours plus profondément dans les mystères de la science, mais aussi, de l'autre, à développer la formation (*ausbilden*) de notre propre vie intime en une harmonie, une clarté semblables à celle que nous reconnaissons dans la nature en son ensemble. Car quoi ! Quelle serait donc la valeur de toute science, si l'ennoblissement et l'élévation de l'esprit humain n'en était pas le signe ?

[22] [Note de Carus] : J.F. Koreff, *De regionibus Italiae aere pernicioso contaminatis observationes*, Berlin, 1817, 4.

Miscellaneous

Varia

Varia

Miscellanea

Symphilosophie

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Sur le naïf

(1789)

Friedrich Schleiermacher

Traduction, présentation et notes d'Emmanuel Chaput*

« Sur le naïf » est un court texte fort probablement rédigé entre octobre et novembre 1789. Il découle de la lecture que fit Schleiermacher durant cette période des *Philosophische Schriften* (*Écrits philosophiques*) de Mendelssohn (1761 ; 1771 pour la seconde édition). Plus précisément, Schleiermacher s'en prend ici à la définition que Mendelssohn donne du naïf dans son essai *Ueber das Erhabene und das Naive in den schönen Wissenschaften* (*Sur le sublime et le naïf dans les belles-lettres*) paru anonymement en 1758 puis repris dans les *Philosophische Schriften*[1], définition que Schleiermacher considère inadéquate et par trop générale. Là où Mendelssohn définit le naïf comme une simplicité apparente derrière laquelle se cacherait implicitement une certaine noblesse ou une grandeur qui nous émeut, Schleiermacher le définit plutôt comme « le simple que nous n'aurions pas attendu[2] ». Il constitue ainsi un concept relationnel entre la simplicité de l'apparaître et l'attente du sujet percevant plutôt qu'un rapport entre l'apparaître et l'essence de l'objet perçu. Dans cette confrontation avec Mendelssohn, Schleiermacher présente une conception presque rousseauiste de l'être humain où l'homme doit chercher à préserver l'expression de son authenticité face à un monde trop souvent perverti par le souci de distinction. À travers sa discussion du concept du naïf, des implications non seulement éthiques, mais pédagogiques font jour.

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[1] Voir *infra* note de la traduction n°2.
[2] Voir *infra*, p. 361.

Par ailleurs, comme le soulignait déjà Wilhelm Dilthey[3], ce court texte de Schleiermacher montre que le naïf et son concept étaient un thème discuté dès cette époque-là, et ce, bien avant l'essai de Schiller *De la poésie naïve et sentimentale* de 1794/1795[4].

[3] Voir Wilhelm Dilthey, « Denkmale der inneren Entwicklung Schleiermachers, erläutert durch kritische Untersuchungen », Appendice à : Wilhelm Dilthey, *Leben Schleiermachers*, Berlin, Georg Reimer, 1870, vol. 1, p. 1-146, ici p. 6.

[4] Friedrich Schiller, *Über naive und sentimentalische Dichtung* (1794/1795), publié pour la première fois en trois livraisons dans la revue *Die Horen*, 1./2. Jg., 1795/1796 ; *De la poésie naïve et sentimentale*, trad. fr. Sylvain Fort, Paris, L'Arche, 2002.

Sur le naïf[1]

Friedrich Schleiermacher

Quand dit-on d'une chose qu'elle est « naïve » ? Sur la question, Moses Mendelssohn[2], du moins, ne m'a pas satisfait. Il me semble n'avoir même pas proprement saisi le concept du naïf. Dans la mesure où il requiert toujours un signe et une chose désignée pour pouvoir parler de naïf, celui-ci devient, comme il l'admet aussi bien lui-même[3], le simple nom d'une désignation et on peut dire il est vrai, d'après sa théorie, d'une expression qu'elle est naïve et d'actions qu'elles sont naïves, mais pas qu'il existe de telles choses comme des pensées naïves ou un caractère naïf, appellations pourtant utilisées de la manière la plus courante. Je pourrais encore énumérer quantité de difficultés de ce type avec sa théorie mais je m'interromprai ici de peur de lui être injuste contre mon gré, ce qui pourrait facilement se produire à l'égard d'un théoricien qui non seulement ne fournit aucun véritable éclaircissement mais ne reste, qui plus est, pas une fois fidèle à lui-même dans ses descriptions. Certes, il détermine suffisamment la nature de ce qu'il nomme le caractère *externe* du naïf – si la chose mérite chez lui véritablement un tel nom[4] : sa manière d'être, dans tous les cas, ne peut pas être autrement qu'extrêmement simple. L'auteur nous laisse toutefois d'autant plus dans l'ignorance quant aux propriétés que doit avoir ce qui est désigné, à savoir le caractère *interne* du naïf[5]. Celui-ci renfermerait tantôt une grande dignité, importance et perfection intérieures*, tantôt une petite [180]

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[1] La présente traduction et les annotations se fondent sur l'édition critique allemande : Friedrich Schleiermacher, « Über das Naive », dans *Kritische Gesamtausgabe*, I. Abt. Band 1 : *Jugendschriften 1787-1796*, hrsg. von G. Meckenstock, Berlin, Walter de Gruyter, 1984, p. 177-187. La note appelée par un astérisque est de Schleiermacher. Nous remercions les éditions de Gruyter pour l'autorisation de reproduire le texte en traduction. Nous remercions également les éditeurs de *Symphilosophie* pour leurs suggestions et leur révision de la présente traduction.

[2] Voir Moses Mendelssohn, *Ueber das Erhabene und das Naive in den schönen Wissenschaften,* dans *Philosophische Schriften, Zweiter Teil,* Troppau, Joseph Georg Trassler, 1784, p. 143-224 ; M. Mendelssohn, *Gesammelte Schriften, Bd. 1,* Stuttgart-Bad Cannstatt, Frommann-Holzboog, 1971, p. 453-494.

[3] Voir Mendelssohn, *Philosophische Schriften*, p. 220 ; *Gesammelte Schriften 1*, p. 485.

[4] Voir Mendelssohn, *Philosophische Schriften*, p. 227 ; *Gesammelte Schriften 1*, p. 489.

[5] Voir Mendelssohn, *Philosophische Schriften*, p. 236, 238 ; *Gesammelte Schriften 1*, p. 492-493.

* Puisque tout ce qui est objectivement sublime doit aussi être exprimé de manière simple, Mendelssohn considère que le sublime doit aussi être [180] de part en part naïf (Mendelssohn, *Philosophische Schriften*, p. 173 ; *Gesammelte Schriften 1,* p. 463 [N.d.T.]), ce

imperfection anodine, ou encore une grande imperfection grosse de conséquences dangereuses et tragiques[6]. Trois sortes de naïf (qui ne suffisent pourtant pas à subsumer tous les exemples possibles [181]) se dégagent à vrai dire ainsi sans que l'on comprenne bien pourquoi il n'y a que ces trois-là et pourquoi justement celles-là alors que si l'on compare ces déterminations du naïf interne entre elles, on ne trouve pas la moindre caractéristique commune qui les réunisse en un genre. Ou plus exactement si : il nous laisse en deviner une ; il dit[7] : la simplicité ne suffit pas, sous cette simplicité extérieure doit se cacher quelque chose.

Ainsi donc le naïf serait – et c'est vraiment la seule déclaration ferme qu'il m'est donné d'entrevoir dans ce que Mendelssohn dit – la simplicité *sous laquelle se cache quelque chose*. Quoi au juste ? L'explication générique ne permet pas de le déterminer, car, comme nous l'avons vu, c'est parfois quelque chose de parfait et parfois quelque chose d'imparfait, parfois quelque chose d'important et parfois quelque chose d'insignifiant. Mais, à ce compte, tout ne serait-il pas alors naïf et n'y aurait-il pas une infinité d'espèces de manifestations du naïf ?

Nous chercherons donc à déterminer autrement le concept.

Le terme naïf vient de *nativus*, l'inné que l'on possède dès la naissance, le naturel. L'homme inculte s'exprime habituellement de manière simple et dans tous ces cas où l'homme éduqué ne s'attend pas à cette simplicité, parce qu'elle va à l'encontre de sa façon d'agir, de penser et de s'exprimer, il dit de préférence qu'elle est « naïve ». Aussi est-ce chez les peuples qui se sont le

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qui me semble d'emblée aller à l'encontre du sentiment et de l'expérience. Cette difficulté colle par ailleurs à cette autre opinion selon laquelle le naïf est le plus haut degré du simple, opinion que je n'ai pas voulu d'abord réfuter, car Mendelssohn émet déjà de très bons éléments à charge contre cette opinion (Mendelssohn, *Philosophische Schriften*, p. 219 *sq.* ; *Gesammelte Schriften 1,* p. 485 [N.d.T.]) et parce qu'il n'est rien de plus frappant que le fait que le plus simple n'est pas forcément le plus naïf. Mais Mendelssohn va plus loin (Mendelssohn, *Philosophische Schriften*, p. 236 *; Gesammelte Schriften 1,* p. 493 [N.d.T.]) : pour lui, tout ce qui est naïf est risible, y compris ce qui est objectivement sublime – et ce en raison du contraste entre la naïveté de la désignation et la dignité de ce qui est désigné. Seulement, ce contraste n'est lié à aucune imperfection, puisqu'il est souvent conforme à toutes les règles de l'art. Je pourrais me référer à l'expérience, qui parle certainement pour ma lecture, si Mendelssohn ne l'avait déjà fait de manière très habile de son côté. Il dit en effet (Mendelssohn, *Philosophische Schriften*, p. 236 ; *Gesammelte Schriften 1,* p. 492 *sq.* [N.d.T.]) que le rire serait momentanément réprimé par d'autres sentiments et il nous décrit cette transition de manière très pittoresque, comme s'il l'avait vue et observée des milliers et des milliers de fois. Or les sourires que l'observation peut seule nous présenter ne sont pas un rire et nous sourions à propos d'une foule de choses qui ne nous paraissent pas risibles. N'importe quel sentiment joyeux et inattendu nous force à esquisser un bref et passager sourire et c'est ce que Mendelssohn a faussement invoqué à l'avantage de ce paradoxe.

[6] Voir Mendelssohn, *Philosophische Schriften*, p. 238 ; *Gesammelte Schriften 1*, p. 493.

[7] Voir Mendelssohn, *Philosophische Schriften*, p. 219 ; *Gesammelte Schriften 1*, p. 485.

moins éloignés de la nature que nous trouvons le plus de naïveté ; chez ceux dont les mœurs s'en sont au contraire le plus écartées, de perception d'une telle naïveté. Pourquoi appelons-nous les mœurs arcadiennes naïves ? Parce que les sentiments distingués que nous rencontrons chez ces bergers idéalisés nous conduiraient à supposer – et cette conclusion en réalité fausse est tout à fait naturelle – que leurs mœurs étaient plus cultivées et plus proches des nôtres que nous ne les trouvons réellement.

Aux vers 466 et suivants du Chant VI de l'*Illiade*, ce n'est pas seulement le petit Astyanax, mais le poète lui-même que nous trouvons naïf. Sans doute nous étions-nous attendus à ce que l'enfant soit accablé par le sentiment éprouvé par sa mère et par ses pleurs : mais non, il voit osciller le panache du casque de son père et se cache en poussant un cri contre la poitrine de sa nourrice. Nous avions cru, de plus, que le poète aurait usé des ressources les plus puissantes [182] pour exciter au plus haut point notre émotion face à la douleur d'Andromaque, et voyez donc ! Il l'interrompt par le biais d'un objet aussi minime. À l'instant où nous nous attendions à trouver en lui un poète capable de faire fondre les cœurs, il nous apparaît à la façon d'un conteur simple, sans la moindre intention. Ne devrions-nous pas juger cela naïf ? Nous nous trompons pourtant. Nous n'avions pas cru que cette naïveté puisse être un moyen en vue de ce que le poète avait réellement pour but et à peine avons-nous terminé de lire que nous nous trouvons, sans que l'on sache comment, par là même δακρυσεν γελασανθες (*dakrysen gelasanthes*) [à avoir pleuré et ri] au plus haut degré d'émotion. Cet enfant qui ne comprend pas encore les larmes d'une mère, d'une épouse – plus il est encore innocent et ignorant, plus nous plaignons sa mère.

Le naïf serait ainsi le simple que nous n'aurions pas attendu : mais cela peut à nouveau porter tant sur l'expression que sur le concept exprimé. Nous aurions pu nous attendre ou bien à un autre concept ou bien à une autre relation à ce concept et cette distinction détermine pour nous les deux principales classes regroupant le naïf ; à cette dernière qui porte sur la relation appartiennent les gestes naïfs, les morphologies faciales naïves, les expressions naïves ; à la première qui porte sur le concept appartiennent les caractères naïfs et les pensées naïves.

Certes, Mendelssohn a très bien indiqué les composantes du caractère naïf ; mais il n'a fait que s'arroger un tel nom de manière indue ; car dans la mesure où ce nom se réfère chez lui strictement à la caractérisation, il s'attarde davantage à comprendre la candeur dans des faits et gestes extérieurs que comme caractère même[8]. Sans faire attention à cette monstra-

[8] Voir Mendelssohn, *Philosophische Schriften*, p.225 ; *Gesammelte Schriften 1*, p.487 *sq*.

tion extérieure, laquelle peut certes être dans une certaine mesure comprise comme signe du caractère, mais en aucun cas comme faisant partie de celui-ci, notre théorie, au contraire, ne requiert rien d'autre qu'une certaine simplicité manifeste liée à une certaine formation que cette simplicité ne nous laisse pas soupçonner. L'expérience nous enseigne qu'un grand développement moral se marie très bien avec une certaine simplicité relativement aux conventions, et même que les deux vont presque naturellement [183] de pair et que c'est ce lien qui constitue le caractère naïf. Plus on pense de manière juste, plus on sent en même temps de façon subtile – c'est là justement que s'accomplit réellement la formation de l'esprit – et plus on aura – pour autant qu'on n'y soit pas trop rapidement habitué par le ronron de l'éducation – un franc dégoût vis-à-vis de la fausseté et de l'inanité dont sont remplies nos fréquentations sociales, vis-à-vis de ce qui est incorrect et extravagant – toutes choses que la puissance des passions les plus viles a amenées dans la conduite intérieure de la plupart des hommes. Plus nous estimons que nos dispositions d'esprit sont justes et mieux nous nous en trouvons, plus celles-ci influenceront également notre volonté ; toutes nos actions porteront à leur front l'empreinte la plus distincte possible de ces dispositions, elles seront en quelque sorte marquées au fer aux yeux du monde plus distingué. Pareil homme chemine, ouvert et dénué de préjugés, parmi les créatures les plus retorses et les plus dépravées. Puisque celles-ci ne s'attendent absolument pas à une telle conduite, encore moins d'une bonne tête qu'elles pensent être forcément semblable à elles dans toutes ses autres parties, les meilleures d'entre elles l'honoreront de manière ambivalente en louant sa naïveté, alors que le reste le regardera de haut avec un rire méprisant et dédaigneux comme un homme auquel, malgré toutes les bonnes qualités qui lui resteraient, feraient tout à fait défaut la perspicacité et le sens pratique. C'est à peu près la situation d'Agathon et de tous ceux qui lui ressemblent, si ce genre de personne devait encore exister sur la surface de cette pauvre terre, face aux Hippias et aux Philistins[9] qui savent tout à fait par leurs pratiques avancer avec succès dans le monde. Car si je n'ai pas mentionné la dignité d'un Agathon comme une exigence du caractère naïf en ce que mon explication du naïf ne m'amenait pas à le faire, l'on m'accordera aisément que je ne l'ai néanmoins pas exclue, mais que je n'ai simplement pas voulu dire d'abord quelque chose qui allait de toute façon de soi. Il est certes possible, et l'expérience nous le montre malheureusement que trop souvent, qu'un degré plus élevé d'une certaine culture de l'esprit peut tout à fait exister sans

[9] Voir Christoph Wieland, *Histoire d'Agathon, ou Tableau philosophique des mœurs de la Grèce* (4 tomes), Paris, De Hansy, 1768.

l'honnêteté et la valeur intime du caractère, mais elle ne peut alors être reliée à cette candeur qui constitue cette remarquable composante du naïf. Seul l'homme honnête peut cheminer sur la grande voie [184] de la franchise et de la simplicité, puisque les autres s'en éloignent d'autant plus qu'ils sont plus raffinés et croient s'approcher d'une manière d'autant plus sûre et certaine de leur fin que leurs itinéraires sont dissimulés, retors, et leurs détours tordus.

Le caractère naïf se trahit souvent dans une seule pensée, dans une seule expression. Si je ne connaissais de Jean de La Fontaine, par exemple, rien d'autre que les quelques mots que cite Mendelssohn[10], ceux-ci m'auraient garanti de manière suffisante la naïveté de son caractère : il était si habitué à la noblesse et à la bonté, chez son ami comme pour lui-même, que, là où d'autres se seraient épanchés en admiration hypocrite, ou sincère, et louanges de son amicale magnanimité, il ne remarqua rien – comme si tous les deux avaient eu la même idée au même moment.

Les mouvements naïfs confinent, toutefois, à la grâce d'une part mais aussi, d'autre part, à ce que les Français nomment la *gaucherie*, selon qu'ils sont ou très beaux et très simples, ou très naturels et très simples.

L'expression naïve peut du reste être dominante dans nos discours. C'est le cas en particulier chez les enfants, que nous avons coutume de donner en modèle ; ils ont le privilège de disposer d'une formation et de connaissances plus avancées, tout en gardant ce naturel originaire qu'ils apportaient à leur venue au monde. On a cherché, dans les temps modernes, à atteindre ce style naïf dans les écrits destinés avant tout à l'usage des enfants. Que cela, comme on sait, n'ait réussi qu'à peu d'auteurs, on ne s'en étonnera pas le moins du monde, compte tenu des grandes difficultés que cela comporte. La façon particulière avec laquelle un enfant apprécie les choses, les règles tout à fait différentes d'après lesquelles il s'intéressera ou sera plus ou moins affecté par les objets, la chaleur initiale avec laquelle il saisit et sépare tout ce qui lui plaît, enfin la coloration vive [185] qu'il parvient à conférer, malgré leur candeur, aux petites pensées qu'il expose, tout cela un homme adulte doit se l'approprier à nouveau ; il doit pour ainsi dire se transplanter à nouveau dans l'état singulier de l'enfance dont il s'est éloigné d'une manière infiniment grande. Quand bien même toutes ces difficultés seraient surmontées, il en resterait encore une en raison de laquelle la plupart des écrivains pour enfants échoueraient. On aura beau s'abaisser à leur faculté de compréhension et à ce qui peut leur plaire ; à simplifier par ailleurs notre expression et à la modeler sur la leur, on doit toujours être à même de

[10] Voir Mendelssohn, *Philosophische Schriften*, p. 223 ; *Gesammelte Schriften 1*, p.487.

se maintenir à un ou à quelques degrés au-dessus du ton des enfants pour lesquels on écrit pour ne pas bientôt, ce ton s'élevant en même temps que leurs connaissances et approchant du ton du reste du monde, leur paraître nous-mêmes simples et méprisables et être rangés du côté de leurs nourrices avec leurs contes.

Je pourrais clore ici ces remarques, s'il ne me restait pas deux questions importantes à discuter, à savoir comment le naïf se situe en relation d'une part au sublime et d'autre part au risible.

Tout ce qui est en soi sublime doit être exprimé de manière simple. Ainsi, dès que je m'attends à une pensée sublime, je m'attends également à une expression simple et celle-ci n'a donc aucun droit d'être dénommée « naïve ». L'expression du sublime ne sera naïve que si la pensée elle-même me vient de façon inopinée. Là où il est question, par exemple, de la création du monde, où je ne m'attends donc à rien d'autre qu'aux concepts les plus sublimes, l'expression, si simple puisse-t-elle, ne sera jamais naïve. Le verset : « Dieu dit "Que la lumière soit" et la lumière fut[11] » est peut-être infiniment sublime, il n'est pas naïf. – Au contraire, à la question : « Comment, au juste, Dieu a-t-il créé le monde à partir de rien ? », je m'attends à une argutie quelconque, à quelque justification savante. Donc lorsque Mendelssohn répond : « Si je le savais, je le pourrais aussi[12] », sa réponse est indéniablement fort sublime, mais elle est aussi extraordinairement naïve ; elle me montre qu'une telle création dépasse largement tant ma faculté de compréhension que mon pouvoir et qu'il me faudrait être moi-même un dieu pour connaître les moyens du divin et leur efficace. Bref, elle affirme dans une expression extraordinairement simple infiniment plus que ce à quoi je m'attendais.

[186] Cela nous amène à une autre division du naïf qui nous permettra d'éclairer également son rapport au risible. Si le naïf nous apparaît en effet comme inattendu, cela ne peut avoir que trois causes : ou bien parce qu'il contient plus que ce que nous avions supposé, ou bien parce qu'il contient quelque chose d'autre, ou bien parce qu'il contient moins ; et dans ce contraste avec nos attentes qui expose si souvent le naïf comme quelque chose d'imparfait se trouve véritablement la raison pour laquelle celui-ci est de temps à autre risible. Cela doit valoir non seulement pour l'expression, mais bien pour le naïf en général, lequel serait donc dans le premier cas sublime, ou à tout le moins touchant, dans le second cas touchant ou captivant et seulement dans le troisième cas, risible, mais aussi de temps à autre tragique.

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[11] Genèse, 1, 3.

[12] Il ne s'agit pas d'une citation textuelle, mais probablement d'une allusion à Mendelssohn, *Philosophische Schriften*, p. 215 ; *Gesammelte Schriften 1*, p. 482.

Dans la mesure où le côté simple du caractère naïf contient toujours quelque chose de mieux que le ronron habituel auquel nous nous étions attendus, il ne court jamais le risque de devenir risible, mais il sera au contraire toujours sublime ou touchant selon qu'il est socialisé avec plus ou moins de perfection et que la simplicité concerne toute la conduite ou seulement l'une ou l'autre partie de celle-ci.

C'est seulement en tant qu'expressions de passions extraordinairement puissantes que les mouvements naïfs pourraient s'élever jusqu'au sublime, et ces passions ne nous viennent jamais ainsi, de manière inopinée. Mais ces mouvements seront d'autant plus souvent touchants qu'ils nous indiquent l'intériorité d'un homme dans le langage de la nature le plus vrai et le plus expressif, d'une manière bien plus pertinente et bien plus forte que ce à quoi nous nous étions attendus. Après tout, ils nous plairont ainsi toujours même sans être meilleurs, parce qu'ils sont naturels, et ainsi de suite. Ils nous garantissent au moins le spectacle d'un être humain tel qu'il est, ce qui doit toujours, au nom de la rareté, nous être appréciable. Nous concluons donc que celui qui ne parvient jamais à se faire violence dans l'expression extérieure cachera encore bien moins aisément son intériorité face à nous. Cela doit valoir non seulement pour les mouvements, mais aussi pour l'expression et cette joie que nous ressentons face au spectacle d'un homme ouvert, et face à la facilité avec laquelle il nous laisse faire le saut en son âme, procure à celui qui se ridiculise par sa naïveté l'avantage exclusif de ne s'attirer, à aucun moment, notre mépris.

Il ne me reste plus qu'à montrer que tout cela devrait aussi valoir pour l'expression et au lieu de m'arrêter à des exemples spécifiques, je veux simplement attirer l'attention de manière générale sur un personnage qui non seulement est dépeint de manière remarquable mais nous fournit en outre de continuels exemples du naïf dans une situation où cela doit doublement nous frapper, puisqu'il est campé [187] en compagnie des êtres humains les plus fins et les plus sophistiqués ayant sans doute jamais existé. Je veux parler du personnage de la petite Cécile dans les *Liaisons dangereuses*[13]. À quel point ne nous touche-t-elle pas lorsqu'elle décrit de manière si juste dans son langage limité et tout candide tantôt la force de sa passion, tantôt sa situation misérable ! Comme elle nous conquiert lorsqu'elle peint de manière si éloquente l'ensemble de ses pensées et de ses sentiments ! Et combien peut-elle être assurée de notre sympathie et de notre amour là où elle-même ne

[13] Voir Pierre Choderlos de Laclos, *Les Liaisons dangereuses* [1782], Paris, GF-Flammarion, 2016.

sait pas exprimer correctement pareils sentiments et encore moins les expliquer.

Symphilosophie

Revue internationale de philosophie romantique

La tête et le cœur

Extraits choisis du *Nachlaß*

(1821-1829)

Arthur Schopenhauer

Traduction, présentation et notes de Marie-Michèle Blondin*

C'est surtout dans les manuscrits de 1818 à 1830 que l'on peut découvrir la théorie de la tête et du cœur développée par Schopenhauer[1]. Cette dernière est fondamentale pour mieux saisir la portée d'une métaphysique de la volonté de vivre qui s'affirme dans le corps humain. La volonté, concept central de la philosophie de Schopenhauer, est ce qui se manifeste dans le monde en tant qu'essence et radical de toute chose et en même temps, en tant qu'apparaître de toute chose. La volonté est à la fois la chose en soi et la face visible des phénomènes. Pour Schopenhauer, le cœur est le synonyme de cette volonté[2] et la tête, ce dont relèvent la représentation et la connaissance. Ce sont ces deux organes qui définissent indissociablement l'être humain : « La tête et le cœur désignent l'homme tout entier. Mais la

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[1] Les extraits traduits sont tirés de « Berliner Manuskripte (1818-1830) », vol. III, in *Der handschriftliche Nachlaß*, Arthur Hübscher (éd.), 5 vol. en 6 t., München, DTV, 1985. = [HNIII]

[2] C'est au chapitre 19 des *Compléments* du *Monde comme volonté et représentation* que l'on peut lire cette association forte de la volonté entendue comme principe métaphysique de toute chose et du cœur compris comme organe chez l'humain : « C'est à bon droit que le CŒUR, ce *primum mobile* [premier moteur] de la vie animale, a été choisi comme symbole et même comme synonyme de la VOLONTÉ, en tant qu'il est le noyau primitif <*Urkern*> de notre phénomène et qu'il le désigne par opposition à l'INTELLECT qui, lui, est véritablement identique à la TÊTE ». *Le monde comme volonté et représentation II*, trad. fr. C. Sommer, M. Dautrey et V. Stanek et annotée par C. Sommer, U. Batini et V. Stanek, Paris, Gallimard, 2009, p. 1525.

tête est toujours l'élément second, l'élément dérivé ; car elle n'est pas le centre mais seulement l'efflorescence suprême <*höchste Efflorescenz*> du corps[3]. » Bien que la tête et le cœur définissent de part en part l'être humain, c'est le cœur qui incarne la volonté dans sa forme primaire et pour cette raison, il doit être considéré comme premier. Notons que ce sont surtout les fonctions des organes du corps qui permettent à Schopenhauer d'établir une hiérarchie : le cœur est plus essentiel que la tête parce que si le cœur cesse de battre, c'est la fin, alors que si l'on cesse de penser, l'on ne meurt pas. C'est donc en tant qu'elle est associée à l'intellect et à l'entendement, c'est-à-dire aux fonctions du cerveau, qu'on peut voir la tête comme un élément secondaire, bien qu'en tant que telle, elle ne saurait être seconde dans l'explication physique du vivant humain : le corps se donne toujours tout entier.

La polarité tête/cœur est bien définie chez Schopenhauer ; les deux organes constituent les pôles d'une seule et même chose[4] : la volonté de vivre qui s'affirme dans le corps humain. Il serait donc aussi faux qu'injuste d'expliquer la relation de la tête et du cœur par un dualisme. La volonté s'affirme de la façon la plus primaire, originaire et aveugle dans le cœur alors qu'avec la tête elle atteint le plus haut degré de son affirmation et par conséquent, le degré le plus précaire. Certes, la tête tente de dominer rationnellement l'être humain, mais dans l'exercice de ses fonctions elle échoue à être première : le cœur impose d'emblée les tendances et les pulsions aveugles de la volonté de vivre. C'est ce qui explique que l'intellect soit considéré comme un élément secondaire et la volonté comme l'élément primaire. Schopenhauer offre plusieurs exemples, tels que l'amour et la peur, pour montrer combien la volonté aveugle, mais bien incarnée en nous, peut empêcher l'intellect d'opérer correctement en altérant nos jugements. Ainsi, des tensions peuvent surgir entre les diverses manifestations de la volonté de vivre au sein d'un même corps. Chez l'humain, c'est surtout entre les manifestations inconscientes et aveugles de la volonté de vivre et ses manifestations éclairées par l'intellect qu'une lutte peut éclater. Sinon, il s'agit simplement de la domination d'une force sur une autre.

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[3] *Ibid*., p. 1526.

[4] Notons que c'est ainsi que Schopenhauer définit la polarité dans son ouvrage majeur : « […] la POLARITÉ, c'est-à-dire la scission d'une force en deux activités de qualités différentes, opposées et tendant à leur réunification, et qui, le plus souvent, se révèle aussi dans l'espace par une divergence dans deux directions différentes – que la polarité donc est le type fondamental de presque tous les phénomènes de la nature, depuis l'aimant et le cristal jusqu'à l'homme ». *Le monde comme volonté et représentation I*, trad. fr. C. Sommer, M. Dautrey et V. Stanek et annotée par C. Sommer, U. Batini et V. Stanek, Paris, Gallimard, 2009. p. 320.

Loin de se limiter aux figures de style, Schopenhauer traite d'abord et avant tout de la tête et du cœur comme de ces deux organes auxquels se rapportent certaines spécificités morales ou intellectuelles. Comme Kant avant lui, Schopenhauer comprend le cœur comme ce qui est lié aux facultés morales. Mais Schopenhauer emprunte aussi la voie déjà ouverte par les romantiques allemands et envisage le cœur comme un moyen de perception interne, comme c'était notamment le cas chez Goethe, puis Schiller. Pour Schopenhauer, le cœur est la subjectivité et l'affectivité première en soi. C'est là que la volonté s'éprouve d'emblée, immédiatement, accolée à la vie[5]. Et ce que nous portons dans notre cœur, puisqu'il s'agit toujours déjà du principe métaphysique du monde, est aussi ce qui constitue le « cœur » de la nature. C'est d'ailleurs avec cette citation de Goethe que Schopenhauer ouvre les *Compléments* du livre II du *Monde* pour établir un rapport entre la dimension physiologique et métaphysique du cœur :

> Vous suivez une fausse piste
> Ne pensez pas que nous plaisantons !
> Le noyau de la nature n'est-il pas
> Dans le cœur des hommes[6] ?

L'approche incarnée de la tête et du cœur n'en est pas moins, chez Schopenhauer, d'une irréductible originalité et mérite une attention particulière, surtout pour une meilleure compréhension des conséquences de l'affirmation de la volonté dans le corps et de ses répercussions dans la vie humaine consciente. C'est pourquoi une traduction française de certains passages des manuscrits de Schopenhauer qui, jusqu'ici, étaient restés exclusifs à l'édition allemande, semble pertinente. Bien que les extraits des manuscrits qui traitent de la tête et du cœur aient, pour la plupart, été publiés (le plus souvent de façon remaniée) au chapitre 19 des *Compléments* du

[5] Notons aussi que c'est dans le cœur que se trouve le « moi véritable » ; « L'homme réside dans le CŒUR et non dans la tête » (*Le monde comme volonté et représentation II*, *op. cit.*, p. 1528). C'est donc dans le cœur que s'éprouve la volonté de vivre en soi avant même que la tête n'ait pu expliquer rationnellement ce qui est senti, vécu et voulu. Enfin, sa propre essence ne peut se révéler complètement et clairement à soi que lorsque la tête et le cœur coïncident, que le « sujet connaissant » reconnaît le « sujet voulant », qu'une identité est formée entre ces deux parties du soi. Voir *De la quadruple racine du principe de raison suffisante*, trad. fr. F.-X. Chenet, Paris, J. Vrin, 2008, p. 194-195.

[6] Goethe cité par Arthur Schopenhauer dans *Le monde comme volonté et représentation II*, *op. cit.*, p. 1445. L'appareil critique de cette traduction de Schopenhauer nous renvoie à Goethe, *Ultimatum* (1827), v. 10-13, in *Sämtliche Werke*, t. II, K. Eibl (éd.), Francfort, DKV, 1988, p. 508.

Monde[7], certaines idées n'ont pas été reprises par Schopenhauer en vue d'une publication. La traduction qui suit offre donc au public un éventail encore plus large des idées que Schopenhauer a su développer pour une théorie de la tête et du cœur.

[7] « Du primat de la volonté dans la conscience de soi », in *Le monde comme volonté et représentation II*, *op. cit.*, p. 1463-1538.

La tête et le cœur

Arthur Schopenhauer

Ô combien les expressions courantes « TÊTE » et « cœur » *<KOPF und Herz>* sont utilisées de manière juste et significative ! (Hegel les critique dans l'*Encyclopédie*.) On les trouve dans toutes les langues. Même les Romains les employaient au sens métaphorique bien connu : « *Nec cor nec caput habet* » [sans tête ni cœur], disait Sénèque de l'empereur Claude (*Ludus de morte Claudii Cæsaris, cap.* 8). Le cœur désigne avant tout la VOLONTÉ et tout ce qui s'y rapporte : le souhait, la passion, la joie, la douleur, la bonté, la méchanceté ainsi que le φίλον ἦτορ [bon cœur] d'Homère. On dit : « de tout son cœur », « avoir le cœur brisé », « avoir le cœur qui tressaille de joie », « avoir à cœur de », « un coup au cœur » ; avoir le « cœur déchiré », le « cœur broyé », le « cœur brisé »; « être touché droit au cœur », « élever le cœur », « cordialement », « de bon de cœur », « être sans cœur », « avoir un cœur de pierre », « de gaieté de cœur », « avoir le cœur lâche ». C'est à juste titre que le CŒUR, plutôt le *primum mobile* [premier moteur] de la vie animale, a été choisi pour désigner la VOLONTÉ, c'est-à-dire ce qu'il y a de radical, d'essentiel et d'originaire dans l'être humain. Au contraire, la TÊTE désigne la REPRÉSENTATION, la CONNAISSANCE et tout ce qui s'y rattache : « une tête pensante », « une tête bien faite », « une grosse tête », « perdre la tête » ou « garder la tête haute », et ainsi de suite. La TÊTE n'est pas seconde, un dérivé, elle n'est pas non plus le centre, mais bien l'efflorescence *<Efflorescenz>* suprême du corps. La tête et le cœur constituent l'être humain dans son entièreté, comme la volonté et la représentation. Quand on a loué la tête et le cœur, il n'y a plus de place pour le blâme. Lorsqu'un héros meurt, on embaume son cœur, pas son cerveau. Par contre, le crâne de Raphaël a été conservé à l'*Accademia di San Luca*, à Rome (il a été établi qu'il s'agissait d'un faux) et le crâne de Descartes récemment vendu aux enchères à Stockholm[9].

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[9] HNIII, « Foliant I (1821) », § 23, p. 78-79.

Suite de l'argumentaire sur le PRIMAT DE LA VOLONTÉ sur l'entendement, de Quartant, p. 160.

12) On aime à faire passer les erreurs de la volonté ou du cœur pour des erreurs de la tête, après quoi les premières sont entièrement excusées. On les appelle des fourvoiements <*Verirrungen*>. On dit : « c'était une erreur de jugement », qu'on appelle alors une méprise, un fourvoiement, et ainsi de suite. Ici, il apparaît évident que la volonté seule est l'essentiel, qu'elle est l'intériorité véritable ou l'en-soi <*Ansich*> de l'être humain ; l'entendement <*Verstand*>, par contre, est inessentiel, extérieur, contingent, comme la forme du corps ou même de ses habits.

On dit de l'un : « il a bon cœur » ; et on ajoute : « mais il n'a rien dans la tête » – puis d'un autre : « il a une tête bien faite » – tout en ajoutant : « mais il n'a pas bon cœur ». Tout un chacun comprend que pour le premier, l'éloge est infiniment plus important que le blâme, alors que pour l'autre, c'est l'inverse. Dans le premier cas, le reproche porte seulement sur l'apparence ; l'éloge sur l'essence en elle-même. Et inversement dans le deuxième exemple. Ici, il faudrait discuter ce que j'ai expliqué à la page 257[10], à savoir pourquoi les idiots <*Dummköpfe*>, sans raison, ont généralement la réputation d'être de bonnes natures quand, dans les faits, ils sont plus souvent mauvais qu'ils n'ont bon cœur. *Todo necio es malicioso* (*sic fere*).

L'accusation d'idiotie <*Dummheit*> n'en est donc absolument PAS une quand elle est traduite devant le tribunal moral. Elle octroie plutôt des privilèges. En revanche, c'est une accusation grave face au tribunal de l'honneur chevaleresque, dont le principe est d'être à même de vivre en s'affirmant librement face aux autres et de se présenter en tant que personne. Ainsi, l'entendement est nécessaire à l'affirmation de l'existence individuelle, mais l'individu n'est que pure apparence. L'éthique peut même exiger le renoncement à l'existence individuelle tant cette existence ne lui est pas essentielle et n'est pas une fin en soi.

Tout cela confirme de nouveau que l'entendement relève de l'apparence, qu'il est un élément secondaire, appartenant à la finitude, là où la volonté seule est l'essence éternelle de l'être humain. L'entendement est lié au temps ; la volonté, à l'éternité.

13) Toutes les qualités physiques, même celles qu'on dit « spirituelles » s'usent et s'émoussent ; ainsi les sens, la mémoire, l'esprit <*Witz*>, l'entendement, le génie, bref, tout sauf la volonté. Jusque dans l'extrême

[10] Voir HNIII, « Foliant II (1826) », § 177, p. 317.

vieillesse, l'être humain veut la même chose et avec la même véhémence. Certes, l'objet de ses désirs (ses motifs) connaît une évolution en fonction de l'âge, mais la direction et la pulsion du vouloir <*Drang des Wollens*> restent les mêmes : la volonté d'exister et la recherche du bien-être, qui sont la racine de toutes les manifestations de la volonté, gardent toute leur intensité, car l'attachement à la vie est encore plus fort dans la vieillesse. Une fois de plus, cela prouve que tout le reste est physique, c'est-à-dire de l'ordre de l'apparence, et que seule la volonté est métaphysique, c'est-à-dire qu'elle est chose en soi.

[…]

15) Le caractère entièrement différent de la volonté par rapport à l'intellect <*Intellekt*>, ainsi que son caractère primordial se manifestent également par le fait que les fonctions de la volonté sont d'une extrême simplicité et que, par conséquent, elles révèlent la simplicité de sa nature : vouloir et ne pas vouloir est sa seule fonction et cette dernière s'exerce immédiatement, sans pratique ni effort. Les fonctions de l'intellect sont, au contraire, aussi diverses que complexes. Lorsque l'intellect présente à la volonté quelque chose d'intuitif et de simple, la volonté exprime, selon ce qui lui convient, ce qui lui est « agréable ou désagréable » <*genehm oder nicht genehm*>. Il en va de même lorsque l'intellect parvient à un résultat conforme aux intérêts de la volonté après avoir consciencieusement étudié et examiné différentes combinaisons complexes parmi d'innombrables données. Pendant que l'intellect procède à une réflexion profonde, la volonté, en souveraine, se repose, oisive, presqu'effacée. Mais aussitôt que l'intellect parvient à un résultat, la volonté s'avance tel un sultan au divan pour n'exprimer que son monotone « agréable » ou « désagréable », lequel ne varie que de degré, jamais dans son essence.

Quand on y pense, on donnerait bien raison à Rüdiger[11] qui conçoit la volonté et l'intellect comme deux substances distinctes de l'âme. Le contraste est effectivement frappant entre le caractère protéiforme et complexe de l'intellect dans ses opérations et la simplicité de la volonté. L'originaire n'est-il pas partout simple ; le secondaire, complexe ? Ne devons-nous pas admettre que ce qui est intemporel et impérissable possède une constitution des plus simples qui transparaît dans l'extrême simplicité de ses manifestations, tandis que les fonctions complexes et diverses appartiennent à ce qui est secondaire et au phénomène ?

[11] Johannes Andreas Rüdiger (1673-1731), philosophe et physicien allemand que Schopenhauer voyait comme un « Wolffianer », en référence à la philosophie de Christian Wolff.

16) Que la volonté soit l'élément originaire, proprement essentiel, identique à l'être <*Seyn*> d'une personne humaine et qu'au contraire, l'intellect ne soit qu'un élément conditionné, secondaire, un produit, est confirmé par le fait que la volonté doit se mettre en sourdine et marquer une pause afin que l'intellect pur puisse remplir ses fonctions. Tout mouvement de la volonté perturbe immédiatement l'intellect et non l'inverse, comme la lune ne peut pas scintiller si le soleil brille dans le ciel, et non l'inverse. Ainsi, un effroi terrible et soudain nous fait perdre nos esprits au point de nous pétrifier totalement ou de faire tout de travers comme de courir droit dans les flammes en cas d'incendie. La colère ne permet plus de savoir, ni même de voir, ce que nous faisons et encore moins ce que nous disons ; une grande peur nous rend aveugles aux secours encore disponibles. Le sang-froid est donc la qualité première pour surmonter de grands dangers, soit une accalmie de la volonté de sorte que l'intellect puisse agir. L'espoir nous fait voir comme probable ce que nous désirons ; la crainte, comme proche et grand ce que nous redoutons, et qu'autrement nous reconnaîtrions comme fort peu probable. L'amour et la haine faussent totalement notre jugement quant à leurs objets ; chez nos ennemis, nous ne voyons que des défauts alors que chez nos êtres chers, tout nous semble parfait, même leurs défauts nous paraissent aimables. Notre intérêt, quel qu'il soit, exerce, tout comme nos désirs, un pouvoir secret sur notre jugement. Ce qui lui est conforme, de quelque façon que ce soit, nous paraît aussitôt acceptable, juste, raisonnable ; ce qui lui est contraire se présente à nous comme étant définitivement injuste, abominable, absurde ou inapproprié, d'où tant de préjugés propres à la situation sociale, aux peuples, aux sectes et à la religion. La simple préférence pour une hypothèse suffit à nous faire voir seulement ce qui la confirme ; alors que nous sommes aveugles à tout ce qui la contredit. *Intellectus luminis sicci non est, sed recipit infusionem a voluntate et affectibus. Baco a Verulam*. L'appréciation ou la connaissance d'une chose ne sera donc dite « pure » que pour autant que l'intellect ait pu échapper complètement à l'influence de la volonté. C'est ce qui se produit au degré le plus élevé, avec la connaissance suprême, c'est-à-dire avec l'intuition de génie dont l'objectivité parfaite émerge grâce à un silence de la volonté si profond que même l'individualité est supprimée pendant toute la durée de cette intuition et qu'il ne reste plus que l'être humain en tant que pur sujet de la connaissance, qui est le corrélat de l'idée.

Il y a si peu de perturbation de la volonté par l'intellect analogue à cette perturbation de la connaissance produite par le moindre mouvement de la volonté qu'il nous est impossible de conceptualiser une telle perturbation. Car si l'intellect peut dévoyer la volonté par des motifs qu'on aurait mal

interprétés, personne ne considérera cela comme une perturbation de la volonté dans l'exercice de sa fonction ; tout au plus, on pourrait envisager cela comme une hésitation, laquelle proviendrait d'une grande prudence de l'intellect.

Cette influence perturbatrice de la volonté sur l'intellect et, à l'inverse, la considérable précarité et fragilité de l'intellect en raison desquelles ce dernier est incapable d'opérer dès que la volonté s'agite, prouve clairement que la volonté est le radical de notre essence et qu'elle agit avec une force originelle, tandis que l'intellect n'est que secondaire et conditionné. La volonté est semblable à l'eau ; l'intellect, aux images qui s'y reflètent : dès que l'eau est en mouvement, les images deviennent confuses ; en revanche, ces dernières n'ont aucun pouvoir sur la première[12].

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Une forme particulière de COURAGE <*MUTH*> a UNE racine commune avec la BONTÉ DU CŒUR <*HERZENSGÜTE*> : elle procède du fait que l'être humain doté de celle-ci est conscient de son existence à travers les autres individus de manière presque aussi claire qu'à travers lui-même. J'ai souvent montré d'où provient la bonté du cœur. Le courage produit cette conscience du fait que l'être humain est moins attaché à son existence individuelle, puisqu'il vit quasiment autant à travers l'existence générale de tous les êtres et qu'il se soucie peu de sa propre vie et de ce qui s'y rattache. Mais là n'est pas toujours la source du courage, car ce phénomène a plusieurs causes. La forme la plus noble du courage n'en est pas moins celle qui est indissociablement liée à la patience et à une grande douceur.

Les hommes de ce type sont souvent irrésistibles pour les femmes[13].

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Parce que LE CORPS <*LEIB*> n'est que la face visible de la volonté et que l'intellect participe aussi de cet apparaître ; on devrait pouvoir trouver pour toute spécificité morale et intellectuelle d'un être humain une constitution particulière correspondante dans le cerveau ou dans le cœur, ou dans toute autre partie du corps, qui agirait comme la cause des actions découlant de cette spécificité[14].

[12] HNIII, « Foliant II (1827) », § 204, p. 332-335.
[13] HNIII, « Adversaria (1828) », § 87, p. 513.
[14] HNIII, « Adversaria (1829) », §137, p. 547.

Book Reviews

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Michael N. Forster, Lina Steiner (eds.), *Romanticism, Philosophy, and Literature*, Cham, Palgrave Macmillan, 2020, xviii + 374 pp. ISBN 978-3-030-40873-2.

This volume is another milestone achievement by the dynamic duo who, since arriving under the aegis of Michael Forster's Alexander von Humboldt-Stiftung professorship at the Institut für Philosophie in Bonn University, have organized numerous international symposia and publications and thereby brought to new life the global study of the history of philosophy in general, and galvanized the study of philosophy and literature in particular. In creating and curating this forum they rival their Jena Romantic forebears, the primary subject of the present volume, which contains several papers from a 2015 conference that the editors organized.

As stated in the introduction, the volume pursues two aims: first, to examine and increase awareness in the Anglophone world of German Romanticism's ideas about philosophy and literature, and especially during its immensely important initial phase (1796-1801); second, to explore selectively the prehistory and influence of those ideas on later thinkers inside and outside Germany. The introduction succinctly and lucidly highlights the project of the book by situating Romanticism – represented by Schleiermacher, Friedrich Schlegel, and Novalis – historically and intellectually with respect to some of its recognizably 'modern' theoretical achievements: historicism in the human sciences, the primacy of language for thought (linguistic holism, use-theory of meaning), historical and comparative linguistics, hermeneutics as a science, translation theory, and a liberal tradition in political and moral philosophy. Likewise, Romanticism revived the "ancient quarrel" by theorizing the synthesis between philosophy and literature, science and art, fundamentally developed the disciplines of the history of literature, genre-theory and 'world literature,' and concomitantly produced literary works that concretized these theoretical innovations. The collection is divided into two sections, one devoted to philosophy proper in Romanticism (five essays) and the second to the relationship between philosophy and literature, within and as influenced by Romanticism (nine

essays). The overall quality of the essays is very high, and several make seminal contributions to scholarship.

Opening the "Philosophy" section is Manfred Frank's extended essay and commentary on Novalis's infamously obscure *Fichte-Studien*, the set of notes from 1795-96 that were collected under that title only when they were posthumously published in 1965. Frank terms his approach "constellational," in that it combines historical, biographical, and conceptual elements in order to illuminate the genesis and significance of the text. While this approach is similar to Dieter Henrich's "Jena Project" in its careful and detailed unfolding of the characters and complexities of those formative years of post-Kantian philosophical idealism, Frank also has a polemical intent: while Henrich's project argues for the central importance of Hölderlin within the emergence of "absolute idealism," Frank promotes Novalis for that privileged status. In Jena at the time, the academic philosopher Reinhold was endeavoring to find a first principle that could resolve Kantian dualisms without losing mind's objective purport on an independent reality. When Fichte arrived in Jena to take over Reinhold's chair, his *Wissenschaftslehre* (Science of Knowledge) seemed to risk just such a loss, and Novalis, affiliated with Reinhold's students, recorded his critical sketches of the implicit dangers of an "absolute I" or subjective idealism that – so Frank – "exhibit far more analytical and argumentative agility than does Hölderlin" and likely predate the latter's relevant writings (31). Both Novalis and Hölderlin argue for a primordial Ur-connection between being, identity and judgment, and confront the task of how such a connection can be recognized. Here Frank's essay shifts from historical biography to conceptual analysis, as he discusses various contenders for the epistemic means to secure the primacy of 'being' before or alongside consciousness: the ontological presuppositions implied within the form of judgment (viewed as anterior to the distinction between predicative, existential, and identity forms of judgment), intellectual intuition, feeling, and second-order reflection. Frank brings much illumination to the proliferation of terms and argument fragments one encounters in Novalis's notes, and helpfully juxtaposes them with Hölderlin's reflections (e.g., in his essay "Urteil und Seyn"). While one might wish for even more use by Frank of current philosophical concepts in his glosses of Novalis's terms, his essay is an outstanding hermeneutical work that scholars of German Idealism cannot afford to ignore.

Intriguing aspects of the relationship between Friedrich Schlegel and Hegel are explored in two essays. According to Andreas Arndt, Schlegel was the first thinker to generate an affirmative understanding of post-Kantian dialectic. While Fichte and early Schelling in response to Jacobi's skepticism

sought to ground knowledge and action in the unconditioned as reason's point of departure (in effect inverting Kant's approach), Schlegel's theory of Romantic irony as the recognition of the limit of knowledge with the intimation of its transcendence, together with his theory of imagination as a faculty of such pre-conceptual transcendence, anticipate Hegel's theory of dialectical synthesis as progressive totalization. Johannes Korngiebel concretizes some of these claims by suggesting, with considerable circumstantial evidence, that Hegel attended Schlegel's lectures on transcendental philosophy in Jena in 1801, several years after Schlegel had already set himself the task of unifying Fichte's subjective idealism and Spinoza's objective realism. Like Hegel later, Schlegel's lectures emphasized the historical dimension of philosophy and the infinite process for consciousness to approach the unconditioned in what he called "absolute idealism." Korngiebel concludes by identifying Hegel's implicit early critique of Schlegel in the *Differenzschrift* and a lesser-known essay likely co-authored with Schelling, where he brands Schlegel a mere "beautiful soul" for denying philosophy its native realm of truth. Both Arndt's and Korngiebel's tightly argued essays convey the impression that much more work is required to fully fathom the influence of Schlegel's writings on German Idealist thinkers.

By contrast, François Thomas's essay on Schleiermacher's reflections on translation are suggestively capacious. Taking as its point of departure Schleiermacher's claim that a translator must always "maintain the tone of his language foreign," that is, render his own native tongue partly foreign, other, or alienated, with a deft touch Thomas finds this motif of the self-othering of language, knowledge and mind in several other German Romantic and Idealist thinkers, indicative for him of a tacit pluralist cosmopolitanism.

Thomas's cosmopolitan claim, however, is directly challenged by Frederick Beiser's essay exploring the Romantic antisemitism that accompanied Germans' nascent nationalism and which he documents in the writings and practices of the Berlin *Tischgesellschaft*, founded by leading Romantic figures von Arnim, Brentano, and Müller. Beiser also perspicuously reconstructs their thinking: a German state requires political allegiance, which can best be sustained not by external coercion but rather by internal motivation; the strongest form of such motivation is not moral rationalism, but rather religious faith; the strongest faith for securing a community is Christianity, because it is based on love, whereas Judaism is a religion of law; therefore, Germany must be a Christian state. Beiser then uncovers echoes of this thinking in the reputedly liberal Schleiermacher's ambivalence towards Jewish emancipation. With exemplary concision and substantiation

the essay constitutes an indictment of German High Romanticism and sets an agenda for future research.

The "Philosophy and Literature" section includes essays devoted to both Romantic and post-Romantic writers, several of which are broadly oriented around tensions between antiquity and modernity, classicism and romanticism. Helmut Hühn's essay first traces the genealogy of the Romantics' vision of a "new mythology" – in the oldest *Systemprogramm* (1796/7, here attributed to Hegel) and Schlegel's "Dialogue on Poetry" (1800) – as a utopian answer to Schiller's elegiac view of a de-mythologized modernity, to then argue that this vision failed to describe how a binding collective *mythos* could be produced and sustained under conditions of modern liberal individualism.

Schlegel's ideal of a "unification of the ancient and the modern" in the form of a modern mythology also animated Nietzsche's 1872 *Birth of Tragedy*, the Romantics' influence upon which Michael Forster reveals in his judiciously argued essay. In its general philological-philosophical commitments, for instance to the historicization of genre, but more astonishingly in its reliance on the specific literary histories published by the Schlegel brothers, who introduced the distinction between Apollonian and Dionysian, Nietzsche's treatise according to Forster "for all practical intents and purposes … simply is a Romantic work" (288). This stark claim will elicit critical responses no doubt, one of which Forster himself anticipates, namely that the liberal-republican thrust of the Schlegels' view of tragedy is blunted in Nietzsche's interpretation, which complicates the role he claims for myth in nation-building.

The tension between ancient and modern also informs Rainer Schäfer's essay, which takes up the old chestnut that has bedeviled scholarship on Hölderlin (as it has on Jean Paul and Kleist): does he belong to Classicism or Romanticism? Rather than proffering either a monolithic view or an analysis differentiated by temporalization (early vs late), genre (classical vs romantic forms) or reception history, for instance, Schäfer distinguishes recognizably Romantic themes (Christian love, yearning for the infinite, monistic nature) entwined with Classical themes (most importantly an existential commitment to the ancient divinities). While the essay very helpfully identifies varying and vying features of Hölderlin's work, this uneasy combination of radically different worldviews requires further argumentation to clarify Schäfer's suggestion that the poet "unites" them (236).

In a rich and compact essay, Giulia Valpione provides a conspectus of Friedrich Schlegel's concept of life around 1804, indicating its vitalist aspects and the incorporation of the notion of 'vital force' (*lebendige Kraft*, also at

times troped as "love") within his organicist aesthetics, which entails that works of art – like life itself – are inexhaustible and unsusceptible to rational comprehensibility and universal, formal lawfulness. She further shows how for Schlegel vitality was a mediating element between art and society, for a culture's relative freedom enabled or obstructed the vital growth of its characteristic artforms and *Bildung*, hence Schlegel maintained an organicist conception of a politico-ethical community. It struck this reader that, like the topic it explores, this essay can easily and expansively grow by reconstructing and evaluating further the implicit arguments at work in its source texts.

Kierkegaard's critical appropriation and systemically precise use of Schlegel's concept of irony is admirably illuminated in Fred Rush's exegetical essay. Kierkegaard's aesthetic, ethical and religious spheres constitute radically different "forms of life" characterized by different comportments (distanciation and suspension of commitment, acting on universal reason, and creaturely suffering indicative of alienation from God), whereby a subject's self-transformation is conceived as moving from one sphere to another. Since the modes of comportment are non-commensurable, the transition from one sphere to another is discontinuous, and in that sense non-dialectical. In response Kierkegaard invokes Socratic and Romantic irony as the means to effectuate a "shift" from the aesthetic to the ethical sphere: Schlegel's perpetual, even self-reflexive, suspension of commitment entails the subject's entertaining a manifold of possible perspectives that in turn allows the subject to imagine the "sway" of an alternative form of life as precondition for her falling into it. Likewise, humor can enable the shift from the ethical to the religious sphere because it, like irony, leavens the self-awareness of human suffering and finitude before the absolute with "knowing kindness," precisely the quality that Rush finds lacking in Schlegel's concept of irony.

Two essays in the volume uncover new pathways of German thought in British Romanticism. James Vigus shows how in his 1817 *Biographia Literaria*, Coleridge implicitly draws on Kant to invoke a transcendental critique of Hartley's empiricist associationism as a principle of lyrical composition, which ignores the role of creativity in mental activity. Coleridge finds the same creative, formative spontaneity in his account of the role of "primary imagination" in perception, which in turn motivates his criticism of Wordsworth's attributing special significance to the experience and language of rustic characters: for Coleridge, quotidian experience in general is shaped by creative mind, and so available to everyone and expressible in ordinary, universal language (for him, Biblical language), exemplars of which Coleridge found in his study of the "mystics" George Fox and Jakob Böhme.

Paul Hamilton argues that post-Kantian aesthetics ramifies further into British Romanticism than scholarship hitherto recognizes, by showing how Byron's *Don Juan*, through its capacious prosody, manifold genre forms, modes (e.g., comic, sublime, irony, bawdy) and styles, and even narrated geographical peregrinations (likened by Hamilton to writings by Schlegel and Novalis), strives to expand the purview of aesthetic experience beyond implicitly Kantian strictures; and by claiming that in Shelley's *Triumph of Life*, by its adopting a reflective stance upon life's immediacy, "Kant's apperceptive category, the condition of perception which is never a perception itself, is revived, but turned into an experience" (328). Unfortunately, the essay amasses references to historical and current thinkers and theorists, schools, positions, slogans, as though performatively imitating what it claims of Byron and Shelley, viz., that they turn "insolvable philosophical positions into the experience of them," a vertiginous experience for this reader.

The section on "Philosophy and Literature" and collection itself concludes with the scintillating, fast-paced essay by Lina Steiner on Dostoevsky as a Romantic novelist. First contextualizing Dostoevsky's literary career within the debates between Schiller's humanist ideal of a reflective, second-order "naiveté" and Schlegel's Romantic view of the perpetually destabilizing potential of self-consciousness, as those debates reverberated within the Russian literary movements of the 1840s and 1850s, Steiner then documents the recurring presence of Schiller's literary works within a constellation of Dostoevsky's writings, culminating in her interpretation of *Brothers Karamazov* as a transposed triangulation of figures from Schiller's drama "The Robbers" that nonetheless foregoes the conclusiveness of that play. Steiner convincingly shows how Dostoevsky and his most astute interpreter, Bakhtin, who characterized his novels as "polyphonic", "unfinalizable" and "dialogic," draw on and develop Schlegel's conception of the open-ended novel as the highest form of Romantic art.

To their great credit, the editors have consciously striven to include contributors from across nations, generations and genders, with leading scholars researching German Romanticism from Germany (Manfred Frank), France (Jean-Luc Nancy) and the Anglophone world (Frederick Beiser). The composition of the volume is puzzling in a few respects. While most of the contributions exhibit the length and scope of a conference presentation turned essay, Manfred Frank's essay of nearly 100 pages, which could stand as a small book itself, constitutes almost 30% of the volume, and Nancy's contribution is a short, reprinted section from his and Lacoue-Labarthe's coauthored *L'Absolu littéraire*, which is still in print and readily available. In its quirkiness the volume perhaps unconsciously emulates the compositional

principles of the Romantic writers themselves. For this reader, one surprising result of reading the collection in its entirety is the seemingly unbounded fecundity and subterranean reticulations of Friedrich Schlegel's thought as absolutely pivotal among other thinkers, both in Jena around 1800 and far into the future. Another is the recurrence of the concept of "love" in Romantic thought and aesthetics, with ambiguous significations and connotations, ambivalent valences and uses, and divergent political implications. This very rich collection thus promises to be a welcome signpost to future research.

Henry W. Pickford

Karolin Mirzahkan, *An Ironic Approach to the Absolute: Schlegel's Poetic Mysticism*, Lanham, Lexington Books, 2020, xix + 120 pp. ISBN 978-1-4985-7891-2.

What is the Absolute? To define it would be to neutralise it as an Absolute, to demarcate and circumscribe it in words, reason and concepts. The German word "concept" (*Begriff*), argues Karolin Mirzakhan (76), is derived from the verb "to grasp" (*begreifen*): attempting to know the Absolute rationally and epistemologically, i.e. to grab it linguistically, means reifying it and thus betraying it. To avoid objectifying the unconditioned, the non-relational, non-relative and not dependent Absolute (*ab-solutus*) it is necessary to follow a different approach from that of a systematic and comprehensive analysis. In her agile, lucid and brilliant book, Karolin Mirzakhan primarily identifies the ironic character of Friedrich Schlegel's romantic fragments as a path to this Absolute. Paradoxically, the open and non-all-inclusive form of the fragment, apparently destined to the utmost particularity and limitation, can condense the great Whole and open up to the unsayable, indicating it without wanting to exhaust it through intellectual understanding.

In the introduction, the author shows the affinity between the aporetic and unresolved character of the Socratic question and the ironic approach to the Absolute of Schlegel's fragments. How is it possible to define virtue, the interlocutor asks Socrates in Plato's dialogue *Meno*, if we do not know what it is? "Searching for what we already know is futile, and searching for what we do not know is impossible" (xi). Starting from this paradox, in the first chapter of her book Mirzakhan provides a careful analysis of irony as a "form of paradox" in the *Athenaeum* journal fragments, which were published in Berlin from 1798 to 1800. If Socrates, with his irony (*eironeia*), dissimulates

himself, i.e. shows himself as ignorant on every issue, in order to reveal the ignorance of his interlocutor, this "disingenuous self-deprecation" is echoed Schlegel's irony, which is itself a form of self-creation (*Selbstschöpfung*), but also a form of self-destruction (*Selbstvernichtung*) and of self-restriction (*Selbstbeschränkung*). Paradoxically, it is precisely through this ironic practice of underestimation, self-limitation and self-criticism that the artist – and the philosopher – can approach the Absolute, the "essence" in the infinite plenitude of its meanings. As a form of paradox, irony affirms by denying and creates by destroying. The infinite and formless richness of the Absolute emerges from the limited and ironic form of the fragment.

As dissimulation of the truth, irony says one thing by meaning another: in this way it creates a distance, a gap between the spoken and the reality. By asking: "Isn't the weather beautiful?" while a thunderstorm is raging (5), we interrupt our usual way of understanding the world, we deviate from the literal meaning of events. From this point of view, irony seems to Schlegel to be a "permanent parabasis": a disruptive interruption in the linear narrative similar to the moment in Attic comedy, when all of the actors leave the stage and the chorus is left to address the audience directly. In this case too, claims Mirzakhan, irony takes the paradoxical form of an interruption (temporary by its nature), which occurs permanently (7).

Moreover, irony, both in the sphere of writing and in the dialectical sphere of oral discourse, is a collective practice. Very appropriately, the author emphasises the importance of a *Symphilosophie* that develops in the relationship with the other. Socrates seeks a definition of virtue *with* Meno, just as Schlegel does not consider himself a solitary thinker, but writes his fragments in order to keep a constant dialogue with his friends of the Romantic circle – his brother August Wilhelm, Caroline Schlegel, Dorothea Veit, Friedrich von Hardenberg (Novalis), Ludwig Tieck and Friedrich Schleiermacher. The idea of an ironic philosophy that is practised together, is taken up in the second chapter of the book, which considers Hegel's critique of Friedrich and August Wilhelm Schlegel's fragments. According to Hegel, Schlegel is "a divine ironic genius perched atop a high peak above the rest of the citizens" (35). Hegel therefore regards the "ironic genius" as an exceptional, solitary-subject, free from constraints, who "creates and destroys meaning at his whim and does not regard anything as independently solid or good" (*ibid*). Understood in this way, the romantic "divine" genius no longer has anything to do with the "sacred relation" of *Symphilosophie*, but she/he becomes a dangerous advocate of arbitrariness. Irony, instead of being a fruitful practice that allows an approach to the Absolute by holding together presence and absence, the said and unsaid, openness and concealment,

seriousness and playfulness, becomes "a threat to the objectivity of truth" (37).

The boundless ego of genius, "lord and master of everything", establishes itself as the universal norm and as "the source of all meaning" denying any stability, any fixity, any internal legality, any objective truth. The author contrasts effectively the sharp critique of Hegel with the image of Schlegel as a philosopher of relations and not of solipsism and arbitrariness. To communicate with the Absolute does not require an equally absolute ego, but rather an (ironic) discipline of distance and an emphasis on self-restraint. Schlegel's own writing is not intended to exhaust the Absolute "analytically", but to hint at it "synthetically". Hence, the stylistic importance of short, self-contained fragments, which through the pause and the unspoken generate an "anti-foundationalist thought", which "does not aim at closure, but rather views philosophizing as an infinite, communal activity" (46). It is very interesting that Mirzakhan shows how the fragments "are not only in dialogue with the reader, but also in a conversation amongst themselves" (47).

The fluid, open and undefined character of Schlegel's ironic writings is related, in chapter three, to the ancient Chinese text of *Dao De Jing*. This is probably the most theoretically stimulating but also the most problematic section of the book. Mirzakhan argues that "these texts are co-illuminating: Both emphasize the role of that which cannot be known and exceeds the realm of the human, but which is necessary for knowing to happen at all" (xvii).

Like the romantic fragments, the language of the *Dao De Jing* does not produce a complete, totalizing and all-embracing system. Rather than offering a definition of the *Dao*, the *Dao De Jing* deals with a series of metaphors that can be read in multiple, open, and paradoxical ways. Naming is never univocal and definitive, but always introduces additional and equally plausible meanings. This linguistic affinity between Schlegel's work and the book of Laozi highlighted by the author can certainly be shared, but from an ethical and metaphysical point of view the analogy between the romantic Absolute and *Dao* becomes problematic. Mirzakhan often refers to the action of "striving" in her text: this action denotes an effort, a struggle, a search, a tension whose aim is to get as close as possible to the Absolute. Despite being an infinite immanent to reality, and not a transcendent one, the romantic Absolute is an object of desire and yearning, which is expressed by the famous German notions of *Sehnsucht* (longing, craving, yearning) and *Streben* (striving, aspiration, effort). With all due historical distinctions, both Socrates and Schlegel are subjects who tend and "strive" towards truth,

essence and the Absolute, even if they are (ironically) aware of the constitutive exceeding of this Absolute with respect to the means of language and reason.

Taoist ethics, on the other hand, is not about "striving" at all, but about not-acting. The issue of non-action (*wu wei*, 無爲) addressed in the *Dao de Jing* reveals the *Dao* as spontaneity. *Dao* is therefore not really the Absolute as a "goal" to be approximated or a "task" to be pursued, but rather the active quality of all spontaneous action, which unfolds from the absence of intervention by the subject. If from a stylistic and linguistic point of view the *Dao De Jing* is "a rich resource of how poetic writing can convey a non-linear striving to know the Absolute" (60), the virtue of the Taoist sage is inactive and without any intention. Appropriately the author states: "True oneness implies a situation where there is no division between an 'I' and oneness" (71), but as this division disappears, then any form of tension towards the Absolute and any desire to strive for the Absolute also disappears.

Precisely because of its indifference and lack (or emptiness) of intention, motives and purpose, the Daoist sage-ruler cannot be consciously ironic, because she/he is unable to distance herself/himself from the dynamic and spontaneous set of natural and human processes of Dao. The Daoist sage, as Hans-Georg Moeller claims, "simply does not operate in a mode of knowing."[1] Unlike Socratic and romantic irony, the "idiotic irony" of the Daoist does not have any particular mental content or plan. Taoist texts (both *Dao De Jing* and *Zhuangzi*) seem not to teach the ironic practice of self-restriction and dissimulation, but to point toward the path of naturalness.

Through several metaphors of the *Dao* (the "uncarved wood", "the path that is formed in the walking of it", "the clay pot", "the empty hub of a wheel", the Cook Ding and the "cutting up oxen"), Mirzakhan highlights the importance of emptiness not as mere absence or "nothingness", but as a condition of "transcendental" possibility for any particular thing. As a whole, the *Dao* condenses within itself the unity of opposites: *yin* (陰, black, night, darkness, feminine) and *yang* (陽, white, day, light, masculine). This polar, dynamic and dialectical relationship between opposites is at the same time paradoxical. In the *Dao De Jing* we read: "Presence (*you*, 有) is generated from non-presence" (*wu* 無): this logical contradiction works on the practical level of the "dark efficacy", where only absence and emptiness make presence and fullness possible. The roots of the plant remain hidden in the darkness, yet without them the plant would not come to presence (see 75).

[1] Hans-Georg Moeller, "Idiotic Irony in the *Zhuangzi*", *Chinese Literature: Essays, Articles, Reviews [CLEAR]* 30 (2008): 118.

This "dark efficacy" (74) is also characteristic of Schlegel's ironic fragments, which emphasise the role of silence, gaps and empty spaces in the intuition of the Absolute. This element of affinity, as we have argued, should be juxtaposed with a couple of points of divergence: the lack of striving in the sage approach to the *Dao* and the absence of irony as a subjective and conscious distancing from the *Dao*. Other elements complicating Mirzakhan's cross-cultural comparison could be developed: is it possible to speak of "poetic mysticism" (81) in relation to *Dao De Jing*? Is the same ethical and political attention paid to the figure of the sage in the Romantic context as in the Daoist context? These questions do not seem to be answered in the book. Another issue not taken into consideration is the notion of corporeality, which is essential in Daoism for getting in touch with the unity of the whole (through concentration on deep breathing, suspension of sensory input, dynamic meditation, etc.).

In the last chapter of the book, the author examines John Ashbery's poem *Flow Chart* (1991). According to Mirzakhan, the open and relational character of this famous American contemporary work shares with the *Dao De Jing* and with Schlegel's fragments a structure marked by emptiness, by absence of a linear plot and by a lack of strict internal coherence. The chaotic, fuzzy, faded and surrealistic development of the poem seems in particular to indirectly recall the arguments discussed by Schlegel in the fragment "On Incomprehensibility" (1800): "the incomprehensibility of the *Athenaeum* fragments is due to the irony […]. The desire for complete comprehension destroys the possibility of comprehending the whole" (92-93).

The reference to *Flow Chart*, certainly suggestive, convincing and well-argued, stimulates some questions in turn: might John Ashbery's poem not be, rather than a conscious attempt to approach the Absolute, an art form that just wishes to remain faithful to the dynamic and often irrational flow of life? Is it enough for a text to be cryptic to be assimilated with the *Dao De Jing* or with the Romantic fragments? Could Mirzakhan's choice have fallen on other works of an enigmatic, inexplicable, disconnected and surreal character (such as some poems by Mallarmé, Lautréamont, André Breton, Joyce or Kerouac)? Can the absence of specific content to be grasped and understood and the use of extra-experiences into the poems (see 99) be considered an *unicum* of Ashbery's work?

Perhaps it is precisely because of its ironic vocation that this clever book leaves open some of the questions it raises, inviting the reader to always be "alive and critical" towards *Symphilosophie* or *sympoetry* (102).

Alberto Giacomelli

CARLOS ZORRILLA PIÑA

Elizabeth Millán Brusslan (ed.), *The Palgrave Handbook of German Romantic Philosophy*, New York, Palgrave Macmillan, 2020, 721 pp. ISBN 978-3-030-53567-4.

Perhaps no other current in the broader stream of what we generally think of as philosophy has proven so adept at disseminating itself and fostering new insight within old modes of thought, while at the same time remaining so little valued and studied itself, as Early German Romanticism. The reason for this is not hard to find. Seemingly short-lived and self-professedly dispossessed of fixed identity, the meaning of Romanticism has historically confounded scholars. More so because, in coming to terms with what the romantic in Romanticism may be, essentialist and nominalist approaches alike have proven of little avail. Indeed, though we do find telling clues as to what romanticizing means in several of the fragments put forth by the two thinkers who arguably stand as the foci of the movement's orbit—the friends Friedrich Schlegel and Friedrich von Hardenberg, *dit* Novalis—, the last thing these clues were meant to do is add up to a definition. And were we, on the other hand, to harbor the hope of rounding up all romantic thinkers in order to distill what is common to their works, we would inevitably come up against the problem that there is no clear-cut consensus of who even counts as a romantic: with an arguably qualifying disposition being showcased by thinkers who would wince at the label, and would-be members at times having their credentials vacated the very instant the latter are too confidently arrogated. That there was—and is—something like philosophical Romanticism; that its inception is to be sought in the ideas and philosophical practices of a set of thinkers who were active in what is now Germany in the late 18th and early 19th centuries; and that these ideas and their unfolding since offer the playing field for the pursuit of its meaning—these are all things which, as Elizabeth Millán Brusslan reminds us in her editor's introduction, are well beyond doubt. But what the ultimate meaning of this indubitable constellation of facts may be and how exactly its pursuit must be mapped is something for which no final decision may as yet be offered.

This indecision on the one hand makes the appearance of a volume dedicated entirely to "a careful investigation of the meaning of Early German Romanticism/*Frühromantik* for philosophers…" all the more welcome. On the other hand, it could be submitted that the nature of the indecision is by no means such a superficial one as to be *handled* by what, with an arguably infelicitous choice of words, calls itself a *Handbook of German Romantic Philosophy*. In fairness, the present one is the latest in a long—and highly worthwhile—series of offerings going under the umbrella name of Palgrave

Handbooks of German Idealism; and one can sympathize with the editors of this series in their preference to stand out from the long list of available "companions" on this and other philosophical epochs and currents. Still, a companion evokes a certain Virgilian voice in the descent to the depths, whereas a handbook—even in cases where it makes no explicit claim to that end—inevitably suggests the more technical promise of an instruction manual, capable of readily outputting information upon its user's command. If the eventual reader of this volume on German Romanticism were to expect the latter, they would surely be setting themselves up for disappointment. Standing on the other side of this hefty handbook, they will likely—hopefully—not feel that they have definitively secured a handle on philosophical Romanticism. Yet this seeming failing—that despite its title and its seven hundred plus pages the handbook feels less like an explanation of what Romanticism is and more like an exposure to what it may deliver—is without a doubt also the source of its most significant achievement. For in staying true to the methodological conviction lying dormant in Millán Brusslan's promise of an 'investigation', what the handbook offers its reader is not the transmission of a content, but a very enlightening and very enriching immersion into the vestigial life of Romanticism. Awakening and following the traces of that philosophical disposition throughout the many fields in which it has made itself at home, what the handbook does is situate us squarely in its midst: a sort of textual exponentiation whereby we do not additively traverse the steps towards our destination, but are rather transposed to its center by a qualitative leap, all the while coming to realize that the meaning of something need not be the closure of its definition, but only the seminal enclosure from which it grows. And dare we say that this is at least consonant with that hint Novalis once put forth, that philosophy was akin to the task of squaring the circle (*Das allgemeine Brouillon*, n. 640)?

In achieving that act of qualitative exponentiation, Millán Brusslan is true to the spirit of *symphilosophy*—or collaborative philosophizing—and interdisciplinarity, having enlisted the voices of a diverse group of leading scholars in the fields of philosophy, German studies, literature, art criticism, and the history of science. After an all-too protocolary Introduction, what ensues is a meticulously curated collection of twenty-eight high quality contributions. Those contributions are helpfully organized—though thanks to constant thematic crossover not fatally dissected—into four parts which respectively deal with the historical context of philosophical Romanticism, its aesthetic and artistic contributions, the relationship it maintained with the sciences of its day, and the legacy or—if one will—ongoing life of Romanticism. Detailed individual commentary is regrettably precluded in

the present review by such a considerable number of entries. In lieu of that, the only way to do justice to each of the entries the handbook offers is by earnestly recommending the reader to go to their encounter, assuring them that the reward of doing so will be worth their effort each and every time. It is likewise worth emphasizing that thanks to Millán Brusslan's good editorial choices, as well as to the diversity and richness of its offer, the handbook is as capable of initiating the novice to Romanticism as it is of meeting the seasoned student with previously unconsidered aspects of it, assuredly renewing the interest for further engagement.

The inclusion of scholarship across institutional and departmental divides is mirrored in the balanced and inclusive approach to the *dramatis personae* which are featured in the handbook. Staple figures of Romanticism such as the brothers August and Friedrich Schlegel, Novalis, Schelling, Schleiermacher, and Hölderlin make the obligatory appearance. And as is to be expected, these figures are once again diligently studied against the backdrop of their reception and creative appropriation of canonical figures such as Kant, Fichte, Jacobi, Herder, Goethe, and Schiller, to name a few. Convincingly argued pieces by Jane Kneller and Andrew Mitchell, for example, not only situate the early romantics as inheritors of Kant's and Fichte's philosophical projects, respectively. They also succeed in painting that inheritance as a penetrative critique of their predecessors' tenets, and the transformation, unconditioning, and aesthetization of the latter as one guided by a serious confrontation with the problems they engendered, rather than as the purely capricious resistance to rigor, method, or structure—a mischaracterization of Romanticism which is nonetheless still operative in our time. Beyond this clique of familiar faces, however, attention is in like measure devoted to what are usually less heeded voices within this already little heeded tradition. Karoline von Gunderröde and Dorothea Veit, for example, are presented as revolutionary and self-standing thinkers who challenged gender roles and social conventions in Anna Ezekiel's poignant critique of the prevailing narrative of this period. And the emerging view of nature which Romanticism made possible is plotted by the articles of Robert Richards and Jocelyn Holland against the speculative approaches of Johann Wilhelm Ritter and the empirical investigations of Carl Gustav Carus, two nature-philosophers who are commonly passed over in favor of better known ones.

Much the same thing which was said with regard to figures chosen can be said in terms of the thematic scope of the handbook. Classically celebrated *topoi* of Romanticism such as the role of the fragment and of irony, the appeal for interdisciplinarity, the significance of categories such as genesis and

organicity, the (im)possibility of systematic closure, or the issue of an alleged (dis)continuity of the romantic exaltation of homeland and its abuse by later nationalistic movements are skillfully dealt with by many of the handbook's entries. But welcome attention is also devoted to themes that have rarely if ever been explored in their connection to philosophical Romanticism: the cinema, technology, media theory, university governance and curricular design, as well as a more positive social and political influence which includes a critical look at the assumed hegemony of the masculine, the traditional, and the European. To name just a couple of examples, Anne Pollock's lively tour of salon life invites us to envision this social space as a subversive platform of traditional structures thanks to which the intellectual empowerment of women was able to take important steps; while Leif Weatherby's reconception of life in semiotic terms takes us to the fringes of Romanticism's reach as it forces us to reconsider the divide between technology and the organism.

For the above reasons, Millán Brusslan's claim that the handbook offers "a comprehensive view of German Romanticism" is perhaps not unwarranted, even if we should not be too quick to read this comprehensiveness as synonymous with completeness, much less with exhaustion. While it would be unreasonable to expect that a single work (even one of length as considerable as the present's) touched on all the figures, themes, and veins of an entire tradition, there are certain omissions which it is nonetheless hard not to register. Hölderlin's importance for the development and, perhaps even more, for the ongoing influence of Romanticism arguably warranted more than the somewhat muted attention the handbook devotes to him. There is likewise virtually no account of the importance of Jakob Böhme's mysticism for the early romantics. Nor does Jaqueline Mariña's by itself very solid contribution feel like anything more than the first of many steps which would need to be taken in the direction of weighing the multifaceted importance of religion for thinkers whose conviction it was—to speak with Schlegel—that only religion would usher in a new humanity, and make possible the genuinely infinite poetry which might measure up to it (*Ideen*, n. 7). To this particular reader, however, the greatest untapped area of opportunity lies in the fact that nothing more than lip service is paid to the role which the proto-Romanticism that developed around the Freiberg Mining Academy played in the genesis of Jena Romanticism, and to the decisive influence that one particular figure of the former—to wit, Franz Baader—exercised on the proponents of the latter. To the extent that the satellite existence of a book review may enact the romantic gesture of fragmentarily complementing meaning from a dislocated position,

perhaps this would not be judged as too inappropriate an occasion to recommend the reader of the handbook not to omit a serious encounter with Baader in their search for the roots and the meaning of Romanticism. Baader's profundity goes well beyond that of the mines in connection to which he is passingly mentioned, and where many of the ideas which would become crucial to several romantics first began to crystallize. Much of the tincture of Novalis' understanding of magic and of exponentiation e.g. was drawn from Baader; as was—by his own admission—the ultimate inspiration for Schelling's ground *philosopheme* in both its nature-philosophical and properly ideal valances. Adding to this the fact that Baader's philosophical overhaul of the Newtonian-Kantian understanding of gravity would have momentous consequences for the development of contemporary physics, then his virtual absence from the handbook becomes more regrettable and more ironic still...

Yet even such would-be defects of the handbook can be easily transposed into virtues if one but thinks that this apparent oversight of some of the strands of Romanticism's past have in turn allowed it to sprint ahead into its future and come rushing to our encounter. One of the most rewarding aspects of this collection of essays, indeed, is that thanks to contributions like Laurie Johnson's montage of romantic themes in contemporary cinema, or to the those of Pol Vandevelde, Nathan Ross, and Elaine Miller, all of which establish connections between the early romantics and more recent thinkers such as Heidegger, Adorno, Benjamin, or Landauer, the handbook as a whole proves adept at creating new meaning in the merging of otherwise distant horizons. Thereby, it also succeeds in presenting philosophical Romanticism as a living intellectual disposition inhabiting contemporary preoccupations—an always timely vocation of thought, one could say—rather than as a superseded historical stage or an isolated set of ideas or doctrines. Unaware as some may be of it, one or another of the seeds which Romanticism sowed may well have germinated in each of us who are given to the practice of thought, or may be at the root of what problems demand our attention. Whoever may want to familiarize themselves better with such a dissemination will find the *Palgrave Handbook of German Romantic Philosophy* an invaluable companion.

Carlos Zorrilla Piña

Dezső Gurka (ed.), *Changes in the Image of Man from the Enlightenment to the Age of Romanticism. Philosophical and Scientific Receptions of (physical) Anthropology in the 18th-19th Centuries*, Budapest, Gondolat Publishers, 2019, 280 pp. ISBN 978-963-693-300-5.

Il curatore del volume *Changes in the Image of Man*, Dezső Gurka, riassume l'obiettivo del testo in questo modo: raccogliere vari punti di vista che permettano di inquadrare i processi che portarono alla rivalutazione del ruolo dell'uomo nella natura e nella storia nel XVIII e XIX secolo, indagando le ricerche compiute in quegli anni nella filosofia, nell'estetica e nell'antropologia fisica. Ciononostante, il merito principale del libro è un altro: mostrare il «trasferimento culturale» (p. 218) tra i paesi europei a cavallo tra il XVIII e il XIX secolo, in particolare tra Germania e Ungheria. Il volume dimostra che la trasformazione della concezione dell'uomo in quei decenni coinvolgeva tutto il territorio europeo e non soltanto la Germania, la Francia o la Gran Bretagna. In modo esplicito, però, questo è il tema solo della quarta parte del volume (*Hungarian Receptions of the Philosophical and Anthropological Images of Man in the 18th-19th Centuries*), che viene preceduta da tre sezioni: una dedicata al dibattito sulla divisione dell'umanità in razze differenti (prima parte del volume), una concentrata sull'evoluzione dell'antropologia fisica (seconda parte) e la terza sezione in cui si offrono analisi delle immagini dell'uomo presenti nell'idealismo tedesco e in Herder.

La prima parte (*The Concept of Humankind in the Age of Geographical Explorations in the 18-19th Century*) si apre con il testo di László Kontler dedicato ai report di viaggio di Johann Reinhold Forster e del figlio Georg che parteciparono alla seconda spedizione di James Cook (1769-1772) e che risentirono del dibattito sulla temporalizzazione della differenza umana, per cui la diversità tra gruppi umani deve essere attribuita in larga parte allo stato da essi raggiunto in una linea universale di sviluppo (p. 31). Il modo con cui rapportare tra loro l'unità dell'umanità e le differenze fisiche e culturali ritorna a tema anche nel secondo capitolo, dedicato alla figura di Linneo, così come nel terzo testo, che, attraverso una comparazione tra Kant, Herder e Georg Forster, non solo affronta il dilemma sulla presenza di una o più razze umane, ma dimostra come le diverse risposte alla questione riguardino diversi concetti di esperienza e quindi coinvolgano una differenza epistemologica che pone Kant ed Herder da un lato e Forster dall'altro.

Nella seconda sezione (*The Beginnings of the German Physical Anthropology*) si offre un'utile panoramica sui temi dell'antropologia in Germania a fine XVIII secolo. Vengono toccati temi centrali come il concetto di razza applicabile o meno non solo alle caratteristiche fisiche (come per

Blumenbach), bensì anche alle peculiarità spirituali e culturali di un popolo (come per Meiners), ma anche l'affermazione o la negazione di una gerarchia tra razze e il rapporto tra anima e corpo. Da quest'ultimo punto, dimostra Vera Békés (p. 143-155), consegue la possibilità di fondare o una scienza che consenta di dedurre il carattere di una persona dalla struttura del cranio (come nella fisiognomica di Lavater) oppure di inaugurare un sapere come la patognomica di Lichtenberg che mira alla descrizione sistematica dei segni tipici che appaiono come risultato delle passioni e delle emozioni.

La parte successiva del volume (*Development of the Image of Man in German Idealism*) risente maggiormente della vastità del tema scelto come centro del volume, in quanto la categoria di "idealismo tedesco" viene inteso in senso decisamente ampio: se certo ogni categoria utilizzata nella storia della filosofia è discutibile e i filosofi che rientrano in una o più categorie possono cambiare, tali etichette possono tuttavia essere utili per sedimentare ed evidenziare divergenze, talvolta anche radicali, tra autori che scrissero comunque nello stesso periodo e trattarono di tematiche simili. Dimenticando questa distanza (anche per comprensibili questioni editoriali), vengono così raggruppati sotto la stessa categoria Herder (a cui è dedicato il testo di Endre Hárs), Hegel (Klaus Vieweg) e Carus (Dezső Gurka): la comparazione tra le tre posizioni sarebbe certamente interessante, ma l'operazione editoriale probabilmente non ha consentito al curatore del volume di dedicarle uno spazio specifico, anche solo all'interno di un cappello introduttivo. Questo non deve però portare il lettore ad abbandonare questa sezione del volume, che ha degli evidenti pregi, come il paragone tra Pietro Moscati ed Herder (che riporta alla luce un piano europeo di scambi ed influenze scientifico-filosofiche, questa volta tra Italia e Germania) e l'approfondimento sul sogno e l'incoscienza (*Unbewußte*) in Gustav Carus, la cui importanza è data anche dal peso che questo ebbe sulla cultura russa (in particolare su Dostoyevsky, p. 181).

Il volume si chiude infine sugli echi che il dibattito sviluppatosi in Europa Occidentale e Centrale ha avuto sulle visioni dell'uomo in Ungheria a cavallo tra i secoli XVIII e XIX. Questa parte gode di precise ricostruzioni storiografiche che spiegano e dimostrano come le ricerche avvenute in particolare in Germania ed Austria giunsero nei centri culturali dell'Europa Orientale. Il ruolo non solo culturale, ma anche sociale e politico, dell'influenza degli sviluppi scientifici e filosofici dell'Europa occidentale in Ungheria è affrontato sin dal primo capitolo della sezione (scritto da Ildikó Sz. Kristóf). Attraverso queste pagine si scopre l'importanza della comunità protestante nella traduzione in ungherese vernacolare delle opere descriventi i viaggi intrapresi dagli scienziati nelle Americhe dando vita all'etnografia

anche in Europa Centrale e Orientale. Le traduzioni in questione riportavano soprattutto opere scritte originariamente in tedesco, segno non solo del desiderio di facilitare il diffondersi in patria delle opere scientifiche diffuse nelle università di Jena, Halle o Göttingen (regolarmente frequentate dagli studenti ungheresi protestanti alla fine del XVIII secolo), ma anche della volontà di separarsi dalla cattolica Vienna.

Tra gli studenti ungheresi iscritti ad atenei tedeschi c'era anche Johann Ludwig Schedius, al centro del testo di Piroska Balogh, che ottenne la cattedra di estetica a Pest nel 1792 dopo aver terminato i propri studi accademici a Göttingen. Cuore del pensiero di questo filosofo c'è la *philocalia* ("amore per la bellezza"), secondo cui ogni ambito dell'umano segue le leggi dinamiche ed organiche della bellezza (p. 226). L'A. avrebbe potuto dedicare qualche passaggio in più (riferendosi anche ad una bibliografia maggiormente aggiornata) al pensiero politico di Schedius, così poco conosciuto, ma questo saggio rappresenta già di per sé un ottimo stimolo per le future ricerche.

A Sámuel Csernátoni Vjda e alla sua traduzione del testo di Karl Friedrich Flögel *Geschichte des menschlichen Verstandes* è dedicato invece il capitolo firmato da Tibor Bodnár-Király, il quale si concentra sulle alterazioni significative che distanziano la versione ungherese da quella originale tedesca, testimoniando così sul piano concettuale la distanza tra l'Illuminismo tedesco e quello est-europeo.

Lilla Krász, nel saggio successivo (*"Causa historia" and "relatio morborum". Patient bedside observations*) ritorna ad accorciare le distanze tra Europa dell'est e dell'ovest, collocando la società ungherese su quel processo di medicalizzazione ben descritto da Foucault negli anni '70. Alla fine del XVIII secolo in Ungheria aumenta infatti vorticosamente il numero di medici educati presso le università e il loro ruolo nella società e nella vita politica aumenta proporzionalmente.

Il volume si chiude infine con *Theory and experience. The professors of the first Hungarian college of farming in Western Europe* di György Kurucz. L'A. si focalizza sul primo istituto di studi agronomici in Ungheria, che viene collocato come il risultato di un trasferimento culturale dall'Europa centrale e occidentale (in particolare dall'università di Göttingen) a quella orientale. Esso viene inoltre descritto nel suo ruolo sociale e politico, in quanto proprio in tale istituzione poterono svilupparsi le idee riformiste per l'abolizione del sistema feudale e a favore dell'affermazione di uno stato costituzionale.

Il testo di Gurka si presenta al lettore come diviso in due gruppi tematici: il primo, di carattere generale, sulle trasformazioni delle immagini dell'uomo in Europa centrale (soprattutto in Germania), e il secondo, che mostra l'eredità che tali immagini ebbero in Ungheria, dimostrando con

precisione come tale trasferimento culturale sia avvenuto. Se il primo gruppo tende a perdere di originalità (alcuni dei testi sono rielaborazioni di pagine già pubblicate altrove e le varie bibliografie di riferimento tendono a risentirne), il secondo è decisamente prezioso. Per questo motivo l'editore avrebbe potuto dedicare maggiore spazio a questa parte del volume: il pubblico internazionale a cui il libro è diretto – lo si deduce facilmente dalla scelta linguistica di contenere testi per la maggior parte in inglese e in numero minore in tedesco – credo possa infatti essere maggiormente attratto da questa sezione rispetto alle altre, che raccolgono certo scritti di valore, ma la cui originalità impallidisce rispetto a quella di chiusura, che dimostra magistralmente l'influenza che le istituzioni scientifiche tedesche (e in misura minore italiane) ebbero in Ungheria sulla trasformazione della concezione dell'essere umano. Il testo di Gurka, in breve, offre delle preziosissime pagine a chiunque sia interessato ad indagare la storia della filosofia e del pensiero scientifico europei a cavallo tra XVIII e XIX secolo superando la pretestuosa idea che per farlo non sia necessario superare quella linea immaginaria che unisce Königsberg a Monaco di Baviera.

Giulia Valpione

Jacob Burda, *Das gute Unendliche in der deutschen Frühromantik*, mit einem Geleitwort von Bazon Brock und einer Replik von Manfred Frank, übersetzt von Martin Suhr, Stuttgart, J.B. Metzler, 2020², xv + 153 pp. ISBN 978-3-476-05098-4.

This volume by Jacob Burda is a wide-ranging, fascinating, and important study of the topic of infinity in Early German Romanticism. It was originally submitted in English for a PhD in philosophy at the University of Oxford, and appears here in an expanded form for publication, translated into German by Martin Suhr, with a preface by Bazon Brock (pp. ix-xi), and a detailed twenty-page reply to Burda's findings by one of the leading and pioneering scholars of philosophical romanticism, Manfred Frank (131-150).

Burda's book especially treats the three romantic thinkers Friedrich Schlegel, Novalis, and Hölderlin in connection with the central idea of infinity, but there are many other ideas, figures, arguments, philosophers, and writers referenced in the book, including Kant, Fichte, Schelling, Hegel, Schleiermacher, Heidegger, Spinoza, Goethe, Schiller and so on, and even the composer Beethoven. It is beyond the scope of this short review to summarize or do justice to them all. I will above all focus my review on Burda's new interpretation of infinity in the Early German romantic philosophers.

One of Burda's main claims is that the idea of "good infinity" (or "the good infinite") – a topic later made famous by Hegel's polemics against "bad infinity" – can already be explicitly found among the romantic philosophers. And it is precisely this idea of good infinity that best articulates the metaphysical foundations of romantic philosophy on the one hand, and permits a better accounting for the element of finitude in the world on the other. Instead of a prevailing research trend to read the romantics as putting forth a negative view of infinity as a form of unattainable yearning or nostalgic longing (which he labels as "defeatist"), Burda seeks to replace this with what he believes is a more productive, textually accurate, and reconciliatory theory. This latter theory of infinity is intellectually underpinned by the principle of *Wechselerweis*, i.e. a form of mutual confirmation or reciprocal proof (xiii).

Or as Bazon Brock puts it in the Preface, rather than a "dark" and depressed view of the romantics, this book argues for a modern "light" view of romanticism, which underscores the possibilities of harmony and unification more than division and insatiability (ix-x). This laudable aim also reveals a bit of world-historical irony, insofar as it was Hegel himself who initially was so influential in promoting the rather distorted but now outdated reading of *Frühromantik* as essentially obscure, irrational, and even unhealthy and ill.

It is good to see the author return to the original *philosophical* sources of the period and attempt to seriously evaluate the metaphysical views that are to be found in the writings of the romantics, compared to a widespread tendency to approach their works with older preconceived notions of what romanticism supposedly is and then projecting those obsolete interpretations on to a limited selection of fragments or texts.

Instead of the romantics taking refuge in a world beyond, i.e. in a transcendent realm of the absolute, Burda maintains (referencing the work of Charles Larmore) that there is only "one world" for the romantics and not two different opposing worlds that can never be reconciled. Here Burda helpfully recalls that the goal of "romanticizing the world" actually testifies to the romantics' interest in transforming *this* particular world, in the here and now, more than in any kind of unattainable world beyond (1-2). Accordingly, Burda's theory of good infinity is one in which the finite and infinite can be seen in reciprocal harmony, and not forever in conflict or antithesis. It involves an understanding of infinity as related to a living process of "eternally becoming" than to static nostalgia (2-3).

In chapter one Burda presents Hegel's notorious view of the romantics found in the *Lectures on Aesthetics* (10-15), and furthermore notes the manner

in which both the philosophies of Friedrich Schlegel and Novalis directly engage with the Kantian-Reinholdian-Fichtean tradition of transcendental philosophy, specifically their theories of self-consciousness and being (*Sein*). This includes an awareness of Kant's emphasis on the synthetic unity of apperception as one of the highest points of the critical philosophy, as well as how the absolute I constitutes the *Grundsatz* or unconditioned first principle of Fichte's *Wissenschaftslehre* (15-20). Before putting forward his own interpretation of philosophical romanticism, Burda generously acknowledges, among others, the seminal significance of both Manfred Frank's influential reading of the romantics as non-foundational "ontological realists" and Frederick Beiser's diverging but likewise influential interpretation of the romantics as "objective idealists", in which the latter are inspired by the legacy of Platonism and Spinoza's definition of substance in the *Ethics* (20-24). Indeed, Frank and Beiser have so positively revolutionized the study of German romantic philosophy that any up-to-date interpreter worthy of the name must properly take into account their work and readings.

Despite supporting many other elements of Frank's conception of German romantic philosophy, Burda says he is not fully in agreement with Frank on one topic in particular: with the theory of the romantic absolute as a Kantian regulative ideal, so famously announced in the title of Frank's ground-breaking 1997 study: *unendliche Annäherung* – Infinite Approximation. Indeed, Burda explicitly states: "Es ist dieses Bild, das ich in diesem Buch in Frage stellen möchte" (It is this view that I wish to call into question in this book). (25) Why? Because for Burda, it leads to a split "two-world" conception of romantic philosophy and of ourselves as cognitive and feeling human beings that is extremely difficult to integrate. That is to say, a paradoxical and unfulfilled tension between the world of the absolute, infinite, or transcendental being on the one hand, and the world of self-consciousness, finitude and subjectivity, on the other (25).

In contrast, as mentioned, Burda defends a "one-world" theory of romanticism, in which the two sides of the human being, both the thinking and feeling and even "divine" elements of our own natures and the world, can ultimately be viewed in a unitary fashion, embodied in the idea of the "good infinite." He contends that it deserves the predicate "good" and not "bad" because: "sie ihr scheinbares Gegenteil, das Endliche, versöhnt, wodurch sie es *wahrhaft unendlich* macht" (it reconciles its apparent opposite, the finite, through which it is made *genuinely infinite*) (28). Indeed, drawing upon Friedrich Schlegel's *Philosophical Lectures*, Burda accordingly characterises the good infinite among the romantics as a conception of infinity that is able to mutually encompass both the infinite *and* the finite,

and not solely the former. Here again the principle of *Wechselerweis* comes into play (29). For Burda, therefore, the good infinite is not at all limited or logically defined by its opposite, the finite; one has to bear in mind that any kind of latter definition would result in a "bad" theory of infinity of the sort that Hegel criticized (cf. 49-51), and which Hegel thought he had found in the work of Fichte and the romantics (28).

Philosophically, Burda diverges from the interpretations of Beiser and Frank when arguing that ultimately the romantics should be classified neither as pre-critical idealists inspired by Spinoza nor as some kind of critical Kantian sceptics, but he takes up a suggestion by Fred Rush and prefers to see them more as precursors to the phenomenological tradition, in which the phenomena is self-revealing (33), and the departure point is the experiential existentiality of our feeling in this world (xiii, 5-6, 30-33).

Some of the other chapters in brief: chapter 3 (35-58) investigates Friedrich Schlegel's reference to "incomprehensibility" and those aspects of the real world and consciousness that supposedly cannot be fully cognitively seized or described; likewise for Novalis's *Hymns to the Night* and its claims of "inexpressibility" (55-56) and the themes of regret, despair, and longing in Hölderlin's *Hyperion* (57-58). These texts are all examined in the context of an enlightening discussion about the limits of a romantic philosophy of feeling, the senses, and the role of intellectual intuition (e.g. 44-48). Here Burda contests Frank's location of the romantics in the epistemological tradition of Kant, and rejects a reading of the romantic (Schlegelian or Novalisian) absolute as unattainable, or as "an isolated principle that is outside the sphere of human comprehension" (37). Chapter 4 tackles the issue of romantic methodology, scrutinizing in more depth the notion of *Wechselerweis*, which we saw for Burda is the methodical principle underlining the idea of the good infinite as such. He intriguingly poses the question as to what degree this principle could serve as a *Grundsatz* or "intermediary" first principle for romantic philosophy, and consequently how *Wechselerweis* should fit with the tradition of German idealism in terms of foundations and starting points (esp. 60-61, 67-72).

In the most substantial portion of his book, chapter five (87-126), Burda provides a detailed analysis of the debate concerning the romantics' relationship to the good and bad infinite. The chapter contains many specific examples of how to understand this core topic and the positing of a conception of philosophy that "starts in the middle" (106), while he agrees with the romantic injunction to deploy romantic irony as the *mediating link* between the two poles of the finite and the infinite (115-122). For Buda: "In this way the good infinite and irony coincide" (124). Aesthetically, Burda's

musical choice of the third movement of Beethoven's Piano Sonata No. 29 in B-Flat Major, Op. 106 (especially played by the pianist Igor Levit) as a concrete embodiment of the romantic good infinite is instructive and illuminating (8-9, 106-110). The Appendix contains reflections on the good infinite in Heidegger (127-130).

As mentioned, the book concludes with Manfred Frank's twenty-page reply to Burda (131-150). It's a wonderful, condensed, tour-de-force presentation on the topic of the infinite not only among the German romantics and idealists, but throughout the history of philosophy. Here Frank restates his reading of a number of key points, including his understanding of the opposition of a good and bad infinity, Hegel's polemic against the romantics, how he imagines a romantic response to Hegel's charges, and some final thoughts on what aesthetic alternatives remain open to the romantics.

Jacob Burda's book *Das gute Unendliche in der deutschen Frühromantik* is warmly recommended, because the intellectual debate unfolding on its pages between Burda and Frank on the topic of infinity continues to remain a central and burning issue for any reader or scholar of German romantic philosophy. This is because the debate on infinity encompasses and organically intersects with some of the weightiest metaphysical topics; such as the nature of the unconditioned, the eternal, the absolute, not to mention immortality, the divine, and the genesis of the world. Or the question of romantic epistemology: what exactly is the highest point of cognition for the romantics – sensibility, feeling, discursive rationality, sensible, aesthetic, or intellectual intuition? And of course, that ever-present and ever-contested problem of where to place the romantics in the history of philosophy: inside the Kantian and post-Kantian stream, outside it, or hovering on its boundary.

Finally, there remains the question of how to chart the intellectual orbit of the romantic movement *per se*, which of course reflects in turn on how to picture their conception of infinity. Is the process of romantic philosophizing geometrically linear (unending approximation towards an ideal point on the horizon), circular, or perhaps even cyclical? Or is Novalis's mysterious path to the inner and outer universes (55), and Friedrich Schlegel's theory of a polarity between consciousness and infinity (60), more accurately illustrated by some other scientific shape, like the elliptic oscillation around two poles? If the latter is indeed their true course, then Jacob Burda is perfectly right to conclude his "one world" interpretation by defining romantic philosophy as

an attempt to reconcile the two great antitheses of the inner microcosmic and outer macrocosmic worlds or poles (126).

David W. Wood

Bulletin

Mitteilungen

Bulletin

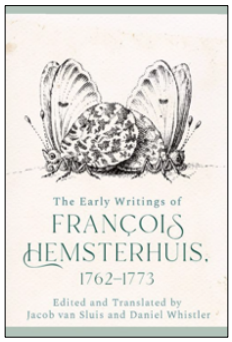
Bollettino

Symphilosophie

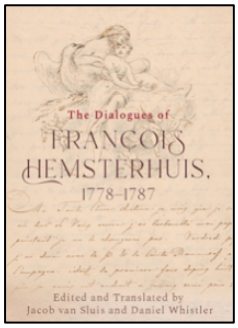
International Journal of Philosophical Romanticism

1. Editions | Ausgaben | Éditions | Edizioni

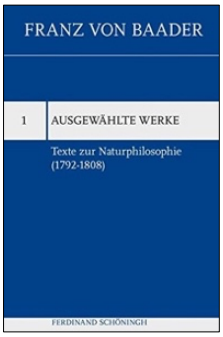
François Hemsterhuis, *The Early Writings of François Hemsterhuis (1762-1773)*, edited and translated by Jacob van Sluis and Daniel Whistler, with introductions by Peter Sonderen, Jacob van Sluis and Gabriel Trop (Edinburgh: Edinburgh University Press, forthcoming 2022), 208 pp., ISBN 978147448665



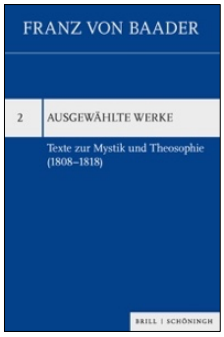
François Hemsterhuis, *The Dialogues of François Hemsterhuis (1778-1787)*, edited and translated by Jacob van Sluis and Daniel Whistler, with introductions by Daniel Whistler and Laure Cahen-Maurel (Edinburgh: Edinburgh University Press, forthcoming 2022), 240 pp., ISBN 9781474488082



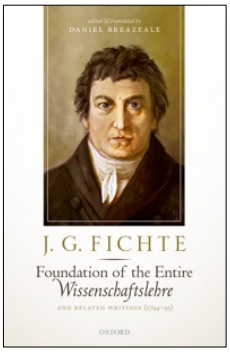
Franz von Baader, *Ausgewählte Werke*, Bd. 1: *Texte zur Naturphilosophie (1792-1808)*, hrsg. von Alberto Bonchino (Paderborn: Schöningh, 2021), x + 384 pp., ISBN 978-3-506-77937-3



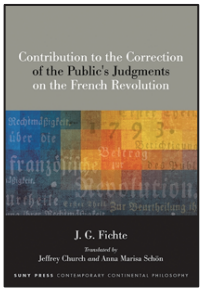
Franz von Baader, *Ausgewählte Werke*, Bd. 2: *Texte zur Mystik und Theosophie (1808-1818)*, hrsg. von Alberto Bonchino (Paderborn: Schöningh, 2021), xii + 353 pp., ISBN 978-3-506-78075-1



Johann Gottlieb Fichte, *Foundation of the Entire Wissenschaftslehre and related Writings (1794-95*), edited, translated, and with an introduction by Daniel Breazeale (Oxford: Oxford University Press, 2021), xiii + 589 pp., ISBN 9780198842903

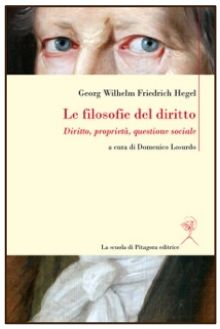


Johann Gottlieb Fichte, *Contribution to the Correction of the Public's Judgments on the French Revolution*, edited, translated and with an introduction by Jeffrey Church, Anna Marisa Schön (Albany NY: SUNY Press, 2021), 280 pp., ISBN 9781438482187



Johann Gottlieb Fichte, Friedrich Wilhelm Joseph Schelling, *Sur l'essence du savant et la philosophie de la nature (1805-1806)*, introduit, traduit et annoté par Patrick Cerutti et Quentin Landenne (Paris: Vrin, 2021), 280 pp., ISBN 978-2-7116-2984-8.

Georg Wilhelm Friedrich Hegel, *Le filosofie del diritto. Diritto, proprietà, questione sociale*, a cura di Domenico Losurdo (Napoli: La Scuola di Pitagora, 2021), 576 pp., ISBN 9788865425169



Novalis, *Le monde doit être romantisé*, traduit de l'allemand et présenté par Olivier Schefer (Paris: Allia, réédition 2021), 144 pp., ISBN 9791030416473

Friedrich Wilhelm Joseph Schelling, *Le arti figurative e la natura*, a cura di Giampiero Moretti e Tonino Griffero (Palermo: Aesthetica, 2021), 102 pp., ISBN 9788877261328

Friedrich Schlegel, *Ensayos sobre la prosa*, estudio preliminar y traducción de María Verónica Galfione (Madrid: Punta de Vista Editores, 2021), 194 pp., ISBN 9788418322280

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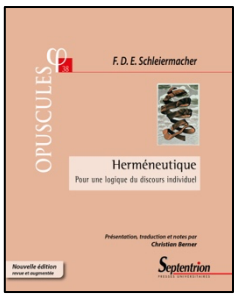
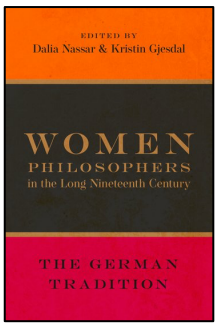
Friedrich Daniel Ernst Schleiermacher, *Herméneutique. Pour une logique du discours individuel*, présentation, traduction et notes par Christian Berner. Nouvelle édition revue et augmentée (Villeneuve d'Ascq: Presses Universitaires du Septentrion, 2021), 292 pp., ISBN 9782757432372



Dalia Nassar, Kristin Gjesdal (ed.), *Women Philosophers in the Long Nineteenth Century: The German Tradition* (Oxford: Oxford University Press, 2021), 304 pp., ISBN 9780190868031



2. Books | Bücher | Ouvrages | Libri

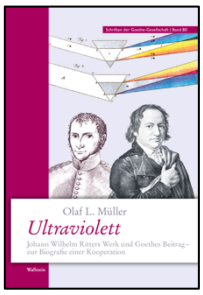
Romanticism | Romantik | Romantisme | Romanticismo

Nina Amstutz, Anne Bohnenkamp-Renken, Mareike Hennig, Gregor Wedekind (Hg.), *Das Bild der Natur in der Romantik. Kunst als Philosophie und Wissenschaft* (Paderborn: Brill/Wilhelm Fink, 2021), xviii + 249 pp., ISBN 978-3-7705-6596-2

Anastasia Klug, Olaf L. Müller, Troy Vine, Derya Yürüyen, Anna Reinacher (Hg.), *Goethe, Ritter und die Polarität. Geschichte und Kontroversen* (Paderborn: Brill/mentis, 2021), 385 pp., ISBN 978-3-95743-235-3

Stefan Matuschek, *Der gedichtete Himmel. Eine Geschichte der Romantik* (München: C. H. Beck, 2021), 400 pp., ISBN 978-3-406-76693-0

Olaf L. Müller, Ultraviolett. Johann Wilhelm Ritters Werk und Goethes Beitrag – Zur Geschichte einer Kooperation (Göttingen: Wallstein Verlag, 2021), 625 pp. ISBN 978-3-8353-3978-1



Giulia Valpione (dir.), L'homme et la nature dans le romantisme allemand. Politique, critique et esthétique / Mensch und Natur in der deutschen Romantik. Politik, Kritik und Ästhetik (Zürich: LIT Verlag, 2021), 270 pp., ISBN 978-3-643-91359-3

German Philosophy | Deutsche Philosophie | Philosophie allemande | Filosofia tedesca

Victor Béguin, Gilles Marmasse (dir.), *Raison et sentiments. De Hamann à Feuerbach, un débat allemand* (Paris: Hermann, 2021), 304 pp., ISBN 9791037013163

Ana Carrasco-Conde, Laura Anna Macor, Valerio Rocco Lozano (eds.), *Hegel y Hölderlin, una amistad estelar* (Madrid: Círculo de Bellas Artes, 2021), 328 pp., ISBN 9788494970085

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Corey W. Dyck (ed.), *Women and Philosophy in Eighteenth-Century Germany* (Oxford: Oxford University Press, 2021), 272 pp., ISBN 9780198843894

Daniel Elon, Die Philosophie Salomon Maimons zwischen Spinoza und Kant: Akosmismus und Intellektkonzeption (Hamburg: Meiner, 2021), 248 pp., ISBN 978-3-7873-4034-7

Johannes Epple, *Transformationen schöpferischer Vernunft. Kant – Hölderlin – Nietzsche* (Paderborn: Brill/Wilhelm Fink, 2021), xxvi + 426, ISBN 978-3-7705-6594-8

Gerad Gentry (ed.), *Kantian Legacies in German Idealism* (New York-London: Routledge, 2021), 298 pp., ISBN 9781138367364

Till Kinzel, Oliver Koch, Anne Pollok (Hg.), *Im Kontext des Spinozastreits: Lessing-Jacobi, Mendelssohn und Hamann* (Wolfenbüttel: Lessing-Akademie, 2021), 75 pp., ISBN 9783942675369

Manja Kisner, Jörg Noller (eds.), *The Concept of Drive in Classical German Philosophy: Between Biology, Anthropology, and Metaphysics* (Cham: Palgrave Macmillan, 2021), 347 pp., ISBN 978-3-030-84159-1

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Giampiero Moretti, *Estetica e comparatistica* (Brescia: Morcelliana, 2021), 144 pp., ISBN 8837235119

Cornelia Ortlieb, Friedrich Vollhardt (Hg.), *Friedrich Heinrich Jacobi (1743-1819). Romancier – Philosoph – Politiker* (Berlin-New York: De Gruyter, 2021), viii + 310 pp., ISBN 9783110727241

Gianluca Riccadonna, *Dante "poeta trascendentale". L'idealismo tedesco e la* Commedia (Napoli: La Scuola di Pitagora, 2021), 136 pp., ISBN 978-88-6542-797-2

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Fichte

Stefano Bacin, Owen Ware (eds.), *Fichte's System of Ethics: A Critical Guide* (Cambridge: Cambridge University Press, 2021), 260 pp., ISBN 9781108480628

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Jacinto Rivera de Rosales Chacón, Violetta L. Waibel (Hg.), *Die Rolle von Anschauung und Begriff bei Johann Gottlieb Fichte. Mit Kant über Kant hinaus* (Berlin: Duncker & Humblot, 2021), 248 pp., ISBN 9783428183524

Hegel

Arash Abazari, *Hegel's Ontology of Power: The Structure of Social Domination in Capitalism* (Cambridge: Cambridge University Press, 2020), 236 pp., ISBN 9781108792325

Kristin Gjesdal, *The Drama of History. Ibsen, Hegel, Nietzsche* (Oxford: Oxford University Press, 2021), 248 pp., ISBN 9780190070762

Stephen Houlgate, *Hegel on Being*, 2 vols.(New York: Bloomsbury Academic, 2021), 880 pp., 9781350190689

Allegra de Laurentiis, *Hegel's Anthropology. Life, Psyche, and Second Nature* (Evanston: Northwestern University Press, 2021), 264 pp., ISBN 9780810143777

Sebastian Stein, Joshua I. Wretzel (eds.), *Hegel's Encyclopedia of the Philosophical Sciences: A Critical Guide* (Cambridge: Cambridge University Press, 2021), 300 pp., ISBN 9781108592000

Pirmin Stekeler-Weithofer, *Hegels Grundlinien der Philosophie des Rechts. Ein dialogischer Kommentar* (Hamburg: Meiner, 2021), 1134 pp., ISBN 978-3-7873-3886-3

Jon Stewart, *Hegel's Century. Alienation and Recognition in a Time of Revolution* (Cambridge: Cambridge University Press, 2021), 344 pp., ISBN 9781009019828

Folko Zander, Klaus Vieweg (Hg.), *Logik und Moderne: Hegels Wissenschaft der Logik als Paradigma moderner Subjektivität* (Leiden – Boston: Brill, 2021), 216 pp., ISBN 9789004468528

Yuyang Zhu, *Der Weg zur absoluten Sittlichkeit. Eine Untersuchung zu Hegels* System der Sittlichkeit (Würzburg: Königshausen & Neumann, 2021), 160 pp., ISBN 978-3-8260-7176-8

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Rudolf Langthaler, Kant – Ein Kritiker Lessings? Übereinstimmungen und Differenzen im Kontext von Religion und Aufklärung (Berlin-New York: De Gruyter, 2021), xvi + 347 pp., ISBN 9783110716139

Birgit Sandkaulen, Walter Jaeschke (Hg.), *Jacobi und Kant* (Hamburg: Meiner, 2021), 247 pp., ISBN 978-3-7873-3977-8

Dieter Hüning, Stefan Klingner, Gianluca Sadun Bordoni (Hg.), *Auf dem Weg zur kritischen Rechtslehre? Naturrecht, Moralphilosophie und Eigentumstheorie in Kants* Naturrecht Feyerabend (Paderborn: Brill, 2021), xii + 273 pp., ISBN 9789004432611

Diethelm Klippel, Dieter Hüning, Jens Eisfeld (Hg.), *Die Rezensionen zu Kants* Metaphysischen Anfangsgründen der Rechtslehre. *Die zeitgenössische Rezeption von Kants Rechtsphilosophie* (Berlin-New York: De Gruyter, 2021), x + 364 pp., ISBN 9783110702804

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Julian Wuerth (ed.), *The Cambridge Kant Lexicon* (Cambridge: Cambridge University Press, 2021), 838 pp., ISBN 9781139018159

Andreas Trampota, *Kants Konzeption der Tugend als Habitus der Freiheit* (Baden-Baden: Nomos, 2021), 242 pp., ISBN 978-3-8487-7925-3

Till Hoeppner, *Urteil und Anschauung. Kants metaphysische Deduktion der Kategorien* (Berlin-New York: De Gruyter, 2021), 410 pp., ISBN 9783110556278

Martin Welsch, *Anfangsgründe der Volkssouveränität. Immanuel Kants ‚Staatsrecht' in der* Metaphysik der Sitten (Frankfurt a.M: Klostermann, 2021), 476 pp., ISBN 978-3-465-04575-5

Stefano Bacin, *Kant e l'autonomia della volontà. Una tesi filosofica e il suo contesto* (Bologna: Il Mulino, 2021), 224 pp., ISBN 978-88-15-29295-7

Schelling

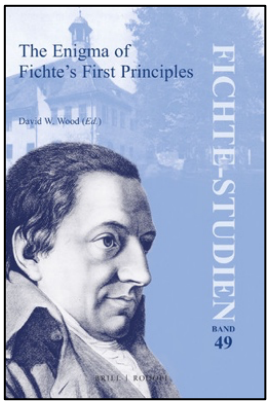
Thomas Buchheim, Thomas Frisch, Nora C. Wachsmann (Hg.), *Schellings Freiheitsschrift – Methode, System, Kritik* (Tübingen: Mohr Siebeck, 2021), xi + 503 pp., ISBN 978-3-16-159889-0

Sean J. McGrath, *The Philosophical Foundations of the Late Schelling: The Turn to the Positive* (Edinburgh: Edinburgh University Press, 2021), 296 pp., ISBN 9781474410342

Philipp Höfele, Lore Hühn (Hg.), *Schopenhauer liest Schelling.* (Stuttgart- Bad Cannstatt: frommann-holzboog, 2021), 436 pp., ISBN: 978-3-7728-2465-4.

3. Journals | Zeitschriften | Revues | Riviste

David W. Wood (ed.), "The Enigma of Fichte's First Principles / Das Rätsel von Fichtes Grundsätzen", *Fichte-Studien* 49 (2021).



Francesco Campana, Gabriele Tomasi (ed.), "Art and Knowledge in Classical German Philosophy", *Aesthetica Preprint* 116 (Jan.-Apr. 2021).

Felix Christen, Martin Vöhler (Hg.), *Hölderlin-Jahrbuch* 42 (2021).

Richard Faber, Dennis F. Mahoney, Gabriele Rommel, Nicholas Saul (Hg.), *Blütenstaub. Jahrbuch für Frühromantik* 6 (2021).

Lore Hühn, Philipp Schwab, Paul Ziche (Hg.), *Schelling-Studien: Internationale Zeitschrift zur klassischen deutschen Philosophie* 8 (2021).

Sean J. McGrath, Kyla Bruff, Alisan Genc (eds.), *Kabiri: The Official Journal of the North American Schelling Society* 2 (2020).

Michael Quante, Birgit Sandkaulen (Hg.), *Hegel-Studien* 55 (2021).

Ives Radrizzani (dir.), « Salomon Maimon », *Revue de Métaphysique et de Morale*, 2021/1, n°109.

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Conferences | Tagungen | Colloques | Convegni & Call for Papers

Mit rasender Freude dichten. Das Werk Dorothea Schlegels neu lesen. Workshop zum Werk Dorothea Schlegels
10-11 March 2022, Goethe-Universität, Frankfurt am Main
Organisation: Prof. Dr. Fredericke Middelhoff und PD Dr. Martina Wernli
Conference Programme:
https://romantikforschung.uni-frankfurt.de/workshop-dorothea-schlegel/

Aesthetics and Idealism in the Age of Goethe. The Annual Conference of the Society for German Idealism and Romanticism
8-10 June 2022, Södertörn University, Stockholm, Sweden
Organisation: Karl Axelsson, Camilla Flodin, Gerad Gentry, Mattias Pirholt
Conference Programme:
https://www.thesgir.org/sessions-and-conferences2.html

Theoretical Philosophy of Kant and Hegel. The Annual Conference of the Society for German Idealism and Romanticism
16-17 June 2022, Humboldt-Universität, Berlin, Germany
Organisation: Gerad Gentry, Tobias Rosefeldt
Conference Programme:
https://www.thesgir.org/sessions-and-conferences2.html

CFP: Das Konzept „Leben" in der Geschichte der Philosophie / Le concept de « vie » dans l'histoire de la philosophie
6-8 April 2022, Université d'Aix-Marseille, Aix-en-Provence, France
Organisation: Centre Gaston Granger (Université Aix-Marseille), Institut für Philosophie der Heinrich-Heine-Universität Düsseldorf)
Deadline for submissions: 31 December 2021
Further information: https://dgphil.de/uploads/media/1637831293-57.pdf

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CFP: Leuven Kant Conference 2022: The Early Reception of Kant's Critical Philosophy (1781-1804)
26-28 May 2022, University of Leuven, Belgium
Deadline for submissions: 17 January 2022
Further information:
https://hiw.kuleuven.be/cmprpc/events/leuvenkantconference/cfp

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CFP: Kant Yearbook 15 (2023), *"Kant and Philosophy of Language"*
Editor: Dietmar H. Heidemann (University of Luxembourg)
Submission deadline: 31 August 2022
Further information:
https://wwwen.uni.lu/research/fhse/dhum/research_institutes/philosophy/kant_yearbook