

Philosophisches Anfangen

Reflexionen des Anfangs als
Charakteristikum des neuzeitlichen
und modernen Denkens

Gesammelte Aufsätze

Herausgegeben von
Jesper Lundsryd Rasmussen
Christoph Asmuth

Königshausen & Neumann

Héctor Ferreiro

Fact-Constructivism and the Science Wars

Is the Pre-Existence of the World a Valid Objection
Against Idealism?

I Nature, Constructivism and Idealism

Analytic philosophers generally reject the claim that we do not know how things are in themselves, but only how they appear to us. The hostility of analytic philosophers towards constructivist approaches to knowledge is particularly strong when constructivism radicalizes its skeptical claims by extending them to the natural sciences. The antagonism between analytic philosophy and constructivism escalated in the 1990's to become what has been called since then the 'Science Wars'. The prelude to that escalation was the attempt by several analytic philosophers to stop in 1992 Cambridge University from granting the French philosopher Jacques Derrida an Honorary Doctorate. Among whom signed the petition against Derrida were key figures of analytic philosophy such as Willard Van Orman Quine and David Armstrong. Cambridge University put the motion to vote; since the protesters were outnumbered, Derrida was granted the Honorary Doctorate. Two years later, in 1994, Paul Gross, a biologist from the University of Virginia, and Norman Levitt, a mathematician from Rutgers University, wrote *Higher Superstition: The Academic Left and Its Quarrels With Science*. In this book, Gross and Levitt attacked scientific antirealism as well as radical skepticism and relativism in epistemology and philosophy of science.¹ Gross and Levitt pinpointed the philosophies of Nietzsche and Heidegger as the main sources for what they called 'cultural constructivism' and considered Jean-François Lyotard, Michel Foucault and Jacques Derrida as well as Paul Feyerabend and the supporters of the strong program of sociology of science as its most paradigmatic representatives.² *Higher Superstition* became a success in the scientific and philosophical community of the United States, such that one year

1 Paul R. Gross and Norman Levitt: *Higher Superstition: The Academic Left and Its Quarrels with Science*, Baltimore 1994.

2 Ibid., p. 234.

later, in June 1995, Gross and Levitt organized a three-day conference at the New York Academy of Sciences entitled »The Flight from Science and Reason«, which was attended by nearly fifty renowned scientists and analytic philosophers.³ Considered by many as the open declaration of the »Science Wars«, *Higher Superstition* inspired Alan Sokal, a physicist from New York University, to write »Transgressing the Boundaries: Towards a Transformative Hermeneutics of Quantum Gravity«, a parody in which Sokal caricatured the abuse of theses of the natural sciences by intellectuals such as Lyotard, Deleuze, Derrida, Lacan and Bruno Latour, and submitted the article in early winter of 1995-96 to *Social Text*, a well-regarded liberal academic journal on cultural studies. Unbeknownst to Sokal at the time of his submission, the editor of *Social Text*, the sociologist Andrew Ross, was preparing for the upcoming issue of the journal a special number against Gross and Levitt's book *Higher Superstition*.⁴ Without realizing that it was a parody, Ross included Sokal's article in his special issue.⁵ After *Social Text* appeared in May 1996, Sokal published a brief article in *Lingua Franca*, an American magazine about the intellectual life in academia, under the title »Revelation: A Physicist Experiments with Cultural Studies«, in which he made public that »Transgressing the Boundaries« was a hoax – additionally, in that brief article Sokal exposed summarily some of the inventions he had interwoven in the paper published by *Social Text*⁶ (later in 2008 Sokal would publish an extensive, paragraph-by-paragraph comment on »Transgressing the Boundaries«, revealing in detail every absurdity he had intertwined in that article⁷). Sokal's malicious article published by *Social Text* in a special issue aimed at defending cultural constructivism against its critics became thus a sort of performative *reductio ad absurdum* of that defense.

Sokal's revelation of the hoax reignited the debate about the alleged abuse of natural sciences and mathematics by certain philosophers and intellectuals from the social sciences. The debate spread rapidly from the academic community to the scientific and cultural supplements of renowned newspapers, particularly in the English-speaking world and France, since many of the central figures attacked by Sokal were French authors. In this context, in October 1997 Sokal published in France *Impostures Intellectuelles*, a book in co-authorship with Jean Bricmont, a Belgian physicist and professor of Theoretical Physics at the Université Catholique de Louvain, in which he examined further examples to those he had provided in

3 Paul R. Gross et al. (eds.): *The Flight from Science and Reason (Annals of the New York Academy of Sciences 775)*, New York 1996.

4 See Andrew Ross: »Introduction«, in: *Social Text* 46/47 (1996), pp. 1-13, especially pp. 6-12.

5 Alan Sokal: »Transgressing the Boundaries: Towards a Transformative Hermeneutics of Quantum Gravity«, in: *Social Text* 46/47 (1996b), pp. 217-252.

6 Alan Sokal: »A Physicist Experiments with Cultural Studies«, in: *Lingua Franca* 6/4 (1996a), pp. 62-64.

7 See Alan Sokal: *Beyond the Hoax. Science, Philosophy and Culture*, Oxford 2008, pp. 5-91.

the article published by *Social Text*.⁸ Derrida⁹ and Latour¹⁰ themselves, as well as other important French philosophers such as Jean-François Revel,¹¹ Régis Debray,¹² Jacques Bouveresse¹³ and Julia Kristeva¹⁴ joined the debate – now known as 'the Sokal affair'. From the English-speaking world key figures of analytic philosophy, such as Paul Boghossian,¹⁵ Thomas Nagel¹⁶ and Philip Kitcher¹⁷ as well as renowned scientists such as Richard Dawkins¹⁸ entered the debate as well.

From the very beginning of the homonymous affair, Sokal did not limit his criticism to what he deemed to be cases of abuse of theses of the natural sciences and mathematics by some contemporary philosophers whom he sought to unmask as *dilettanti*, but he went on to make a much broader claim about the nature and scope of human knowledge in general, namely: »[t]hat there exists an external world, whose properties are independent of any individual human being and indeed of humanity as a whole; that these properties are encoded in eternal physical laws; and that human beings can obtain reliable, albeit imperfect and tentative, knowledge of these laws by hewing to the objective procedures and epistemological strictures prescribed by the [...] scientific method.«¹⁹ »While my method [of defending these ideas, H. F.] was satirical, my motivation is utterly serious. What concerns me is the proliferation, not just of nonsense and sloppy thinking per se, but of a particular kind of nonsense and sloppy thinking: one that denies the exist-

- 8 Alan Sokal and Jean Bricmont: *Impostures Intellectuelles*, Paris 1997. The book was published in the USA under the title: *Fashionable Nonsense. Postmodern Intellectuals' Abuse of Science*, New York 1998. Furthermore, the book was published in the U.K. under the title: *Intellectual Impostures. Postmodern Philosophers' Abuse of Science*, London 1998.
- 9 Jacques Derrida: »Sokal et Bricmont ne sont pas sérieux«, in: *Le Monde* November 20 (1997), p. 17.
- 10 Bruno Latour: »Y a-t-il une science après la guerre froide?«, in: *Le Monde* January 18 (1997), p. 17.
- 11 Jean-François Revel: »Les faux prophètes«, in: *Le Point* October 11 (1997), pp. 120–121.
- 12 Régis Debray: »Savants contre docteurs«, in: *Le Monde* March 18 (1997), pp. 1 and 17.
- 13 Jacques Bouveresse: »Les faux prophètes«, in: *Le Point* October 11 (1997), pp. 120–121; idem: »Les sots calent«, in: *Le Monde de l'Éducation* 255 (1998), pp. 54–55.
- 14 Julia Kristeva: »Une désinformation«, in: *Le Nouvel Observateur* September 25–October 1 (1997), p. 122.
- 15 Paul Boghossian: »What the Sokal Hoax Ought to Teach Us«, in: *Times Literary Supplement* December 13 (1996), pp. 14–15.
- 16 Thomas Nagel: »The Sleep of Reason«, in: *The New Republic* October 12 (1998), pp. 32–38.
- 17 Philip Kitcher: »A Plea for Science Studies«, in: Noretta Koertge (ed.), *A House Built on Sand. Exposing Postmodernist Myths about Science*, New York 1998, pp. 32–56.
- 18 Richard Dawkins: »Postmodernism Disrobed«, in: *Nature* 394 (1998), pp. 141–143.
- 19 Sokal: »A Physicist Experiments with Cultural Studies«. Cited from: Alan Sokal: »Revelation. A Physicist Experiments with Cultural Studies«, in: *The Sokal Hoax. The Sham That Shook the Academy*, edited by the editors of *Lingua Franca*, Lincoln 2000, pp. 49–53, here p. 49.

tence of objective realities.«²⁰ Thus, what was at stake in the debate around Sokal's hoax was not just the problem of a possible misuse of science and mathematics by philosophy, but a far-reaching claim about our capacity of knowledge. Sokal was not alone in holding this position; on the contrary, his general conception of knowledge was endorsed by many other authors who took his side in the debate. Thus, for example, in 2006 Boghossian published *Fear of Knowledge. Against Relativism and Constructivism*, a detailed contribution to the Science Wars.²¹ In this book, Boghossian also conflates scientific realism with philosophical realism, understanding by the latter a strong version of realism that rejects not only radical variants of what Boghossian calls 'fact-constructivism', but also the main theoretical tenet of transcendental and post-Kantian idealism, namely that human knowledge does not reach the real world, but only what appears from it to our subjectivity. In this context Boghossian affirms: »I have emphasized the influence that constructivist ideas currently exert in the humanities and social sciences. But there is one humanities discipline in which their hold is actually quite weak, and that is in philosophy itself, at least as it is practiced within the mainstream of analytic philosophy departments within the English-speaking world. That is not to say that such ideas have received no support from analytic philosophers. On the contrary, one could cite a sizeable proportion of that tradition's most prominent philosophers in their defence – Ludwig Wittgenstein, Rudolf Carnap, Richard Rorty, Thomas Kuhn, Hilary Putnam and Nelson Goodman, just for example. These philosophers in turn could appeal to some important intellectual precedents. Immanuel Kant famously denied that the world, insofar as we can know it, could be independent of the concepts in terms of which we grasp it. [...] But for all their distinguished intellectual pedigree and for all the attention they have received in recent times, it remains fair to say that such anti-objectivist conceptions of truth and rationality are not generally accepted within the mainstream of philosophy departments within the English-speaking world.«²²

One of the hallmarks of the controversy between realism and antirealism is thus the debate between realism and *idealism*. In this context it is key to focus on the problem of the *beginning* of knowledge, since one of the simplest and yet most difficult objections that realists raise against the fundamental idealist category of transcendental subjectivity and its variants in post-Kantian idealism such as I (*Ich*) or spirit (*Geist*) is precisely that human beings began to exist only late in the development of the universe: if human beings appeared recently in the universe, it is thus not possible – that is the claim of robust realism – that the structure of human subjectivity is *constitutive* for the structure of the objects of the real world that humans know.²³

20 Ibid., p. 51.

21 Paul Boghossian: *Fear of Knowledge: Against Relativism and Constructivism*, Oxford 2006.

22 Ibid., p. 7.

23 My aim of focusing on the alleged problem posed by the beginning of the existence of human beings to transcendental and absolute idealism is not to vindicate the philosophy of the authors who have been the primary target of the Science Wars, that is, to

2 The Fallacy of the Beginning of Intentionality

In the opening pages of »Transgressing the Boundaries«, Alan Sokal quotes the following passage from Werner Heisenberg's *Naturbild der heutigen Physik* (1956) »[t]he natural laws formulated mathematically in quantum theory no longer deal with the elementary particles *themselves* but with our *knowledge* of them. Nor is it any longer possible to ask whether or not these particles exist in space and time objectively.«²⁴ »When we speak of the picture of nature in the exact science of our age, we do not mean a picture of *nature* so much as a picture of *our relationship with nature*.«²⁵ In a later interview Sokal commented on this passage that »[...] what Heisenberg claims here is that quantum mechanics does not describe atoms but only the relations between human beings and atoms.« And he added: »But to say that quantum mechanics does not describe the atoms of, for example, a star that existed millions of years ago is quite strange.«²⁶ Thus, according to Sokal, that the world existed before human beings began to observe it counts as a serious objection to the claim of transcendental and absolute idealism that subjectivity plays a constitutive role in shaping objectivity. This statement is not a philosophically naive reflection of a physicist who dabbles in specific problems of a discipline – philosophy – in which now he is the amateur. On the contrary, Sokal's statement is in fact shared by many thinkers whose philosophical competence cannot be called into question, such as, for example, the philosopher of science Mario Bunge, a distinguished author from the analytic tradition who personally took part in the Science Wars on the same side as Gross, Levitt, Sokal and Bricmont:²⁷ »Idealist monism is not just an antique: it has recently been revived by the physicists who hold that there are only observations, not of some things, but in themselves. [...] Idealist monism also runs counter to the well-known fact that sentient beings are comparatively recent arrivals – just about a couple of billion years.«²⁸ Along these same lines, Boghossian states that: »[i]t's a truism about most of the objects and facts that we talk about – electrons, mountains, dinosaurs, giraffes, rivers and lakes

defend Lyotard, Derrida, and the likes, but to plead for the plausibility of certain claims of transcendental and absolute idealism that, in their own specific way and under their own exclusive responsibility, these thinkers did in fact assume.

24 Werner Heisenberg: *The Physicist's Conception of Nature*, London 1958, p. 15. My emphasis, H. F.

25 *Ibid.*, pp. 28 f. My emphasis, H. F.

26 My translation. See Alan Sokal: »Entrevista a Alan Sokal«, *Ciencia Hoy* 8/47 (1998), pp. 48–57, here p. 55: »[l]o que Heisenberg está sosteniendo aquí es que la mecánica cuántica no describe los átomos, sino únicamente las relaciones entre seres humanos y átomos. Pero afirmar que la mecánica cuántica no describe los átomos de una estrella que existió un millón de años atrás, por ejemplo, es un poco extraño.«

27 See, for example, Mario Bunge: »In Praise of Intolerance to Charlatanism in Academia«, in: Paul R. Gross, Norman Levitt and Martin W. Lewis (eds.), *The Flight from Science and Reason (Annals of the New York Academy of Sciences 775)*, New York 1996, pp. 96–115.

28 Mario Bunge: *Between Two Worlds: Memoirs of a Philosopher-Scientist*, Springer International Publishing 2016, pp. 303–304.

– that their existence antedates ours. How, then, could their existence depend on us? How could we create our own past? Wouldn't this commit us to a bizarre form of backwards causation, where the cause (our activity [of knowledge, H. F.]) comes later than its effect (the existence of the dinosaurs)?²⁹ The fact that Nature already existed before intentional beings began to exist not only poses, according to these authors, a counterexample to the claim of the constitution of objectivity by subjectivity, but it also logically contradicts the concept of Nature itself and, further, the general theory about real things entailed by that concept. Boghossian thinks therefore that constructivism raises not only a problem of *backwards causation*, but also a problem of *conceptual competence*, since, according to him, the concept of natural things is incompatible with the semantic commitments of constructivism.³⁰

However, the claim that the fact that the universe antedates the existence of human beings discredits the thesis that human subjectivity plays a constitutive role in shaping the object of knowledge falls into an error – more precisely, into a formal fallacy – that has been criticized by philosophy in the field of *ontology*, but which still persists, as it seems, in the field of *epistemology*. That fallacy consists in thinking that since the members of a series are contingent, the series *itself* is contingent and therefore needs as such, that is to say, *as a series*, to have a beginning – a beginning that can be characterized, to distinguish it from the beginning of the contingent members of the series, as an *absolute* beginning. The reasoning behind this claim is that if the series of contingent things had not begun, there would be no contingent things at all; the beginning of the whole is thus considered here as a condition of possibility of the beginning of its members.

To understand that seeking for an absolute beginning of knowledge falls into a fallacy, we must first analyze the fallacy that implies searching for an absolute beginning of the series of existing things, that is, to search for an absolute beginning of the universe itself. Although we actually do not have the experience of the ephemeral character of all existing things, we can generalize the experience that we do have of many things and, by doing so, believe that each and every thing that exists in the universe, without any exceptions, has come to be and will eventually cease to be. This generalization led classical metaphysics to state that, since all members of the set of contingent things are contingent, the set itself is contingent and, therefore, requires as such a *cause* to explain its own existence as a

29 See Boghossian: *The Fear of Knowledge*, p. 38.

30 *Ibid.*, p. 39: »Second, and even if we did suppose that the universe has existed only for as long as we have, isn't it part of the very concept of an electron, or of a mountain, that these things were not constructed by us? Take electrons, for example. Is it not part of the very purpose of having such a concept that it is to designate things that are independent of us? According to the Standard Model of particle physics, electrons are among the fundamental building blocks of all matter. They constitute the ordinary macroscopic objects that we see and with which we interact, including our own bodies. How, then, could their existence depend on us? If we insist on saying that they were constructed by our descriptions of them, don't we run the risk of saying something not merely false but conceptually incoherent, as if we hadn't quite grasped what an electron was supposed to be? Let us call this conceptual competence.«

set. However, the whole of contingent things is specifically different from the sum of things that constitute that whole. Indeed, the fact that each singular thing has begun to be and eventually ceases to be does *not* entail that the whole of singular things, i. e. the universe itself, has once not been and has therefore once begun to be. The extrapolation of the contingency of each contingent thing to the whole set of contingent things provokes not only the need to postulate an absolute beginning of that set, but it also modifies the way *each* thing that belongs to it is conceived. Indeed, since the set of contingent things cannot explain by itself its own existence and thus demands an absolute cause, each thing of the set must be re-interpreted as a synthesis between the sum of its determinations – a sum that accounts for *what* each thing is – and the presence as such of that sum – a presence that accounts for the fact *that* each thing is. This is the precise theoretical framework in which the ontological-theological – or ontotheological – categories of ›essence‹ (*quidditas, essentia*) and ›being‹ (*esse*) arose in Scholastic metaphysics. In Ancient Greek philosophy the contingency of each thing led to postulating the ontological categories of ›matter‹ (*hylé*) and ›form‹ (*morfé*). As the subject of form, matter was conceived as eternal, that is to say, as something that had never begun to exist. Extrapolating the contingency of each contingent thing to the *totality* of things leads, on the contrary, to undermining their eternal material substratum, since it postulates a composition in the contingent things at a deeper level than the composition between matter and form. In this new scenario there must be something ontologically previous to matter, since the unity of matter and its different forms is supposed to have once not existed; thus, the matter-form unity, that is, the universe itself, must have been put into existence by a cause previous to that unity, namely by being *itself* – essence, in turn, that is, determinacy as such, composes with being to determine it in an analogous way as form composes with matter to determine it at the level of the already existing universe. This new version of metaphysics that turns, first, the set of existing things into a contingent totality that, being so, must begin in an absolute way, and then considers each thing of that totality as the result of a composition between an ontological principle – essence – and another principle – being – caused by an extrinsic and absolute cause – being as itself subsistent³¹ – was early put into question by those who defended the thesis that the distinction between both principles is merely a *mental* distinction. The school of the *distinctio rationis*, whose most renowned figure was Francisco Suárez, considered that essence and being – in other words: determinacy and the presence of determinacy – are just two possible *points of view* of the knowing subject on the existing determinate thing.³²

31 See Thomas Aquinas: *Summa Theologiae* I, q. 44 a. 1 co.: »Si enim aliquid invenitur in aliquo per participationem, necesse est quod causetur in ipso ab eo cui essentialiter convenit; sicut ferrum fit ignitum ab igne. Ostensum est autem supra, cum de divina simplicitate ageretur, quod Deus est ipsum esse per se subsistens.« Cited from Thomas Aquinas: *Thomae Aquinatis Opera Omnia. Cum hypertextibus in CD-ROM*, Roberto Busa (ed.), Milano 1992.

32 See in this respect the entire 31st *Disputation* in Francisco Suárez: *On the Essence of Finite Being As Such, On the Existence of That Essence and Their Distinction*, Milwaukee

The fallacy in the field of ontology that has been summarized above reappears in the field of epistemology when the pre-existence of the world with respect to human beings is taken to be a counterexample of the claim of transcendental and absolute idealism that the structure of the knowing subject is constitutive for the structure of the objects known by that subject. Cognitive acts through which objects are known by a subject do in fact begin and end. As psychological acts of existing human beings, cognitive acts are events of the world in which they happen along with many other events; in that precise sense, they are contingent. As events of the world, however, they do not constitute a whole, because they are only further members of the entire set of events of the world. Now, if we consider the determinate *content* of those acts, we can speak of the ›whole‹ of cognitive acts; more clearly: such acts can be united together from a particular point of view – namely that they are cognitive – *as if* they constitute a whole. However, considering a sum of events of the world which have been gathered together from the perspective of their content as a totality which is as such contingent constitutes, as in the case of ontology, an illegitimate extrapolation, because it amounts to extrapolating the contingency of each psychological act of knowledge to the whole artificially created by considering those same acts as cognitive events. This whole created in the field of epistemology by considering the intentional events of the world *as intentional* is, in fact, as artificial as the whole created in the field of ontology – the ›world‹, the ›universe‹ – by considering all the things that exist *as existing*: as in the latter case, we have also in the former case a totality – the totality of intentional or cognitive acts – whose members are contingent, since each of them begins and ends; however, those acts begin and end as events in the world, not as intentional. If these two different standpoints are mistakenly taken as one and the same, that is, if one fails to distinguish the intentional acts as events in the world from their intentionality, a totality arises that seems to be as such, that is, as totality, contingent. If the whole set of acts through which things appear to intentional beings is contingent, then *intentionality* must have begun as such and, therefore, it must have an absolute cause that explains its beginning. The reasoning behind this claim is that without an absolute beginning of the set of cognitive acts there would not be now – and would have never been – cognition; in such case nothing would be known and would have ever been known by a human subject. But since there are in fact things that are being known by humans, these things

1983. A later milestone in the critique of this ontotheological version of metaphysics was Kant's argumentation in the exposition of the dynamical antinomies of pure reason. In the third antinomy, Kant shows that for a cause of a series to be in contact with that series it must be at the same time a member of it and not a member of it, that is, in other words, it must be an uncaused cause (see KrV A 444–451/B 472–479). While the third antinomy deals with the cause-effect relation, the fourth antinomy reproduces the same formal argument of the third focusing this time on the categories of contingency and necessity: to explain the whole set as such of the alterations of things a being must be postulated which has to be simultaneously in contact with the series of alterations and completely outside of it; this being should be therefore a ›contingent-necessary‹ being (see KrV A 452–461/B 480–489).

must have been specifically caused *in their own being known*. In ontotheological metaphysics the mere being in the unity of each existing thing, that is, the being in the unity ›that which is‹ (*id quod est, ens*) has to be explained *as such*, because that unity is conceived as an extrinsic synthesis between ›that which‹ (*essence, quidditas*) and ›is‹ (*esse*). Similar to what happens in the case of metaphysics, what is known, that is, what is for an intentional act of a subject, also becomes the result of an extrinsic synthesis: the synthesis between the being ›in itself‹ of the known thing and its being ›for‹ the subject that knows it. The known thing, however, is an undivided unity: ›that-what-is-known‹ (or ›that what is being known‹); despite its simple unity, according to the approach to knowledge sketched above the ›being-for‹ (a knowing subject) of each real known thing needs to be explained *as such*, precisely because that unity is conceived as a synthesis between ›that what is‹ and ›known‹.³³ Like the uncaused cause of existence that we presuppose for the series of existing things when we consider them as needing to be explained in their own existence, we need now to presuppose an uncaused cause of knowledge for the series of known things, since we consider them as needing to be explained in their own being known. This absolute cause of knowledge *as knowledge* – and not just the cause of the activity of cognition as a further event of the world – cannot be but the own being of the world, so that each known thing must be conceived for this very reason as a synthesis between its ›being in itself‹ and the ›being for‹ a subject of that same being in itself. When the contingency of the things that exist is extrapolated to the whole of existing things, the determinacy of what exists dissociates from the fact that it exists, so that the real world is divided in two specifically different realms: the realm of the determinacy of real things and the realm of the facticity or existence of the same determinate real things. Something analogous happens at the level of knowledge when the contingency of cognitive acts is extrapolated to the whole of cognitive acts *qua* cognitive: being dissociates into being in itself and being for other; thus, the world known by the subject, which is as such the undivided unity ›known-world‹, becomes thereby so to speak *twice* world. Like the pure being of that which is, the being-for of what is for a knowing subject becomes as such a *pure* ›for‹, since all its *content* belongs to its being ›in‹ itself. In other words: knowing is considered in this context as the pure reflecting of being, that is to say, as its *re*-presentation. Accordingly, the knowing subject is considered to be like an eye that is not really an eye, but rather seeing itself, as a sort of mirror that, without any structure of its own, is nothing but pure mirroring. Inspired by an image used by Shakespeare to refer to angels as entirely incorporeal beings,³⁴ Richard Rorty calls the human mind that is interpreted in this way a ›Glassy Essence‹.³⁵

33 ›Known‹ in the sense that which is appears to a subject.

34 William Shakespeare: *Measure for Measure*, Brian Gibbons (ed.), Cambridge 2006, p. 123 (2.2.132): »But man, proud man / Dressed in a little brief authority, / Most ignorant of what he's most assured / His glassy essence, like an angry ape / Plays such fantastic tricks before high heaven / As make the angels weep; who, with our spleens, / Would all themselves laugh mortal.«

35 See Richard Rorty: *Philosophy and the Mirror of Nature*, Princeton 1979, p. 43: »It [our

This general conception of knowledge is the result, first, of identifying the intentional character of cognitive acts with the contingent character of those same acts as events of the world, and, secondly, of extrapolating the contingency of these events, that is, of cognitive acts as events happening in the world, to the whole that these same events constitute when they are now considered as cognitive. The fact that cognitive acts began to happen only with sentient beings, in other words, the fact that there was a time in the history of the world when there were no cognitive events, is thereby considered to be the reason for the need to postulate an absolute beginning of the being-for (namely, the being for intentional beings) of what there is. This absolute beginning of knowledge as knowledge must be caused by the same being that is known but not as it is known, but as it is in itself ›before‹ being known. The main problem with this logical move is that it naturalizes intentionality or aboutness. Once cognitive acts have been naturalized as cognitive, the specific problem of the non-existence – or nothingness – of the being-for of the world arises, as if the being of the world for an intentional being were itself a *further* event in the world that had to be explained in *causal* terms, a sort of thing among the other things of the world. Intentionality is the being for (a knowing subject) of what there is; thus, if intentionality were a real thing, the world as the *whole* that is known and can be known by knowing subjects would always be an incomplete set, since in such cases intentionality would always be the last one thing of the world for which the world exists as a sort of remaining rest, simultaneously including that mysterious last thing – i. e. knowledge – and excluding it from itself. Intentionality is as such, however, the relation of the whole set of what there is to a subject that can know that set; thus, intentionality is rather the internal identity of what there is with its *own* appearing.

As psychological events, cognitive acts are contingent; for this reason, the fact that the contents of those acts appear as real things can be mistakenly considered as if their appearing itself were contingent. What we call ›reality‹ or ›real world‹, however, is always the undivided unity of what is known and its being known.³⁶ Being and knowing never appear to the knowing subject separated one from the other. The ontology of the *distinctio rationis* noticed that in that-which-is the difference between what that is is and that that is is a possible mental differentiation of the human mind; similarly, being in itself and being for other, that is to say, being and being-known, are also two merely mental considerations about what-is-being-known. Just as there is no need to presuppose a cause of the being of

soul, H. F.] is glassy – mirror-like – for two reasons. First, it takes on new forms without being changed – but intellectual forms, rather than sensible ones as material mirrors do. Second, mirrors are made of a substance which is purer, finer grained, more subtle, and more delicate than most. Unlike our spleen, which, in combination with other equally gross and visible organs, accounted for the bulk of our behavior, our Glassy Essence is something we share with the angels, even though they weep for our ignorance of its nature. The supernatural world, for sixteenth-century intellectuals, was modeled upon Plato's world of Ideas, just as our contact with it was modeled upon his metaphor of vision.« See, in general, *ibid.*, pp. 17–69.

36 Or, more precisely, of what is actually known *and* what is capable of being known.

the world, there is no need to presuppose a cause of its being for other: world and knowable world – or factually known world – are the same. This should lead to a reexamination of the way we conceive the knowing subject: the knowing subject to which being appears is not the empirical subject that carries out the contingent psychological acts of cognition, but that subject which philosophers such as Kant and the post-Kantian idealists tried to conceive by means of categories such as ›transcendental subject‹, ›I‹ or ›spirit‹. Putting aside here the differences between its various conceptions within the idealist tradition, that subject has been in all cases specifically differentiated from the empirical subject. Transcendental or absolute subjectivity is not properly unconscious, for the same reason that it is not conscious in the same sense that empirical subjectivity is conscious or unconscious, namely that it performs real acts of knowledge or it doesn't. When it comes to the transcendental or absolute subject there is no sequence of (a) the world that is not yet known – that is to say, that is first a pure being ›in itself‹ which is not *yet* ›for‹³⁷ –, (b) the beginning of the cognition of that world by sentient beings – the beginning of its being-for³⁸ –, (c) a subsequent cycle of its being known and not being known,³⁹ and (d) finally, with the eventual total extinction of sentient beings, the definitive cessation of the being-for of the world and its return to its pure being-in-itself – that is, the cessation of the phenomenon of knowledge.⁴⁰ However, being and being for the transcendental or absolute subject are the same, because transcendental or absolute subjectivity is not the individual subject existing in the world that performs contingent acts of knowledge, but rather what can be characterized as the inner structure of those acts of cognition.⁴¹

If human subjectivity is identical to the world, the claim that the absence of human beings should make the world disappear could seem at first sight plausible. This is precisely the objection that supporters of philosophical realism make against idealist constructivism. The idealist answer to this objection is, however, to explicitly relate the contents of knowledge not to empirical subjectivity, but to transcendental subjectivity or to its radicalized versions in post-Kantian idealism. Since idealism places the contents of the empirical subject at the level of transcendental or absolute subjectivity, where there is no time in the sense of the empirical subject, the world does not need to begin with the human species; it is so to speak ›contemporary‹ to transcendental or absolute subjectivity, which, as stated above, should not be conceived as the total sum of empirical subjects that begin to be con-

37 Such a state would be the non-existence or ›unconsciousness‹ of the transcendental/absolute subject.

38 Such an event would be the coming to existence or to ›consciousness‹ of the transcendental/absolute subject.

39 Such states would be transcendental/absolute ›consciousness‹ and ›unconsciousness‹.

40 Such an event would be the ›death‹ of transcendental/absolute subjectivity.

41 In the case of absolute idealism, ›spirit‹ can not be construed as the *formal* structure of subjectivity, but so to speak as the *existing* transcendental subjectivity itself; see Georg Wilhelm Friedrich Hegel: *Werke in 20 Bänden*, Eva Moldenhauer and Karl Markus Michel (eds.), Frankfurt a. M. 1970, vol. 6, p. 253: »Ich habe wohl Begriffe, das heißt, bestimmte Begriffe; aber Ich ist der reine Begriff selbst, der als Begriff zum Dasein gekommen ist.«

scious and cease to be conscious. Therefore, the structure of knowledge, that is, the structure of the system of the appearance of being to subjectivity is the structure of the very things that appear and are thus known by the knowing subject. This claim must not be understood as if things were phenomenal in the sense that they are only mental representations, but rather in the sense that they are identical to the way they are for our subjectivity as a specific system of appearance. We certainly do not believe that the Pythagorean theorem nor any other object of knowledge independent from our imagination begins to be only when we consciously know it; only the subjective acts of knowing intentional contents begin. But when it comes to knowledge as such we are prone to conflate the beginning of the concrete cognitive acts of the knowing subject with the appearing of their respective *contents* to those acts. The being for us of their contents is, however, identical to what we can legitimately think and say that those contents *are* in each case. Thus, their being for us, that is, the specific way they appear to us, does not begin with the acts of their actual knowledge. The world is the very same world that is known by us; therefore, neither the world itself nor the specific way it appears to us has, strictly speaking, ever begun as real events.

This crucial claim of idealism can come as a shock to someone who hears it for the first time, because it seems to suggest that there has always been knowledge in the same sense in which we say that the universe has always existed. However, the intrinsic correspondence between knowledge and being must be understood in a different way: as the presence of the universe for intentional beings, knowledge does not begin inside the history of the universe as one of its numerous events; what does begin in the history of the universe are the subjective acts of knowledge, not the knowability of the universe or, what is the same, the relation of the universe to its (potential) being known by a subject. The conflation of these two levels – the level of the subjective acts of knowing reality and the level of the being of reality for a knowing subject – relies, as stated above, on the naturalization of the phenomenon of intentionality; such naturalization turns knowledge into one of the many events that happen in the world. The reification of the presence of the universe to knowledge, which turns the own presence of the universe into a further particular thing or event inside the universe, relies from a psychological point of view on the objectivation of the fact that we know *that* we know; in other words, that knowing is also an *object* for itself. Just as we are prone to reify the intentional content of a cognitive act when we make it the object of a reflective act of knowledge, treating that content as if it were a sort of thing that is either *in* the mind (in the case that it is the content of a merely mental representation) or *in* the world (in the case that it is a real thing), we are also prone to reify knowledge itself, although knowledge cannot be anything other than the pure presence of reality to a subject and not itself a further real thing inside reality. When we reify knowledge, it becomes itself a thing at the same ontological level of our subjective acts of knowledge, so that we can be moved to believe that the intentional relation of the world to us as subjects also begins as such to exist with our acts of knowledge and then disappears when those acts end.

According to idealism, the world is identical with the system of appearance of the subjects that know it. The identity of being in itself and being for knowledge is

the element in which every knowing subject lives; it is the only reality to which that subject has access. This does not mean, however, that reality appears to a knowing subject according to her own singular phantasies, nor does it mean that the subject creates reality at whim; it rather means that the notion of a non-relational reality should be abandoned. This claim does not entail, in turn, that we have to embrace relativism in the usual sense of the term, but rather that we have to develop a contextualist ontology that does not conceive of reality as a substance abstractly isolated from its knowledge, but always as the relation itself between a specific kind of knowing subject and the specific kind of objects that that subject can know. If transcendental or absolute subjectivity is not misconstrued as the total sum of the singular empirical subjects, it is possible to conceive idealism in a way that is not vulnerable to the criticism of backwards causation and conceptual incompetence raised against it by philosophical realism.⁴²

3 Perspectivism, Real World and Possible Worlds

If the claim that what is and what appears to a knowing subject are identical is not understood in a phenomenalist and subjectivistic way, it might seem to be the *same* founding claim of *realism*, namely: that what the subject knows is the real world itself. Within the theoretical frame of transcendental and absolute idealism the claim of the identity of reality and its appearance differs, however, from its phenomenalist as well as from its realist interpretation. That claim means that the own being of the world, which is as such independent from the knowing subject, is not the only factor that determines how that world is known: the own cognitive structure of the subject *co*-determines the *content* of what is known from the world. Without going now into detail on the differences between the many variants of non-subjectivistic idealism, all these variants share ultimately the same claim about the content of knowledge, namely that that content is the result of the activity of the world on the knowing subject *and* of the activity of the subject on the modification that the activity of the world produces on her – in other words, that reality is the *unity* of the object and the subject. Kant explicitly distinguished the world as it might be in itself from the way that it is in fact known

42 See in this respect Richard Rorty: *Truth and Progress (Volume 3: Philosophical Papers)*, Cambridge 1998, pp. 86–87: »[Charles] Taylor seems to think that neither I nor anyone else would feel any ›serious temptation to deny that the claim [...] ›There are no chairs in this room‹ will be true or false in virtue of the way things are, or the nature of reality.‹ But I do in fact feel tempted to deny this. I do so because I see two ways of interpreting ›in virtue of the way things are.‹ One is short for ›in virtue of the way our current descriptions of things are used and the causal interactions we have with those things.‹ The other is short for ›simply in virtue of the way things are, quite apart from how we describe them.‹ On the first interpretation, I think that true propositions about the presence of chairs, the existence of neutrinos, the desirability of respect for the dignity of our fellow beings, and everything else are true ›in virtue of the way things are.‹ On the second interpretation, I think that no proposition is true ›in virtue of the way things are.‹

by the knowing subject; the idealists after him are assumed to have abandoned that distinction between thing-in-itself and phenomenon; however, in the context of an epistemological or methodological reading of the thesis of the thing-in-itself in Kant's philosophy, the difference in this respect between Kantian and post-Kantian idealism could be considered rather as a gradual difference than as a specific one.⁴³ In any case, for both variants of conceiving idealism the way the subject knows the world influences the determinate content of its appearing; this thesis, as stated above, does not entail that the object is a mere modification of the subject, but only that the object is the unity between the real thing and the subject that knows it. The claim that the world known by the subject is the unity of both or, from another perspective, that the object of knowledge is the result of the reciprocal interaction (*Wechsel*) between the world and the knowing subject is an explicit claim of the early philosophy of Fichte;⁴⁴ in the later philosophy of Fichte as well as in the philosophies of Schelling and Hegel that thesis seems to disappear; yet, it does not disappear, but rather becomes completely trivial, since for these authors the concept of a world in itself does not have absolutely any theoretical function: the world that human subjects know can be held to be simply the world, since for human beings there is no other world than the one they are capable of knowing.

The only reality that human beings know is the one that interacts with them and creates a unity in which it is, in the last analysis, not possible to distinguish the structure of the reality that is being known from the structure of knowing it. The approach to knowledge that this form of idealism defends is therefore, in its essential outline, analogous to the approach of philosophers of science such as for example, Karl Popper with his claim that the deliverances of the sense organs are as such, that is to say, as sensible contents (and not only as contents that are always *interpreted* by conceptual activity) *hypotheses* about the surrounding world. »Thus, all our knowledge is hypothetical. It is an adaptation to a partly unknown environment. [...] Organisms and their organs incorporate expectations about their environment; and expectations – as we have seen – are homologous with our *theories*. [...] For the first bacterium that not only achieved the new chemical synthesis, but went with it to a layer near the surface of the sea and survived, after millions of its brothers had succumbed, proved by its survival that it had solved a problem of adaptation; and in solving a problem, *it introduced a new theory* about new values. The invention was incorporated in the structure of the organism; *in new, inheritable knowledge and therefore in new a priori knowledge*. [...] *The invention of the eye is thus an invention of new theoretical a priori knowledge*, of

43 For a reconstruction of the two ways of interpreting the thing-in-itself in Kant's philosophy, namely the epistemic (or methodological) and the ontological (or metaphysical) interpretation, see Lucy Allais: »Kant's One World: Interpreting Transcendental Idealism«, in: *British Journal for the History of Philosophy* 12/4 (2004), pp. 655–684. The main supporters of the epistemic reading of the thing-in-itself are Graham Bird: *Kant's Theory of Knowledge*, London 1962, Gerold Prauss: *Kant und das Problem der Dinge an Sich*, Bonn 1974, Henry Allison: *Kant's Transcendental Idealism*, New Haven 1983.

44 See Johann G. Fichte: *J. G. Fichte-Gesamtausgabe der Bayerischen Akademie der Wissenschaften* (I/2), Reinhard Lauth et al. (eds.), Stuttgart-Bad Cannstatt 1962 ff., p. 354.

an adaptation to the environment. It was from the first an adaptation to a long-term environmental structure: to the existence of potentially edible sunlight; it thus incorporates *knowledge* of this environmental structure. It is *theoretical knowledge* of a high degree of universality, almost like Kantian knowledge of space and time. [...] Thus, the invention of a highly *universal theory* (in this case the invention of a sense organ) may come before the observation (the use of the sense organ).⁴⁵

For idealism, the universe that human beings know and inhabit is the unity conformed by their organism – with its sense organs and its conceptual activity – with the surrounding reality.⁴⁶ The idealist approach to the phenomenon of knowledge is thus easier to conciliate with a *naturalistic* view than the realist approach.⁴⁷ Realism has been in fact the approach adopted in epistemology by classic metaphysics with its *dualist* ontology of a material world, on the one side, and a

- 45 Karl Popper: *A World of Propensities*, Bristol 1990, pp. 47–49. My emphasis, H. F. See also: Karl Popper: *The Two Fundamental Problems of the Theory of Knowledge*, London, New York 2009, pp. xxxvii–xxxviii: »By contrast, my theory is that nothing is ›given‹ to us; that our sense organs are already active adaptations, the result of mutations, i. e. they are the precursors of hypotheses; and that all hypotheses are active attempts at adaptation. [...] Our perception is active, it is the active formation of hypotheses, even if we are not conscious of this.« Karl Popper: *Conjectures and Refutations: The Growth of Scientific Knowledge*, London, New York 2004, p. 520: »That those experiences which we call ›perceptions‹ are interpretations-interpretations, I'll suggest, of the total situation in which we find ourselves when ›perceiving‹ – is an insight due to Kant. It has often been formulated, somewhat awkwardly, by saying that perceptions are interpretations of what is given to us by our senses; and from this formulation sprang the belief that there must be present some ultimate ›data‹, some ultimate material which must be uninterpreted (since interpretation must be of something, and since there cannot be an infinite regress). But this argument does not take into account that (as already suggested by Kant) the process of interpretation is at least partly physiological, so that there are never any uninterpreted data experienced by us: the existence of these uninterpreted ›data‹ is therefore a theory, not a fact of experience, and least of all an ultimate, or ›basic‹ fact.« See also Karl Popper: *All Life is Problem Solving*, London 1999, pp. 6 f.
- 46 ›Surrounding reality‹ does not entail that that reality is only the one close to our bodies in space and time, but the one which in one way or the other does interact with them.
- 47 The misunderstanding of transcendental and absolute idealism as subjectivistic phenomenalism (the general picture of idealism that most realists have is in fact a popularized version of Berkeley's philosophy) usually lead philosophical realism to hold idealism as antinaturalistic. See in this respect, for example, Mario Bunge: *Philosophy in Crisis: The Need for Reconstruction*, Amherst, New York 2001, pp. 79–80: »A consequence of the success of the brain-centered approach to the study of mind and behavior is that the old theological and *idealist* view that detaches mind from matter is in decline. [...] The great wall between body and mind is being bored from within (subjective experience) and from without (the brain). The same wall is also being scaled on both sides: from perception to concept formation, and from single neuron to whole brain. As the drilling and the scaling proceed, it is being realized that the wall is not in nature but in theology and the *idealistic* philosophy that continued the theological tradition. They invented the myths of the immaterial, immortal, and inscrutable soul, and of the radical discontinuity between man and the other primates.« – *Ibid.*, p. 83: »The first or religious (or animistic) model is that of Plato, Christian theology, and *idealist* phi-

world of Forms and separated intelligences, on the other. Ontological dualism functions in classic metaphysics as the condition of possibility of the determinate knowledge of the material world by the human mind, because, being the mind an immaterial entity, it is for that very reason capable of representing in itself in an identical way the determinate structure of the material world. The commitment of constructivism to affirm that we do not know atoms, but our relation to atoms, may sound counterintuitive. But is it not much more counterintuitive the commitment of robust realism to declare that the specific constitution of our sense organs and of the logic of the cognitive activity of our brain does not play absolutely any role in knowing and, on that basis, in our conception of how reality is? Philosophical realism is committed in this respect either to completely ignore the physiological differences that exist, for example, between the eyes of human beings and the eyes of snails or, in the same spirit of ontotheological metaphysics with its conception of Man as the »summit of Creation«, to grant human beings an epistemic privilege, according to which their eyes would see things as they actually are, while snails would see them incorrectly. If realism does not accept either of the two possibilities of this alternative, it must admit that the structure of the sense organs and, in general, of the cognitive system of an organism *does* influence the constitution of the *content* of its cognitive mental states. And if realism admits this point, then it must admit that the cognitive mental states of different species cannot have *identical* contents and, further, that the more different the structure of the sense organs and the cognitive system of these species are the more the contents of their respective cognitive mental states must differ from each other. When realism reaches this point, little or nothing seems to remain from its original claim. On the contrary, transcendental and absolute idealism – as well as the darwinistic variants of its fundamental claim⁴⁸ – consider from the very first moment that

losophy. According to it, man is a spiritual being who uses his body as a tool during his temporary sojourn on Earth.« *Ibid.*, p. 98: »By the same token, every success of the scientific and technological endeavors weakens the hold of religion and its secular arm, namely philosophical *idealism*.« [My emphasis in all cases, H. F.]

48 See, in this respect, besides Popper, Friedrich Nietzsche: *The Gay Science*, Cambridge 2001, pp. 110–112 (§ 110): »Through immense periods of time, the intellect produced nothing but errors; some of them turned out to be useful and species-preserving; those who hit upon or inherited them fought their fight for themselves and their progeny with greater luck. [...] It seemed that one was unable to live with it; that our organism was geared for its opposite: all its higher functions, the perceptions of sense and generally every kind of sensation, worked with those basic errors that had been incorporated since time immemorial. [...] Thus the strength of knowledge lies not in its degree of truth, but in its age, its embeddedness, its character as a condition of life. [...] The thinker – that is now the being in whom the drive to truth and those life-preserving errors are fighting their first battle, after the drive to truth has proven itself to be a life-preserving power, too. In relation to the significance of this battle, everything else is a matter of indifference: the ultimate question about the condition of life is posed here, and the first attempt is made here to answer the question through experiment. To what extent can truth stand to be incorporated? – that is the question; that is the experiment.« *Ibid.*, pp. 112 f. (§ 111): »What is the origin of logic in man's head? Surely

the universe which human beings know and in which they live results from the cooperation between the stimuli received from their environment *and* the cognitive activity of their own organism. The universe known and inhabited by human beings can be thus characterized to a certain degree as a ›human‹ universe.⁴⁹ But this human universe exists objectively for all intentional beings at the specific spectrum of appearance defined by the sense organs and cognitive structure of human beings – and of beings similar to them.⁵⁰ That spectrum of appearance circumscribes a specific ontological domain: whoever moves into it will find the universe that corresponds to that spectrum, because it does not begin nor end with human beings. In fact, that ontological domain with the universe that corresponds to it does not completely disappear even if there were no human beings to grasp it. The

it arose out of the illogical, the realm of which must originally have been immense. But innumerable beings drew inferences in a way different from that in which we do now perish; nonetheless, they might have been closer to the truth! He, for instance, who did not know how to find ›identity‹ often enough, both with regard to nourishment and to hostile animals – that is, he who subsumed too slowly and was too cautious in subsumption – had a slighter probability of survival than he who in all cases of similarity immediately guessed that they were identical. [...] Similarly, in order for the concept of substance to originate, which is indispensable to logic though nothing real corresponds to it in the strictest sense, it was necessary that for a long time changes in things not be seen, not be perceived; the beings who did not see things exactly had a head start over those who saw everything ›in a flux‹. [...] The course of logical thoughts and inferences in our brains today corresponds to a process and battle of drives that taken separately are all very illogical and unjust; we usually experience only the outcome of the battle: that is how quickly and covertly this ancient mechanism runs its course in us.«

49 That human beings live in a ›human‹ universe is the meaning of Hegel's claim of the identity between Idea, Nature and Spirit.

50 See Thomas Nagel: »What Is It Like to Be a Bat?«, in: *The Philosophical Review* 83:4 (1974), pp. 441–442: »After all, there would have been transfinite numbers even if everyone had been wiped out by the Black Death before Cantor discovered them. But one might also believe that there are facts which could not ever be represented or comprehended by human beings, even if the species lasted forever—simply because our structure does not permit us to operate with concepts of the requisite type. This impossibility might even be observed by other beings, but it is not clear that the existence of such beings, or the possibility of their existence, is a precondition of the significance of the hypothesis that there are humanly inaccessible facts. (After all, the nature of beings with access to humanly inaccessible facts is presumably itself a humanly inaccessible fact.) [...] Whatever may be the status of facts about what it is like to be a human being, or a bat, or a Martian, these appear to be facts that embody a particular point of view. I am not adverting here to the alleged privacy of experience to its possessor. The point of view in question is not one accessible only to a single individual. Rather it is a type. It is often possible to take up a point of view other than one's own, so the comprehension of such facts is not limited to one's own case. There is a sense in which phenomenological facts are perfectly objective: one person can know or say of another what the quality of the other's experience is. They are subjective, however, in the sense that even this objective ascription of experience is possible only for someone sufficiently similar to the object of ascription to be able to adopt his point of view—to understand the ascription in the first person as well as in the third, so to speak.«

world that exists in the specific realm of appearance delimited by the ›hypotheses‹ – to say it with Popper – about the world in itself put forward by the sense organs and the general cognitive system of a given subject is a real possibility that is not identical with the conscious cognitive acts eventually performed by that kind of knowing subject. That world is a possible set of objects that does not begin when it is instantiated by the actual cognitive acts performed by the existing respective subjects of that specific world, nor does it finish when it ceases to be instantiated by them. To think that that world is not real because it can perfectly happen that no empirical subjects are knowing it through conscious acts of knowledge would be analogous to thinking that if there was, for example, no gold at the physical level of our actual world, gold as a chemical element should then be considered as a mere fiction – but since even the characters of fictional works have their own specific kind of reality (the characters of a novel that has not been written and will never be written do not have any reality, whereas Don Quixote and Ivan Karamazov do), it would be more correct to say that, according to the naive realist ontology described above, if there is no gold in our physical universe, gold should plainly and simply disappear from the periodic table. However, even if there were no one single atom of gold at the level of our physical universe, gold would still have its own reality as a real possible chemical structure *of* that universe. Thus, the specific universe to which human beings can have access through effective acts of their sense organs and their conceptual activity does not become entirely unreal when there is no actual subject that interacts with the surrounding reality, because the specific universe in which human beings live did not begin when human beings began to receive stimuli from their environment and it would not end if they eventually become extinct. To think that the idealist commits herself to maintain that the respective specific universe of different kinds of intentional beings – and, moreover, that the underlying reality in general – did not exist when there were no intentional beings at all and that it would disappear if intentional beings did not exist anymore relies on the mistaken conflation of the phenomenon of intentionality with the total sum of intentional beings – it somehow relies on conflating gold as analyzed by chemistry with the total amount of gold in the universe.

The universe that human beings know is the only real one for them and, in that precise sense, it is the only real universe. The fundamental claim of idealism is that there is no reality ›in itself‹ for *any* intentional being, human or not-human; knowledge is as such always the relation of a knowing subject to the world that interacts with that subject. The reality that intentional beings know is thus, necessarily, that same relation and interaction. The relation and interaction between any mind and the reality that Kant denominates ›in itself‹ is the very fact of knowledge; in that sense it is in each case ›objective‹, since its result – the determinate object of knowledge – is not an arbitrary creation of that mind. However, the result of the relation between any mind and reality in itself is not ›objective‹ in the usual realist sense that what a mind immediately knows in the objects of knowledge is the world exactly how it is independently from its own action upon the cognitive structure of that specific mind. The main claim of so-called idealistic ›constructivism‹ could be thus reformulated as follows: what the human mind knows in an immediate way is never the world itself, but the *theory* of the human mind about

that world. Precisely because the human mind knows the world through her own theory and not directly in itself, what she considers in each case to be a thing of the real world – for example, luminiferous aether or phlogiston – can eventually reveal itself as unreal, that is, as an erroneous theory. That human subjectivity – or any other intentional being – can conceive the world in an erroneous way is only possible because what she knows is not the world itself, but always her theory about the world: indeed, only theories and beliefs can be erroneous, not the world itself.⁵¹ If one has properly understood the meaning and entailments of this founding claim of idealism, one will also understand without any awkward feeling the thesis of the physicist Heisenberg quoted by Sokal that we do not know Nature, but our relation to Nature.

As far as the world ›in itself‹ is concerned, the attempt to describe what is outside the specific cognitive-ontological spectrum of human beings would be, according to the approach of transcendental and absolute idealist, like trying to describe a world that could eventually exist or could have existed, but it doesn't exist: whoever tries to describe such a world will actually be describing a mere variation of *this* world that we know to be real. Idealist constructivism does not deny the existence of a domain of reality beyond the spectrum of our possible knowledge; it only holds that the universe that we know is what results from the objective relation of that domain with the structure of our subjectivity. Kant claims that we cannot know *how* the universe is in itself, but only *that* it is. Radicalizing this same claim, Hegel states that, since we know nothing about a universe different from the universe we actually know, the thesis of the existence of such an unknown universe is, strictly speaking, unthinkable and ineffable (*unsagbar*):⁵² everything that we think and say is always about *this* one universe that we either actually know or can know. Thus, when it comes to possible worlds that may exist completely beyond the possibilities of our knowledge Hegel stands less close to Kant than to Wittgenstein, who closes his *Tractatus* stating that, »[...] what we cannot speak about we must pass over in silence«.⁵³

51 The whole aim of Hegel in the first Chapters of the *Phenomenology of Spirit* is to show that wrong judgments are not proved untrue by *facts*, but by *other* judgements, precisely because these comparatively true judgements, that are usually taken prima facie as being facts, are – or can be – in turn proved themselves untrue; so the human mind never knows directly bare facts, but always judgements. The normative context that offers the required rational constraint to decide if judgments are true or untrue is for Hegel the system of syllogisms or inferences (*Schluss*) to which judgements belong. The entire system of inferences can be described as our general theory of the world; on the basis of the etymological kinship in German between ›concept‹ (*Begriff*) and ›comprehension‹ (*begreifen*). Hegel calls that system the ›Concept‹.

52 See Hegel: *Werke*, vol. 5, p. 95.

53 Ludwig Wittgenstein: *Tractatus Logico-Philosophicus*, London, New York 2001, p. 89 (Proposition 7).

Bibliography

- Allais, Lucy: »Kant's One World: Interpreting Transcendental Idealism«, *British Journal for the History of Philosophy* 12/4 (2004), pp. 655–684.
- Allison, Henry: *Kant's Transcendental Idealism*, New Haven 1983.
- Bird, Graham: *Kant's Theory of Knowledge*, London 1962.
- Boghossian, Paul: »What the Sokal Hoax Ought to Teach Us«, in: *Times Literary Supplement* December 13 (1996), pp. 14–15.
- : *Fear of Knowledge: Against Relativism and Constructivism*, Oxford 2006.
- Bouveresse, Jacques: »Les faux prophètes«, in: *Le Point* October 11 (1997), pp. 120–121.
- : »Les sots calent«, in: *Le Monde de l'Éducation* 255 (1998): pp. 54–55.
- Bunge, Mario: »In Praise of Intolerance to Charlatanism in Academia«, in: Paul R. Gross, Norman Levitt and Martin W. Lewis (eds.), *The Flight from Science and Reason (Annals of the New York Academy of Sciences 775)*, New York 1996, pp. 96–115.
- : *Philosophy in Crisis: The Need for Reconstruction*, Amherst, New York 2001.
- : *Between Two Worlds: Memoirs of a Philosopher-Scientist*, 2016.
- Dawkins, Richard: »Postmodernism Disrobed«, in: *Nature* 394 (1998), pp. 141–143.
- Debray, Régis: »Savants contre docteurs«, in: *Le Monde* March 18 (1997), pp. 1 and 17.
- Derrida, Jacques: »Sokal et Bricmont ne sont pas sérieux«, in: *Le Monde* November 20, (1997), p. 17.
- Fichte, Johann Gottlieb: *J. G. Fichte-Gesamtausgabe der Bayerischen Akademie der Wissenschaften*, Reinhard Lauth et al. (eds.), Stuttgart-Bad Cannstatt 1962 ff.
- Gross, Paul R. and Norman Levitt: *Higher Superstition. The Academic Left and Its Quarrels with Science*, Baltimore 1994.
- Gross, Paul R., Norman Levitt and Martin W. Lewis (eds.): *The Flight from Science and Reason (Annals of the New York Academy of Sciences 775)*, New York 1996.
- Hegel, Georg Wilhelm Friedrich: *Werke in 20 Bänden*, Eva Moldenhauer and Karl Markus Michel (eds.), vol. 1–20, Frankfurt a. M. 1970.
- Heisenberg, Werner: *The Physicist's Conception of Nature*, London 1958.
- Kant, Immanuel: *Kritik der reinen Vernunft*, Jens Timmermann (ed.), Hamburg 1998 (= KrV). When citing this work, the page numbers refer to the first (= A) and second (= B) edition of the work.
- Kitcher, Philip: »A Plea for Science Studies«, in: Noretta Koertge (ed.), *A House Built on Sand. Exposing Postmodernist Myths about Science*, New York 1998, pp. 32–56.
- Kristeva, Julia: »Une désinformation«, in: *Le Nouvel Observateur* September 25–October 1 (1997), p. 122.
- Latour, Bruno: »Y a-t-il une science après la guerre froide?«, in: *Le Monde* January 18 (1997), p. 17.
- Nagel, Thomas: »What Is It Like to Be a Bat?«, in: *The Philosophical Review* 83:4 (1974), pp. 435–450.
- : »The Sleep of Reason«, in: *The New Republic* October 12 (1998), pp. 32–38.
- Nietzsche, Friedrich: *The Gay Science*, Cambridge 2001.
- Popper, Karl: *A World of Propensities*, Bristol 1990.
- : *All Life is Problem Solving*, London 1999, pp. 6–7.
- : *Conjectures and Refutations: The Growth of Scientific Knowledge*, London, New York 2004.
- : *The Two Fundamental Problems of the Theory of Knowledge*, London, New York 2009.
- Pruss, Gerold: *Kant und das Problem der Dinge an Sich*, Bonn 1974.
- Revel, Jean-François: »Les faux prophètes«, in: *Le Point* October 11 (1997), pp. 120–121.
- Rorty, Richard: *Philosophy and the Mirror of Nature*, Princeton 1979.

- : *Truth and Progress. Volume 3: Philosophical Papers*, Cambridge 1998.
- Ross, Andrew: »Introduction«, in: *Social Text* 46/47 (1996), p. 1–13.
- Shakespeare, William: *Measure for Measure*, Brian Gibbons (ed.), Cambridge 2006.
- Sokal, Alan: »A Physicist Experiments with Cultural Studies«, in: *Lingua Franca* 6/4 (1996a), pp. 62–64.
- : »Transgressing the Boundaries: Towards a Transformative Hermeneutics of Quantum Gravity«, in: *Social Text* 46/47 (1996b), pp. 217–252.
- : »Entrevista a Alan Sokal«, *Ciencia Hoy* 8/47 (1998), pp. 48–57.
- : »Revelation: A Physicist Experiments with Cultural Studies«, in: *The Sokal Hoax. The Sham That Shook the Academy*, edited by the editors of *Lingua Franca*, Lincoln 2000, pp. 49–53.
- : *Beyond the Hoax: Science, Philosophy and Culture*, Oxford 2008.
- Sokal, Alan and Jean Bricmont: *Impostures Intellectuelles*, Paris 1997.
- Suárez, Francisco: *On the Essence of Finite Being As Such, On the Existence of That Essence and Their Distinction*, Milwaukee 1983.
- Thomas Aquinas: *Thomae Aquinatis Opera Omnia. Cum hypertextibus in CD-ROM*, Roberto Busa (ed.), Milano 1992.
- Wittgenstein, Ludwig: *Tractatus Logico-Philosophicus*, London, New York 2001.