SUBJECTIVITY AND INDIVIDUALITY: TWO STRANDS IN EARLY MODERN PHILOSOPHY

INTRODUCTION

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For generations of scholars the emergence of the notion of human subjectivity has marked the shift to philosophical modernity. Mainly traced back to Descartes’s founding of philosophy on the *Cogito* and to Kant’s ‘Copernican Revolution’, the rise of subjectivity has been linked to the rise of the modern age in terms of a reconsideration of reality starting from an analysis of the human self and consciousness. Consequently, it has been related to long-standing issues of identity, individuation and individuality as a foremost topic on the agenda of the philosophers. Only in recent times, however, have comprehensive studies on early modern theories of subjectivity and individuality become available to scholars. Taking into consideration a range of philosophers from Descartes to Wolff and beyond, in his *The Early Modern Subject. Self-Consciousness and Personal Identity from Descartes to Hume* (2011) Udo Thiel has unveiled two strands in the treatment of these topics. First, an ‘ontological’ approach, i.e. the definition of what is an individual (either human or natural) in the light of considerations involving the notions of body, soul, and related concepts. This approach characterized the Scholastic debates on the individuation of natural and human beings, but also the analysis of Descartes: he faced the problems of subjectivity and individuation from the same standpoint of the Scholastics, i.e., by using the ontological notions of substance and mode. Secondly, the consideration of individual beings from the standpoint of our conceptualization of them, that is, a more ‘subjectivist’ approach, adopted at first by Cartesians such as Johannes Clauberg and Arnold Geulincx, faced the problem of the re-conceptualization of the notions of unity and sameness as entities of reason rather than real attributes of things. Eventually, anti-Cartesian thinkers such as Robert Boyle, Thomas Hobbes and John Locke shifted the attention from the problem of finding any ontological ‘form’ for individual beings to a consideration of the problem of individuality as identity through time as to personal identity, this came to be defined in term of self-consciousness alone. Thiel has reassessed the connections between the notions of subjectivity, consciousness, identity through time and individuality, and has signalled a detachment of the problem of subjectivity from individuation as an ontological issue. Yet, the problems of individuation and subjectivity did not come to be unlinked: in the case of Leibniz, the general problem of individuation and identity constitutes the framework for the specific issue of personal identity, notwithstanding the distinction “between the identity of a mental substance and personal identity.”

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The ‘subjectivist’ turn is reconstructed by Thiel by challenging the views expounded in the collection of essays edited by Kenneth Barber and Jorge Gracia, *Individuation and Identity in Early Modern Philosophy* (1994), where Barber signals an ‘epistemological’ turn brought about by Descartes’s *Meditations*, as for the first time ontological issues cannot be faced without an epistemological scrutiny. In this collection of essays, Thomas Lennon accounts for Descartes’s theory of individuation of singular, corporeal entities in a subjectivist way, that is, as depending on mental capacities of picking out singular objects from sensations. This is the result of Descartes’s assumption that the only corporeal substance is an extended continuum. On the other hand, Descartes did not maintain this subjectivist view on the individuation of the mind, defined as a singular substance: this view was however defended by the French Cartesian Pierre-Sylvain Régis, who conceived of minds as bundles of qualities within one immaterial substance. Accordingly, even if individuation could not play a central role in the definition of what a human subject is, the interest for individuation had been refuelled by the emergence of early modern notions of subjectivity, since individuality was considered from a ‘subjectivist’ standpoint.

The early modern process of reassessing human and natural individuality had far-reaching outcomes: the definition of what a singular entity is in a world deprived of substantial forms and individual substances different from human selves – brought about by Descartes – has been studied in its consequences on accounts of causality and the explanation of natural phenomena. According to Daniel Garber’s *Descartes’ Metaphysical Physics* (1992), for instance, Descartes’s view on motion as the individuation of bodies in a continuum of matter is “damaging” for the individuation of bodies at rest and for bodies conceived in an instant. As underlined by Thiel, indeed, for Descartes only the human body has a real individual nature, insofar it is joined to an immaterial substance. Therefore, Descartes’s ontology of singular bodies seems to undermine the causal explanation of natural phenomena, as these are accounted for by appealing to the existence of individual entities. As pointed out by Han van Ruler, the impact of Descartes’s theory of substance prompted the emergence of alternative accounts not only of human being, but also of natural agency, such as the various forms of ‘occasionalism’, as an answer to the ‘crisis of causality’ of the seventeenth century.

Not surprisingly, the Cartesian theories of human subjectivity and individuality are now an object of increasing interest not only in philosophical historiography, but also in cognitive science. The emergence of a more convincing picture of early modern ways of conceiving the self and the individual body – as the ‘psycho-physiological’ reading of Cartesian subject – have replaced long-standing dualistic views characterizing works like Antonio Damasio’s *Descartes’ Error* (1994), and have led historians to acknowledge Descartes’s heritage in behavioural sciences. We are now witnessing not only a historical reassessment of previously vaguely defined notions, but the emergence of a new branch of historical-philosophical studies with potential consequences in multiple fields of analysis.

Since the complexity of these topics and of their historiographical treatment is increasing, the only way to shed light on them is to intensify the debate itself. As a
multi-authored collection of essays, the present issue of *Society and Politics* is not aimed at addressing or endorsing a particular position in these debates: rather, it questions and calls attention to the issues of subjectivity and individuality in their historical development, encouraging the debate on topics recently analysed. The structure of the issue itself reflects the fact that the development of this debate is in its early stages: since a systematic account of the methodology of the study of subjectivity has not been yet provided, the essays of this issue follow a chronological order. However, a variety of theoretical angles can be acknowledged: this issue aims to offer a round view of the early modern approaches to subjectivity and individuality.

The first essay, *Early modern subjects and the self-conception of philosophy in Germany 1556-1599* by Stefan Hessbrüggen-Walter assumes a meta-philosophical perspective: it concerns the notion of *subiectum* as an actor's category in early modern philosophy, and ascertains that this notion can be related to a contemporary concept of subjectivity. Focusing on the early modern notion of subject as the foundation of a discipline, the author shows that reflexivity and self-awareness as features of contemporary notions of subjectivity can be legitimately ascribed to the notion of subject as the foundation of philosophy, as it is a discipline aimed at the transformation of the soul. Analysing various treatments of *subiectum* in 16th-century Germany, Hessbrüggen-Walter reveals how this conception was upheld by philosophers as Paxmann and Liddell, but was also criticised heavily on the basis of different definitions of philosophy and its *subiectum*, as well as of the relation between the definition of philosophy and the possibility of philosophical reflection itself.

The two following contributions concern the topic of individuation from an ontological standpoint. In his *Oliva Sabuco and the matter of the matter* Steven Barbone presents an analysis of the *Nueva Filosofía de la Naturaleza del Hombre* (1587) of the Spanish philosopher Oliva Sabuco, unveiling her theory of the individuation of human being. Sabuco's account of human nature is physiological: mind and soul – which are two different entities, while not different substances – communicate through *chilo* in pia and dura mater. Accordingly, man is a “psycho-corporeal unity” or a composite substance of form and matter. This substance, however, is individuated by matter rather than by form: as the case of the human offspring demonstrates, it is the difference in the physiologically determined matter of semen, rather than in the form of the whole body, that gives rise to different human individual. Sabuco anticipated Descartes's account of interaction by placing it in brain, but she maintained a hylomorphic view which was decidedly non-Cartesian.

The third study, *The recentior nominalis of Leibniz's Disputatio metaphysica de principio individui: Fulgentius Schautet and his Controversia against the Thomistic doctrine on the principle of individuation* of Chiara Catalano focuses on Leibniz's account of individuation, expounded in the *De principio individui* and traced back, apart from Thomasius, to Fulgentius Schautet's criticisms of the Thomistic theory of individuation. In his *Controversia*, Schautet holds the view that the principle of individuation is twofold: internal (either physical, or the very nature of the thing, or logical, or the way we conceive it) and external, consisting of the accidents of the individual thing. On the other hand, both Thomasius and Leibniz opposed the Thomistic solution according to a Nominalist standpoint: that is, holding the view that
the actual existence of a thing is its whole nature and its very individuality. This position is akin to Schauteet’s, with the difference that Leibniz did not hold a logical account of individuation, which only relies on the physical nature of the thing.

The last two contributions focus on the human self as such, and involve different angles of analysis. In the fourth article, Hume’s individual: agent or billiard ball? Hannah Dawson reverses a longstanding view of Hume’s individuals as passive subjects determined by custom. Even if this view is grounded in Hume’s theory of man, where custom is the main factor behind human behaviour, a narrower attention to Hume’s analysis of artificial virtues reveals a more complex Humean individuality. Guided by nature in the acknowledgement of the sensible advantages brought by artificial habits and the submission to the State, rationality and invention still play a consistent role in the political agency of men. What results is a holistic view of the self, considered as a historical product of the life of individuals and where the dichotomies of reason and passion, freedom and custom are softened. Eventually, as habit consolidates such artifices, custom turns out to be a factor of human freedom.

The last article, Diderot and materialist theories of the self by Charles Wolfe, challenges the use of the idea of the self as a source for anti-naturalism in philosophy. As an antidote to this tendency in history, endorsed time to time from Descartes to Husserl, Wolfe proposes the materialist theory for which the self can be 1) part of a system of external relations, 2) an organic unity and the condition of biological individuality, 3) an interpretative activity of the brain. This theory overcomes the idea of materialism both as a mechanization of the world, and as a mind-body identity reductionism. In fact, the theory can be traced back to some intermediate position: first and foremost, to Diderot’s treatment of the self, which combines the three mentioned views as variously upheld by Spinoza, Dom Deschamps and La Mettrie. Eventually, a materialist theory of the self has the outcome of re-defining externalism (or the denial of the inaccessibility to the facts of consciousness) as a biologyization of individuality instead of a mere ontology of relations.

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References

5 “And this is how the shift of attention from individuation to diachronic identity is linked to the development of a subjectivist treatment of the issue: as substantial forms are denied and no ‘principle’ of identity could be discovered in the things themselves, it is recognized that their identity must depend on what we regard as their essential constituents; in other words, what becomes crucial now are our criteria for judging whether or not a body has remained the same through change”, Thiel, U., (2011), 75.
Abstract. The paper discusses the concept of a subject as an actor's category in early modern philosophy and asks whether contemporary notions of subjectivity can be meaningfully related to this early modern understanding of the concept. When thinking about the early modern subject as an actor's category, we must distinguish three different meanings: the subject as a bearer of properties, as a reference point for predication, and as the foundation of a discipline. The paper defends the thesis that crucial elements of subjectivity in the modern sense, namely reflexivity and self-awareness, are at the same time characteristic features of a certain understanding of the subject of philosophy as a discipline in the early modern sense: namely for conceptions of philosophy as a transformation of the soul, most notably as a 'medicine of the soul'. Such conceptions are, however, controversial: other early modern thinkers contend that such proposals do not conform to what we should expect from a definition of philosophy and that they are open to the objection of intellectualism: we need more than knowledge to better our souls, because knowledge in itself is not action-guiding.

The paper traces conceptions of the subject of philosophy not only in various Ramist tracts, but also in writings of Melanchthon's son-in-law Heinrich Paxmann, the Helmstedt professor Duncan Liddell, and Reformed thinkers like Fortunatus Crell and Bartholomaeus Keckermann.

Keywords: meta-philosophy, early modern, Germany, Heinrich Paxmann, Bartholomaeus Keckermann, Fortunatus Crell, Duncan Liddell, Ramism

In this paper, I want to present a case study that allows us to understand more precisely how an understanding of the term ‘subject’, as it was used in the early modern period itself, can be related to what contemporary philosophers analyse under the same heading. The main claim of this paper can be summarised as follows: for some early moderns, philosophy has a subject that comes close to what present-day philosophical usage takes a subject to be.
I will first provide a brief sketch of such present-day usage of the term 'subject', then argue that a prominent sense in which it was used by early modern philosophers is not captured in present-day interpretations of early modern theories of subjectivity, namely 'subject' as the subject of a discipline. I will then discuss in what sense the subject of philosophy in this specific early modern meaning of the term can be related to subjectivity in the early modern period as it is understood by its present-day interpreters. I will close with some remarks on the broader debate of the subject of philosophy as a discipline.

In the beginning of his very comprehensive history of what he takes to be the early modern subject, Udo Thiel provides a non-exhaustive list of topics that could be discussed under such a heading: “[…] the mind-body problem, questions concerning agency, self-determination, moral and legal responsibility, and also the possibility of knowledge of an external world of physical objects”, but he then limits further discussion to the problems of self-consciousness and personal identity. In her review of Thiel's book, Ursula Renz suggests that a different focus, e.g. on the subject of actions in early modern philosophy, would have been equally legitimate and could have produced interesting results. But both Thiel and Renz agree that our analysis of early modern 'subjectivity' is shaped by our present-day concerns: in this perspective, it is the task of the historian of philosophy to isolate those aspects of the past that can be meaningfully related to our understanding of a given domain as it exists today.

Accordingly, Thiel does cover certain aspects of the 'pre-history' of subjectivity, namely those that can be meaningfully related to his own focus, e.g. scholastic debates on the concept of a person or of an individual. But a discussion of 'pre-modern' notions of subjects is conspicuously missing. Thiel shows no interest in exploring the concept of a subject as an ‘actor’s category’, i.e. an investigation of its role as seen by early modern thinkers. Thus he does not provide any account of a decisive feature of any 'pre-modern' conception of subjects, namely the ambiguity of the term: we can for example distinguish logical subjects, i.e. the subject terms of categorical propositions, from subjects as bearers of properties existing in the real world (‘physical’ subjects in Alain de Libera's terminology).

To complicate the situation even further, a full analysis of ‘subject’ as an early modern actor’s category must account for a third possible meaning: subjects play a role not just in propositions and, correspondingly, in facts of the matter about the relation between properties and their bearers. Propositions can be joined in syllogisms. Syllogisms can be synthesised into theories. Hence, there are also subjects of theories, because there must be one kind of things that serves as the bearer of those properties that a theory sets out to prove as essential properties of this kind of things. The totality of such proofs is then synthesised in what the tradition calls a ‘science’ (scientia).

Traces of these connections can still be found in everyday language: a subject can be not only the “underlying substance or essence of a thing, as distinguished from its nonessential properties” or the “term or part of a proposition of which the predicate is affirmed”, but also a “body of knowledge or particular department of art or science which one studies or is instructed in”. The meaning of ‘subject’ in this last sense preserves a sense of pre-modern conceptions of the subjects of science and
knowledge, denoting a discipline *pars pro toto* through a reference to that which counts as its subject.

The earliest text to be analysed in what follows was published in 1556, four years before Melanchthon's death, the latest in 1599, two years before the publication of Otto Casmann’s *Philosophiae Et Christianae [...] Modesta Assertio*. Melanchthon’s ‘metaphilosophical’ stance has already received some attention. The same is to some extent true for ‘post-Ramist’ thinkers like Goclenius, Keckermann, Timpler, and Alsted. But for the period in between such accounts are still lacking. Moreover, though I cannot argue for this point in detail here, it should be noted that Casmann's text was an intervention in the infamous Hoffmann dispute, “[…] the most intense philosophical and theological debate of the period” that influenced decisively the debate about the proper understanding of philosophy among ‘post-Ramist’ thinkers. It thus seems appropriate to include only texts from this circle from before 1600: a dissertation with Goclenius as *praeses* from 1596 and Keckermann’s *Praecongita logica*, published first in 1599.

The authors to be analysed in what follows can be sorted into two groups: some thinkers base their reflection on the Ciceronian definition of philosophy as cognition of Divine and human things (*cognitio rerum divinarum et humanarum*), others diverge from it. In both groups, however, we find substantial reflection on the various dimensions of the notion of a subject of philosophy as a discipline. Melanchthon’s son-in-law Heinrich Paxmann belongs to the first group and provides a particularly comprehensive analysis of this notion. Other thinkers to be mentioned in this context are Friedrich Beurhaus, Nicolaus Daubenrock, Rudolph Goclenius, and Bernhard Copius all of which qualify to some extent as Ramists.

Others did not follow Cicer: Duncan Liddell and his student Cornelis Martini, Fortunatus Crell, Giulio Pace, Johannes Grün, and the young Bartholomaeus Keckermann.

But besides this prima facie disagreement we can also locate aspects in which philosophers from both groups could find common ground: both Heinrich Paxmann and Duncan Liddell seem to agree that we should think about philosophy primarily as a discipline transforming, i. e. healing the human soul. Other thinkers believe that such an approach is misguided: we cannot use the function of philosophy as its defining trait (even if it may be acknowledged that philosophy does produce changes in the soul of its students – the issue is whether we can take this to be its defining feature).

It may come as a surprise that for the thinkers under consideration here there is no apparent link between Ciceron’s understanding of philosophy as cognition of Divine and human things and his assessment of philosophy as a means to cultivate and heal the mind. In what follows, we will see that for some, such an approach to defining philosophy was illegitimate, because it does not fulfil the requirements of a real definition in the Aristotelian sense.

However, an understanding of philosophy as cognition of Divine and human things invites objections, too: cognition is not action-guiding per se. Lack of knowledge is not the only fault our souls may have. This may force us to acknowledge two subjects of philosophy: the subject of theoretical philosophy, cognition or contemplation, and the subject of practical philosophy, action.
In closing, I will discuss three strategies to deal with this duality of subjects. The first is to claim that philosophy is therefore undefinable. The second proposal defines philosophy as a composite habit, consisting of contemplative wisdom and action-guiding prudence. The third claims that in all disciplines knowledge and action are intertwined.

The aim of these analyses is limited. It is neither claimed that early modern Germans were the first to connect the definition of philosophy and the reflection on its subject in the manner described here. Nor should what follows be read as an argument that these early modern authors provided full-blown reflection on problems of subjectivity in the contemporary sense. Instead, this case study is meant to serve as a stimulus for further research on the early modern subject of philosophy as a discipline in various geographical and historical contexts, so that we may gain in time a fuller understanding of the concept of a subject of a discipline and as its implications for our present-day understanding of subjectivity.

Philosophy and Cognition of Divine and Human Things

The first question that comes to mind when confronting the Ciceronian definition of philosophy as knowledge of Divine and human things is what exactly to count as Divine or human thing. Beurhaus explains the distinction as a dichotomy of eternal, unchangeable and temporal, changeable things and identifies such knowledge with philosophy. This in turn means that philosophy is identical to the sum total of the liberal arts, because it is the liberal arts that convey the required knowledge. Nicolaus Daubenrock takes the same stand in his 1599 dissertation De philosophia: philosophy is concerned with what can be the subject of a liberal art.

Whether or not philosophy in this sense is to be identified with wisdom or whether it should count only as the attempt to attain such wisdom (i.e. whether it is sapientia or studium sapientiae) is controversial. Beurhaus and Daubenrock leave this question open. Freigius asserts that there is a difference between philosophy and wisdom. The same is true for the young Goclenius who maintains that the philosopher only strives for wisdom. In contrast, Copius identifies philosophy and wisdom explicitly.

In Paxmann’s 1556 dissertation, we find a similar approach to defining philosophy: philosophy is concerned with God and the totality of things (rerum universitas). In fact, in the beginning of the tract being in a broad sense (ens quam late patet) is designated as the subject of philosophy. The scope of such knowledge is, however, limited, because our cognitive capabilities cannot grasp the world as a whole: we cannot understand nature completely.

The Subjects of Philosophy

Paxmann then goes on to specify three different senses of the concept ‘subject’: it can refer to the subiectum naturae, the substance that ‘is subjected’ to its accidents. But species can also be ‘subjected’, namely to their genera: they are subiecta praedicationis. And a subject can also be the subject of a discipline as its subiectum attributionis seu demonstrationis. In the context of reflections on the definition of philosophy, the subiectum attributionis seu demonstrationis holds, of course, special interest:
it is the unity or multiplicity of the *subiectum attributionis* that allows us to determine the unity or multiplicity of *artes*. And the *subiectum attributionis* allows not only for the distinction of the arts, but also for their hierarchisation. The subject of higher sciences or arts is more simple. The subject of subordinated arts or sciences is more restricted, because it is distinguished from the subject of the superior art by specific differences. Finally, Paxmann distinguishes the *subiectum attributionis artem* from the *subiectum attributionis artificis*. This means that the subject of a discipline and the subject that is the target of activities of a practitioner of this discipline do not coincide: the *subiectum attributionis artem* of arithmetic is numbers. The *subiectum attributionis artificis* of arithmetic is the concrete application of numbers to things to be numbered and the addition, subtraction, multiplication, and division of such concrete numbers.

How do these distinctions fit together with Paxmann's contention that being in a broad sense is the subject of philosophy? For an answer to this question, we must first take into account what he has to say on our cognitive access to subjects of a discipline.

Subjects in general can only be known through the end of a discipline. In other words, we first need to know what a discipline sets out to achieve, before we can delineate its domain. Paxmann argues that ends directly relate only to accidents or properties of a thing, because ends refer to a perfection and, therefore, to a property that is to be perfected. But since we cannot conceive a property without a bearer, an accident without a substance, we implicitly conceive the subject of a discipline when conceiving its end. So in medicine, we conceive health as its end – but health is an accident that can only be conceived as the accident of a substance, in this case the human body. So the human body, insofar as it can be healed, is the proper subject of medicine.

If we now apply this method of knowing a subject in general to the specific subject of philosophy, we must first ask what the end of philosophy consists in. For Paxmann, the end of philosophy is the perfection of man and, in particular, the perfection of our rational capabilities, because it is only those capabilities that can be enhanced through instruction. Therefore, or so Paxmann contends, the proper subject of philosophy are those capabilities that distinguish us from all other living beings.

These vague remarks leave a lot of room for interpretation, especially if we wonder how they may fit together with Paxmann's thesis in the beginning of the tract that it is being in a broad sense that must count as subject of philosophy. We could presume that being in the broad sense is the *subiectum attributionis* of philosophy and our rational capabilities are its *subiectum naturae*. But in his discussion of how we get to know the subject of a discipline, Paxmann always talks about the *subiectum attributionis* (e.g. the body to be healed in the case of medicine). Yet, if we take a closer look, he always refers in this context to the *subiectum attributionis artem* of the respective discipline: the human body in the case of medicine, the natural body, insofar as it is movable in the case of natural philosophy, human action in the polity in the case of jurisprudence. In all these cases, the *subiectum attributionis artem* and the *subiectum attributionis artificis* are different: the physician is not interested in the human body per se, but in those actions that heal the human body. The natural philosopher is not
interested in the natural body per se, but wants to explain its various changes. Lawyers and judges are not interested in human action as such, they want to evaluate it under the law.

But philosophy may be an exception: the end of philosophy is the perfection of man. So we must ask through what actions the philosopher can contribute to this end, because it is these actions that would point to the subiectum attributionis artificis of philosophy. Paxmann assumes that our abilities can only be enhanced through knowledge. This suggests the possibility that it is knowledge of being in a broad sense that should count as the subiectum attributionis artificis. This means that the rational capabilities of humans are both the subiectum attributionis artis and the subiectum naturae of philosophy. So Paxmann claims that philosophical knowledge is applied by the philosopher to our rational capabilities. For this to be possible, philosophical knowledge must inhere in the philosopher. And in order to be able to use philosophical knowledge for our perfection, we must know our rational capabilities, so that we are able to perfect them.

What this may mean becomes clearer when we turn to Duncan Liddell, like Paxmann both a philosopher and a physician. In 1592 he presided over a dissertation at the university of Helmstedt that was defended by the young Cornelis Martini. The dissertation asserts that it is our rational capabilities that distinguish us from other animals. But at the same time these natural capabilities are limited and must be complemented by instruction. This is achieved in philosophy which is therefore a ‘medicine of the soul’, serving to perfect both our cognitive and practical abilities:

“Since philosophy is the medicine of our soul (animus) that helps to perfect as far as possible (proxime) the two main faculties of the soul, the disciplines that are concerned with action and contemplation are essential for philosophy (philosophiae propriae sunt).”

If we read Paxmann in the light of this proposal, certain asymmetries between medicine and philosophy come to the light: whereas the physician usually applies the knowledge about healing the body to a different person, namely the patient, philosophical knowledge can only work, if its bearer is the same as the recipient of its beneficial effects. Whereas a patient need not know why a certain medication is effective, the perfection we strive for in philosophy is only possible if we know how and why philosophical knowledge perfects us. Conversely, philosophical patients must know that they are in need of philosophical help, so that they must be aware of the limitations of their own capabilities and their concomitant need for perfection: we strive to attain knowledge of being in a broad sense (the subiectum attributionis artificis), because we are aware of the inherent fallibility of our cognitive capabilities (the subiectum attributionis artis). But this can only lead to perfection, if both the knowledge of being in a broad sense and the knowledge of our own rational capabilities inheres in the person (the subiectum naturae) that is in need of such perfection.

Daubenrock had pointed out in his definition of philosophy that it is concerned with everything that is the subject of a liberal art. In Paxmann’s terminology, this refers clearly to the subiectum attributionis of philosophy. But he also refers briefly to what Paxmann would have called its subiectum naturae. One of the
elemental preconditions for learning something is human nature (physis) or a natural aptitude for learning. This natural aptitude is more of a subject than a cause: the bearer of philosophical knowledge must be capable of receiving it.\textsuperscript{44}

So those writers who could be loosely qualified as Ramists are not concerned with qualifying Cicero’s formula. They may hesitate to identify philosophy and wisdom, but in the context of defining philosophy itself they do not address the problem of possible limitations of our cognitive capabilities. If such limitations come into view with Paxmann and Liddell, philosophy is turned – either explicitly or implicitly – into a means to overcome these limitations as far as possible: philosophy thus turns into a ‘medicine of the soul’ that is meant to compensate for the failure of the uninstructed mind. It differs from the ‘medicine of the body’ in that physician and patient must be one and the same person. This in turn implies that philosophical knowledge has two dimensions: knowledge of the world around us (in Paxmann’s words the \textit{subiectum attributionis artificis}) and knowledge of ourselves (according to Paxmann the \textit{subiectum attributionis artis}). The first form of knowledge may heal us, but the second form of knowledge is required in order to know that we are in need of philosophical therapy.

\textbf{Against Philosophy as a Transformation of the Soul}

Both Paxmann and Liddell agree that we must use the function of philosophy – namely to effect some transformation of the soul – as its defining characteristic. And since transformation presupposes some kind of reflexive awareness of the imperfect state of our soul, the soul or its rational capabilities are not just the bearer of philosophical knowledge, but also a subject of philosophy as a discipline. In this sense, we can conclude that attempts to define philosophy through its function contain some essential dimension of what we take subjectivity to be concerned with today, namely notions of self-knowledge and reflexivity.

But attempts to use the function of philosophy as its defining characteristic met with some resistance. The first argument is methodological: using function in this way does not provide a definition in the sense of Aristotelian logic. In 1587, Fortunatus Crell cites three \textit{definientia} that focus on function, namely the meditation of death (\textit{meditatio mortis}), the assimilation to God (\textit{similitudo Dei}), and the perfection of the soul (\textit{animae perfectio}). But for him, all these are at best descriptions of philosophy: they contain praises of philosophy (\textit{mera encomia}), but cannot count as a definition in the strict sense of the word.\textsuperscript{45}

Crell also criticises the idea that philosophy is in a relevant sense related to the cognition of Divine and human things in general. He believes that such an approach is misguided, because it only targets disciplines which are concerned with cognition and excludes those who are concerned with action, i.e. the practical disciplines.\textsuperscript{46} Even if we know how to perfect our soul, this knowledge does not in itself contribute to its enhancement, because pure knowledge is not action-guiding.

Crell thus provides a criterion for measuring the adequacy of any purported definition of philosophy – it must include the practical disciplines.\textsuperscript{47} Else, we are susceptible to the objection of intellectualism. But this means that there are two subjects of philosophy, namely the subject of the theoretical disciplines and the
subject of the practical disciplines.

But then it may simply be impossible to define philosophy. Different subjects (that is, different *subiecta attributionis* in Paxmann's terminology) none of which is subordinated to the other imply that the disciplines concerned with them are fundamentally different. Giulio Pace states in 1596 that the disciplines that are subsumed under the heading of 'philosophy' are so heterogeneous that it is impossible to provide a unified definition of them. So the term 'philosophy' means different things when applied to metaphysics or ethics, mathematics or logic. Pace is not explicit about this, but we can surmise that this heterogeneity of the single philosophical disciplines is at least in part due to the differences in the *subiectum attributionis* they are concerned with.

This stance goes against Johannes Grün's contention that a definition of philosophy is indispensable for reflection in general: only if we define a thing, can we have proper knowledge of what we are talking about. At the same time, Grün does not accept the Ciceronian definition or functional characterisations as they were put forward by Paxmann and Liddell. He believes that the Ciceronian definition is too wide; regarding the sphere of the Divine, our reason is blind, we just persuade ourselves that our opinions are true – a case of self-suggestion. Regarding our purported knowledge of nature, we can learn from Socrates that such a science of perceivable entities is rarely successful either. So according to Grün, the Ciceronian definition of philosophy overestimates the reach of our cognitive capabilities. Grün's alternative proposal for defining philosophy consists just in an enumeration of its parts, namely logic, physics, and ethics, because such an enumeration represents all topics (*omnes materias*) that are relevant within philosophy.

In 1599, Keckermann chooses a similar approach: He counts philosophy as one of the four highest 'objective disciplines'. 'Objective' disciplines are concerned with things as they are in nature which are treated as objects of our intellectual capacities (*intellectio*). There are four such major objective disciplines: theology, jurisprudence, medicine, and philosophy. Philosophy in turn contains metaphysics, physics, mathematics and its subdisciplines, and ethics and its subdisciplines. So, in contrast to Daubenrock, Keckermann does not maintain that the whole circle of disciplines is to be identified as philosophy. But he agrees with Grün that the scope of philosophy can be fixated by simply enumerating its constituent sub-disciplines. Crell again has reservations against such an approach: it leaves out essential aspects of philosophy, namely metaphysics and mathematics. Instead, it allows the arts of the *trivium* as parts of philosophy. And it misconstrues the subject matter of ethics which, according to Crell, is not concerned with cognition, but action.

But Crell makes his own, fairly original proposal how to define philosophy correctly. He starts from the observation that wisdom is a mixed habit, constituted by knowledge based on deductions (*scientia*) and the intuitive understanding of first principles (*intelligentia*). As such it is purely cognitive. But, as mentioned, philosophy must include the practical disciplines (at least this is, according to Crell, the *consensus omnium*). Therefore, it cannot be identified with wisdom. But we could construe philosophy as a 'second-order' composite habit with wisdom and prudence as its parts. So philosophy is a habit, and it is distinguished from other habits by its
combination of the two elements wisdom and prudence.\textsuperscript{57} So according to Crel, function cannot serve as a defining characteristic of philosophy. Any valid definition of philosophy must include the practical disciplines. But this means that there is no unified subject of philosophy. This can either lead to the consequence that philosophy is undefinable, as Pace maintains. But if we accept Grün's contention that we do need a definition in order to know what we are talking about, this outcome is undesirable. Instead, Crel tries to define philosophy as a composite habit, consisting of wisdom and prudence. Grün and Keckermann are content to replace a proper definition of philosophy with an enumeration of its disciplines.

Whereas we have until now only taken into account the heterogeneity of the \textit{subiecta attributionis} of philosophical subdisciplines, some of those authors who do not choose function as a defining mark of philosophy have also addressed the more general distinction between the subject of inherence and the subject as a delineation of the domain of philosophy (i.e. the \textit{subiectum naturae} and the \textit{subiectum attributionis} in Paxmann's terminology).

Grün refers briefly to the \textit{subiectum naturae} of philosophy, namely the rational capabilities of man. These capabilities are at the same time the efficient cause of philosophy.\textsuperscript{58} He then goes on to base his defense of a tripartite division of philosophy on the equally tripartite division of the relevant rational faculties.\textsuperscript{59} Crel only addresses the \textit{subiecta attributionis} of philosophical disciplines. Philosophy must be a composite habit, because theoretical and practical disciplines are concerned with different kinds of things. From this difference in their subjects follows a difference in their goals: those disciplines that deal with necessary things are interested in cognition, because if a necessary thing changes, this change is necessary, too, so that it cannot be influenced by human action. Contingent things can be cognized, too, but we always expect to be able to translate these cognitions into action.\textsuperscript{60}

Keckermann discusses both the \textit{subiectum attributionis} and the \textit{subiectum naturae}. He distinguishes three factors that are indispensable for acquiring knowledge: we need an object (that fills the role of the \textit{subiectum attributionis}), a natural potency (that fills the role of the \textit{subiectum inhaesionis}), and a \textit{dispositio} to activate this potency in a structured and flawless way.\textsuperscript{61} This notion of a \textit{dispositio} seems to build a bridge between Ramist and Aristotelian ideas of a discipline, because it alludes at the same time to the notion of a discipline as an ordered whole (as it is current in Ramism) and the notion of a habit that informs a potency of the soul to perform certain acts in a reliable and foreseeable way (as it is characteristic for an Aristotelian understanding of disciplines). But for Keckermann the function of philosophy is in all disciplines action-guiding. This is obvious in his explanation of the distinction between ‘objective’ and ‘directive’ disciplines. All disciplines contain what he calls \textit{artificiales normae}, i.e. standards that must be followed by those who want to be proficient in a certain \textit{ars}. That means that in all disciplines knowledge and its application (which must be guided by norms) are intertwined.\textsuperscript{62} So the distinction between theoretical and practical disciplines is spurious. And this is why he distinguishes instead between those disciplines that are concerned with the knowledge of things and those who are concerned with the
proper formation and expression of this knowledge. So Keckermann, too, acknowledges, like Grün, fundamental differences between the domains of different groups of discipline. But he is also in agreement with him that this difference in the subjects of disciplines does not stand in the way of an enumerative definition of what the system of knowledge as a whole and philosophy in particular are concerned with.

Conclusion

So it is in fact possible to identify a connection between a basic feature of present-day theories of subjectivity (namely reflectivity and self-awareness) and the notion of a subject as an early modern actor’s category. Such an understanding of the early modern subject presupposes a self-conception of philosophy as effecting a transformation of the soul that we find articulated in theories of philosophy as a ‘medicine of the soul’. Reflexivity in this sense has two dimensions: we must reflect on our rational capabilities in order to cure them; they are, in Paxmann’s terminology the *subiectum attributionis artis*. And before that we must have become aware of the fact that our rational capabilities do need to be reformed: the prospective philosopher herself needs to know about these deficiencies in order to accept the necessity of therapeutic intervention. In early modern terms, this means that the bearer of philosophical knowledge (the *subiectum naturae*) and its domain (the *subiectum attributionis artis*) must be identical. This identity distinguishes the medicine of the soul from the medicine of the body. Ciceronian wisdom, knowledge of Divine and human things, is then only a means to an end: the *subiectum attributionis artificis*.

This conception invites two objections: the first is methodological – a proper definition of philosophy cannot be based on its function. The second objection aims at the purported intellectualism of the Ciceronian definition. Mere knowledge cannot be action guiding. This can either mean that philosophy cannot be defined, because the heterogeneity of its subjects prevents a unified definition. Or it can be tried to join both parts of philosophy in a single definition by construing philosophy as a composite habit. Finally, the objection can be refuted by showing that the distinction between theoretical and practical disciplines is spurious: in all disciplines, theoretical and practical aspects are intertwined.

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References

different interpretative strategies focusing on different interests and audiences. Hence, what follows can be read as the attempt to complement a dominant ‘presentist’ narrative of the early modern subject with a story based on the subject as an actor’s category. This does not imply the claim that the presentist narrative is in some sense misleading or incomplete. It is just different.


9 Casmann, O., Philosophiae Et Christianae […] Modesta Assertio (Francofurti: Palthenius, 1601).


Corneanu, S., *Regimens of the Mind: Boyle, Locke, and the Early Modern Cultura Animi Tradition* (Chicago: University of Chicago Press, 2012), 46ff provides a comprehensive overview of relevant traditions, particularly in the British and French context, but does not address the question to which extent this function of philosophy could serve for its definition.

21 See below, note 45.


26 Cf. Paxmann, H., *Themata ad disputandum proposita de philosophia, subiecto et fine* (Witebergae: Crato, 1556), Thema VIII: “Cum autem in initio artium vel disciplinarum de subiecto quæriri sermo est de subiecto ultimo modo accepto, quod attributionis vulgo vocatur, et est id in quo explicando versatur subjectus est Ens quam late patet, hoc est DEUS et tota rerum universitas, [...] Tamen penitus perspici natura non potest [...]”


28 Cf. Paxmann (1556), Thema XVIII: “Cum autem in initi aut tranquilitatem vel disciplinarum de subiecto quæriri sermo est de subiecto ultimo modo accepto, quod attributionis vulgo vocatur, et est id in quo explicando versari aliqua ars, et eius principia, passiones, et proprietates inquirit, et a cuius unitate et multiplicitate unitas et multiplicitas ars sumitur.”

29 Cf. Paxmann, H., (1556), Thema XX: “[...] quanto scientiae vel artes sunt superiores, tanto habent simplicius subiectum formale, minus constriectum seu limitatum notatuumque differentiis seu formis, quanto vero inferiores tanto quoque habent subiectum magis limitatum et contractum [...]."
Cf. Paxmann, H., (1556), Thema XXII: “Subjectum quoque attributionis aliud est artis, quod praeceptis explicat, aliud artificis quo ab eo tractatur et expeditur, qui artem descrip
 tantamque exercet. Nam Arithmeticae genus subjectum est numerus, cuius proprietates
 inquit et explicat, Arithmeticus autem versatur circa omnes res numerandas in quorum
 supputatione utitur numeris ad addendum, subducendum, multiplicandum, dividendum.”

Cf. Paxmann, H., (1556), Thema XXX: “Est autem Methodus [se inveniendum verum
 subjectum in qualibet arte] haec. Intellectus non potest in ciusque certae rei contemplatione
 vel actione versari, nisi proposito fine et idem intellectus pro vario concepto fine nunc
 speculativus nunc activus nunc factivus appellatur. Fit enim denominatio a fine. Finis autem
 omnis quia perfection quaedam est (nam quod assequitur finem suum perfectum esse dicitur,
 quod autem finem non assequitur, nulla ex parte perfectum, sed rude et inchoatum ad hoc esse
 iudicatur) alicuius perfectibilis est perfectio, cique adiungendus est, et sic concepto fine, una
 nobis eum concipitur subjectum, fitque subjectum copulatum cum fine et notatum sua forma
 seu differentia.”

Cf. Paxmann, H., (1556), Thema XXXI: “Constat eos qui primum de arte Medica
 constituenda cogitationem susceperunt, concepisse aliquid ad omnum speculationem
 dirigerent, cumque viderent corporum nostrorum naturam innumeris affectibus onnobiam
 esse, quibus corrumpi et qui in sinus sanitatem contingit, caecum nunc agrotae, nunc recte valere,
 quiescuerunt quibus auxilii sanitatis suae iuste vel praecons servetur, vel amissa recuperetur,
 et ita sanitatis fuit causa innumeris speculationis ipsorum, quae cum accidens sit, necesse fuit ut
 subjecto annecteretur alicui, nempe humano corpori, atque artem humanum fecerunt
 subjectum artis Medicae.”

Cf. Paxmann, H., (1556), Thema XXXIII: “Nec vero alia ratio fuit Inveniendi subjectum
 verum Philosophiae universae ex fine proposito: Est. n. Philosophiae finis institutio et
 perfectio hominis, quoad natura eius patitur et quidem earum in homine virium qui
 brutorum conditionem exuperat, cum sola natura rationalis ita fit divinitus condita ut sit
 doctrinae capax et possit ad virtutem flecti.”

Cf. Paxmann, H., (1556), Thema XXXIII: “Unde constat subjectum Philosophiae esse eas
 vires hominis, quibus is reliquis animantibus antecedit et praestat.”

Cf. Paxmann, H., (1556), Thema XXXI.

Cf. Paxmann, H., (1556), Thema XXXII.

Cf. Paxmann, H., (1556), Thema XXXIII.

Cf. Liddell, D., Martini, C., Disputatio de Philosophia eiusque instrumentis (Helmaestadii: Iacobi
 Lucij, 1592), Th. I, §1: “Cum universa humanae vitae perfectio in mente sita sit, ad cuius
 imperium corporis animaeque inferiorum facultatum servitio utitur, brutalibus corporisque
 affectibus mancipari non debet, sed illius sui dominii cura habita, a brutali sorte ad divina quam
 proxiime aspirare, ac, vitiosis affectibus depositis, in virt cognitione, bonique adeptione
 acquiscere.”

Cf. Liddell, D., Martini, C., (1592), Th. 1, §2: “Verum cum mens ipsa, nisi aliunde ad hunc
 suum scopum dirigatur, adeo caeca sit, ut ad veritatem verique boni consecutionem, non aliter
 quam vespertilionum oculi ut sculptum ad solem se habeat, praeter oraculam divinitus patefacta, humana
 quaedam remedii, disciplinae nimium, instictu lucis naturae […] inventae et pertolitae sunt.”

Liddell, D., Martini, C., (1592), Th. 1, §5: “Cum vero animi nostri medicina Philosophiae sit,
 cuius adminiculio duae praecepiaculae facultates animae proxiime perficiuntur, disciplinae, quae in
 πράξι καί θεωρία consistunt, Philosophiae propriae erunt.”

See above, note 23.

Cf. Daubenrock, N., (1599), Thesis XLVII: “Causae addiscendarum artium sunt quarum
adminiculó artes sive scientiae transferuntur ad intellectum et usum. Harum vulgo numerari solent φύσις μάθεσις καὶ ἄσκησις: quarum prior potius subjecti quam causa rationem obtinet, cum nihil sit aliud quam naturae quaedam habilitas et aptitudo, quae ad eruditionem parandam non parum habeat momenti; […]”.

45 Cf. Crell, F., *In octo aecroamaticos Aristotelis libros commentarii: et eorumdem librorum è Graeco in Latinum per eundem conversio* (Neostadii in Palatinatu: Matthaeus Harnisch, 1587), 1: “[…] quaedam mera encomia sunt […].”

46 Cf. Crell, F., (1587), 1: “[…] quia partem duntaxat Philosophiae quae in contemplatione versatur, non totam Philosophiam, quae etiam in actione consistit, definit.”


48 See above, note 30.


51 Cf. Grün, J., (1587), 74: “Atque haec est Ciceronis definitio, […] quam tamen aliqui improabant, quod aliquantum arrogans sit et definito suo latius vagetur. Non tantum enim in divinis, si vim et naturam Numinis intelligas, ratio humana caeca est, et opinione magis quam ratione in plerumque nititur, aut falsa at impia comminiscitur, […] sed etiam in isis, quae sensibus obvia sunt, tam elementaria, quam coelestis, aut nihil aut parum assequitur, ut a Socrate proditum fertur.”


Cf. Grün, J., (1587), 78: “Subiectum et causa efficiens est, suprema praestantillimaque animae hominis potentia Rationalis, cui informandae expolendaeque Philosophia servit.”

Cf. Grün, J., (1587), 78.

Cf. Crell, F., (1587), 2: “Ceterum sicut duplicis generis sunt: ita duplex disciplinarum genus est, quae res illas tractant: et duplex illarum disciplinarum finis et scopos. Quae res necessarias tractant Scientiae contemplantes dicuntur: quia finis earum contemplatio et cognitio est: idque propterea, quia de illis rebus agunt, quae non fieri sed cognosciri duxtatas a nobis possunt. […] Quae res contingentes tractant practice […] appellari possunt: quia finis earum actio et effectio est. […] Agent quidem istae quoque disciplinae de rebus ut illas cognoscant: sed non ut in cognitione subsistant: sed ut ad actionem cognitionem transferant quae ultimus et primarius earum finis est.” This formulation of the dichotomy between the domains of the theoretical and practical subdisciplines of philosophy resembles the way Beurhaus had glossed the distinction between Divine and human things. See above, note 12.

Cf. Keckermann, B., (1604), 47f: “Quaenam vero ad eiusmodi cognitionem praecipue requiruntur? Tria. 1, id quod cognoscendum est sive objectum. 2, potentia naturalis intelligendi fluens ab anima rationali. 3, Dispositio certa, per quam illa naturalis potentia in actum ordinate et sine errore deducatur.”

This notion was common to Ramism and neostoicism. Cf. Abel, G., Stoizimus und frühe Neuzeit: zur Entstehungsgeschichte modernen Denkens im Felde von Ethik u. Politik (Berlin/New York: Walter de Gruyter, 1978), 239.

OLIVA SABUCO AND THE MATTER OF THE MATTER

Steven BARBONE *

Abstract. This exploratory study investigates the work of Oliva Sabuco de Nantes Barrera (1562–1626?). Sabuco’s major work, *New Philosophy of Human Nature neither Known to nor Attained by the Great Ancient Philosophers, which Will Improve Human Life and Health* (1587), in many ways foresees the Cartesian system but avoids some of its problems even though or perhaps because her philosophical system rests heavily on the foundations of hylomorphism. The mind/soul is separate from the body, but the two function as a holistic unit. Mind and body affect and are affected by each other within or through the pia mater. This study’s aim is to summarize Sabuco’s thought and to indicate how her work may be able to address or to lend support to contemporary philosophical concerns.

Keywords: Sabuco, *chilo*, hylomorphism, individuation, mind-body problem

Many, perhaps most, contemporary philosophers will not have heard of Oliva Sabuco de Nantes (y) Barrera (1562–1626?) nor of her tremendous 7-full-treatises-in-a-single-volume opus, *Nueva Filosofía de la Naturaleza del Hombre, no conocida ni alcanzada de los grandes filósofos antiguos: la cual mejora la vida y salud humana* (1587) rendered in English as *New Philosophy of Human Nature neither Known to nor Attained by the Great Ancient Philosophers, which Will Improve Human Life and Health.* Many putative—and very plausible—reasons abound for her absence in the canon and in the classroom: Eileen O’Neill suggests that it could be that certain political, social, and possibly intellectual interests were at play in the early nineteenth century to erase women’s contributions—Sabuco’s included—to philosophy in order to prevent women’s “dismantling the male hegemony”; Carlos G. Noreña weighs in that sixteenth-century Spanish philosophy is too often “stereotyped” or “caricature[d]” as either mysticism (Teresa of Ávila or John of God) or high scholasticism (Francisco Suárez or Luis de Molina) so that contemporary philosophers often ignore Renaissance Spain’s important contributions to humanism, health, and education; and Maria Vintró and Mary Ellen Waithe note that it was only as recently as 2003 that the work has most definitively been attributed to Oliva Sabuco since in more recent centuries it had been attributed to her father, Miguel Sabuco, who took full credit for the work in his last will and testament even though in the time more immediately after her death, la Doña Oliva was widely recognized as the genius behind this work.5

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Whatever the reason or reasons for Sabuco’s absence from the contemporary canon, current interest in her work is beginning to grow in the English-speaking world, especially after 2007 English translation by Mary Ellen Waithe et al. This was soon followed by the 2010 publication of a newer translation, *The True Medicine*, by Gianna Pomata.6 Pomata’s title for Sabuco’s work is rather telling since it highlights Sabuco’s philosophy as medicine though not specifically just for the mind but perhaps for the entire human organism.7 Indeed, interest in the body and its health, especially as it was imagined to be a model for the health of the civil state and a reflection of the natural condition, seemed to hold a special fascination among Spanish Renaissance writers.8 In the last century, moderate interest in Sabuco’s work had been ongoing, but it is mostly confined to Spanish literature and this last-mentioned theme. In Anglophone literature, apart from several essays penned by Waithe and her associates, work on Sabuco has been sparse, and much has focused on the issue of authorship.9

While this essay does not attempt to adjudicate the reasons for Sabuco’s absence from the present canon nor estimate the value of philosophical work done during the Spanish Renaissance, the essay overviews Sabuco’s conception of human nature and—in the interest of making her thoughts more known—how the human mind and body operate and function. While Sabuco did not explicitly seem to address the problem of individuation among humans in any explicit way, this study suggests where such a Sabucean principle might lie.

**Sabucean Nature**

Like so many others writing in her time period, Sabuco sees humankind as a miniature model of the universe within the larger universe itself so that there is “a single and general conception of *Nature*, in which cosmology and *human physiology* shared a unique and identical meaning as particular realizations of a *Universal physis*.”10 Humanity is the microcosm, and we can learn about our own nature through the study of the whole of nature, the macrocosm, especially by careful observations of the natural world around us. Likewise, the study of human nature can help us better understand not only the entire world but also how we might set up our cities and social policies. Atilano Martinez Tomé remarks on this point in his prologue to his edited volume of Sabuco’s work:

> Doña Oliva Sabuco lives and synthesizes a period of History in which humankind was considered the measure of all things, the endpoint and the starting point in artistic creation, in urban design, and in the planning of livelihoods, and in the thoughts of the learned.11

It is important to reflect on this comment: humankind, though it is the microcosm, is still the beginning, end, and measure of the macrocosm. This may be taken to mean that Sabuco does not envision humankind as less worthy or less important than the natural world. Humankind and nature both are a cosmos to themselves, and each reflects the other. At the same time and despite our special place within nature, we must not therefore imagine that somehow people are above or outside the natural realm. Again, Tomé reminds us that:
Indeed, what we want to highlight, neither more nor less, is her hierarchical, ordered conception of a metaphysical flow of nature in which humankind occupies a prominent place, but one that is always inside nature, never outside it and much less contrary to it.

Sabuco’s understanding of human nature is naturalistic and seems to be empirically based upon the study of the human body as well as observation of the non-human natural world, especially the operations of the moon and the sun as well as plants and non-human animals. Anyone—certainly or especially not merely the learned of the academies whose theories often blind them to the true study of nature—with senses can uncover nature’s ways through careful observation. Perhaps this may explain how it is the Sabuco’s philosophy mostly is transmitted through the dialogues of three simple shepherds—Antonio, Veronio, and Rodonio—rather than philosophers or other learned men since shepherding requires a keen eye for observation and shepherds were not taken to be especially well intellectually developed.

Further, for Sabuco, philosophy is an empirical study to gain knowledge and it is also medical philosophy to liberate humanity from unnecessary suffering, to live a healthy life in peace and harmony, so each all people might live up to “their full potential.” For this reason, Sabuco’s philosophy often reads as more a guide to practical, healthful living than what most would take as a philosophical treatise. While this may seem to speak against Sabuco’s place within any philosophical canon, for her as for many others of her period, because the human body is a mirror of the entire natural universe, it is proper to natural philosophy to investigate the whole of nature as well as the functioning of the human body.

Among the first things to be realized from the contemplation of what nature presents is that as the macrocosm must have a (divine) Prince to direct all, so too does the microcosm of the human being have its own prince who directs the body’s movements, and this prince Antonio describes as “the understanding, reason, and will, i.e., the soul [el ánima] that descended from heaven and resides in the head, divine member and responsible for all body movements.” Further, as created subjects work to serve the divine Prince, so too within the human brain we find that there is a ruling part, which is housed in the brain’s prime “cell” (“celda”) in the forehead and is served by those in other “cells” (we might better understand “rooms” or “quarters”) that act as housemaids to the “prince” who rules therefrom.

The brain rules over the body and its functions through the oversight of the production of and the regulation of “chilo,” which seems to be a term special to Sabuco; indeed, her translators do not translate it, and neither does this study offer an English alternative. Chilo is not chyle nor white blood cells nor animal spirits nor lymph. It is the whitish cerebrospinal fluid produced in the spinal column, but Sabuco seems to believe that this is identical to “that milky secretion taken up by the lacterals during digestion and carried by the lymphatic system through the thoracic duct into the circulatory system.” Sabuco is very explicit about her claims regarding chilo.
Chilo is the white fluid of the brain. It is the milk of Mother Moon, suited to the form [of the living thing]. It causes the growth of every living thing in continuous succession [of generations]. The more the chilo is suited to the form [“human”], the more subtle and penetrating it becomes [and] the more swiftly it ascends through the tissue of the skull and its fissures, up to the crown. Once there, [chilo] produces better biological function and growth. The thicker and more terrestrial, viscous, and coagulated [this chilo] is, the more sluggish it becomes [from the core of the brain to the skull]. [...] Blood is the son of the white chilo. [It is nothing but] white chilo reddened by three processes. 

That Sabuco should focus so much on chilo is worth noting. It was the Renaissance thinkers who formulated the notion that would become popular in the 17th century that transmission of the nervous impulse (what the later natural philosophers will identify as “animal spirits”) is through a nervous fluid, succus nervae; this notion first found in Sabuco. Chilo’s roles thus are multiple: it hydrates the brain; it is sent by the brain to other organs to nourish them and to make them function; it becomes milk or semen; it is “reddened” in the liver or heart or spleen to become blood; it is the cooling factor—not the heating factor—of the body. Since chilo is lunar-based, it is cool and moist, and this is what makes the body function well. Sabuco, therefore, is at odds with Aristotle and Hippocrates who imagined that male superiority is marked by the male’s being warmer and drier while females are cooler and moister. In fact, Sabuco denies that either sex is superior, but chilo is certainly related to the cool and moist and thus the moon, which is usually associated with the feminine, rather than the hot and dry, which normally is a masculine attribute and is related to the sun. Indeed, because chilo is cool, not hot, this upends certain important characterizations of the difference between males and females according to the ancients. Even further, Sabuco maintains that though the sun produces males while the moon produces females, the brain, which houses the soul, “faces” the moon, but the subservient heart is inclined toward the sun. 

That chilo is moon milk is evident from the morning dew; this moon milk is moist and airy, but it is more watery at night and more airy during the day. The constant back and forth of lunar chilo to and from water and air explains tides and fountains. Humans take in lunar chilo because this “moon water,” or rarefied air, is absorbed by plants and non-humans, both of which are then ingested by humans. Once ingested, it is taken from the stomach to the brain, where it is processed before being distributed throughout the body. The heat of the human body and its digestive juices destroy the lunar chilo, but the human body is able to transubstantiate lunar chilo into human chilo in the brain because of the presence of recollected species, which are neither Platonic Ideals nor exactly Aristotelian forms but are more akin to the intelligible species of the scholastics.

Keeping in mind that human being is a microcosm within the macrocosm, Sabuco sees a strong correlation between lunar chilo and human chilo. As the moon provides chilo for the life of the world, human chilo is central for human life. As the
moon waxes and wanes producing more or less lunar chilo, so the powers of both the brain and the body increase and decrease due to the changing amount of human chilo. As the sun warms the earth and destroys lunar chilo, the human heart and the stomach’s digestive actions warm the body but destroy lunar chilo. Evaporation of the moist, which occurs during the heat of day, is like human chilo, which ascends to brain mostly at night due to body’s heat during the day. In extreme heat, the lunar chilo is driven from even the deepest caves, which then warm up, and so likewise excessive heat in the body (fever) is a sign of waning human chilo and thus severe illness. Chilo is a special nerve fluid—when it comes from brain in right amounts, we are improving (happy, healthy); when it is dried up, we are worsening (sad, sick, dying).

In short, once the lunar chilo has been converted into human chilo, it travels up and down spinal column from the brain at its stem and then is distributed throughout the body. We might imagine this as a sort of hydraulic system for hydration and dehydration of the brain and the body; if there is too much or too little chilo in the brain, intellectual functions are impeded; if the brain is unable to provide chilo to the body, the body suffers. This is why it is imperative to understand how the human body fits within nature so that we can treat it naturally, not so much to conserve a certain balance of hot-cold-moist-dry as per the ancients but to maintain the right amount of chilo—the body’s fluid—as we must do with our car’s fluids. As a car will malfunction without the proper fluid levels, so too will the body suffer illness, distress, and pain if there is not the proper level of chilo.

It is neatly a matter of mere hydraulics and mechanics, and while details vary, this general overview of the functioning of the human body seems to prefigure the mechanical and hydraulic view developed by the early modern philosophers of the next centuries. Most of Sabuco’s work concerns how to maintain the right level of fluids at the right time through diet, activity, scheduling, etc. or how to restore the right level of chilo so that the chilo may operate correctly and efficiently throughout the body. Sabuco claims that important advances in medicine and even psychology depend on our knowledge of the role of chilo since this knowledge allows for the effective treatment for many types of what we today recognize as psychological ailments and affective disorders often caused by some organic disturbance within the brain or nervous system rather than some sort of spiritual corruption of the soul or actions of malevolent spirits.

Under Sabuco’s view, the brain is in charge of the body, and it receives sustenance (during sleep) from rest of body. We might, therefore, imagine the brain as a kind of sponge that is divided into fragments and fissures that aid it to “water” the rest of the body; these fissures and convolutions are not, Sabuco claims—based on her readings—pace Aristotle, folded into the brain in order to prevent headaches. Sabuco is never long to criticize what she holds to be the ancients’ positions, especially in a case like this where she believes such a mistaken notion may be harmful to the treatment of any person’s ailments. The brain regulates the flow of chilo through what we know as the pia mater (what Sabuco calls “the brain marrow membrane”). It is at the pia mater that soul-body interaction takes place through the medium of the chilo. Besides the pia mater, the soul and body interact through chilo at the dura mater, and these coverings must reach the base of skull for the best physical-emotional-
mental health; if they shrink (perhaps due to dehydration, age, or injury), there is decay in either or both the body or soul. Sabuco even recommends surgery to attach these to the base of the skull to help those who otherwise suffer some deficiency of chilo's flow. The pia mater and dura mater extend to become the esophagus and stomach, so what is ingested directly affects the brain (and vice versa). If the pia mater should be injured, there is impeded mind-body interaction.

Recognizing that the head is the superior part of the human being, Sabuco postulates her model of humankind as an inverted tree. In Sabuco’s thought, the head is like roots of a tree, and it sends nutrition (chilo) to rest of body. It is cool (like soil), and though heat is produced in heart, there is no fire in body, another error postulated by the ancients. The chilo extends to the outer limbs of the body, which then produce the “fruits,” i.e., either the behaviors, which are wanted by the soul, or semen, which is necessary for reproduction.

A short, but necessary, digression on reproduction: Sabuco claims that understanding the principles of reproduction is another area where the ancients gaffed on a number of points. We are produced by two seeds, male and female, but these vary in strength from case to case. There are both male and female semen; though female semen mixes with blood, usually both male and female semen are needed for reproduction even though on occasion, as we observe in nature, only the female type is needed as we see in plants that reproduce without the male (e.g., garlic and other bulbs). The offspring takes on the morphology of the stronger (which is not necessarily the male) semen type, but it still takes characteristics from both. For this reason, prenatal—or perhaps even more precisely, pre-coital—nutrition of both the mother and father matters.

To return to the discussion of soul’s relationship to the body, Sabuco insists that while the soul and body are separate and distinct entities (not substances), the soul operates on the brain and thus the body’s motions. Here is where we might see Sabuco’s somewhat anticipating Descartes: the pia mater (along with the dura mater) plays an analogous role to the pineal gland in Descartes’ philosophy since it is the site of the soul-body interaction. It is not important in this essay to determine whether the pineal gland or the dura mater should be a more likely site for any putative soul-body interaction; what is worth underlining is that Sabuco prefigures Descartes in placing any such interaction in the brain rather than the heart. On the other hand, Sabuco does not anticipate Descartes in that while she rejects so much of the ancient philosophy, she still holds fast to a robust form of hylomorphism. Sabuco’s human being is not two separate and distinct substances but only one composite substance. We are at rock bottom a “psycho-corporeal unity.” We do not have matter without form nor form without matter; the human being requires that matter and form be joined so that for any human, “Existence and essence are one,” that is, there is no human without the body, nor certainly is there any human without the soul. Death comes to the human being as its soul (anima) weakens and becomes debilitated, and as a result, the brain is no longer able to keep the body, whose fibers have begun to dry up and to wither, nourished with the life-giving chilo. Death, then, is a natural end and neither a fault of nature nor a divine punishment but a natural occurrence that
belongs to our own nature as much as it belongs to the natures of plants, non-human animals, and even to the stars and planets.\textsuperscript{46}

Such claims, easily enough, seem to run afoul of orthodox Christian doctrine, and Sabuco’s work was often “corrected” even in her own lifetime by various offices of the Inquisition, which often led to different versions of the same edition having different passages crossed out. More commonly, there are marginalia entered by individual scribes for different committees of the Inquisition that guide the reader’s interpretation of some passages.\textsuperscript{47} The work was republished in 1588 (with typographical corrections), and then again in 1588, and then in 1622, and then every century since.\textsuperscript{48} It does not seem, however, that it was this claim (among others) that bothered the Church hierarchy, since this understanding of human nature is not too far astray from Thomas Aquinas’ claim that the sensitive soul (\textit{ánima}) corrupts with the human animal while the rational soul remains incorrupt. Sabuco could claim (though I do not find such a claim within her work) that the soul is re-created at the time of the general resurrection, and this might have sufficed to have kept her in the Church’s good graces. At the same time, there is some evidence that Sabuco does posit something that we might understand as soul (\textit{alma}) in the more traditional and religious sense:

\textit{Rodonio.} Why is it, Señor Antonio, that most animals carry their head down looking at the ground and humans carry it high, always up looking toward heaven?

\textit{Antonio.} Because the origin and birth of the human soul [\textit{ánima}] came from heaven, humans remained in the standing position, their head up, as though they were hanging from [heaven], just as plants’ roots rested upside-down in the ground. [The soul] took its primary seat and chair inside the head and brain of humans. There, inside the royal palace where the divine soul [\textit{ánima}] necessarily exists, the creator of nature built three halls (which are the three cells of the brain core). [Sabuco describes the places of the five senses within these cells. …] At the highest point, [the creator] put two glass panes or windows to the soul [\textit{alma}]. They are the eyes. [The creator put them there] so that by opening those panes, humans could see their heavenly home.\textsuperscript{49}

It is this passage where we see a soul (\textit{alma}) that has a religious connotation rather than a merely animating one. We also see that the human or rational soul (\textit{ánima}) is come from heaven and is divine. This may be what separates humans from non-human animals since both humans and non-human animals are sensate and impassioned.\textsuperscript{50} Waithe (1989) further holds that the brain, which houses this soul (here we might specify \textit{alma}), is thus the locus of rational, psychological, physical, and moral personhood.\textsuperscript{51} Talamo sees that because the intellectual soul is in the head and because non-human animals lack it, this is the sign of human immortality.\textsuperscript{52} There is, alas, a price to be paid: our rational soul provides us with the ability to feel the sad effects and affects of the passions and to be anxious about the present, past, and future, but it also provides the rationality and will to combat these afflictions.\textsuperscript{53}
Otherwise, we would be more like the non-human animals, which live naturally and die naturally without sickness because they do not give great attention to emotions.54

There is yet something more to being human, and this is that according to Sabuco, we alone of all the animals can practice the virtue of temperance “because the understanding, a God-given temporal aspect of the immortal soul [anima], deliberates, and then temperance acts upon the will. Other animals cannot do this.”55 Humans are different in kind, not degree, from other animals. Sabuco notes that “Happiness consists in prudent choice: in knowing how to choose the mean in all things.”56 Humans alone can figure out the mean, and this is what it means to be human, so there is something distinct about us qua humans. There is, then, a way to distinguish between humans and non-humans, but does Sabuco have any means for explaining human individuation?

In the short digression on reproduction, we find a clue, and given Sabuco’s hylomorphic position, there ought not to be much surprise. There is no difference among human souls, that is, there is one type of universal human soul, and all people have this one kind. It is the matter, then, that individuates different humans. Both male and female semen are needed for reproduction, and the offspring will take on the characteristics of the stronger seed. It is not, to repeat the point made above, a question of the form of the seed but a matter of its matter insofar as the paternal matter and the maternal matter join to become what Sabuco calls a “third thing” (una cosa tercera).57 This explains how it is that intelligent men can father stupid children or that brave men may have cowardly sons. The quality of the seminal matter is directly related to the food eaten by the mother and father, so good food consumed in the right amounts at the right times by the parents will bring about good offspring while if they were to ingest unhealthy food, their offspring will certainly suffer defects of body and/or soul. This is the case because the soul can develop only as well as the body it commands is able to absorb and to use the chile distributed by the brain through the pia mater. It becomes imperative, then, for those intending to marry to consider carefully their intended’s characteristics along with their intended’s parents’ characteristics as well as to ingest a great variety of healthful foods to provide any future offspring with enough matter of the right kinds to develop well. Sabuco, again never slow to point out the errors of the ancients, notes that differentiation of offspring is not due to the partners’ imaginations during the sex act, or the position of the stars, or whether the (male) semen comes from the right or left testicle. On the other hand, the sun has a role to play in the procreation of males while the moon’s presence will ensure female offspring.58 Still the same, concerning the offspring, it is not the manner but the matter of coitus that will determine the individuating features. Individuation among humans, then, is rather surprisingly uncomplicated since it rests entirely on material conditions, most specifically those at play just prior to and at the time of conception.

Concluding Remarks

Oliva Sabuco’s philosophy at best likely strikes many of us as an odd relic of pre-modern times or at worst as just plainly bad anatomy and science. A theory of individuation, while complete enough, seems almost too simple to be metaphysically
interesting. In fact, it seems almost contemporary. At the same time, Sabuco’s contributions ought to be brought to the contemporary philosophical table. Sabuco clearly pre-figures Descartes and other early modern philosophers in putting the soul-body conjunction in the brain rather than the heart, yet her hylomorphic stance helps her avoid some of the problems of Cartesian dualism because, for Sabuco, the soul and the body are not separate substances between which interaction is metaphysically impossible. Of course, we in the 21st century expect her to be able to explain how it is that the soul still operates on and is operated on by the body, but this simply is not really a problem she can consider since it is her hylomorphism that undercuts the question. We live on this side of the Cartesian mind-body split; we almost naturally (perhaps unnaturally for Sabuco) assume that the body and soul are distinct and separate substances, which we then have to struggle to explain their supposed interaction. For Sabuco, it would be absurd to imagine the soul without the body or the body without the soul, so there really is nothing to explain insofar as any putative interaction is concerned. It might be like wanting to understand the relationship between the lightning's flash and the lightning itself and then becoming frustrated because once clearly and distinctly conceived separately, they cannot be put back together. Perhaps—and this suggestion is far from original—one way to help solve the contemporary so-called “mind-body” question is simply not to ask it in the first place. Because Sabuco’s human is an organic unity rather than two separate substances, there is no interaction left to explain. We are neither a mind that happens to be embodied nor a body that happens to be animated: we are, as noted above, a psycho-corporeal unity, and, to use a phrase found in more contemporary literature, extended minds.

Sabuco also pre-figures the modern period in offering a robust mechanical view of the world and of human workings. Without a doubt, she makes some serious blunders in her descriptions of the human body and its functioning, but the devil is always in the details. The overall schema she seems to get correct: there is an organic relationship between the brain and body, between the brain and the body’s affects, and this does occur through some sort of physical medium or media. Sabuco calls it “chilo” and confounds it with many other body fluids and their functions. Still the same, she is on the right track, since all things being equal, chilo is a better explanation for the body’s movements and affects than are spiritual forces. The successful medicalization of contemporary psychological and affective disorders seems to bear out Sabuco’s position that when we treat the body, we are treating the soul.

Sabuco’s account of reproduction also deserves some attention but not so much for its claim that it entails both male and female semen. Though such a claim does seem to anticipate the mid-17th-century discovery of ova and their contribution and necessity to reproduction, it merits highlighting for what it seems to leave out: any mention or need for final or even formal causes. Despite basing her philosophy on hylomorphic principles, her science already anticipates the rejection of teleology and the focus on efficient causality that takes place in the early modern period.

Finally, Sabuco also remembers that philosophers must still be human, that we cannot altogether banish the passions or affects. Having emotions is a natural part of being human, and we can use our emotions, if we understand them, to promote
our own happiness and health. Emotions are not something to be stifled or overcome by reason. As an empirical study to gain knowledge and understanding of human functioning, her philosophy is indeed an ethics, a method to liberate humanity from unnecessary suffering and to live a physically and psychically healthy life. Hers is work that attempts to show others how they might lead the happy life, and this it seems, is the key vocation of the true philosopher.

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References
1 I agree with the suggestion of Waithe et al. that generally speaking, Sabuco’s “hombre” is best understood as “human” rather than “man”; see Sabuco de Nantes Barerra, O., New Philosophy of Human Nature neither Known to nor Attained by the Great Ancient Philosophers, which Will Improve Human Life and Health, trans. with introduction by M. E. Waithe, M. Vintró, C. A. Zorita (Urbana and Chicago, IL: University of Illinois Press, 2007), 1–40, (9). Thus the English title of Sabuco’s work is better understood to refer to human nature, not the nature of men.
5 Waithe, M. E. et al. note that Oliva (not her father, Miguel) is mentioned in the copyright of a 1604 work by physician and poet, Francisco Lopez de Uveda, that his work would be so well-known that it would rival in fame and influence the works of Cervantes and Oliva Sabuco. Waithe, M. E. et al., (2007), 3–4.
7 Philosophy as medicine for the mind would come in vogue later in the early modern period: “A second shared sentiment has to do with the view that the human mind had somehow become ill and that philosophy in general needed to act as a kind of healing influence or as medicine for the mind, to purify the mind of the many infective inadequate ideas that had rendered it ill and prevented it from playing a leading role in the envisaged progress of philosophy and of mankind in general. This notion of medicina mentis is quite common in early modern thought. Apart from Spinoza’s theme of emending the intellect that pervades his works, Descartes also employs this notion in his Regula (Descartes, R., The Philosophical Writings of Descartes, trans. J. Cottingham, R. Stoothoff, and D. Murdoch [Cambridge: Cambridge University Press, 1984], 2 vols., (hereafter CSM), 1, 30, 32). […] It is further notable in this regard that the main philosophical work of Walther Ehrenfried von Tschirnhaus (1651-1708), an experimental empiricist and friend of Spinoza, was actually named Medicina Mentis.” De Bruyn, D., Spinoza’s Concept of Emending the Intellect: A Critical Investigation into Spinoza’s Method of
Emending the Intellect with Special Reference to the Tractatus de Intellectus Emendatione (Turku, Finland: University of Turku, 2014), 10.


12 “Lo que sí queremos resaltar es, ni más ni menos, su concepción jerarquizada, ordenada, desde una vertiente metafísica, de la naturaleza, en la cual el hombre ocupa un lugar preeminente, pero siempre dentro de ella, nunca fuera y, mucho menos, en contra.” Tomé, A. M., (1981), 18.


14 Waithe, M. E., (1989): 268. M. E. Waithe et al. even suggest that as in the Gospels, it was the shepherds, not the learned Magi, who were first to recognize the Christ Child, that Sabuco has peasant shepherds who are unprejudiced by academic learning be the first to grasp the nature of reality. Waithe, M. E., et al., (2007), 38, n. 44.


16 Sabuco, O., (2007), 102. All quotations from Sabuco are the translations ofWaithe, M. E., et al. (2007). We note in passing that here Sabuco’s term translated by Waithe et al. as “soul” is “ánima,” not “alma.” Animad might better be understood as the life-force or animating principle of bodies (as we find in Aristotle), while alma has a more religious connotation. Sabuco uses both terms, but ánima seems to be her preferred term. Unless noted otherwise, all uses of the term “soul” are to what might better be taken as “ánima” rather than “alma.”

17 Sabuco, O., (2007), 102. J. L. Barona (1993) notes that this was not an uncommon metaphor used in Spanish physiology of the 16th century where the brain represents the high chambers of the ruler, who is served by those in the lower chambers or cells.


19 Sabuco, O., (2007), 262. Bracketed text is the translators; the ellipsis is mine.


21 The differentiation between male and female offspring was a point of interest in Sabuco’s time among other naturalist philosophers, among them Juan Huarte (1529–1588), whose Examen de Ingenios (1572) proposes methods for the “proper mating of prospective parents […] to procreate boys instead of girls, and to procreate talented sons (XVIII; 490–520).” Indeed, Huarte’s aims focus on eugenics in order to breed only useful and talented members of society. Noreña (1972): 73. Talamo (2002) notes that the birthing of male or female offspring may be a matter of hygiene, but this thought falls within in a larger context that there is no difference between putative male and female souls. Talamo, P., (2002): 203.


23 Sabuco, O., (2007), 263.

24 See Waithe, M. E. et al., (2007), 10. In Sabuco’s Spanish, the term “especies” may be translated as both “species” or “spices,” so the shepherd Rodonio questions Antonio’s description of this
transubstantiation: “Eso de las especies (señor Antonio) no entiendo, si no es especies para la olla,” Sabuco, O., (1981), 210: “I do not understand this thing, the species [or forms], Señor Antonio, unless they are the spices for the pot.” Sabuco, O., (2007), 102; the bracketed text is the translators'.
28 It is not the purpose of this essay to drawn a point by point comparison between Sabuco’s schema and, say, that of René Descartes, whose mechanical view of the world and humankind are very developed in his works, Le monde and Traité de l’homme.
30 Sabuco, O., (2007), 256.
31 Indeed, Sabuco’s Chapter 7, “Proper Philosophy of the Nature of Composite Things, of Humans, and of the World, Unknown to the Ancients,” features a dialogue between the shepherd, Antonio, with a learned doctor in which the simple shepherd bests the doctor’s knowledge by showing how often and in what ways the supposed knowledge of the ancients is inferior—if not dangerous to human health—to Sabuco’s own theories. Subsections in this chapter include “Serious Errors and Ignorance of the Ancients about the Nature of the Small and the Big World” and “Ignorance of the Ancients Concerning the Small and Big Worlds.”
35 Sabuco, O., (2007), 256.
37 Sabuco, O., (2007), 263. As an aside, Sabuco maintains that there is no elemental fire; warmth occurs from friction of sun’s beams against hard, earthly bodies. As proof, she notes that no one has ever observed fire coming from the sky to mix with other things, Sabuco, O., (2007), 304–5. See also section 9 of chapter 7, “[The So-Called Element] Fire.” Sabuco, O., (2007), 279–80.
38 Sabuco, O., (2007), 152.
40 Sabuco, O., (2007), 152–3. On this topic related to sex, menstrual fluid is poison to the male who touches it since this female fluid may ascend and disrupt his own brain fluids; this is why many men get sick or weak after intercourse and many need to sleep to recover. Since the lunar forces are strongest at the end of the night, it is better and safer to have intercourse in the morning. Sabuco, O., (2007), 259.
41 Descartes identifies the pineal gland as the place where ideas are traced and thus the site of mind-body interaction. Descartes, R., Œuvres de Descartes, 11 volumes, eds. Adam, C. and P. Tannery (Paris: Vrin, 1996) (hereafter AT), XI, 176–7 (Traité de l’homme); cf. letter to Meyssonier, 29 January 1640 (AT III, 19–20); letter to Mersenne, 1 April 1640 (AT III, 47–9); letter to Mersenne, 30 July 1640 (AT III, 121–4); and letter to Mersenne, 21 April 1641 (AT III, 361–2). In his Méditations, he refers to but does not name this gland (AT VII, 86). It may be objected that the change of locale of the soul-body interaction from the pineal gland to the pia mater does not really seem to address the Cartesian and contemporary problem of mind-body interaction; this will be addressed later in the essay.
42 Descartes, in his sixth meditation, seems to argue for the position that the human being exists as two separate and distinct substances, mind and body. Descartes, R., AT VII, 71–90.
At the same time, however, in his *Principia philosophiae*, he recognizes God as the only substance. Descartes, R., AT VIII, 245 § 51.


45 Sabuco, O., (2007), 118.


47 My thanks to an anonymous reviewer for help on clarifying this point.


49 Sabuco, O., (2007), 111; the bracketed text is the translators’ but for the Spanish terms and for the text with the ellipsis. “RODONIO.—¿Por qué, (señor Antonio) todos los más animales traen la cabeza baja, mirando a la tierra, y el hombre sólo la trae alta, siempre derecho, mirando al cielo? ANTONIO.—Porque como el origen, y nacimiento del ánima del hombre fue del cielo, quedose así, y casi colgado de él, y tomó su principal asiento, y silla en la cabeza, y cerebro del hombre (como la raíz de las plantas quedó asida al revés en la tierra) y allí en el alcázar real, donde había de estar el ánima divina, le fabricó el Hacedor de la Naturaleza tres salas (que son tres celdas de la médula del cerebro) […] Púsole en lo más alto dos vidrieras, o ventanas del alma, que son los ojos, para que por aquellas vidrieras en abriéndolas viese su patria, que es el Cielo.” Sabuco, O., (1981), 228. See also Barona, J. L. (2003): 177.


60 My thanks to Lee Rice, Marquette University, for his helpful insight on this point.

THE RECENTIOR NOMINALIS OF LEIBNIZ’S DISPUTATIO METAPHYSICA DE PRINCIPIO INDIVIDUI: FULGENTIUS SCHAUTHEET AND HIS CONTROVERSA AGAINST THE THOMISTIC DOCTRINE ON THE PRINCIPLE OF INDIVIDUATION

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Abstract. In his Disputatio metaphysica de principio individui (1663), Gottfried Wilhelm Leibniz (1646-1716) supports his own account of the principle of individuation on the basis of the authority of many Nominalistic (the nominales) theologians and philosophers. Among them he quotes a recentior nominalis, Fulgentius Schautheet (1623-1708), the author of the Controversiae philosophicae inter scholasticorum principes D. Thomam, Ioannem Scotum et Gregorium Ariminensem nominalium antesignanum (1660). Indeed, in the Preface of his work, Schautheet points out that he aims at reconstruct the Scholastic controversies by following in the footsteps of Gregory of Rimini (1300-1358), which is considered by him the antesignanus of the nominales. Leibniz refers to the Fifth Controversy of the second book, where Schautheet addresses his criticism against the Thomistic account of the principle of individuation. In this article I analyze Schautheet’s Controversia in order both to reconstruct the theory of the author and to compare it with Leibniz’s one.

Keywords: Schautheet, Leibniz, individuation, designated matter, nominales

Introduction

The quaestio on the principle of individuation is one of the most controversial topics in the history of Western philosophy. Its origins have to be traced in the commentaries on Aristotle’s and Porphyry’s logical works. However, its implications do not concern only logic, but also metaphysics, physics, and theology. As it is well known, the medieval discussion begins with Boethius (c. 480-c. 524) and, particularly, with his translations and commentaries of Aristotle’s Categoriae and Porphyry’s Isagoge and his theological tractatus (De trinitate, Utrum pater et filius, Quomodo substantiae, De fide catholica, Contra Eutychen). The debate develops in the Middle Age, particularly, in the Scholastic period, and it is still central in Second Scholasticism, as it is well shown by Francisco Suárez (1548-1617). The fifth of his Metaphysicae Disputationes (1597), entitled De unitate individuali eiusque principio, constitutes an exhaustive mise au point of the long

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medieval and Renaissance debate on this topic.

However, it would be incorrect to narrow the context of this controversy to the Scholastic tradition. In the early modern philosophy, the question of the principle of individuation, far from disappearing, is often debated by the most important thinkers of the time. The case of Gottfried Wilhelm Leibniz (1646-1716), whose first work is a *Disputatio metaphysica de principio individui* (1663) — and who will deal with the problem of the individuation all his life long — constitutes one of the most significant examples of the persistence of a medieval question in the Early Modern Age. As it is well known, the *Disputatio metaphysica de principio individui* is the bachelor’s thesis, defended in Leipzig on 30th May 1663, and it is written under the direction and the influence of Jakob Thomasius (1622-1684), who is the author of its Preface, entitled *Origo controversiae de principio individuationis*. Some scholars stressed the importance of Thomasius’s influence on the *Disputatio* and the Nominalistic solution endorsed by Leibniz. Stefano Di Bella invites cautiously to keep more attention to “the wider context, so far rather neglected, which is constituted by his teacher Jakob Thomasius’s Preface and by the Corollaries Leibniz himself draws from his own thesis.”

Roger Ariew goes so far as to argue that if Thomasius had preferred the Scotist solution, Leibniz would have done the same. This point must be taken into account in analysing the *Disputatio*. I will deal with it and Thomasius’s influence below (§ 4).

However, many details of this long history are still not very well known. This is true of an author that Leibniz quoted in his *Disputatio*: Fulgentius Schautheet (1623-1708), a Bachelor in theology and Augustinian Father (O.E.S.A.), who devoted two of his *Controversiae philosophicae inter scholasticorum principes D. Thomam, Ioannem Scotum et Gregorium Ariminensem Nominalium antesignanum*, published three years before Leibniz’s disputation, to the question of the principle of individuation.

Indeed, in spite of Leibniz’s reference, scholars have never paid attention to Schautheet, with few exceptions. In 1990, Jean-François Courtine observed that this author has remained unknown to all editors and translators of Leibniz’s *Disputatio*.

Following Courtine’s suggestion, this article will address Schautheet’s account of the principle of individuation. However, before analysing this account, let’s give some information concerning Schautheet and his work.

**Schautheet’s *Controversiae philosophicae***

Schautheet’s *Controversiae* are composed of five books containing eighty controversies on different Scholastic topics. The first book deals with logic (*Controversiae logicarum*); the second, the third and the fourth book with physics (the second with the natural body: *Controversiae de corpore naturali*, the third with the generation and the corruption: *Controversiae de generatione et corruptione*, the fourth with the soul: *De anima*), the fifth with metaphysics (*Controversiae metaphysicarum*).

As Schautheet claims in the *Praefatio*, the eighty controversies of the work concern three excellenterissimi scholarum príncipes: Thomas Aquinas (1225-1274), John Duns Scotus (1265/66–1308) and Gregory of Rimini (1300-1358). Therefore, Schautheet’s work is a sort of comparison among these three authors, whose sentences are related and discussed by Schautheet.

This comparison always ends with the endorsement, more or less explicit, of
the authority of Gregory. In this sense, Schautheet’s Controversiae constitute a sort of summa of philosophy ad mentem Gregorii. This is made explicit by Schautheet in the Praefatio, where he declares that in his controversies he will follow (inhaerescere) in Gregory’s footsteps (vestigia). Schautheet points out that he has not been compelled in his choice by any necessity (haud necessitate). This is just an act of free will (libera voluntas). 12

As one can notice, according to Schautheet’s point of view, the fact that he pursues Gregory’s authority means to endorse a Nominalistic position. Indeed, according to Schautheet, Gregory grounded all his doctrines on two axioms:

To God it is possible whatever does not imply any contradiction: and when there is no necessity of putting more things, it is the paucity that must be embraced. 13

Gregory is called, since the very title of the work, “nominalium antesignanum”; and in the Preface, “dux classis nominalium”. According to Schautheet, what distinguishes the nominales is the fact that

This genus of philosophers does not dispute on the names (as, namely, the ignorant grammarians describe it), but they put together the paucity of the things with the plurality of the names, they assert and preserve it. 14

Contemporary scholars have shown how problematic is to characterize Gregory strictly as a Nominalist theologian (and, more in general, the Ockhamism and the Nominalism as an uniform doctrinal body); 15 it is clear, indeed, that his theological and philosophical doctrines cannot be classified without distinction under the label of the ‘Nominalism’. However, this was the manner in which Gregory was considered at the age of Schautheet, and even before: Johann Georg Turmair ‘Aventinus’ (1477-1534), in his Annales ducum Boiariae (written between 1517 and 1521, later published in the edition of all the writings between 1881 and 1908), 16 attributed to Gregory the appellative of antesignanus nominalium. 17

Let’s turn to Schautheet. His choice to endorse the authority of Gregory is intended to express the superiority of the Nominalistic perspective with respect to Aquinas on the one side and to Scotus on the other side. The aim of the Controversiae, as well as the structure, is very well illustrated by Schautheet’s discussion of the principle of individuation, which is collocated in the physical section of the work (second book). Indeed, the two controversies devoted to the question of the principle of individuation, An quantitas aut materia signata quantitate sit principium individuationis, 18 and An Scoti haecceitas sit principium individuationis 19 are addressed, respectively, against Aquinas (Fifth Controversy) and Scotus (Sixth Controversy). And it is exactly as a follower of Nominalism – as a recentior nominalis – that Leibniz will present Schautheet in his Disputatio metaphysica de principio individui. 20

This article will focus on the Fifth Controversy, aiming both to expose in its general lines Schautheet’s criticism against the Thomistic doctrine and to make a comparison between Schautheet’s and Leibniz’s account of individuation. 21
The Controversy is composed of three articles: the first exposes the arguments (rationes) addressed against the Thomistic thesis holding the designated matter as principle of individuation; the second presents the arguments in support of that thesis; the third contains Schautheet’s own evaluation of Thomistic doctrine with his replies to the arguments of the second article.

Here I will follow Schautheet’s exposition, analyzing in sequence the three articles of the Fifth Controversy (§§ 2-3); at the end of the article I will sketch the comparison between Schautheet and Leibniz (§ 4).

Controversia V, art. 1: the traditional arguments against the Thomistic doctrine

In the first article Schautheet discusses two questions:
1. Whether the principle of individuation is the quantity;
2. Whether the principle of individuation is the matter designated by quantity (materia signata).

The main thesis of the article is that the principle of individuation is nor the quantity, nor the designated matter. Schautheet exposes ten arguments referring to the first conclusion, and other ten arguments to the second conclusion. All these arguments are traditional; in formulating them, Schautheet appeals to the authority of Gregory of Rimini, Gabriel Biel (c. 1415-1495), Durandus of Saint-Pourçain (c. 1270-1334) and Benet Perera (1535-1610). These are the same authors (and they are quoted in the very same order) that will be listed by Leibniz in his Disputatio. Consequently, it seems quite possible that Leibniz is following in his work Schautheet.

At beginning of the first article, after formulating the question of the Fifth Controversy and its first conclusio, Schautheet refers to Gregory and, in particular, to the first article of his Lectura super primum Sententiarum, dist. 17, q. 4 (Utrum forma corporalis intendatur per acquisitionem novae formae vel partis seu gradus formae eiusdem rationis). However, Schautheet’s reference to Gregory is puzzling, because the quaestio 4 does not deal strictly with the problem of individuation.

Schautheet’s account seems to be independent from Gregory’s quaestio. This is confirmed by the fact that no one of the arguments alleged by Schautheet in what follows refers particularly to texts taken from Gregory and, moreover, in the whole Controversia the very name of Gregory occurs only two times.

But let’s now sum up the arguments alleged by Schautheet in support of the first conclusio. The first argument runs as follows: individual substances are prior to the quantity (indeed, the subjectum precedes the form, and the individual substance is the subject of the quantity); but, what is posterior cannot be the principle of individuation, neither can be the principium constitutivum of what precedes it. Indeed, the distinctive and constitutive principles of a thing are one and the same thing. This premise is here in order to prove that the quantity cannot individuate the substance, and, as we can see, Schautheet will use it also in the fifth argument for the first conclusio and in the second argument for the second conclusio.

The second argument claims that the individual substance is directly included within the predicament of substance. Indeed, the predicamental substance can be differentiated in first substance (the singular one) and in second substance (the
universal one); as a consequence, the quantity is not required as principle of individuation.\textsuperscript{33} Moreover, the individual substance is a being \textit{per se} and the species is predicated of the substance \textit{in quid}. Therefore, the quantity cannot be the principle of individuation because, in this case, the first substance would be an accidental composite and the second substance would not be predicated \textit{in quid} of the first substance, given that a physical part cannot be predicated \textit{in quid} of its whole.\textsuperscript{34}

The third asserts that, even if the quantity is removed, the substance is still a singular being, in so far as it continues to be distinguished from another substance;\textsuperscript{35} for example, once subtracted to John his quantity, John continues to be different from Peter and, consequently, to be a singular substance.\textsuperscript{36}

The fourth argument is grounded on the assumption that the individuals are different substantially. Now, if the quantity was the principle of individuation, once destroyed their quantity, the individuals would differ only accidentally and they could not be distinguished.\textsuperscript{37}

The fifth argument claims that, if separated from the body, the rational souls would differ only numerically. Indeed, the rational souls are devoid of quantity and what distinguishes one thing from another (i.e., the distinctive principle) must exist in the thing that it makes be different from all other things, namely it must be also a constitutive principle. Consequently, the quantity cannot be the principle of individuation.\textsuperscript{38}

As the sixth argument refers, what is convertible with the being and can be predicated of all the same things does not add anything to the things to which it is attributed; but the individual is convertible with the being really \textit{(a parte rei)} existent and it is predicated of all the things to which the being is attributed. Therefore, the individual is not distinguished from the singular things. It follows that the quantity cannot be the principle of individuation: otherwise, the individual would be composed of the quantity and the substance. Consequently, it would be only inadequately distinguished from the singular substance.\textsuperscript{39}

The seventh maintains that the final term of every substantial generation is a singular substance, which is a being that is really one. Accordingly, if the quantity was the principle of individuation, it would constitute the term of the substantial generation; but this is impossible, because, in that case, the individual substance will be an accidental being, which is a nonsense.\textsuperscript{40}

The eighth supposes that the quantity may cease to exist; indeed, as the Mystery of the Eucharist shows, the quality can exist without the quantity; but it is impossible that something that may cease to exist constitutes a principle of individuation. As a consequence, the quantity cannot be the principle of individuation.\textsuperscript{41}

The ninth is grounded on the following premise: it is in virtue of its own essence that a thing constitutes an individual. Indeed, it is the same principle that makes a thing to be both individual and existing; and a thing exists in virtue of its essence, because this is identical with the existence. Therefore, in so far as it is an accident, the quantity cannot be the principle of individuation.\textsuperscript{42}

The tenth claims that two accidents that are numerically distinct can inhere in virtue of God’s power in the same substance. However, if the quantity was the
principle of individuation, two accidents inhering in it would constitute, at the same time, both a plurality of beings and an individual being: a plurality, because it has been assumed that they are two; an individual, because from the same formal principle follows the same formal effect. And this is impossible.43

Let’s turn to the second conclusion,44 addressed against the thesis that the principle of individuation is the designated matter. To support this sentence, Schautheet refers here, among others (alii), to Gregory of Rimini,45 but, once again, he does not mention any particular text.

Schautheet’s first argument is grounded on the proofs of the first conclusion: indeed, all the reasons demonstrating that the quantity cannot constitute the principle of individuation also prove that neither the designated matter can constitute it.46

The second argument is more articulated and it is grounded on the assumption, which Schautheet had used above47, that the distinctive and constitutive principles of a thing are one and the same thing48. If God destroyed the designated matter of two rational souls, these would be still numerically distinct; but, as the principle of an actual distinction has to be in act, the distinction of the souls cannot depend on the designated matter, which, consequently, cannot be the principle of individuation. Moreover, the designated matter is extrinsic to the intellectual souls and it is impossible that a distinction is grounded on something extrinsic: indeed, the constitutive principle is identical with the distinctive principle and a thing cannot be constituted by something extrinsic. Again, as two rational souls are in themselves two different entities, they are not specifically, but numerically distinguished. Now, the souls are devoid of any matter designated, which, consequently, cannot constitute the principle of their numerical distinction.49

The third argument runs as follows. Every intellective soul is able to inform whatever matter apt to be informed. Therefore, the designated matter does not distinguish the souls. Indeed, if the diversity of the souls had to be explained by the matter, every soul could inform only one matter.50

The fourth argument is the following. Two rational souls are numerically different or because of the matter that they inform or because of the instrument by which they inform the matter. In the first case, once the matter is destroyed, the distinction ceases too, because cessante causa cessat effectus; as a consequence, the souls are not distinguished by the matter only. In the second case, the principle of individuation cannot be the designated matter, as the souls inform different matters by themselves or by something intrinsic.51

The fifth argument is grounded on the premise that two intellectual souls inform progressively the same matter endowed with the same quantity. It follows that the designated matter cannot be the principle of individuation, because different individuals cannot be constituted by a same principle. To support his argument, Schautheet relates the biblical episode of the siege of Samaria by the Syrians,52 when the mothers ate their own children because of hunger. What happened, in that case, is that the souls of the children and the mothers were progressively informed by a matter designated by the same quantity.53

The sixth argument starts from the premise that God created the souls before the bodies; this, indeed, is not a contradictory possibility. Hence Schautheet argues
that the matter designated by quantity cannot be the principle of individuation: indeed, on the one side, the souls created before the body could be apt to be united to whatever body and the will of God could breathe whatever soul into whatever body; and, on the other side, the principle of distinction is not common to the things that it distinguishes. Moreover, in the same way that God ordered freely that the rational soul that is in John is jointed to the matter A, he could have also decided to join it to the matter B. Therefore, the soul is not individuated for the fact that it exists in a singular matter, because it could have been put by God in another matter.\(^{54}\)

The seventh argument is grounded on the premise that it is possible that many angels are under the same species:\(^{55}\) this would not be possible if the matter was the principle of individuation. The same conclusion is confirmed by the fact that the doctrine that God cannot produce many individuals of a same species without matter was condemned more than three century before in Paris.\(^{56}\)

The eighth argument is the following. A plurality of heats numerically distinguished inheres, in different times, in the same matter of water designated by the same quantity: indeed, once lost the heat it was previously endowed with, the water can be warmed up again. It follows, again, that the designated matter cannot be the principle of individuation: otherwise, two heats that inhere in a different time in the same water would not differ numerically, because they would have the same principle of individuation.\(^{57}\)

The example of the heat occurs in the ninth argument, too. A plurality of degrees of heats of the same species inheres at the same time in boiling water, and a plurality of parts, numerically different, of the grace inheres at the same time in the same soul of the just man; but, the addition of parts of the same nature to a pre-existent form can be explained by the predicament of quality; consequently, the designated matter is not the principle of individuation.\(^{58}\)

According to the tenth argument, every single thing is a parte rei formally and intrinsically one by number for the very fact that it exists in act; but a thing is in act not by the designated matter, because the forms (both substantial and accidental) can exist by divine virtue without it. It follows again that the designated matter cannot be the principle of individuation.\(^{59}\)

After these ten arguments, Schautheet finally exposes his opinion concerning the principle of individuation and formulates a definition of it. He writes:

Do you ask which is the principle of individuation? I answer that the principle of individuation is twofold: one is external and other is internal. The external one is the sensible accident, which is a kind of sign through which we acknowledge the diversity of the individuals. The internal one is twofold: one is logical and the other is physical. The physical one is the whole nature of whatever thing existing. The logical one is the individual difference by which the species is contracted up (according to our way of conceiving) to the individual, as well as the genus is contracted up to the species by the common difference.\(^{60}\)
Controversia V art. 2-3: the status quaestionis and Schautheet’s solution

The second article relates eight arguments supporting Thomas Aquinas’s thesis that the principle of individuation is the designated matter, which Schautheet traces back in Summa theologiae, III, q. 77, a. 2. In addition to the authority of Aquinas, Schautheet also refers to Giles of Rome (1243-1316), John Capreolus (1380-1444), Paul Soncinas († 1494) and Thomas Cajetan (1469-1534).

In reconstructing the Thomistic position, Schautheet states that the principle of individuation is the matter (see below the first, third and fourth arguments), the accident (see the second argument) and the quantity (see the fifth, sixth, seventh and eight arguments).

Let’s move more precisely to the arguments.

1. The first argument is grounded on Aristotle’s claim in Metaphysics that the unity and the distinction come from the matter; therefore it is necessary that the principle of individuation is the matter. The same conclusion follows from Aristotle’s statement in the Physics that the prime mover can be only one, in so far as it exists without matter.

2. According to Porphyry, the individual is defined by the accidents; indeed, all the individuals belonging to the same species are not differentiated by their nature, but by the accidents only. Therefore, it is clear that the accidents are the principle of individuation. This is confirmed as follows: the principle of individuation is what distinguishes all the individuals of a same species; now, such a principle of distinction can be only an accident; consequently, the principle of individuation can be only an accident.

3. The things that are distinguished numerically do not differ formally; now, every difference coming from the form concerns the species; consequently, the numerical difference can depend on the matter only, which constitutes, therefore, the principle of individuation.

4. In the spiritual and incorruptible things there is no individual distinction; this proves that every individual distinction comes from the matter. The major premise of the argument is demonstrated as follows: the multiplication of the individuals belonging to a same species is in order to the preservation of the species itself; now, one single individual is enough to conserve the species of the spiritual and incorruptible things; consequently, there is no individual distinction in them.

5. As Aristotle argues in Metaphysics, every distinction is by the form or by the quantity; now, in the things belonging to the same species there are no different forms; therefore, the only principle of individuation is here the quantity. This is confirmed by the other Aristotle’s claim that the form is in order to distinguish; indeed, from this follows that the principle of individuation cannot be nor the matter, nor the specific form. Therefore, it is the quantity. The same conclusion is confirmed by Boethius, who writes that the individual difference is caused by the accidents; from this, indeed, follows that the principle of individuation is the quantity, because it constitutes the first accident.

6. There is no distinction among the individuals of a same species that is
caused by the essential difference; as a consequence, every distinction should depend on an accidental difference; now, the first accident is the quantity, which is, therefore, the principle of individuation.\textsuperscript{76}

7. The specific form is multiplied in so far as it is received in different matters; now, every material difference is originated by the quantity; therefore, the quantity constitutes the root (\textit{radix}) of every individual distinction.\textsuperscript{77}

8. The parts of the water that are separated from each other are numerically distinct; but, this distinction arises from the quantity; therefore, the quantity is the principle both of the multiplicity and the distinction of the individuals belonging to the same species.\textsuperscript{78}

Let’s come to Schautheet’s replies.

His answer to the first argument is grounded on a distinction: the matter is not an adequate, but only an inadequate principle of individuation\textsuperscript{79}. The fact that the matter is a principle of individuation, though an inadequate one, stems from the following statement:

an individual material substance (in so far as it is composed of matter and form) receives its complete being from the matter and the form. Consequently, its unity and its distinction are not caused only by the form, but also by the matter.\textsuperscript{80}

This is what explains why, according to Aristotle, the individuation depends more on the matter than on the form. Indeed, the matter is the last and the adequate subject of the sensible accidents, which are a kind of signs through which we acknowledge the unity and the individual distinction of the substances.\textsuperscript{81} However, in spite of this, matter is not an adequate principle of individuation. This becomes clear if one considers that the rational souls differ each other only numerically;\textsuperscript{82} but, given that the generic and specific differences come from the form, why should not the individual difference be grounded on the form, too?\textsuperscript{83}

As regards the argument alleged by Aristotle in his \textit{Physics} to prove that there is only one first mover, it is not rooted on the thesis that the matter is required in order to multiply the first movers. It is only a probable argument aiming to argue that the first mover, in so far as it is devoid of matter, cannot be subjected, unlike the bodies, to corruption, and, as a consequence, can move for the eternity.\textsuperscript{84}

To the second argument, grounded on the authority of Porphyry, Schautheet objects that the accidents cannot be an intrinsic principle of individuation. If God destroyed the accidents of a substance, this substance would still be an individual.\textsuperscript{85} Therefore, they can only be an extrinsic principle of individuation; to put the same things differently, the accidents can be a principle of individuation not in themselves, but with respect to us only, in so far as we are used to distinguish the individual things by their accidents.\textsuperscript{86} As regards, finally, the confirmation of the argument, Schautheet argues that the individuals of the same species do not differ in their common nature only if this is considered as an individualized nature; nevertheless, they differ in their common nature \textit{absolute considerata}.\textsuperscript{87}

Schautheet formulates a similar answer in his reply to the third argument. The
fact that the things distinguished only numerically do not differ formally is true only if we speak about the *forma absolute considerata*. On the contrary, if we consider the form as individualized, this is false: indeed, the soul of John is numerically distinguished from the soul of Peter by its own entity, which is the form.88

Against the fourth argument, Schautheet objects that the rational souls are numerically distinct. And it is false to argue that the multiplication of the individuals of a same species is in order to conserve the species; on the contrary, the preservation of the species is only a partial cause, not an adequate one, of the plurality of the individuals belonging to a same species.89

As regards the fifth argument, Schautheet explains that the formal distinction of the individuals of the same species is twofold: the first comes from the form simply and specifically considered; the second is grounded on the form in so far as it is a singular thing and exists in act. The first is called simply formal (*formalis citra additionem*), the second is called formal in some respects (*formalis secundum quid*). Now, the first distinction, unlike the second, does not concern the individuals of the same species.90

Against the confirmation of the fifth argument, Schautheet objects that the *radix* of the individual distinction is to be identified both with the form (as singular one) and the matter. And, as regards the accidents, they are only an extrinsic principle of the individuation; Boethius’s claim that the individual difference comes from the accidents must therefore be understood only in the sense that the accidents manifest the distinction of the individual substance, whose intrinsic principle remains, nevertheless, unknown.91

In line with this, Schautheet argues, in his reply to the sixth argument, that the individuals of the same nature are distinguished by the essential differences belonging to each individual; now, that this difference is an essential and not an accidental one follows from the fact that the substantial individuals, unlike the accidental composites, are directly included within the predicament of the substance.92

Concerning the seventh argument, Schautheet claims that the numerical distinction of the souls cannot be explained by their reception in the matter: indeed, when separated from their own bodies, the rational souls continue to be numerically distinguished. On the contrary, their distinction depends on the intrinsic perfection of the souls.93

Finally, as regards the eighth argument, the parts of the water separated from each other would continue to be distinguished numerically even if their quantities are destroyed. As a consequence, an intrinsic principle is required in order to explain their individuation.94

If one examines all the arguments and the counterarguments formulated by Schautheet, it is clear that the principle of individuation is taken in three senses: [1] as the constitutive principle; [2] as the distinctive principle (i.e., what distinguishes a thing from another one); [3] as the numerical difference (or individual one). According to Schautheet, the distinctive principle and the constitutive one are identical, in so far as what distinguishes a thing from another one must be an internal and, at the same time, constitutive principle; on this premise are grounded, in the first article, the fifth argument of the first conclusion and the second and the sixth of the second conclusion.95

The principle of individuation means here something substantial, that belongs to the
individual substance and is not added to it; a principle that constitutes and differentiates substantially one thing from another one, as it is clear, for example, in the second, in the fourth and in the ninth arguments for the first conclusion.\textsuperscript{96}

The third sense of the principle of individuation is the numerical difference. According to Schautheet, this is the “root of numerical distinction” (see the first argument for the first conclusion in the first article and the reply to first argument supporting Thomistic position in the third article)\textsuperscript{97} and the “root of individual distinction” (see the seventh argument supporting Thomistic position in the second article and the reply to fifth argument supporting Thomistic position in third article).\textsuperscript{98}

\textbf{Schautheet and Leibniz}

As we have seen, Leibniz’s \textit{Disputatio} is influenced by the account of Jakob Thomasius, who is also the author of the introduction. In his Preface Thomasius asserts he wants to give an historical presentation of the problem of individuation – or, more precisely, a brief narration (\textit{brevis narratio}).\textsuperscript{99} However, his point of view seems to be not a neutral one at all.\textsuperscript{100} In fact, he goes so far as to criticize the Aristotelian-Thomistic doctrine of individuation.\textsuperscript{101} He shows a preference for the Scotist one, and finally he supports only the Nominalistic solution.\textsuperscript{102}

Though endorsing, as his teacher did, the Nominalistic solution, differently from Thomasius, Leibniz does not focus on the Thomistic thesis that distinguishes between two principles of individuation, one for the bodies and the other for the Angels. In spite of Thomasius’s account, Leibniz addresses (and criticizes) the Scotist solution, which according to him is an “hypothesis applicable to all individuals”, both material and non-material. In doing so, Leibniz abstracts “from the material and non-material substance” and deals only with the “general” opinions.\textsuperscript{103}

Despite the difference between these two accounts, nevertheless, it is clear that Thomasius and Leibniz share a common strategy\textsuperscript{104} aiming at dissolve the intricate problems that arise from the Scholastic disputes on the individuation.\textsuperscript{105} This explains why they endorse the Nominalistic solution: it allows to solve the \textit{quaestio} on the individuation by means of a very simple (\textit{simplicissima}) and correct solution (\textit{verissima decisio}) that they oppose as such to the Thomists and Scotists.\textsuperscript{106}

Let’s turn now, more precisely, to Leibniz’s text, in order to make a comparison between Leibniz’s and Schautheet’s solutions. As we can see, Leibniz distinguishes four sentences concerning the principle of individuation, according to which the principle of individuation is: 1) The \textit{tota entitas} (“whole entity”); 2) A negation;\textsuperscript{107} 3) The existence;\textsuperscript{108} 4) The \textit{haecceitas}.\textsuperscript{109}

According to the first opinion, the principle of individuation is the \textit{tota entitas}. Now, it is precisely this opinion that Leibniz endorses:

the first opinion […] will be adopted by us […]. Therefore, I maintain: every individual is individuated by its whole entity.\textsuperscript{110}

In doing so, he claims to agree with other gravissimi men:

it is held by the most distinguished men.\textsuperscript{111}
The list of the authorities referred by Leibniz is impressive. He appeals to Peter Auriol (1280-1322) – whose thesis, as Leibniz remembers, is criticized by John Capreolus – and Hervé de Nédellec († 1323). Leibniz observes that Soncinas († 1494) qualifies these authors as 

\textit{terministae or nominales.} And indeed, as Leibniz claims, this opinion is hold by Gregory of Rimini, Gabriel Biel, and, in addition, by a \textit{recentior nominalis}, Schautheet, who quotes all these authors. However, Leibniz also refers to other authorities: Durandus of Saint-Pourçain and Francisco Murcia de la Llana († 1639), but also Francisco Suárez, Marcantonio Zimara (1475-1532), Benet Perera, Abraham Calov (1612-1686), Daniel Stahl (1585-1654).\textsuperscript{112}

In spite of Leibniz's reference to the authority of Schautheet in support of his own account on the individuation, the analysis I proposed above both of the arguments discussed by Schautheet and his final answers shows a substantial analogy with Leibniz's position, with few exceptions. Indeed, if Leibniz agrees with Schautheet in claiming that the entity or nature of a thing (that Schautheet calls the “whole nature” and Leibniz the “whole entity”) is the cause and the reason of its actual existence and individuality, nevertheless his approach is slightly different from the one proposed by Schautheet.

This is clear if one considers Leibniz's preliminary remarks concerning the \textit{status questionis}. According to Leibniz, the principle of individuation is basically a physical principle. This is the definition that he reaches after distinguishing the different meanings of the terms ‘individual’, ‘principle’ and “principle of individuation”.\textsuperscript{113} Firstly, he defines the \textit{individuum} as a universal having either a logical sense (as it is \textit{in ordine ad praedicationem}) or a metaphysical one (as it is \textit{in ordine ad rem}), pointing out that the individual may be according the thing (\textit{in re}) or according the concept (\textit{in conceptu}), namely \textit{fundamentaliter} (i.e., \textit{in re}) or \textit{formaliter} (i.e., \textit{in conceptu}). He distinguishes different ways in which the individual can be understood \textit{formaliter}, i.e., [1] “in terms of every individual, or [2] in terms of only created substances, or [3] in terms of substance, or [4] in terms of just material substance.”\textsuperscript{114} Secondly, he deals with the principle and he differentiates the principle of being from the principle of knowledge and divides the principle of being in an internal and an external one.\textsuperscript{115} Thirdly, he points out he is going to deal only with the physical principle of individuation.\textsuperscript{116} After considering the different meanings of the terms ‘individual’, ‘principle’ and ‘principle of individuation’, Leibniz provides the following definition of the principle of individuation:

Wherefore, to summarize the foregoing, we treat of something real and what is called a “physical principle”, which would serve as the foundation in the mind of the formal notion of ‘individual’, understood either as individuation or numerical difference. We shall treat primarily of the principle in the case of created and substantial individuals.\textsuperscript{117}

Leibniz qualifies the individual as “something real”. In this way, he does not consider the logical sense of individual, since he deals especially with the physical principle of individuation \textit{fundamentaliter} (not \textit{formaliter}) taken, i.e., understood as the \textit{fundamentum}, in our mind, of the formal notion of ‘individual’. In addition, he keeps
into account only the second and third of the four senses in which the individual may be considered *formaliter*, i.e., as created substance and as individual substance.

Leibniz’s preliminary remarks show some differences with respect to Schautheet’s account. Indeed, as we have seen, Schautheet acknowledges the existence of two principles of individuation: one internal, which is twofold and consists in the “whole nature of whatever thing existing” and in “the individual difference”, and one external consisting in the “sensible accidents”. Moreover, he intends to address primarily the internal (i.e., logical and physical) principle of individuation.\(^{118}\)

Therefore, if Schautheet considers both the logical and the physical principles, Leibniz speaks of one principle only (the physical one). Indeed, leaving aside the logical principle of individuation, he focuses only on ‘general solutions’ (namely, the Scotist ones) considering all the individuals as really existing, independently from the difference between material and non-material substances.

**Conclusion**

In this article, I have analysed the Fifth Controversy of Schautheet’s second book, containing his criticism to the Thomistic position on the principle of individuation. My purpose has been to address Schautheet’s criticism of the Thomistic thesis of the *materia signata*. Even though Schautheet is not very famous nowadays, he was not so unknown in the second half of the Seventeenth Century. In his *Disputatio metaphysica de principio individui*, Leibniz claims to accept the Nominalistic account of the individuation and appeals, among others, to Schautheet’s authority, presenting him as a *recentior nominalis*.

It is Schautheet himself, in the Preface of his work, who makes explicit his endorsement of the doctrines of the *nominales* and, particularly, of Gregory of Rimini (the *antesignanus* of *nominales*). Schautheet’s criticism of the Thomistic thesis that the principle of individuation is the designated matter constitutes an essential step of his Nominalistic strategy, together with his criticism of Scotus’s thesis (developed by Schautheet in the Sixth Controversy). Indeed, like Leibniz, he endorses a Nominalistic approach in simplifying the terms of the question; this is particularly clear in his reduction of the principle of individuation, strictly considered, to the whole nature – or to the individual difference.

However, Schautheet’s debt to Gregory seems to be actually negligible: as we have seen above (§ 2), there are no quotations from Gregory’s work. In spite of the declarations of the Preface, the doctrine of Gregory does not seem to play a significant role in Schautheet’s Fifth Controversy.

In this article, I have only focused on Schautheet’s criticism against Thomas and his followers and this is the only one passage of the *Controversiae* to which Leibniz refers. In doing so, I have followed in my *exposé* the articulation of Schautheet’s Fifth Controversy; then, I have proposed a comparison with Leibniz’s account on the individuation.

My analysis has shown a substantial convergence between Schautheet’s and Leibniz’s account. Indeed, both Schautheet and Leibniz think that the principle of individuation, strictly considered, constitutes a physical and intrinsic principle. Nevertheless, unlike Schautheet, who distinguishes two principles (one logical and the
other physical) and takes them into account by defining the principle of individuation, Leibniz recognizes only an intrinsic and physical principle of individuation, leaving aside the external and logical principle of individuation.

References
2 The fifth (De unitate individuali eiusque principio) of the fifty-four Suárez’s Metaphysicae Disputationes (1597) is composed of nine sections. Suárez’s solutio is given in the sixth section. See Suárez, F., Metaphysicae Disputationes, disp. V, sec. VI, §1, in Opera omnia (Paris: Vivès, 1861), vol. 25, 180a: “Ex hactenus dictis contra superiores sententias videtur quasi a sufficienti partium enumeratione relinqui omnem substantiam singularem [se ipsa, seu per entitatem suam, esse singularem] neque alio indigere individuationis principio praeter suam entitatem, vel praeter principia intrinseca quibus eius entitas constat. Nam, si talis substantia, physice considerata, simplex sit, ex se et sua simplici entitate est individua; si vero sit composita, verbi gratia, ex materia et forma unitis, sicut principia entitatis eius sunt materia, forma et unio earum, ita eadem in individuo sumpta sunt principia individuationis eius; ulla vero, cum sint simplicia, seipsis individua erunt”.
4 On the persistence of medieval terminology and concepts in Early Modern Age, see Gregory, T., Origini della terminologia filosofica moderna. Linee di ricerca, (Florence: Olschki, 2006).
5 Thomasius, J., Origo controversiae de principio individuationis (1663), A VI-1, 5-8.
7 Ariew, R., (2009), 100: “It should be emphasized that, in this process, no premium would be given for originality, especially on the part of the degree candidate. Another way of putting the point is that if Thomasius had preferred the Scotist position over that of the Nominalists, Leibniz would surely have done the same”.
8 Born in Dendermonde on 3th December 1623 and dead on 25th September 1708, Schautheet studied in the College of the Augustinians Fathers. He took vows under the name Fulgentius. He obtained the licentiate in theology and he taught in Antwerp. From 1676 to 1678 he was prior at Dendermonde, at Bruges and at Louvain. When he died, he was a jubilaire. See Biographie nationale, publiée par l’Académie Royale des sciences, des lettres et des beaux-arts de Belgique (Bruxelles: Établissement Émile Bruylant, 1911-1913), vol. 21, 602.
9 Schautheet, F., Controversiae philosophicae inter scholasticorum principes D. Thomam, Ioannem Scotum et Gregorium Ariminensem Nominalium antesignanum (Antwerpiae: apud Iacobum Mesium, 1660).
10 Leibniz, G.W., Disputatio metaphysica de principio individui, § 4, A VI-1, 11, l. 32-12, l. 1: “Quos adducit recentior Nominalis Schauthefl l. 2 Contr. 5 artie. 1”; transl. McCullough, L. B., (1996), 100.
problème de l’individuation de Suarez à Leibniz”)


12 Schautheet, F., (1660), Praefatio: “Complectitur hoc opus octoginta Controversias inter Excellentissimos Scholalarum Principes D. Thomam, Ioannem Scotum, et Gregorium Ariminensem, cuius vestigiis passim inhaesimus, haud necessitate aliqua: sed libera voluntate, quod is omnem suam doctrinam duobus potissimum axiomatibus [...] firmissimis velut basibus stabiliverit ac roborarit”.

13 Schautheet, F., (1660), Praefatio: “Deo est possibile, quidquid non involvit contradictionem: et amplectenda est paucitas, quando non occurrit plura ponendi necessitas”. In this article the translations from Latin are mine, except specified passages.

14 Schautheet, F., (1660), Praefatio: “Quod genus Philosophorum non de nominis rixatur (id enim imperiti assuevere Grammatici) ast rerum paucitatem cum pluralitate nominum componit, asseveratque”.


19 Schautheet, F., (1660), book 2, cont. 6, 275-289.

20 Leibniz, G.W., Disputatio metaphysica de principio individui, § 4, A VI-1, 11, l. 32-12, l. 1. See supra, n. 10.

21 For Aquinas’s doctrine on the principle of individuation as matter designated by quantity (materia signata quantitate), see: Thomas de Aquino, Summa theologica, III, q. 77 a. 2 co., in Opera omnia, inssim impenssaque Leonis XIII P.M. edita, cura et studio fratrum praeclarorurn, (Rome: 1882-2000), t. 12 (1906), 196b; De ute et essentia, c. 2, in Opera omnia, inssim impenssaque Leonis XIII P.M. edita, t. 43 (Rome: 1976), 371a, ll. 67-84, Saper libros Boethii De Trinitate, c. 4, a. 2, in Opera omnia, inssim

26 Schautheef, F., (1660), book 2, cont. 5 (Conclusio 1: 262-265), a. 1, 262: “Quantitas non est principium individuationis”.
27 Schautheef, F., (1660), book 2, cont. 5 (Conclusio 2: 262-269), a. 1, 262: “Materia signata quantitate non est principium individuationis”.
29 Leibniz, G.W., (1663), § 4, A VI-1, 11, l. 32-12, l. 10.
30 See, esp., Schautheef, F., (1660), book 2, cont. 5, a. 1, 262. Like Schautheef, also Leibniz refers to the fourth quaestio in Gregorius Ariminensis, Super primum, dist. 17 and to the first quaestio in Gabriel Biel, Super secundum, dist. 3. See Leibniz, G.W., (1663), § 4, A VI-1, 11, l. 31-32. See supra, n. 28.
31 See Leibniz, G.W., (1663), § 4, A VI-1, 11, l. 31-32. See supra, n. 28 and 30.
33 Schautheef, F., (1660), book 2, cont. 5, a. 1, 262: “Substantia individua ponitur directe in praedicamento; et enim substantia praeedicamentalis distribuitur in primam et secundam: ergo
quantitas non est principium individuationis”.


35 Schautheet, F., (1660), book 2, cont. 5, a. 1, 263: “Id quo ablato manet individuum, non est principium individuationis: atqui Ioannes v.g. destructa (per Deum) sola quantitate maneret individuum: ergo quantitas non est principium individuationis. Prob. mi. impossibile est aliquid substantiam immutatam substantialiter desinere esse hanc et singularem”.

36 Schautheet, F., (1660), book 2, cont. 5, a. 1, 263: “Ioannes destructa quantitate esset substantia, non secunda et universalis: ergo prima et singularis [...]. Confrir. 2 Ioannes destructa quantitate esset sub specie hominis, et differret realiter a Petro: ergo Ioannes destructa quantitate maneret individuuum”.


39 Schautheet, F., (1660), book 2, cont. 5, a. 1, 263-264: “Quod convertitur cum ente et de omnibus eisdem praedicatur, non dicit quid rebus, quibus tribuitur superadditum: atqui individuum convertitur cum ente a parte rei existente, et praedicatur de omnibus, quibus ens tribuitur: ergo individuum non differt a rebus singularibus: ergo quantitas non est principium individuationis. Patet ult. conseq. si datur oppositum, individuum erit compositum ex quantitate et substantia: et consequenter distinguenterut inadeguate a substantia singulari”.

40 Schautheet, F., (1660), book 2, cont. 5, a. 1, 264: “Generatio substantialis terminatur per se ad substantiam singularam, quae est ens re unum: ergo quantitas non est principium individuationis. Prob. conseq. si quantitas est principium individuationis, generatio substantialis terminabitur ad quantitatem, et substantia individua erit ens per accidens: quod non potest non esse absurdum”.


42 Schautheet, F., (1660), book 2, cont. 5, a. 1, 264: “Per idem res est individua et existens: atqui res existit per suam essentiam: nam essentia et existentia a parte rei non differunt [...] ergo etiam est individua per suam essentiam: ergo quantitas non est principium individuationis. Patet ma. res per suam entitatem est actu in rerum natura, et diversa ab alii eiusdem secum speciei”.

43 Schautheet, F., (1660), book 2, cont. 5, a. 1, 265: “Duo accidentia solo numero distincta possunt divinitus eiusdem simul inesse quemadmodum probatum est l. 5. contro. 10 a. 1, ergo quantitas non est principium individuationis. Prob. conseq. si quantitas est principium individuationis, duo accidentia illi inexistents erunt plura: ut supponitur, et simul unum individuum: nam ab eodem principio formal promanat idem effectus formalis”. In supporting
this claim, Schautheet refers to article 1 of the Tenth Controversy of the fifth book: see, for instance, Schautheet, F., (1660), book 5, cont. 10, a. 1, 901: “Plures calores insunt successive eidem aquae, ergo et simul possunt eidem inesse divinitus”.

44 Schautheet, F., (1660), book 2, cont. 5, a. 1, (Conclusio 2) 265-269.


46 Schautheet, F., (1660), book 2, cont. 5, a. 1, 265: “Quantitas non est principium individuationis: ergo nec materia signata quantitate, antec. supra probatum est. Patet conseq. rationes quibus quibis prima conclusione ostensum est, quantitatem non esse principium individuationis: etiam valent ad probandum radicem distinctionis numericae non esse materiam signatam quantitate”.

47 See (above) the first and the fifth arguments of the first conclusion: Schautheet, F., (1660), book 2, cont. 5, a. 1, 262-263.


49 Schautheet, F., (1660), book 2, cont. 5, a. 1, 265-266: “Duae animae rationales destructis (divina virtute) suis materiis signatis quantitate distinguuerentur solo numero: atqui harum distinctio non oriretur ex materia signata quantitate: ergo principium individuationis non est materia signata quantitate. [...] Confr. 1. Distinctio non potest fundari in aliquo extrinseco: atqui materia signata quantitate est extrinseca animis intellectivis ergo etc. Prob. ma. idem est principium constitutivum et distinctivum: atqui res nequit constiuit in suo esse per aliquid extrinsecum. Confr. 2 duae animae sunt in se ipsis distinctae, non specie: ergo numero: ergo principium distinctivus numericae non est materia signata quantitate. Patet conseq. animae non habent in se ipsis materiam signatam quantitate”.

50 Schautheet, F., (1660), book 2, cont. 5, a. 1, 266: “Omnes animae intellectivae sunt aptae informare quamlibet materiam sufficierent dispostam: ergo distinctio animarum non fundatur in materia signata quantitate. Patet conseq. si diversitas animarum desumeretur a materia: quaelibet anima tantum posse informare unam materiam”.

51 Schautheet, F., (1660), book 2, cont. 5, a. 1, 266: “Duae animae rationales differunt numero per materias, quas respiciunt: vel per id quo respicient diversas materias: si primum: ergo destructis materis desinit distinctio: nam cessantem causam cessat effectus: ergo animae secundum se non distinguuntur: nam tantum differunt per materias, quae sunt extra essentiam animarum: si secundum: ergo principium individuationis non est materia signata quantitate: nam animae se ipsis, vel per quid sibi intrinsecum respicient diversas materias”.

52 See, in the Biblia sacra: quid in hac editione a theologis Lovaniensibus praestitum sit, eorum praefatio indicat, (Antverpiae: Ex officina Christophori Plantini, 1583), IV Regum 6, 28: “Mulier ista dixit mihi, Da filium tuum, ut comedamus eum hodie, et filium meum comedemus cras”.


propria, uti constat inductione: ergo etc. Confr. sicuti Deus libere ordinavit, ut anima rationalis, quae est in Ioanne, uniretur materiae A. Ita etiam statuere potuit, ut eadem illa anima uniretur materiae B, ergo anima quae est in Ioanne, non est haec et individua: quia est in hac materia: potuit enim infundi alteri: et consequenter materia non est principium individuationis’.


Schautheet, F., (1660), book 2, cont. 5, a. 1, 268: “Aquae ebullienti insunt simul plures gradus caloris eiusdem speciei: animae hominis iusti inexistunt simul plures partes gratiae solo numero diversae: nam qualitas intenditur per additionem partis eiusdem rationis cum forma praexistente. Quemadmodum probatum est l. 3 contro. 7 art. 4, ergo materia signata quantitate non est principium individuationis”. Here Schautheet refers to the Seventh Controversy, art. 4 of the third book. See Schautheet, F., (1660), book 3, cont. 5, a. 4, 606-612, at 606 (conclusio 1): “Qualitas tam spiritualis quam materialis intenditur per additionem gradus seu partis eiusdem rationis et speciei cum forma praexistente”.

Schautheet, F., (1660), book 2, cont. 5, a. 1, 268: “Unaquaeque res per illud idem a parte rei est formaliter et intrinsece una numero, per quod est ens actu, et in rerum natura: atqui res est actu, non per materiam signatam quantitatem: nam sine hac possunt (divina virtute) existere formae, tam substantiales, quam accidentales: ergo materia signata quantitate non est principium individuationis”.

Schautheet, F., (1660), book 2, cont. 5, a. 1, 268-269: “Petes quid sit individuationis principium? Resp. individuationis principium esse duplex externum scilicet et internum: externum sunt accidentia sensibilia, quibus veluti signis diversitatem individuum sollemus cognoscere internum alid Logicum alid Physicum, hoc est tota cuiuslibet rei existentis natura: illud est differentia individualis, qua species sic contrahitur (modo nostro concipiendi) ad individuum: uti genus per differentiam communem as speciem”.

Thomas de Aquino, Summa theologiae, III, q. 77 a. 2 co., in Opera omnia, iussu impensaque Leonis XIII P.M. edita, cura et studio fratrum praedicatorum, (Rome: 1882– ), t. 12 (1906), 196b: “Quantum igitur ad primum, materia est individuationis principium omnibus formis inhaerentibus, quia, cum huiusmodi formae, quantum est de se, sint natae in aliquo esse sicut in subjecto, ex quo aliqua carum recipitur in materia, quae non est in alo, iam nec ipsa forma sic existens potest in alo esse. Quantum autem ad secundum, dicendum est quod individuationis principium est
quantitas dimensiva".

62 Aegidius Romanus, Quodlibeta, (Lovanii: Typis Hieronymi Nempaei, 1646), quod I, dist. IV, q. 11, 23b-25a.


72 Aristoteles, Metaphysica III, t. 10, in Opera cum Averrois commentariis, (Venetiis: apud Junctas, 1562), vol. 8, 49va.

73 Aristoteles, Metaphysica VII, t. 49, in Opera cum Averrois commentariis, (Venetiis: apud Junctas, 1562), vol. 8, 199-200.


75 Schautheet, F., (1660), book 2, cont. 5, a. 2, 270: “Omnis distinctio secundum Arist. l. 3 Metaph. c. 11 est aut secundum formam, aut secundum quantitatem: atqui inter ea quae sunt eiusdem speciei, non est diversitas secundum forma (ea enim specifica ergo secundum quantitatem: ergo quantitas est principium individuationis. Confr. 1. Formae proprium est distinguere, ut dicitur l. 7 Metaph. t. 49 ergo principium individuationis non est materia, aut forma specifica: ergo quantitas. Confr. 2 Boetius affirmat l. de Trinitate differentiam individualem fieri per accidentia: atqui primum accidentium est quantitas: ergo quantitas est principium individuationis”.

57
Chiara Catalano - The recentior nominalis of Leibniz’s *Disputatio metaphysica de principio individui*...

76 Schautheet, F., (1660), book 2, cont. 5, a. 2, 270: “Individua eiusdem speciei non distinguuntur differentiaessentials: ergo accidentaliter: ergo principium individuationis est accidens, quod non potest esse aliud quam quantitas”.


81 Schautheet, F., (1660), book 2, cont. 5, a. 3, 271: “Caeterum materiam non esse adequatam radicem distinctionis numericae, vel ex hoc manifestum: quod animae rationales in se different solo numero”.

82 Schautheet, F., (1660), book 2, cont. 5, a. 3, 271: “Philosophus 8 Phys. probat non esse plures primos motores, non fundatur in eo: quod requiritur materia ad multiplicationem individuum potius materialis (cum sit compositum ex materia et forma) habet suum esse completum a materia et forma: et consequenter obtinet unitatem et distinctionem, non tantum a forma: sed etiam a materia”.


85 Schautheet, F., (1660), book 2, cont. 5, a. 3, 272: “Si distinctio generica et specifica desumuntur a forma: cur etiam diversitas individualis non potest fundari in forma?”.

86 Schautheet, F., (1660), book 2, cont. 5, a. 3, 272: “Philosophus 8 Phys. probat non esse plures primos motores, non fundatur in eo: quod requiritur materia ad multiplicationem individuum primorum motorum: sed tantum est probabilis ratio, qua ostendit primum motorem, quia express materiae, non esse obnoxium defatigationi uti corpora: ideoque per totam aeternitatem movere posse, nec requirere aliquem qui defatigato aliquando succedat”.

87 Schautheet, F., (1660), book 2, cont. 5, a. 3, 272: “Principium individuationis intrinsecum (de quo hic est quaestio) nequeunt esse accidentia: quia is divina virtute sublatis potest manere individuum.”


89 Schautheet, F., (1660), book 2, cont. 5, a. 3, 272-273: “individua eiusdem e specie non differunt in natura communi abstracta a differentiis individualibus, conc. antec. non differunt in natura: ut est a parte rei haec numero, et singularis, n. antec. licet Joannes et Petrus non distinguuntur in natura humana absolute considerata: nihilominus tamen Joannes est a parte rei homo singularis diversus a Petro”.

90 Schautheet, F., (1660), book 2, cont. 5, a. 3, 273: “Ad 3 Resp. distinguendo antec. quae distinguishuntur solo numero, non differunt in forma secundum absolutam rationem formae. Conc. antec. non differunt in forma, quatenus est haec numero et singularis, n. antec. anima loannis per suam entitatem quae est forma, distinguuntur solo numero ab anima Petri”.

speciei: non tamen est causa adaequata”.


92 Schautheet, F., (1660), book 2, cont. 5, a. 3, 274-275: “Ad 6 Resp. n. antec. individua eiudem naturae different per differentiam essentiale individuo: uti diversae species distinctuuntur per differentias essentiales speciebus. [...] Huismodi differentiam non esse accidentalem: vel ex hoc patet, quod individuum substantiale ponatur in categoria substantiae, in qua composita per accidentes directe collocari nequeunt”.


94 Schautheet, F., (1660), book 2, cont. 5, a. 3, 276: “Ad 8 Resp. n. mi. partes aquae a se mutuo divisi (destructis propriis quantitatis) distinguuntur numero: ergo necesse est agnoscere in partibus aquae a se invicem divisum principium individualis intrinsecum diversus a quantitate”.


99 Thomasius, J., (1663), A VI-1, 5, ll. 16-19: “Ego, cum verborum aliquid faciendum mihi, antequam in conflictum descendatur, videam, nihil aliud nunc Vobis, quam brevem illius controversiae, quae tot contentiones in Scholis Latinorum peperit, narrationem dabo, non tam philosophi supernaturalis, quam historici officio functurus”.

100 About Thomasius’s historical Preface Di Bella writes: “Thomasius’s reconstruction is far from being historically tenable”, Di Bella, S. (2005), 28; Ariew qualifies Thomasius’s style as an “eclectic” one. Ariew, R. (2009), 100: “Thomasius, in good eclectic style, sketched some historical options and set out his preferences among them; he defined the problems and revealed their proper solution”.

101 Thomasius, J., (1663), A VI-1, 7, ll. 22-25: “Ego vero valde, ne nimium hic Thomas Aquinas, sive splendori dederit, sive amori Aristotelici nominis. Nam hunc e sectarum Scholasticarum principibus maxime fuisset constat, qui cum de principio individuationis discipendae lis esset, ad materiam signatam recurreret, non aliunde haustam, quam ex lacunis gentilitera metaphysicis”.

102 Thomasius, J., (1663), A VI-1, 8, l. 1-6: “Quo magis vel haecceitatem Scotii, licet ea displicat Grammaticis, laudaverim, ut quae incorporeis etiam substantiis applicari quæst. Sed maxime placet hic Nominalium Entitas, quae simplicissima, sed eadem simul, uti iudico, verissima decisione totum hunc nodum, et in eo sponsissimas tricas dissecat. Deduxit, uti video, narratio
mea inopitantem ad illam ipsam sententiam, quam, si Deo visum fuerit, pro viribus cum Respondente meo defensurus in hunc locum concessis”.


104 Di Bella writes in this regard: “In the 1663 disputation, one can guess a sort of division of labor between teacher and student: whereas Thomasius’s criticism concentrates itself on the Aristotelian-Thomistic individuation through matter, Leibniz’s discussion leaves aside this solution, precisely on the ground that it is not a general one, and devotes most effort to the criticism of Scotist haecceity”. See Di Bella, S., (2005), 28-29.

105 Thomasius, J., (1663), A VI-1, 5, l. 10-12: “De Principio Individualisationis, quantae Scholasticis mutuae intercesserint lites, Spectabilis Domine Prodecane, tu unus omnium optime nosti; Vos vero caeteri, Auditores lectissimi, si ignoratis, affirmanti mihi credite, fuisse longe maximas”.

106 See supra, n. 102.

107 According to the second opinion, the principle of individuation is the negation. This opinion is attributed to “some obscure Nominalist” (“aliquem Nominalium obscuriorem”), that could be identified with Henry of Ghent (c. 1217-1293), see Courtine, J.-F., (1990), 505 and n. 14; Ariew, R., (2009), 102, n. 4. See Leibniz, G.W., (1663), §§ 11-12, A VI-1, 14, ll. 3-28; trans. McCullough, L. B., (1996), 37-38.


109 The fourth opinion, defended by the Scotists, asserts that the principle of individuation is the haecceity. Leibniz dwells especially on this solution. He analyzes the position of John of Bassolis († 1347) – who he qualifies as “a well-established one” among the Scotists and who was previously a follower of Ockham and subsequently of Scotus, too – and of Petrus Posnaniensis († 1658). However, there are many other supporters cited by Leibniz, such as Benet Perera, Mercenarius († 1585), Jacopo Zabarella (1533-1589), Pedro Fonseca (1528-1599) and Eustachius a Sancto Paulo (1573-1640). See Leibniz, G.W., (1663), §§ 16-26, A VI-1, 14, l. 29-15, l. 29; trans. McCullough, L. B., (1996), 54-69.

(Pierre d’Auriole, Hervé, Durand, etc.) quant à l’individuation, tout cela suffit à souligner le caractère très relatif de la référence – qui plus est, seulement nominale – à Suárez”.

111 Trans. McCullough, L. B., (1996), 100; Leibniz, G.W., § 4, A VI-1,11, l. 26: “Prima opinio […] a gravissimis viris defenditur”.


114 Trans. McCullough, L. B., (1996), 22-23. See Leibniz, G.W., (1663) § 2, A VI-1, 11, l. 7-12: “Et quod Individuum attinet, quemadmodum Universale, sic ipsum quoque vel Logicum est in ordine ad praedicationem; vel Metaphysicum in ordine ad rem. Atque sic rursum aut prout in re est, aut prout in conceptu, seu ut ali i exprimunt formaliter aut fundamentaliter: Et formaliter vel de individuo omni vel creato tantum vel substantia tantum vel substantia materiali”.


HUME’S INDIVIDUAL: AGENT OR BILLIARD BALL?

Hannah DAWSON*

Abstract. It is hard to make out the agent in Hume’s science of man. For the most part, human beings appear operated on passively by the association and attraction of ideas, creatures of custom rather than creators of the future, more predictable even than the rising of the sun. However, by inserting Hume’s theory of the artificial virtues into his science of man, an inventive, calculating agent strides into view. The paper does not conclude, though, that this anomalous figure represents a contradiction in Hume’s philosophy, but rather that Hume’s individual is a far complex character than might appear if one simply read, for example, about Hume’s theory of induction – as one might spend a lifetime doing. Hume’s individual is not only a rich mixture of reason and sentiment, artifice and nature, action and passion, but these dichotomies, that organise so much of Hume’s polemic, evaporate. The result is that a rich, holistic picture of agency emerges, together with a view of ‘the mind’ that is not static, but rather evolves through time.

Keywords: Hume, agency, time, artificial virtues, false dichotomies

Introduction

It is hard to make out the agency in the Humean individual. Generally he (and he usually is a ‘he’) appears tied by Lilliputian threads – his will determined by a chain of causes, his mind mechanised by the involuntary attraction of ideas, more predictable even than the rising of the sun. There he goes, orchestrated by the unchanging principles of nature, ingrained habits of mind instigating his inferences about the world, inadvertent associations of perceptions leading him blindly down particular paths of thinking, and certain precise arrangements of qualities, objects, and relations calling up like clockwork the passions and sentiments that orient him.1 And there he is with other human beings, further natural forces extending out affective filaments, the operations of sympathy, comparison, and vanity pushing people together and pulling them apart, entangling them in a social web.2 He is the product of time, long experience having scored deep grooves of thought, his beliefs and judgements just sentiments, which not reason, but custom and other automatic imaginative processes raise up in him.3 As Hume says, “custom,” not reason, “is the great guide of human life.”4 His science of man seems populated by passive, temporally-worn, automata, rather than active individuals.5

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I am going to argue, however, that if we look at Hume’s account of the artificial virtues, sometimes with an emphasis on political allegiance, we find a far more assertive individual striding into view. At first, he seems unrecognisable: a dynamic inventor of artifice, rather than a subject of nature; a creator of experience, rather than a creature of it. Blinking and clear-eyed at the beginning of time, he sets about working out how to maximise his self-interest, himself the cause of his future, capable of radical self-reformation and moulding a world that suits him. On closer inspection he still bears the more familiar Humean marks of nature, habit, and passion, is still bound in “that determination of the mind, which is acquir’d by custom,” but holds his own, nonetheless, as a more complex figure than Hume’s philosophy generally suggests.

The literature on Hume is as various as it is vast, but philosophers have tended to focus on the dominant architecture of his naturalism, sentimentalism, and anti-rationalism. By injecting his analysis of the artificial virtues back into this edifice, the aim of this paper is to show not only that rationality and invention have a place there, but also that the organising dichotomies of reason and passion, artifice and nature, freedom and custom collapse into each other. These opposites, that are so often pitted polemically against each other by Hume, turn out in his own hands to overlap and connect. What I hope to reveal is that Hume’s individual is a more complex creature than might appear if one were simply to read, for example, about his theory of induction – and one could spend a lifetime doing just that. I argue that Hume gives us a rich, holistic portrait of ourselves that itself has a history. Moreover, it is at the beginning of time, when we meet human beings at their most unfettered, that we find them most unsteady on their feet. The forces of custom and time, then, far from suffocating us, are the sources of our liberation.

Agency

When we come to Book III, Part ii of *A Treatise of Human Nature*, we are struck by the introduction of “artifice or contrivance” into a work that has hitherto led us smoothly along the tracks of nature. Hume’s need to elucidate the motivation for the artificial virtues – justice, promise-keeping, political allegiance, and chastity, things that don’t come naturally to men – forces him to confront the decision-making, self-propelling capacities of human beings. Although we tend to think of Hume as sceptical of the state of nature and the contractarianism with which it is associated, his account of the artificial virtues brings out his inner Hobbes, and even Locke, in all sorts of ways as we will see. Of relevance here is Hume’s claim that if we want to unlock these mysteries of human behaviour (chastity etc.), we need – in an act of reason that is itself wildly inventive – to surmise what life was like at the dawn of the world. This is an extraordinary moment in the book. Suddenly it awakes from its naturalistic slumber, and on to the pages walk giants of human agency.

At the first sunrise, Hume conjectures, relatively atomised individuals were forced to exercise their powers of deduction in order to survive and thrive, themselves the architects of an ever more elaborate and protective social and political edifice. They began by inferring that in order to keep themselves “from falling into that wretched and savage condition, which is commonly represented as the state of nature,”
they must construct certain rules of justice, whereby property is defended and determined, and the peace of society established. While they reason, however, that justice represents their real interests, they also know, that as a species they are constitutionally myopic, fatally and predictably prone to prefer the immediate lesser pleasure to the remote but greater one. They cannot help themselves from picking the ripe apple which bobs in front of their eyes, or from reneging on an inconvenient promise, even though they know that, in the longer term and in the wider scheme of things, respect for property and mutual trust are indispensable to their happiness. And even if they are exceptionally self-controlled, they can see that they would be fools were they, in a community of knaves, to keep to the rules of justice.

Since no amount of agreement nor promises, nor internal resolution, nor consultation with friends, can bind them to the true good, they look outside themselves for sources of self-policing. Aware that they will always follow their nearest interest, they find a way of bringing the interest of justice closer. Unable to change their short-sighted nature, they conclude that they must change their circumstances and make justice in their immediate (rather than simply long-term) interest. They therefore set up magistrates to enforce justice, whose sanctions are palatable and induce them to obey, and who can be expected to execute justice impartially and equitably, not only because they are indifferent to the individuals they rule, but also because, delighted with the glory and power of their job, and eager not to loose it, it is in their ‘immediate interest’ too, to fulfil the office they have been charged with. Possessed of both authority and a fierce investment in the civic good, they are also able and inclined to organise public projects, which transform everyone’s world, from one of huts, and bows and arrows, into one of bridges, harbours, ramparts, fleets and canals, and which could never be achieved by a disparate group of blinkered, opinionated and lazy creatures.

These individuals, then, possess rational foresight and creativity. They invent government, and they obey it, because they work out that it is in their interests to do so, affording them not only safety from the invasions of their naturally unjust neighbours, but also the almost miraculous expansion of their horizons. In their vigorous activity, they perform, it sometimes seems, nothing less than a social contract. “Government, therefore,” announces Hume at one point, “arises from the voluntary convention of men,” calling up the image of a conscious, consenting people.

In his early essay, That Politics May Be Reduced to a Science, Hume enlarges on his confidence in the far-sighted inventions of men, praising legislators whose “wise regulations in any commonwealth are the most valuable legacy that can be left to future ages.” And in Of Parties in General, he encourages us to “dignify legislators, such as Romulus and Theseus, only with the appellation of demigods and heroes.” Hume therefore seems to have great faith in men as sage, political craftsmen, a faith which extends down to the very base of the state. Ordinary men want, invent, and contrive the artifice of government in order to remedy the inconveniences of nature. Both “the original motive” to institute government, and “the source of our obedience to it” is, as Hume says, “the interest I find to consist in the security and protection,
which we enjoy in political society, and which we can never attain, when perfectly free and independent.”

Hume therefore paints a picture of a powerful people instituting government for their own purposes, a people in control, almost tricking their prince with the gift of power, when that gift is really a gift to themselves. This knowing, calculating, nearly haughty, image of the people is further adumbrated in Hume’s claim that the people are indifferent to the form of government. All they want is the safety that government – any government – brings. Here, as so often, Hume’s position looks very Hobbesian. As Hobbes had said of life in Lucca and Constantinople, “the Freedome is still the same.”

Our interest, which designs and cements the artifice of the state, is relatively equally served by a range of individuals and constitutions. While Hume is less uncompromising than Hobbes, entertaining the merits of revolution and, in later writing, adjudicating between different forms of government, he agrees that “the advantages, which we reap from authority” tend to outweigh the disadvantages, and any government tends to be better for us than no government at all.20 Hume makes the point again in the context of succession: “the interest of a nation,” he explains, “requires, that the succession to the crown shou’d be fix’d one way or other; but ’tis the same thing to its interest in what way it be fix’d.”

The impression of canny subject-citizens calling the shots is confirmed in Hume’s attitude to resistance. Just as people reason to the rule that we owe allegiance to government, so do they go on to reason that there might come a time when a particular government is not in their interests, leading them to make a further rule that they should resist in such circumstances. They consider that, in the same way that their fellow subjects are passionate and myopic, tending when unconstrained to wickedness and injustice, so their rulers, despite having an immediate interest in the provision of justice, are also liable to “be transported by their passions into all the excesses of cruelty and ambition.”

They therefore set a limit to allegiance, their interest providing the foundation for its dissolution as well as its raison d’etre. This ratiocination, of which “all men,” even “vulgar” men, “have an implicit notion of” begins in the following way: “government,” he writes, “is a mere invention for the interest of society. Where the tyranny of the governor removes this interest, it also removes the natural obligation to obedience.” Just as people submit to the magistrate because it is in their interests, so it is reasonable for them to resist when that submission becomes positively disadvantageous.

One final point to note about Hume’s robust account of political agency is his representation of individuals as masters of time, able both to see into and to transform their futures. This is a talent on which Hume elaborates in his essay Of the Dignity and Meanness of Human Nature. In comparison with animals (who here get an unusually harsh press from Hume), who are “without foresight,” “blindly conducted by instinct” and attaining very quickly the utmost of which their species is capable, men are “not limited by any narrow bounds, either of place or time,” but can look backward to the origins of the human race, cast their eyes forward and envisage the “influence of [their] actions on posterity,” trace long chains of cause and effect, and improve on and correct past behaviour.24 A corollary of this capacity both to leap about imaginatively in time, and to transcend our present confines, is the possible
progress of man, and the dynamism of human nature. So committed is Hume to this organic view of society and politics, that before venturing to make any general pronouncement on the relative merits of “civil liberty and absolute government,” he voices “a suspicion, that the world is still too young to fix many general truths in politics.”

Hume’s individuals, then, are persons, shrewd, responsible and self-transforming artificers of a better life, who seem to me to sit so much at odds with the pliable and dim-eyed creatures who appear elsewhere in his work.

**Nature reinserted**

As striking as this story is, however, woven throughout it are the more recognisably Humean elements of experience, sensibility, nature, custom, imagination, vanity and passivity. In drawing out these elements, though, I do not want to suggest that Hume is guilty of contradiction, but rather that he himself in his treatment of politics is breaking down the dichotomies that at other times dominate and arguably problematise his philosophy, presenting us with a more credible concoction – or even unity – of nature and artifice, and custom, reason, and passion.

Hume’s characterisation of men as standing in front of their actions and futures, and able to conceptualise and weigh the options available to them, and then make rational choices to invent, obey and if necessary resist government, is softened and supplemented by his claims that the process of submission happens gradually, almost accidentally, effected as much by passion, experience and imagination as by reason, its benefits becoming apparent after the fact, rather than calculated from the start. In accounting for the first artificial virtue, the performance of justice, Hume explains that “in their wild uncultivated state,” men could not have conducted the train of reasoning that proves that justice is in our interest and which he has just expounded. Rather than attaining this knowledge “by study and reflexion alone,” they learnt it because they became “sensible of its advantages.” Rather than expressly, far-sightedly promising that I will abstain from your possessions if you abstain from mine, we each become “sensible,” as Hume says again, of each other’s interest in mutual abstention, developing a “common sense of interest,” which progressively gives rise to a convention of justice. “Few persons can carry on this train of reasoning,” says Hume in the case of inferring political obligation and its limits, conceding that most are simply “sensible” of their interest in it. The role of barely conscious sensation in generating a desire for government is also hinted at by Hume when he explains how subjects newly “under the shelter of their governors, begin to taste at ease the sweets of society and mutual assistance.”

In the more domestic domain of the family – for him, following Aristotle, the seed of sociability – Hume explains how children profit from the careful government of their parents, their tender minds becoming “sensible of the advantages, which they may reap from society.”

Although Hume veers close at times in the *Treatise* to the idea of a social contract in the instigation of the very first governments, at others he suggests that they arose of necessity in the emergencies of inter-tribal conflicts, and of “usurpation and rebellion,” and that men, having felt the convenience of submission only then
warmed to it as a more permanent arrangement. Hume collects his evidence for this claim from a consideration of America. There, apparently

men live in concord and amity among themselves without any establish’d government; and never pay submission to any of their fellows, except in time of war, when their captain enjoys a shadow of authority, which he loses after their return from the field, and the establishment of peace with the neighbouring tribes. This authority, however, instructs them in the advantages of government, and teaches them to have recourse to it.

Government, and our commitment to it, then, are contingent on our fortuitous experience of it. “Camps are the true mothers of cities.” It is only once men have experienced at home and abroad the rewards of allegiance that they drift towards it, until finally they take it as a fact of life.

The steely invention of the first men, then, is further mollified by Hume’s blurring of the lines between nature and artifice. This intimates an overlapping relationship between the two, and indicates that nature, which seemed sometimes to be eclipsed by the bright architecture of the state, shines brightly there. Even as he comes close to enunciating it, he dodges away from the divide between that “savage and solitary condition,” and society, suggesting that men are originally and ineluctably social and sociable. Like Locke before him, he entertains the prospect of civil society before government, of “society without government,” of “peace and concord.” He also thinks that the conversion to the artifice of government is not irrevocable; as in those wilds of America, where government comes and goes as it is required. More generally, it is presented as developing bit by bit, first perhaps with a prince, then with ministers, followed eventually with complex and mutable constitutional arrangements.

This piecemeal portrayal of the introduction of government, and the location within natural individuals of social resources helps Hume out of the Hobbesian conundrum of the unsafeness of the social contract. Like Hobbes, whose language of artifice Hume’s closely echoes, Hume’s story of civilisation involves natural men constructing the artifice of the state, but unlike Hobbes, he evades the problem that the creation of Leviathan requires certain things – like trust and the reasonableness of covenanting – whose existence depends on the existence of Leviathan. Hume needs commit no such sleights of hand, the inauguration of government being an irregular and imperfect process, rather than a momentary and momentous flash after which things can never be the same again. Hume’s proposal that nature and artifice are not so indistinct is not only part of his anti-contractarian polemic, but is also directed against the (often contractarian) natural lawyers. Hume wanted to deny the metamorphosis from man to subject. Rather than find themselves juridically transformed, either into bound subjects at the birth of the state, or back into free men in the event of an illegitimate tyranny, as Locke had asserted, for Hume, men remain men throughout. Political allegiance is simply a means to natural end, that of interest, and waxes and wanes as the interest is or is not served.

The familiar naturalism bleeds further into the pristine design of the state when we probe the substance of the ‘reason’ that the first men used to improve their
lot. It is reasoning on the basis of facts and experience, rather than anything in the rarefied space of the deductive a priori. Indeed, it is in Hume’s estimation, “not in itself different, nor founded on different principles” from the reason of animals. Just as the “dog […] avoids fire and precipices”, and the “bird […] sits upon her eggs for a due time”, so early men, “sensible of the misery” of unstable property, “seek each other’s company, and make an offer mutual protection and assistance.” It is interesting that Hume calls this kind of reasoning “sagacity,” the term that Hobbes, who is so often in Hume’s ear, uses to describe the particular kind of “discursion of the mind” that men and beasts alike engage in when they are thinking of how to satisfy an appetite. “We may call it hunting or tracing,” says Hobbes, “as dogs trace the beast by the smell […] or as men hunt after riches, place, or knowledge.”

Moreover, and here we move even deeper into canonical Humean territory, it is not reason, but passion, that moves us, that drives us on towards ever more civilisation. (Again, one recalls Hobbes.) Just as the dog and the bird have their appetites, so men have theirs, and it is out of them that politics blooms. While this is easy to forget not only in his heavily rationalised account of the origin, source and limits of the artificial virtues, but also with the idea of rational self-interest reverberating still, interest, the driving force behind political society, is actually a passion. As Hume explains in a discussion of the calm passions, they are often mistaken for reason because just as “reason […] exerts itself without producing any sensible emotion,” so the calm passions, having become settled habits of the mind, no longer produce the violent agitation we associate with passions. “The general appetite to good” is so ingrained a passion that it has become a tranquil and almost constant disposition, directing us imperceptibly towards obedience. The artificial virtues are simply “artful and more refin’d” ways of satisfying our passions. Indeed, Hume goes so far as to ascribe to our passions the qualities and talents that are generally linked to reason and agency. “Nothing is more vigilant and inventive than our passions,” he writes, suggesting that our interest itself has a kind of cognitive ability, a capacity to sniff out the means to its end. Not only does Hume therefore assert the power of passion over reason in politics, but he also erodes this duality, intimating the rationality and agency of passion itself.

The interest, moreover, that is the passion motivating politics, is not always some miraculous telescopic passion that sees the future, far-off good, but rather the common or garden self-interest that we have in not breaking the law. It is because we do not want to be punished that we obey. As Hume explains,

men are not able radically to cure, either in themselves or others, that narrowness of soul, which makes them prefer the present to the remote. They cannot change their natures. All they can do is change their situation, and render the observance of justice the immediate interest of some particular persons and its violation their more remote.

The expansive account of a collection of individuals binding themselves with a view to the greater good, begins to shrink to the pressure of “our nearest interest,” and the gap between freedom and coercion closes tighter.
The final incursion into the prophetic logic of the state is the raft of natural principles of the imagination which pulls men to allegiance, almost despite themselves, and which threatens to reduce them to the passive subjects of the science of the mind who populate Hume's philosophy more generally. While the previous incursions retain the agency and instrumentality of men, this last represents them as instruments of nature. It includes the association of ideas, the magnetism of general rules, fictions, and custom, and all those involuntary reflexes of the mind which move us to obedience.

One of the most vigorous – and characteristically Humean – of these causes is custom: the facts of life which are wrought only by repetition and the passage of time but which themselves can have an overwhelming power over the will.\(^{51}\) In the case of allegiance, “long possession” of government, or of a particular form of it, causes subjects to obey that government. Here, then, the anomalous image we met above of men of piercing ratiocinative vision, scanning forward and back through time and transforming their futures thereby, is tempered by Hume’s supplementary view of them as unthinkingly moved by what time has made “seem just and reasonable.”\(^{52}\) No longer masters of time, men become passive creatures of it. While Hume sometimes suggests that only the force of interest can subdue the “natural ambition of men” and cause us to obey, he is always clear that custom overlays interest by dictating the specific forms of our allegiance, so that we like and are loyal to what we are used to.\(^ {53}\)

However, custom is not just a carapace. In itself it creates a motive for allegiance. “Nothing,” declares Hume, “causes any sentiment to have a greater influence upon us than custom, or turns our imagination more strongly to any object.”\(^ {54}\) We are drawn to obey the person we grew up with on the throne, whose line seems to have occupied that seat forever, and in whose presence everyone kneels. As Hume says of custom in general, “it not only reconciles us to any thing we have long enjoy’d, but even gives us an affection for it.”\(^ {55}\) In his essay *Of the Origin of Government*, he elaborates that

habit soon consolidates what other principles of human nature had imperfectly founded; and men, once accustomed to obedience, never think of departing from that path, in which they and their ancestors have constantly trod.\(^ {56}\)

Unlike the other artificial virtues, all of which require continuing, tense, sacrificial contortions on the part of their adherents, allegiance is not so tightly sprung. Not only is it barely an action, custom having made it instinctive, but it is also often a stirring desire that derives not so much from the smug knowledge that it serves our turn, but rather from the imperceptible caresses of time and other influences on the imagination.

Moreover, an integral part of the motive to obedience is the belief that the government has the right to govern, without which few would be disposed to obey, and it appears that in the formation of this crucial belief custom and related automatic mechanisms do all the work. Like all moral entities, a magistrate’s right to rule does
not really inhere in the supposed possessor but is a sentiment entertained about them, and neither interest nor reason seems to play a part in its generation. Instead, “time alone gives solidity to their right.” In his essay Of the First Principles of Government, Hume explains that the key to unlocking the great mystery of why the many are content to be governed by the few is that governments are supported by “opinion only” – “opinion of interest, and opinion of right,” and in the case of the latter, “antiquity always begets the opinion of right.” Later, in Idea of a Perfect Commonwealth, he makes the point more strongly, explaining that “the bulk of mankind” is “governed by authority, not reason,” and no government can have authority without “the recommendation of antiquity.”

In addition to custom and time, there are other catalysts of allegiance outside our control. The “gentle force” of nature that associates ideas and that animates the Treatise as a whole, also plays its part in subjecthood. We are programmed “by the natural transition of the thought” to turn our allegiance from a dead king to his son, and Hume is explicit that without this association of ideas there would be no motive to obey the son. Even a usurper in “present possession” of power benefits from the relation of resemblance to “constant possession” which constitutes the “right to authority.” Moreover, our mind is “naturally” dragged back up the line of succession, transferring that right to their ancestors. In addition to these soporific principles of the understanding, there are others which bear us along a wave of love to the feet of our princes. As Hume confides in Of the Protestant Succession, while “an anatomist finds no more in the greatest monarch than in the lowest peasant or day-labourer; and a moralist may, perhaps, frequently find less,” we naturally think of them as towering above us in dignity and brilliance. And in order that “due subordination in society” be maintained, one must not “undeceive the people.”

These fictions build allegiance. In expounding the economy of the passions, Hume explains that the pleasure-producing “quality” of the “beauty of the palace,” joined to the “subject” of the prince “by the relation of property,” causes love for the prince. By the same token, conquerors are accorded “the title of sovereigns,” Hume says, because their “glory and honour” breed esteem, and since “men naturally favour those they love”, they are “apt to ascribe a right to successful violence.” In Of Parties in General, Hume details the “unaccountable” violent attachment and “imaginary interest” which joins factions to their sovereigns, which springs from a supposed “intimate” relation between them, and the fictitious transfer of importance to ordinary men from “the splendour of majesty and power.” And though our kings might flounder and ruin us, and our obedience defy rationality, we, born under their command, “imagine” them to be our “natural rulers” and cannot contemplate rebellion. In the slumber of our consciousness, the mind dusts our princes with authority, prostrating us before them.

It appears, then, that interest, reason, and foresighted artifice, which seemed to mark out our relation to the state, are supplemented and fused with, if not often supplanted by, more typical Humean energies. According to the fundamental axiom that interest is the motive to allegiance, when that interest is no longer served, the motive ought to dissolve. However, so “mightily addicted” are we to “general rules […] that we often carry our maxims beyond those reasons, which first induc’d us to
establish them,” and continue blindly to submit even as we destroy ourselves.\(^7\) As Hume confesses, these general rules which regulate our judgement and the association of ideas, which we trust even when our senses scream otherwise, and which determine the objects of allegiance, “hold less of reason, than of bigotry and superstition.”\(^7\)

Chipping away at the glassy rationale of his own Hobbesian city, Hume hints at the murky principles which hold it in place. As he announces in *Whether the British Government Inclines More to Absolute Monarchy, or to a Republic*: “though men be much governed by interest; yet even interest itself, and all human affairs, are entirely governed by opinion.”\(^7\) In this most sceptical of moments, Hume suggests that it is opinion, moulded by a mixture of unscrutinised, knee-jerk reactions, and itself shaping the face of reason and utility, that turns out to be the motive to allegiance.

**Conclusion**

An analysis of III.ii of the *Treatise*, in conjunction with other moments in his *oeuvre*, reveals that the character of Hume’s individual is far more multifaceted and intricate than a more general reading would suggest. What is more, it suggests that this ‘individual’ has a past, that Hume’s sometimes universalising talk about the mind is complicated and nuanced by an awareness that it is part of history.\(^7\) “Mankind are so much the same, in all times and places, that history informs us of nothing new or strange,” writes Hume in the first *Enquiry*, but his examination of the origins of justice suggests otherwise.\(^7\) There, human nature appears not as an eternal constant, but rather modified through time.

Of course, time has long been understood as important in Humean psychology. However, while for the most part historians of philosophy have tended to see Hume as having cut a synchronic slice through the mind, identifying the furrows of thought ploughed by protracted experience, what I have tried to show is the diachronic picture. An examination of the artificial virtues unveils minds at the very start, untilled as it were. With this new-born man thrown into relief, the question arises of what the mind was like before custom – this central element in Hume’s science of man – had laid its roots, before the patterns of inference and common points of view had been established?

On the one hand, as we have seen, this Adam seems more at liberty than his descendants. Rather than being thickly woven into time, the *product* of habit established not only by natural associations of the mind, but also by authority, tradition and institutions, we find him loosely bound, a *maker* of habit, who calculates how to better himself, and who might take any number of transformative paths. Before the sea monster of the state, and the illusions of property and regulation, have bewitched him, he sees things more as they are, not encrusted with the accretions of artifice. Rather than being the pliable effect of irrational causes, he is a lucid architect of his own reformation.

On the other hand, it is not necessarily a good thing to see things as they are, in all their brute dislocation and amorality. Adam is vulnerable and alone. Precisely because he lacks the thick fantasy of law, he falters, disabled, as Hume suggests in the first *Enquiry*, in “some new world; where the whole frame of nature is disjointed.”\(^7\) He is insecure in his inferences and unable to trust his fellows, bereft of sources of
guidance. His children and his children’s children only start to find their footing on the even ground of accumulated experience, established customs of mind and action, mature legal and political arrangements, and the internalisation of collective narratives and moral norms. Far from oppressing us, the accretions of artifice set us free.

This article has swooped in on Hume’s account of the artificial virtues. At first, it looked like an anomaly, but then the more obviously Humean elements showed through in combination. This revealed an exceptionally holistic account of the individual, one who cannot be understood in terms of the traditional dichotomies that structure much of Hume’s writing, and indeed of early-modern and enlightenment philosophy. In this individual, reason folds into passion and custom, morality into motivation, and nature into artifice. Moreover this individual is the child of history. In an almost evolutionary story, Hume shows us the agency that springs from the ties that bind.

References
2 See, for example, Hume, D., (1978), 575-6, 593-4, 491.
3 See, for example, Hume, D., (1978), 470-1.
6 Hume, D. (1978), 266.
7 In addition to the extensive commentary on Hume’s metaphysics and epistemology that tends to focus on naturalism and sentimentalism, there is also a sizeable literature on his political thought. While much of this tries to work out where exactly he stood on the various political issues of his day, a number of commentators have probed the intersection between his philosophy and his politics. The ground-breaking study in this regard is Forbes, D., Hume’s Philosophical Politics (Cambridge: Cambridge University Press, 1975). See also, in addition to works cited in the course of this article: Miller, D., Philosophy and Ideology in Hume’s Political Philosophy (Oxford: Clarendon Press, 1981); Whelan, F., Order and Artifice in Hume’s Political Philosophy (Princeton: Princeton University Press, 1984); Livingston, D. W., Hume’s Philosophy of Common Life (Chicago: Chicago University Press, 1984); Baier, A. C., A Progress of Sentiments: Reflections on Hume’s Treatise (Cambridge, Mass.: Harvard University Press, 1991); Robertson, J., The Case for The Enlightenment: Scotland and Naples 1680-1760 (Cambridge: Cambridge University Press, 2007); Phillipson, N., David Hume: The Philosopher as Historian (London: Penguin, 2011); Sabl, A., Hume’s Politics: Coordination and Crisis in the History of England (Princeton: Princeton University Press, 2012); Haakonssen, K. and Whatmore, R., (eds), David Hume (Farnham: Ashgate, 2013).
9 For examples of Hume’s scepticism towards the state of nature and the social contract, see, for example: Hume, D., (1978), 493 (“This state of nature, therefore, is to be regarded as a mere

26 Hume, D., (1978), 486.
38 Hume, D., (1978), 459. On the importance of political practice for political science in Hume, and more generally on the relationship between theory and practice, see the following
Hannah Dawson - Hume's Individual: Agent or Billiard Ball?


50 Hume, D., (1978), 537.
52 Hume, D., (1978), 556.
54 Hume, D., (1978), 556.
64 Hume, D., (1985), 504.
73 For an example of Hume’s general supposition of universality, see Hume, D., (1975a), 83-4.
74 Hume, D., (1975a), 83.
75 Hume, D., (1975a), 119.
DIDEROT AND MATERIALIST THEORIES OF THE SELF

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Abstract. The concept of self has preeminently been asserted (in its many versions) as a core component of anti-reductionist, anti-naturalistic philosophical positions, from Descartes to Husserl and beyond, with the exception of some hybrid or intermediate positions which declare rather glibly that, since we are biological entities which fully belong to the natural world, and we are conscious of ourselves as ‘selves’, therefore the self belongs to the natural world (this is characteristic e.g. of embodied phenomenology and enactivism). Nevertheless, from Cudworth and More’s attacks on materialism all the way through twentieth-century argument against naturalism, the gulf between selfhood and the world of Nature appears unbridgeable. In contrast, my goal in this paper is to show that early modern materialism could yield a theory of the self according to which (1) the self belongs to the world of external relations (Spinoza), such that no one fact, including supposedly private facts, is only accessible to a single person; (2) the self can be reconstructed as a sense of “organic unity” which could be a condition for biological individuality (a central text here is Diderot’s 1769 Rêve de D’Alembert); yet this should not lead us to espouse a Romantic concept of organism as foundational or even ineffable subjectivity (a dimension present in Leibniz and made explicit in German idealism); (3) what we call ‘self’ might simply be a dynamic process of interpretive activity undertaken by the brain. This materialist theory of the self should not neglect the nature of experience, but it should also not have to take at face value the recurring invocations of a better, deeper “first-person perspective” or “first-person science.”

Keywords: materialism, self, first-person perspective, externalism

La moitié d’un moi est une absurdité contradictoire, et une portion de matière qu’on ne peut partager est aussi une contradiction : comment donc se persuader que l’esprit et la matière ne sont pas deux substances différentes? (Suzanne Necker, 1798)

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1. Introduction

Our familiarity with the diverse forms of early modern materialism has grown a great deal in recent decades, marking a considerable advance over older (if still regrettable at times) views of materialism as inherently mechanistic, fixated on the idea of the body as machine, or denying basic features of embodiment. Similarly, some progress has been made with regard to the two rather monolithic conceptions of materialism as either a kind of cosmological posit concerning the material nature of the universe as a whole (often coming hand in hand with a matter theory) or as a variant of what philosophers in the twentieth century came to call the ‘identity theory’ of brain and mind, namely a more localized claim concerning the identity of cerebral processes and mental processes, as in the definition of materialists given in the Encyclopédie article “Matérialistes”: “those who argue that the human soul is composed of matter.” Even such a well-known piece of argumentation (with endless polemical and over-interpreted reverberations) as Locke’s reflections on the possibility of thinking matter, or to be precise, the possibility that God could have “superadded” thought to matter, ended up creating conceptual spaces located very much in between these two classic positions.

Locke himself had noted that if we can conceive of God superadding different properties to matter, to make, e.g., plants, “with all the excellencies of vegetation, life, and beauty, which are to be found in a rose or a peach tree, etc., above the essence of matter in general,” or “other properties that are to be found in an elephant,” nothing prevents us from conceiving that God could add the property of thought; and he alludes to the possibility implicit therein, that human and animal minds would then be less different, less separate than is often held, and thereby that ‘materiality’ and ‘mindedness’ are not radically separate. The latter consequence was spelled out by the celebrated free-thinker and pornographer, the Marquis d’Argens, in his La philosophie du bon sens (1737), claiming again on the basis of superaddition that one could not deny God’s ability to elevate the faculties of an animal soul to that of a human one, and also turning the point around: “if animals thus possess a material Soul, Feeling is then not incompatible with Matter: the latter allows of it” (383). And in the revolutionary-era Encyclopédie méthodique, the entry on “Materialists (Atheists)”, which is partly drawn from Cudworth – illustrating the well-known principle that apologeticists are the best theorists and typologists of materialism – distinguishes between the cosmological thesis and the brain-mind (or body-soul) identity thesis, but then observes that they are often collapsed: “materialists argue either that man’s soul is matter, or that matter is eternal and is God; or that God is just a universal soul distributed throughout matter which moves and arranges it, either to produce beings or to create the various arrangements we see throughout the universe.”

So in addition to the two basic claims concerning either the materiality of the world or a type of mind-brain identity (or body-soul identity, including in Epicurean and naturalized Aristotelian-Averroist conceptions of the material soul), there exist various intermediate positions – combinations, hybridizations and at times pastiches of more familiar views. Nevertheless, the nature of the relation between these two types of materialist claims remains an open question: does the position that the universe is entirely material, commit one to a specific brain:mind identity claim?
Certainly the reverse does not hold. Indeed, some cerebral materialists such as La Mettrie consider that our ever-revised knowledge of neuroanatomy and neurophysiology, as it impacts (‘falsifies’) our knowledge of the mind, has really nothing to do with traditional metaphysical claims about the nature of reality: we will never know the essence of matter, which does not mean we should not be materialists. Conversely, the realization that the materialist philosopher should be specifically concerned with the status of the brain is a relatively late occurrence, explicit in Toland and Collins in the early years of the eighteenth century (in 1704, Toland writes, “Whatever be the Principle of Thinking in Animals, yet it cannot be perform’d but by the means of the Brain,” and four years later, Collins asserts to Samuel Clarke that consciousness “is a real Quality, truly and properly inhering in the Subject itself, the Brain, as Modes of Motion do in some Bodies, and Roundness does in others”) but only really reaching prominence (and analytic depth) in authors such as La Mettrie and Diderot.

The different ways in which materialist authors could treat the relation between the materiality of the world and the materiality of the mind (via the latter’s corporeality or cerebrality) are deserving of further examination, including in contrast to what we have come to think of as early modern panpsychism, e.g. in Margaret Cavendish. But in what follows I examine another aspect of the second species of materialist claim (about the mental), or rather, an obstacle, a stumbling-block to what might otherwise seem like a successful process of conceptual steam-rolling (i.e., immanentization). I have in mind the materialist treatment of the self, and overall the cluster of problems concerning selfhood, individuality and personal identity, in various authors but most centrally in Diderot. (My analysis is neither a standard internalist reconstruction of a problem in Diderot, with passing mention of other period authors, nor an intellectual history-type survey of a problem in the period, with discussion of as many authors as possible. It is, as the title indicates, a reflection on Diderot and materialist theories of the self. That is, the aim is to reconstruct a problem, and it turns out, at least according to my analysis, that Diderot puts forth one of the more significant and original versions of a materialist theory of the self — but one which, of course, appropriates elements from other authors.) The self was often seen as simply a part of the classic ‘matter and mind’ problem. Thus Suzanne Necker reprises classic Cartesian points but to speak of the self: “half of a self is a contradictory absurdity, while a portion of matter that cannot be divided is also a contradiction: how can mind and matter not be different substances?” One should note that this shift to the problem of the self presents a particular kind of conceptual challenge. Why should the materialist approach to the self be particularly challenging? Because the latter belongs to a time-honored family of philosophical intuitions which are perennially presented as light-years removed from the world of materialism. From Augustine (Confessions, X, 16, 25) to Descartes and onto to Paul Ricoeur, or from Kant and Schelling onto Husserl and Heidegger (but also, Wengenstein, Anscombe, Chisholm, Nagel, etc.), we are told in endlessly varied ways that the self is not, to borrow Wallace Stevens’ elegant line, “composed of the external world”: that the self is not of the material world, whether this has to do with its lack of divisibility, its
temporal essence, the inner sense,\textsuperscript{14} grammatical properties of the first person, or other 'facts'.

Contrasting with such views (or intuitions, which is often what they are), I point to the existence of an early modern materialist discussion of self – an intellectual 'tradition', even if it lacks direct transmission or continuity, given that materialism is, in Günther Mensching's phrase, a “discontinuous tradition,” which does not evolve according to a direct transmission or connection between doctrines, from one generation to the next.\textsuperscript{15} I say 'early modern' – broadly construed as extending from Spinoza and Locke to Diderot – because I do not believe that the attempt to combine thoroughgoing materialism and a concept of self is somehow a ‘timeless’ feature of materialist thought (indeed, it is possible although I make no such meta-historical claims on my own account, that concern with the self is a post-Cartesian development, in the sense of the Augustinian elements in Descartes – or even Luther on some readings).\textsuperscript{16} This materialist approach to the self can take (at least) three forms, which occur independently of one another (e.g. in Spinoza, Dom Deschamps or La Mettrie) but which can also be combined, as they are in admittedly programmatic form in Diderot. These are: externalism as a metaphysical position, (§ 2), the biologization of individuality, that is, a justification of individuality in biological terms (§ 3), and the equation of brain and self, in a reductionist approach to the problem of personal identity (§ 4). In conclusion (§ 5) I suggest that rather than being 'blind to the world of internal life' as was often claimed of materialism, there can be something like a materialist theory of self, notably but not exclusively as sketched in Diderot. Differently put, rather than a whole-scale elimination of the mental, the early modern materialist approach could also be a 'naturalization' of the mental – an inscription of mental life in the broader natural world, which does not make it disappear as if by waving a wand.\textsuperscript{17}

Here, paying attention to historical context can help rid us of some philosophical commonplaces, such as the phenomenological opposition between the realm of Nature and the realm of the mind, itself an iteration of Cartesian dualism, despite its protestations. Quite typical is Husserl's opposition of the world of the mental to causality: “As far as causality is concerned, we have to say that if we call causality that functional or lawful relation of dependence which is the correlate of the constitution of persistent properties of a persistent real something of the type Nature, then as regards the soul we cannot speak of causality at all.”\textsuperscript{18} To be fair, the opposition between what it is to be part of Nature and what it is to be a ‘self’ does not have to take the classic form of substance dualism: the ‘I’ can be redefined as a function.\textsuperscript{19} In addition, many of the rejections of mainstream conceptions of the self are not materialist in character, most notably, Hume’s looking inward and not finding an object called ‘self’.\textsuperscript{20} Nevertheless, I suggest that a reconstruction of some materialist positions on the self (including their appropriation and transformation of elements from such sources as Spinoza and Locke) may yield some insights and some ‘displacements’ of our historico-philosophical commonplaces.
2. Externalism

Externalism is to be understood here not as a semantic theory or a social theory of mind (at least two of the other senses of the term) but rather as the position according to which mental states lack any inaccessible, ‘first-person’ dimension; any such dimension would be either explainable in external terms or traceable to processes in the agent which produce a ‘feeling’ of interiority. If the internalist holds that “States, or experiences […] owe their identity as particulars to the identity of the person whose states or experiences they are,” as in Cudworth’s conception of the self as to hegemonikon or as defined by sui potestas, endlessly echoing itself, the ‘externalist’ holds that “no fact is only accessible to a single person,” and deplores, as Diderot does in § X of his 1753 Pensées sur l’interprétation de la nature, that it is easier to consult oneself than to consult Nature. The externalist will hold that any sense of unity, any foundational dimension of selfhood, in fact comes from outside. Materialism implies externalism but externalism does not imply or entail materialism (a vision of the mind as social, including as behaviourally constituted in a world of activity, is not committed to a materialist metaphysics).

One can also see the distinction between internalism and externalism in the difference, familiar to scholars, between the Cartesian cogito and the Spinozist homo cogitat (Ethics IIa2). That ‘homo cogitat’ is not a foundational property of a first person; the self, and its key property, thinking, is not foundational. To be a thinking subject is simply to belong to the universe of causal relations, to be a particular intersection within it. In Spinoza’s memorable phrase, “The order and the connection of ideas is the same as the order and the connection of things.” For the externalist, no fact, datum or vécu belongs to a private, off-limits zone, for what is first is not the thinker but the web of relations to which thought belongs. As Dewey put it in very Spinozist terms, challenging first-person foundationalism: “There is nothing in nature that belongs absolutely and exclusively to anything else; belonging is always a matter of reference and distributive assignment.” Of course, Spinoza doesn’t content himself with this static vision of a grid of relations; he emphasizes that any such particular ‘individuated’ entity strives to persevere in existence, as the finite mode it is. I cannot improve on Morfino’s summary:

[F]or Spinoza the individual is neither substance nor subject [but…] is a relation between an outside and an inside constituted by this very relation (there is no absolute interiority of the cogito opposed to the absolute exteriority of a world). This relation constitutes the essence of the individual, comprised of its own existence-power. . . . It is a variable power, precisely because the constitutive relation between inner and outer is unstable, not established. The passions are not, therefore, the property of an already given human nature, but they are relations constituting the human individual; their locus is not interiority, but the space between individuals.

One could say that the externalist has a relational definition of what it is to be an individual, as a particular duration within a given, causally closed space-time; in the specifically biological version of this position, this will become the particular duration
of a state of relations which constitutes a given individual – a tree, a beetle, a person – qua that which resists decomposition (a “conatus ad existendum”). Of course, to claim that Spinoza defines the individual as a relation, or has an ontology in which there is a primacy of relation, may seem to run counter to the obvious fact that Spinoza thinks the individual is defined by its own conatus, its own essence (E IIIp9s: the conatus is our essence). Yet the relational view has in favor of it, equally core Spinozist definitions: our body needs a great number of other bodies to survive (EIIp13, 4th postulate), just as our mind would be imperfect if it only took itself as an object (EIVp18s). In addition, bodies form a single body or individual when their movements are related to one another (or when they “communicate” according to a precise ratio or relation: EIIp13d). In sum, our essence is a certain ration, proportion or relation of motion and rest (ratio motus et quietis).

For the externalist, an experience, a desire, or a belief do not belong de jure to a constitutive subject, but rather de facto, to a subject which they constitute. Indeed, the subject is constituted by her progressive filtering (and filtering out) of the world, which also serves as an argument against skepticism, according to the idea that the senses are made for x. This sensory filtering is described in Diderot’s important, but at the time unpublished Rêve de D’Alembert (1769) as constitutive of our individuality: no one’s sensory make-up is identical to anyone else’s sensory make-up. “The animal is a unified whole,” both because of its specific physiological constitution (organisation), and specifically because of what he calls its organic continuity, as distinct from the mere contiguity of parts. The limits of our sensory system are also the limits of our individual, in the sense that however much all of matter may be living matter, I cannot sense what is happening on Saturn, for between me and this planet “there are only contiguous bodies, instead of continuity.” In the Éléments de physiologie, he puts it this way: “if external sensations . . . and inner sensations were equally intimate to me, everything would be me, and I would be everything.” I don’t perceive the cosmos directly (my perceptual apparatus acts as a filter); if I did, the barriers of my self would somehow be the barriers of the world. For sensation (perception, experience) are both real and constitutive of self, here. In an Epicurean vein, Diderot insists that “Il n’y a point de plaisir senti qui soit chimérique,” which is reminiscent of a passage in Shaftesbury’s Inquiry Concerning Virtue or Merit (which Diderot translated), where our sensations are described as real regardless of the status of the objects: “For let us carry scepticism ever so far, let us doubt, if we can, of everything about us, we cannot doubt of what passes within our selves. Our passions and affections are known to us. They are certain, whatever the objects may be on which they are employed.” Again, Diderot is stating that “no experienced pleasure is illusory,” Shaftesbury, that “our passions and affections . . . are certain.” Both of them are indebted to the Epicurean credo according to which, ‘if you argue against all your sensations, you will then have no criterion to declare any of them false’, which becomes stronger in the Lucretian version, as it takes the form of infallibility: ‘there is no error in sense-perception’. But Shaftesbury (perhaps) and Diderot (certainly) are adding an additional claim, not just a rebuttal of skepticism but an assertion of a kind of a ‘sensory self’.

The self is constituted from without, and the sensory part of this process entails that no two subjects will perceive the same object in the same fashion. This is
the properly materialist way of accepting that someone’s life-history, including the larger-scale evolutionary history, is constitutive of their being. Notice that we have a criterion of personal identity here: “For any organism x and any y, x = y if and only if x’s life is y’s life.” And since externalism does not mean that my self is equal to the universe as a whole, we can see something of a biological emphasis being smuggled in here. If I am not defined by a free, unconditioned inner space of interiority, but by a multitude of ‘petites perceptions’ (often interpreted in determinist and materialist terms in the early eighteenth century, e.g. by Anthony Collins in his Inquiry Concerning Human Liberty of 1717)36 crisscrossing in my mental life, by my physiological constitution, by ‘the blood which flows in my veins’, as La Mettrie would have it (each of us, the criminal and the honest man, are in pursuit of our own good – happiness, particularly understood as pleasure –, whether I am virtuous or vicious depends “on my blood”; it was because of his blood that “Cartouche was made to be Cartouche”),37 then we have gradually shifted from externalism per se to a biologization of individuality.

3. The organic self

There is nothing novel or particularly radical about philosophy turning to the biological world to obtain its ‘best definition’ of what an individual substance is; think of the notable case of Aristotle, who tended to use actual organisms as paradigm cases of individual substances, or in contemporary parlance, “paradigmatic individuals.”38 The same has been observed of the biomedical sources of Leibniz’s idea of substance, and the monad.39 But it is a further step to say that the traits associated with our interiority are themselves biological in nature – whether it be the ‘inner sense’, intentionality, the synthetic unity of apperception, consciousness, and so on. Indeed, one author warned in the later nineteenth century against committing a sort of category mistake and confusing the self with the ‘feeling of organic unity’.40 I am interested in the narrower class of thinkers who explicitly disobey the Nietzschean warning not to confuse the self with the feeling of organic unity, or in more general terms, who think that facts about selves, including experiential ones, might turn out to be biological facts. Of course, even in this narrower class we can find the argument running in two contrasting directions: either

— a reductionist direction, in which the thinker will retain whichever experiential, existential or phenomenal properties can be successfully preserved after a reduction to the biological facts41

or

— a holist direction, in which there is a ‘transfer’ of subjective properties onto biological entities, usually the ‘organism’ (which is one major reason for the bad reputation of the concept of organism in some circles, and its constant exorcization).
I shall take Diderot as my major example of the biologization of individuality, although this could also be compared to certain moments in early- to mid-twentieth century ‘biophilosophy’, where thinkers such as Kurt Goldstein and Georges Canguilhem articulated an ‘organismic’ theory of personhood, where the biological facts and the personal facts support one another. (This does not mean I am treating Diderot as a ‘precursor’ of some form of intellectual complexity generated in the mid- to late twentieth century, whether out of biology, physics, literary theory or other areas. Examples of such addiction to the ‘virus of the precursor’ abound; at one time, Diderot was a precursor of Whitehead. Rather, I seek to understand such cases in their argumentative context in order to additionally reflect on how and what they can contribute to a materialist theory of the self.)

For Diderot, materialism definitely implies a degree of reduction – a deflationary or destructive impulse to trace back “our most sublime feelings and our purest tenderness” to “a bit of testicle.” But this is not a reduction of the human or animal action or personhood to the action and necessitation of falling stones or clockwork. It is a reduction to the animal, so to speak – as when he writes, commenting critically on the Dutch scholar Franz Hemsterhuis’ 1772 Lettre sur l’homme, “wherever I read soul I replace it with man or animal.” It retains an embodied focus, so that, e.g. properties of the soul are explained in terms of properties of the body, not of fundamental physics. In the language of theory reduction, we could say that for Diderot, the reducing theory is biology, not physics (there was no physics to speak of, and more importantly, he felt that the cluster of theories later to be termed biology, and then referred to as ‘natural history’ in general, was the richest). In Diderot’s major fictional piece of speculative natural philosophy, the Rêve de D’Alembert, the character D’Alembert challenges the character Diderot to account for the self. Diderot has more or less successfully defended the concept of a living, sensing and thinking matter, but D’Alembert queries: “Could you tell me about the existence of a sentient being in relation to itself?”, that is, about the self-awareness of a sentient being. Diderot speaks in Lockean terms of memory as the basis for our self, and adds the materialist tenet that memory itself is the product of our physiology (organisation). Later on, in another dialogue of the Rêve, the ‘pupil’ character Mlle de Lespinasse tells the doctor, Bordeu, that some things seem so obvious to her in a pre-philosophical way that no philosophy, especially materialism, could change her mind: particularly “that of my unity, my self, for instance. Blast, it seems to me that there is no need of such verbiage to know that I am me, I have always been me, and I will never be any other.”

What is the materialist reply? That the self is itself the result of a construction of smaller elements – parcels of living matter (literally, “molécules sensibles”). An organism is formed by adjunction of living points or animalcules, by purely material processes: “A hundred, a thousand times, I have seen the shift from inert matter to active sensitivity, to the soul, to thought, to reasoning – without any other agent or intermediary than material agents or intermediaries.” This shift from inert matter to active sensitivity – and the “soul” (here used, as was increasingly common in the period e.g. in authors such as Charles Bonnet, to mean ‘mind’) is associated with the biological theory of epigenesis, according to which the embryo
grows by successive additions of material layers rather than according to a ‘preformed’ set of immaterial information. Epigenesis is understood here as rebutting dualism and its biological cousin, preformationism, which Diderot presents sarcastically via the character of the doctor Bordeu: “I wager, Mademoiselle, that you believed that having been . . . a very tiny woman in your mother’s testicles, you thought you had always been a woman in your present form.” In this shift from inert matter to sensing, living matter, how do I feel that I am myself? For Diderot, the answer is: in and through my central nervous system – which, as we saw above with regard to the Epicuro-Lucretian theme of the infallibility of sensation – is both myself and a guarantor of my relation to the rest of the material world in a constant process of exchange.

Yet it is not obvious that the shift in matter theory from a more passive to a more active matter, which is explicit in Diderot (building on earlier authors such as John Toland), offers any special basis for a theory of self. Indeed, one problem for such ‘vital’ or ‘vitalized’ materialism is that it begins to resemble panpsychism: if I am made of small parcels of living matter, each of which has a kind of self, and the ‘self’ of the whole is simply more powerful than any of them, what prevents, not only the infinitely small bodies, but also the universe itself, from having a self? The solution has to do with the distinction between continuity and contiguity, as I mentioned above. This distinction is specifically meant to pick out the difference between mere assemblages or ‘heaps’ of matter, and forms of organismic unity. Diderot is one of the first materialists to explicitly take note of the ‘fact’ that organisms are in part defined by their sense of unity (the sense, in Kant’s phrase, that I am myself from my fingertips to my head). He will also use the language of unified causality to describe this unity: “without regard for the sum of elements of which I am composed, I am one, and a cause only has one effect; I have always been one single cause [une cause une], thus I have never had more than one effect to produce; my duration is thus nothing more than a succession of necessary effects.” In that sense, I cannot “do otherwise than myself” or “be anything other than myself.”

Diderot’s articulation of an embodied materialism – not one understood as synonymous with ‘physicalism’ – can have access to some of the key features of selfhood, individuality and identity which anti-materialists from More and Cudworth to Thomas Reid and Edmund Husserl insisted could not be present in a materialist analysis. Commentators often overlook Diderot’s critique of Helvétius’ De L’Homme (1773), which precisely focuses on the latter’s excessively ‘mechanistic’ picture of behaviour as subject to standardized rules of social conditioning. But contrary to Madame Necker (and earlier, Bishop Bramhall, Cudworth, Samuel Clarke) or Thomas Reid, who was perhaps the originator of the distinction between acting according to reason and acting according to causes, a distinction that materialists such as Collins and Diderot do away with, as they reject appeals to a ‘power of self-determination’, Diderot does not disagree with Helvétius’ ‘social determinism’ (or crude psychophysics of operant conditioning) in the name of an unconditioned, uncaused or otherwise ‘extra-territorial’ self. He finds Helvétius’ program to be not only dangerous but condemned to fail, at the very least because of the irreducible ‘organic’ or ‘psycho-physiological’ specificities of each individual. But within that organic
individuality, there is no homuncular self – as he says in the *Éléments de physiologie*,
when I am hungry it is my stomach that is hungry, not ‘me’, and so on.

In that sense, the judgment, found in a study of Diderot, that “Materialism as
a working philosophy, used as a tool in the scientific investigation of the material
universe, is appropriate and highly effective. Intended for the objective analysis and
description of the world of externals, it yields disastrous results when applied to the
inner, subjective world of human nature, human thought, and human emotions,”
is at best the wielding of a very blunt explanatory instrument, and at worst, a projection
of a personal valuative decision onto seventeenth- and eighteenth-century texts. Both
La Mettrie and Diderot, and most of their critics in the eighteenth century, would
have been surprised to hear that materialism was an effective tool for science and for
handling ‘the world of externals’, but not for the inner life. Which does not mean, of
course, that a materialist account of the inner life had to be to every one’s tastes! At
the risk of juxtaposing statements from two very different discursive registers,
consider the recognition of the presence of embodiment present in judgments such
as this, from the *Nouvelles ecclésiastiques*, an important Jansenist publication, in 1758:
speaking of Helvétius’ work *De l’Esprit*, the reviewer declared that it should really have
been entitled “On Diversely Organized Matter, and even better, . . . On the Flesh, Particularly
the Dirtiest, Most Impure Flesh.” Dirty flesh is different from the cold, inanimate,
geometrical world studied by ‘science’ in some accounts.

4. Personal identity and the brain

If the biologization of individuality seems to enable the materialist to do
justice to some core features of selfhood (on the condition that she is not of the strict
physicalist persuasion, in which case facts about the self would be declassified from
any material standing, and relegated to – depending on the particular position – qualia,
folk psychology, etc.), the same cannot be said, or at least not as easily, of externalism.
Thus a ‘qualitative’ argument against externalism (which is however quite compatible
with biological theories of individuality) will declare that there is *something* that it is like
to be me, a special relation, which cannot be grasped from outside, and *a fortiori* by the
scientific, ‘third-person’ perspective. The world of relations seems to ‘drown’
individuality, as in Spinoza’s comment to Jarig Jelles that nothing can be said to unique
with regards to its essence, but only with regard to its existence.58 This seems to have
been Montesquieu’s reaction, which I cite not least because of its vivid turn of phrase:
he felt that Spinoza “deprived him of everything personal,” so he could no longer
“find that self in which I was so interested”; “why glory? why shame? . . . in the
universality of substance, both the lion and the insect have come and gone
distinguishingly, both Charlemagne and Chilpéric.”59 Conversely, Diderot’s
vitalization of matter seemed to preserve selfhood by veering towards panpsychism –
although to the objection ‘isn’t vitalized materialism the same as panpsychism, since it
seems to rely on the posit of Life all the way down?’ Diderot would answer as he
does notably to Maupertuis, that it is a mistake to explain the complexity of organic
bodies by attributing higher-level features such as instinct or memory, to the
‘molecule’, i.e. the smallest unit of living matter. The same response can be found in
some of the Montpellier vitalists when they seek to distinguish their analysis of the
interrelation of organs – a functional relation, we might say – from Stahl's 'animist' analysis in which the explanatory principle is always the soul. They insist conversely on the specific materiality of the living systems they study (whether it be a person, a heart, or the glandular system).

But, to take stock while at the same time looking forward, consider the general question: if materialism is granted, should selfhood be located (a) in a set of relations, as a structurally defined feature, a 'ratio of motion and rest' in Spinozist terms (as in Ethics IIp13s), (b) in an actualized, temporal, finite biological entity – with additional individuating features to be specified involving its homeostatic equilibrium, its immune system, and so forth, or (c) in a purely processual definition such as Locke's continuity of consciousness over time?

Recall that Locke's celebrated theory of personal identity was in large part intended to avoid having to locate the latter in a merely material substance: “[those] who place Thought in a purely material, animal Constitution, void of an immaterial Substance” plainly “conceive personal Identity preserved in something else than Identity of Substance; as animal Identity is preserved in Identity of Life, and not of Substance.” In addition to this “identity of Life,” humans have a form of reflexive self-consciousness, a type of ‘privileged access’ to ourselves in our ability to remember our past – despite problems such as potentially fabricated memories – which we do not have in relation to others, including the narratives of others. We are dealing here with memory, a type of privileged access crucial enough for it to be constitutive of personal identity itself. Yet Locke doesn't hold that memory per se is the guarantor of personal identity. Granted, our self-consciousness is inherently temporal: “as far as this consciousness can be extended backwards to any past Action or Thought, so far reaches the Identity of that Person; it is the same self now it was then.” Unlike Descartes, Locke dissociates consciousness, identity and thought: “[…] methinks, every Drowsy Nod shakes their Doctrine, who teach, That the Soul is always thinking.” This is what I termed a ‘processual’ definition of selfhood above: it explicitly aims to refute and replace any substantial definition – including, of course a materialist definition. Of course, Locke is frequently agnostic about tensions between immaterialism and materialism, but in the present context, he seems to lean in one direction: “the more probable opinion is, that this consciousness is annexed to, and the affection of one individual immaterial Substance.”

Is a materialist approach to personal identity instantly invalidated, or at least weakened, by Locke's anti-substantalist theory? Yes, if it meant understanding what a self or individual is (granted, these are not identical terms! as I clarify below) in strictly aggregative terms. To be clear, concepts of selfhood and of individuality are often run into each other in the texts of the period, including because the question of the immateriality or materiality of the mind had a direct impact on which conception of personal identity could be defended. Thus, when Diderot is criticizing the ‘Platonic’ immaterialism of Hemsterhuis’ manuscript, Diderot writes, “what you take for the soul is the self”; and Locke: “Person, as I take it, is the name for this self: Where-ever a Man finds, what he calls himself, there I think another may say is the same Person.” That early modern authors run ‘self’, ‘person’ and/or ‘mind’ together has been observed in one of the best studies of the topic. Granted, contemporary
philosophers would not at all run the concepts of self and mind into one another (issues such as consciousness, and thus what it means to be conscious and which entities are conscious, arise). But in historical context I would emphasize the difference between thinkers like Descartes, Malebranche and later Kant, for whom there is a core difference between ‘being aware of one’s mental state’ (propositional attitudes, intentionality, etc.) and sensation, passion, feeling, or appetite – and thinkers in an Epicuro-Lucretian vein such as La Mettrie and Diderot, who reject the appeal to such a difference as unfounded. A case in point – whether or not we are convinced by it – is the character Diderot’s response to the character D’Alembert’s challenge at the beginning of the Rêve de D’Alembert: if I can convince you that matter sense, he says to D’Alembert, I don’t need anything further to overcome challenges concerning the nature of thought. That sentience is a feature of advanced organisms is taken by Diderot as an empirical fact (deriving from experiments such as Haller’s on the nervous system); that a ‘Cartesian’ or ‘Kantian’ would deny that empirical facts are relevant to a decision on the nature of the mind is a problem beyond the scope of this paper. But the work of historians of philosophy (such as Thiel, in this case) should make it more difficult for naïve historiographic projections based on such philosophical commitments, such as Hill’s judgment on Diderot cited above, to be tenable, or convincing.67

But Locke’s important insights we have just surveyed, are not fatal to a more organismic (and thus also relational) concept of self. Recall Diderot’s distinction between merely spatial and mechanical contiguity, and properly organic, indeed organismic, continuity:68 the latter concept includes an existential, processual, temporal dimension, in the sense that an organism is not just a ‘snapshot’ of an organism. To cite Olson again, “For any organism x and any y, x = y if and only if x’s life is y’s life.”69 And the sophisticated materialist theorist of personal identity, not least if she is inspired by biomedical reflection, should not be unaware of the simple fact that the cells in our bodies change over time (an example which Locke thought was fatal to a naïve substantialist-materialist theory of personal identity). As Diderot himself reflects, “through all the vicissitudes I experience in the course of my duration, given that I may not possess a single one of the molecules I was composed of at birth, how did I remain myself to others and to myself?”70 Here the Spinozist point that what it is to me is not so much a fixed set of material parts, but rather a ratio, is applicable. We could also, again, think of the case of our immune system, which is neither reducible to a ‘thing’ located at one fixed point in time and space, nor a cosa mentale which the biologically nourished materialist can say nothing about.

Yet the structural answer (which corresponds in more detail to what I have called ‘externalism’ here in section 2) does not exhaust the materialist treatment of personal identity. In fact, Locke’s emphasis on memory can be integrated therein, despite the seeming paradox (since it was intended to reject the material substantiality of the self). This integration is notably possible because of the shift in our understanding of memory as itself a cerebral function. That is, Locke rejects material criteria for personal identity and asserts the criterion of memory; but we would say today that the mechanisms of memory are cerebral functions! Indeed, Diderot himself described memory as a “corporeal quality,”71 but also appeals to it in very
Lockean ways, for instance when he criticizes Hemsterhuis’ version of a traditional immaterialist concept of personhood, stressing that without the memory attached to a series of actions, the individual, moving from sleep to wakefulness and back again, would barely be able to take note of her own existence. At the same time, this apparently ‘processual’ rather than ‘substantial’ concept is also integrated in his conception of what I called above ‘the organic self’ (section 3), as when he asserts (via the character Mlle de Lespinasse) that “the history of the life and the self of each animal is composed of the memory of its successive impressions.” The structural here has become the corporeal, and/or the cerebral. (At times Diderot emphasizes the centrality of the brain – “the key features of man are in his brain, not his external organisation” – but at other times he considers it to be a ‘secondary organ’.)

5. Conclusion

The materialist theory of self needs not be blind to or dismissive of all features of interiority. It can, notably, integrate degrees of embodied selfhood, qua biological individuality. And, if one thinks of such features of our embodiment as proprioception (what was often called in earlier contexts ‘the inner sense’), the materialist can certainly describe certain “routes of epistemological access” between ourselves and our bodies. Thereby, instead of denying the existence of introspection, the materialist should try and locate it within the physical world, within the overall framework of explanation (as Spinoza did). But since this materialism is not strictly a physicalism but can appeal to biological information, it offers plenty of ways to understand individuality, selfhood or agency – as we can see for instance in recent work on the ‘immunological self’. And it need not oppose a private (and foundational) self to the body or the brain, as in the phenomenological credo that “It is man who thinks, not the brain.” The point is not that the materialist theory of self, for instance in Diderot’s articulation of it, encompasses all the positive features of all other theories of self without any of their negative features; but that classic oppositions between a world of agency, value, intentional states and privacy, and a ‘merely spatial’ and/or mechanical and by extension somehow dehumanized world, needs a serious revision.

The theory as I have reconstructed it is essentially comprised of a ‘relational’, externalist metaphysics and a biological vision of individuality, which can be combined in different ways, or extended separately – as in the metaphysics of the radical Benedictine monk Dom Deschamps, who authored a then-unpublished treatise of Spinozist metaphysics in the 1760s, La Vérité ou le Vrai Système. This was a deliberately Spinozist causal, relational, modal metaphysics of matter and its modifications forming part of what Deschamps called ‘the Whole’ as distinct from the more contingent ‘the whole’. Deschamps mocked the materialists of his day for their belief that one could give up on metaphysics in favor, e.g. of an idea of ‘laws of nature’ derived from scientific experimentation, a notion which in his view precisely required a metaphysical grounding. Conversely, other materialists of the early eighteenth century such as Anthony Collins could restrict themselves to a more Lockeian starting-point, without either a biologization of individuality or a causal metaphysics of Nature. It is indeed important that Locke’s discussion of personal
identity plays a role in the articulations of the theories discussed here (in some versions) – although sometimes with unexpected results, as when Diderot himself asserts that memory is the ground of selfhood but then traces it back to other physiological analyses in his text and ‘reminds’ the reader that memory is a cerebral function.

In any of these combinations, we should also note a deflationary or reductionist dimension. For however much the materialist theory of self retains, it also, in a deflationary mode, leads to a rejection or destruction of selfhood qua interiority, certainly as something foundational (the early modern materialist could very well have said “You are not authoritative about what is happening in you, but only about what seems to be happening in you”).79 The same holds for the apparently real existence of individuals as something to be challenged in a deflationary vein, notably nourished by Spinozist arguments and extended by authors such as Diderot and Buffon: the latter wrote, “an individual of any sort, is nothing in the Universe; a hundred, a thousand individuals are still nothing; species are the only real entities in Nature.”80

The advantage of the biological perspective is that it preserves a certain realism; the power but also the danger of externalism as an ontology of relations, and of the reduction of personal identity, is that they lose trace of any existence of the self (as was often reproached to Spinoza: the ‘selfhood’ of one finite mode among others does not seem like the most appealing defense of the self). But this advantage – unless one has a kind of transcendental criterion with which to automatically reject any confusion between the self and the ‘feeling of organic unity’81 – brings with it the danger of ‘biologism’, and of a metaphysics of the organism.82 Hence the materialist theory of the self is a mobile (and modular) set of concepts, with its advantages and its disadvantages, its diversity and its limitations. Future histories or philosophical survivals of the self might consider it worthy of inclusion.83

References
6 d’Argens, J.B. de Boyer, Marquis, La philosophie du bon-sens ou réflexions philosophiques sur l’incertitude des connaissances humaines, à l’usage des cavaliers et du beau-sexe (Londres: aux dépens de la Compagnie, 1737), 382-383.


For more on one core aspect of this problem in Diderot, see Salaün, F. “L’identité personnelle selon Diderot”, Recherches sur Diderot et l’Encyclopédie 26 (1999): 113-123.

“La moitié d’un moi est une absurdité contradictoire, et une portion de matière qu’on ne peut partager est aussi une contradiction : comment donc se persuader que l’esprit et la matière ne sont pas deux substances différentes?”, Necker, S., Mélanges, extrait de ses manuscrits (Paris: Charles Pougens, 1798), III, 88.

For a description of such naturalization from a different perspective, that of the treatment of the ‘soul’ in the clandestine manuscripts, which retains a focus on the properties of the mental while tracing such properties to concepts from an integrated mind-body medicine, but also Renaissance naturalism, see Wolfe, C.T., “Conditions de la naturalisation de l’esprit : la réponse clandestine”, La Lettre clandestine 18 (2010): 54-88. Gary Hatfield tells the story from the perspective of the emergence of psychology as a science: Hatfield, G., “Psychology as a Natural Science in the Eighteenth Century”, Revue de Synthèse 115 (1994): 375-391.

22 Cudworth, R., *A Treatise concerning Eternal and Immutable Morality*, reprinted with the *Treatise on Free-Will*, ed. S. Hutton (Cambridge: Cambridge University Press, 1996), ch. 10, 178. For one of the rare subtle discussions of this theme, from Cudworth to Kant, see Mijuskovic, B.L., *The Achilles of Rationalist Arguments: The Simplicity, Unity and Identity of Thought and Soul from the Cambridge Platonists to Kant. A Study in the History of an Argument* (The Hague: Martinus Nijhoff, 1974). The properly 'spiritualist' version of this position was Maine de Biran's, claiming that the self can have a direct effect on organic states, transforming them by the consciousness it 'superadds' to them. Maine de Biran, P., *Nouvelles considérations sur les rapports du physique et du moral de l'homme* (1834), in *Oeuvres de Maine de Biran*, ed. F. Azouvi (Paris: Vein, 1984), IX, 121.


27 Beyond the comment to Jarig Jelles which I discuss further on, Spinoza can handle individuality structurally, as a particular ratio of motion and rest: *Ethics*, I1p13s (the physics), esp. lemmas 1 and 7s.; *Short Treatise*, appendix, II.14 – leading, however, to troubles such as the case of the Spanish poet who was struck ill, and although he recovered, remained “so unconscious of his past life that he did not believe that the stories and tragedies he had written were his own” (*Ethics IV*p39s). At the structural level of ratios, he is the same person, *certa quidam ratione*, at the level of his mind, he is not. See Garrett, D., “Spinoza’s Theory of Metaphysical Individuation”, in *Individualization and Identity in Early Modern Philosophy*, eds. K.E. Barber & J.J.E. Gracia (Albany: SUNY Press, 1994), 92-93. I thank an anonymous reviewer for insisting on this problem and Daniel Schneider for discussion.


29 Diderot, D., *Éléments de physiologie*, in Diderot, D., *Œuvres complètes*, eds. H. Dieckmann, J. Proust & J. Varloot (Paris: Hermann, 1975-2004), XVII, 335 (the animal as whole); *Rêve de D’Alembert*, in Diderot, D., (1975-2004), XVII, 140, 142 (organic continuity versus merely spatial contiguity). Throughout his writings (not just on biological or philosophical matters as in the above texts, but also in his dramatic writings) Diderot insists on the specificity of each individual’s organisation.


34 Sextus Empiricus, Adversus Mathematicos, VIII.9; Lucretius, De rerum natura, IV, 474-499. Many of the clandestine manuscripts of the seventeenth and eighteenth centuries, including Nicolas Fréret’s Lettre de Thrasybule à Leucippe (written in the 1720s-1730s and in circulation from 1745 onwards, although only formally published in 1768), repeat these Lucretian topoi on how sensations cannot – or rarely – deceive us (Fréret, N., Lettre de Thrasybule à Leucippe (1768 version), ed. S. Landucci (Florence: Olsenchi, 1986), § VI), sometimes with an extra hedonistic flourish, as in Diderot.


36 Leibniz himself stresses the unconscious dimension of the petites perceptions, e.g. in his criticism of Lockean uneasiness, that it leaves out the ‘unapperceivable’, that is, unconscious dimension of uneasiness. Leibniz, G.W., New Essays on Human Understanding, ed. & trans. P. Remnant & J. Bennett (Cambridge: Cambridge University Press, 1982), II.xx.6.

37 La Mettrie, Discours sur le bonheur or Anti-Sénéque, in La Mettrie, J.O. de, (1877), II, 262, 287 (Cartouche was a celebrated bandit). This work was initially intended as a biography of Seneca, and indeed first appeared as an essay accompanying La Mettrie’s translation of the latter’s De vita beata, as De vita beata: traité de la vie bienheureuse de Sénèque, avec un discours du traducteur sur le même sujet (Potsdam: C. F. Voss, 1748); in 1750 a second edition appeared from the same publisher, now entitled Anti-Sénéque, ou le Souverain bien; the third edition (Amsterdam, C. F. Voss, 1751) bore the same title, but in the 1753 edition of La Mettrie’s Œuvres philosophiques it is entitled Anti-Sénéque ou Discours sur le bonheur.


39 See Smith, J.E.H., Divine Machines: Leibniz and the Sciences of Life (Princeton: Princeton University Press, 2011). Smith suggests a link between what is often seen as the evolution in Leibniz’s metaphysical notion of a substance and his shift from an interest in the vivisection of macroscopic animals to a fascination with the observation of microscopic animals (52).


41 I have argued elsewhere that a soul:body reduction is different than a reduction to fundamental physics (Wolfe, C.T., (2012)). It has also been observed of reduction of the mental to the neurophysiological that in fact, a lot gets to be retained: pain receptors and a variety of functional and intentional properties: Enç, B., “In Defense of the Identity Theory”, The Journal of Philosophy 80/5 (1983): 279-298. In the early modern context an interesting case of just such a tension between a more ‘holist’ insistence on organism as subjectivity and a more ‘reductionist’ insistence on organism as machine is the debate between Stahl and Hoffmann (as compared to Stahl’s debate on organism with Leibniz, where the tension is more between a less naturalistic holism and a more naturalistic, compositional or organizational view). See King, L.S. “Stahl and Hoffmann: a study in Eighteenth-Century Animism”, Journal of the History of Medicine 37 (1963): 13-24.


49 “Ich bin eben so unmittelbar in der Fingerspitze wie in dem Kopf” (*Traüme ein Geistesehers* (1764), in Kant, I., *Kants gesammelte Schriften*, hrsg. von der Königlich Preussischen Akademie der Wissenschaften zu Berlin (AA) (1902; Reprint, Berlin: De Gruyter, 1968), II, 324. While we might expect a tripartite distinction between active matter, sentient matter, and self-reflective consciousness embodied in matter (perhaps as three levels of complexity, moving upwards from brute matter), the latter two are generally collapsed into one in the Epicurean-materialist context (see below note 64 in addition).


53 While we might expect a tripartite distinction between active matter, sentient matter, and self-reflective consciousness embodied in matter (perhaps as three levels of complexity, moving upwards from brute matter), the latter two are generally collapsed into one in the Epicurean-materialist context (see below note 64 in addition).

55 Well summarized by Timo Kaitaro: “by controlling the sensations of a child it is possible to form [it] into anything one wants. Since the human mind is entirely determined by the sensations it receives, there are, at least in theory, no limits to the possibilities of education: by controlling sensations we could produce future citizens to our tastes and needs” (Kaitaro, T., *Diderot’s Holism. Philosophical Anti-Reductionism and its Medical Background* (Frankfurt: Peter Lang, 1997), 133).


60 Locke, J., (1975), II.xxvii.12.

61 Such a Lockean position was defended in contemporary philosophy by Sydney Shoemaker, e.g. “Persons and their pasts” (1970), in Identity, Cause and Mind (Cambridge: Cambridge University Press, 1984), 19. Bertrand Russell, in his Problems of Philosophy (1912; Oxford: Oxford University Press, 1998), chapter 5, argued that we have a privileged ‘acquaintance’ with our self. Contemporary materialists diverge on whether this type of privileged link, relation or acquaintance should be granted or not. See notably Armstrong, D.M., A Materialist Theory of the Mind (London: Routledge & Kegan Paul, 1968; 2nd edition, 1993). Differently from Locke or Spinoza, materialists such as La Mettrie and Diderot would have directly accepted the following retort to defences of ineffable first-personhood: “The existence of a proprietary, first-person epistemological access to some phenomenon does not mean that the accessed phenomenon is nonphysical in nature. It means only that someone possesses an information-carrying causal connection to that phenomenon, a connection that others lack” (Churchland, P.M., The Engine of Reason, the Seat of the Soul (Cambridge, Mass.: MIT Press, 1995), 198).

62 Locke, J., (1975), II.i.11.

63 That memory was a key component of Locke’s theory of personal identity – however much it ends up being crucial or not, depending on our reading – is evidenced by objections from his correspondents, but also contemporary philosophers such as Antony Flew (if I don’t recall committing a crime and my identity is memory-based, then I didn’t commit the crime?), which ultimately led him to insist on the role of the Last Judgment in determining who has done what, and rewarding and punishing us accordingly. (Recall that ‘person’ is fundamentally for Locke a “forensick”, i.e. legal term: ibid., II.xxvii.26.) The best overall treatment of the topic in my view remains Winkler, K., “Locke on Personal Identity”, Journal of the History of Philosophy 29/2 (1991): 201-226. Winkler cites authors such as Berkeley and Reid (206-208) criticizing Locke for having a memory-based theory of personal identity.

64 Locke, J., (1975), II.xxvii.25. Cf. also: “There are but two sorts of Beings in the World, that Man knows or conceives. First, Such as are purely material, without Sense, Perception, or Thought, as the clippings of our Beards, and paring of our Nails. Secondly, Sensible, thinking, perceiving Beings, such as we find ourselves to be, which if you please, we will hereafter call cogitative and incogitative Beings” (IV.x.9).


67 I thank an anonymous reviewer for making me clarify this point.

68 Cases like phantom limb syndrome and other sorts of ‘anosognosia’ would be an interesting challenge here – they pose no problem for theories in which our personhood is a subjective construct without corporeal and/or cerebral dimension, but seem to pose a problem for ordinary cerebral materialism.
70 Diderot, D., Rêve de D’Alembert, in Diderot, D., (1975-2004), XVII, 163. (It is the character D’Alembert who is asking)
73 In this sense, Diderot may be an interesting ‘problem case’ for the opposition between scholars such as Mijuskovic and Thiel, for Thiel rejects Mijuskovic’s claim that materialist theories seek to establish “personal identity on a model of bodily identity” (Mijuskovic, B.L., (1974), 105) and emphasizes instead the Lockean dimension, according to which materialist theories of personal identity accept arguments against material-substantial continuity (Thiel, U., “Locke and Eighteenth-Century Materialist Conceptions of Personal Identity”, Locke Newsletter (1998): 69).
80 Buffon, G.-L.-L. de, “Seconde Vue” sur l’Histoire de la Nature, printed at the start of the 13th volume of the original edition of the Histoire naturelle (1765); in Buffon, G.-L.-L. de, Œuvres philosophiques, ed. J. Piveteau (Paris: PUF, 1954), 35a. One should not take the ‘reality of species’ asserted at the end of the passage literally, either, since Buffon often and influentially explained that species is a construct, a ‘vue de l’esprit’ which we produce by comparing individuals to each other.
83 Ideas such as those discussed in this paper are absent from ‘classics’ such as Taylor, C., Sources of the Self: The Making of the Modern Identity (Cambridge, Mass.: Harvard University Press, 1989), although they are discussed in Thiel’s excellent survey piece, Thiel (2006), primarily with respect to personal identity. Thiel had however considered that “French materialist philosophes do not concern themselves very much with the special problem of personal identity (Thiel, U., (1998), 63n.). Perhaps Diderot’s Rêve de D’Alembert merits a revision of this claim.

**Frank DAUDEIJ* 

Henri Krop, the author of this impressive monograph, declares that he himself is 'not a Spinozist'. Consequentially, anyone looking for an essentialist interpretation of Spinoza's work should look elsewhere. Written in a contextualist manner, Krop's work is a history of the way in which very different Dutch thinkers interpreted Spinoza's work in the context of the intellectual climate of their own time. Thus, the almost 800 pages of this book offer a thorough reception history as well as an insightful exploration of the intellectual depth of Spinoza's body of thought itself. Due to its vast subject matter the focus is, understandably, solely on the impact of Spinoza on the Netherlands. The work is also a history of ideas in the classical sense of the word. The author pays some attention to socio-economic and -cultural developments, but philosophy and theology are its main concerns.

Krop discerns four different periods in the history of Dutch Spinozism. In each of these distinctly different aspects of Spinoza's thought emerged. The first period starts with the publication of the *Tractatus Theologico Politicus* in 1670 and ends in 1720. The stormy reception of Spinoza's views is described in the light of the raging debates between scholastics, Cartesians, orthodox Protestants and spiritualists. Krop notices that even between alleged Spinozists convictions differed widely. Moreover, most of the outrage was directed at the *Tractatus Theologico Politicus* and the first chapters of Spinoza's *Ethics* - in which he elaborated on his monism. The rest of the *Ethics* and his political views were largely neglected by his opponents. In light of the increased interest in the Dutch Radical Enlightenment among scholars of history and philosophy, these chapters might be the most relevant to an international audience. Krop's cautious account is a refreshing addition to more sensationalist versions provided by scholars such as Jonathan Israel and Steven Nadler.

The second period ends in 1780. This might be the only period in which Spinoza was perceived as an oddity, as part of the stormy seventeenth-century debates which by this time the Dutch tried so hard to leave behind. The author argues, as Wiep van Bunge has done, that Newton's less provocative empiricism probably rendered Spinoza's metaphysics less attractive than it had seemed before. However, Krop shows that at the Dutch universities, Spinozist arguments continued to play an important role in the polemics between legal scholars and theologians. Outside the universities Spinoza remained part of the reading habits of Dutch intellectuals as well.

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His image was largely negative though, as Spinoza’s refusal to grant man any form of agency made them portray him as a fatalist.

In the third period, 1780 - 1940, a very different image of Spinoza emerged. Both philosophers and theologians severed Spinoza from his own metaphysics and turned the presumed radical materialist into an idealist. Instead of the cause of the cold rationality of the enlightenment, he became the antidote. Even artists found solace in this ‘sacral’ view of nature. Not his monism but his Ethics took the main-stage. The popularity of this image peaked between 1845 and 1885, (the golden years), and remained important until World War II (the silver years). Krop’s exploration of the influence of Kantian rationalism and German idealism on this new image is substantial and provides fascinating insights for anyone interested in the changing intellectual climate of northern Europe in the nineteenth century.

The fourth period starts after World War II and is characterized by the breakdown of Christianity, the decline of theology as a major force in Dutch intellectual life and the establishment of a largely academic Spinozism from the 1970s onwards. The last chapter, about the relevance of Spinoza for the world of today, is also the most personal one. The shift in tone of voice – from that of a confident expert to a more modest spectator – feels just about right, as the chapter is foremost an encouragement for the reader to start his or her own conversation with Spinoza’s work.

The richness and intellectual depth of Krop’s examination deserves high praise. His grasp of the material and impressive knowledge of western philosophy in general is noticeable in the way meta-historical and contextual asides are woven into the book. The absence of long introductory sections gives the story a steady pace. However, this, together with his refusal to provide a brief analysis of Spinoza’s work itself, makes it at times a demanding read. On the whole, these are minor complaints. The book provides a compelling argument for the ongoing impact of Spinoza’s work in the Netherlands. Especially its close connection with the Reformed tradition, both negative and positive, is most remarkable. Hopefully, an English translation will follow soon.
Alberto VANZO

*CARTESIAN EMPIRICISMS*


Alberto VANZO*

*CARTESIAN EMPIRICISMS* is a collection of twelve essays on seventeenth-century and early eighteenth-century authors – mostly natural philosophers – who were active in France, the Netherlands, Germany and England. The editors present them as “Cartesian thinkers heavily involved in the practice, pedagogy, and theory of experiment” (2). Except Antoine Le Grand, none of them was a strict follower of Descartes. However, they all endorsed some Cartesian doctrines – often not the same doctrines – while engaging with a wide set of issues, from the technique of blood transfusion to the denial of demonic action in the world. The volume labels these authors as empiricists not because they rejected innate ideas or substantive a priori knowledge (several of them accepted both), but because they gave “observation, experience, and/or experiment a key role for knowledge acquisition in their natural philosophy” (12). One may prefer to speak of key roles as these authors had varied attitudes toward experience and experiments. The connection between them is “not a shared set of core principles, but a family resemblance” (12-13).

In “Censorship, Condemnations, and the Spread of Cartesianism”, Roger Ariew links the condemnations suffered by Descartes and seventeenth-century French Cartesians to a shift toward more empirical forms of Cartesianism. Among the reasons for opposition to Descartes was his reliance on hyperbolic doubt as a way to certainty. Some thought that it must be rejected because it is impossible to rationally overcome it. Others saw it as dangerous for credulous people. The Cartesians who rejected hyperbolic doubt to avoid censorship ceased to distinguish “between the absolutely and the morally certain in the fashion of Descartes” (41). They “aggressively pursued a quasi-hypothetical-deductive method and thus became more empirical” (26).

Delphine Bellis’ interesting discussion of Henricus Regius’ views on perception and knowledge provides an example of this empirical, less epistemically demanding attitude. Regius denies that we have innate ideas or faculties. He replaces the pure intellect “with imagination and judgment” (159), both based on experience. He provides an account of depth perception that, unlike Descartes’, does not presuppose concept innatism. According to Regius, what warrants our belief in the similarity between perceptions and external objects are the acts that our mind performs on sensory stimuli. Yet, despite his empirical bent, Regius accepts “most of Descartes’ explanations in cosmology, meteorology, optics” (153).

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97
Another Cartesian who is often described as empirically minded is Jacques Rohault. According to Miheea Dobre, Rohault’s “empirically oriented natural philosophy” is “on a par with his contemporary so-called ‘experimental philosophers’” (209). Rohault employs experiments as pedagogical aids and to confirm conjectures, which are mostly derived from Descartes’ philosophy. Rohault regards physical truths as merely probable and refrains from claiming “that his physics is metaphysically grounded” (213). Yet, “he smuggles in some metaphysical presuppositions” (223) and he employs a priori arguments, sometimes combined with appeals to experience, to defend distinctive Cartesian views like the identification of matter with extension and the denial of the vacuum.

Sophie Roux’s helpful chapter on 1660s France defends a different reading of Rohault. Roux argues that Rohault did not use experiments to discover or justify natural-philosophical principles or to make “quantitative predictions” that “could potentially invalidate a hypothesis” (56), but only to establish which “principles of Cartesian physics” are relevant to specific experiences. Accordingly, Rohault employed the experiments only at the end of his widely attended public lectures, to confirm and illustrate principles which he established from the armchair. Roux contrasts Rohault’s lectures with the “radical experimentalism” pursued not only in the early Royal Society, but also in the Académie Montmor from 1661 onward and, from 1664, in the Compagnie des sciences et des arts.

The view that experience serves to illustrate Cartesian principles, rather than proving them or extending our knowledge, was also held by Burchard de Volder, who introduced the teaching of experimental physics in Leiden. Tammy Nyden argues that de Volder’s philosophy of science “is best understood within the context of a long tradition” of eclectic philosophy and “teaching through observation at Leiden”, characterised by the combination of “theory and practical experience” (239). De Volder “accepts the Cartesian reformulation of scholastic scientia as systematic knowledge deduced” from innate, “clear and distinct ideas, which are known a priori through pure reason” (240). Experience allows us to know with certainty which of the possible worlds that conform to Descartes’ principles exists.

In his chapter on Cartesianism and early Newtonianism in the Netherlands, Wiep van Bunge portrays de Volder and “Descartes’ Dutch admirers” (98) as preparing the ground for Newtonianism. Van Bunge argues that, in the Netherlands, Newtonianism was adopted as an antidote not to Cartesianism, but to Spinozism. As a consequence, the shift from Cartesianism to Newtonianism was less antagonistic than has sometimes been suggested.

Patricia Easton holds that for Robert Desgabets, like for de Volder, experience serves to single out the actual world among the many possible worlds that conform to Cartesian metaphysics. Easton surveys Desgabets’ description of the procedure of blood transfusion, which he regards as “a specific application of Cartesian physics aimed at the betterment of human life” (194), but which he did not carry out.

Four essays are devoted to Cartesian influences and empirical leanings within medicine, chymistry, psychology and theology. They display a similar variety of positions as those on natural philosophy. Justin Smith’s essay focuses on the conceptions of life of Johannes Clauberg and other Cartesian practitioners of
“medical philosophy” based in Duisburg. He argues that they constitute a significant background to Leibniz’s mature stance on the distinction between living and non-living beings and a point of transition between Descartes’ and Leibniz’s views.

Bernard Joly charts the attitudes of Rohault, Regius, Nicholas Lémery and Louis Lémery on chymical experiments, observations and explanations. He highlights the varying extent to which they acknowledged the peculiar position of chymistry between the observed, macroscopic world and the corpuscular world of Descartes’ mechanistic physics. Joly concludes that “it is by discarding their Cartesianism, by making it a background without any direct link with their practice, that Cartesian chemists made any improvement” (145).

Gary Hatfield’s discussion of Antoine Le Grand’s psychology highlights his attempt to identify a peculiar kind of certainty, that “lies between the metaphysical certainty of eternal truths and the moral certainty of daily exigency” (265). Le Grand pursues the Cartesian project of mechanizing the functions of the sensitive soul. He holds that they are carried out instinctively through the “local motion” of matter subjected to the laws of mechanics. Yet, Le Grand “is short on details of exactly how these mechanisms work” (271).

Finally, Koen Vermeir shows that the Dutch theologian Balthasar Bekker relied on Cartesian ideas to purify reformed theology from superstitious, pagan elements. Bekker provides demonstrative arguments from first principles, including Cartesian mind-body dualism, to argue “that there are no demons and that the existence of angels is uncertain” (285). He gives natural explanations of experiences of demonic possession. He relies on sketchy corpuscular natural-philosophical explanations in a “loosely Cartesian style” (303), with “eclectic and hybrid roots” (294) in the philosophy of Descartes and Digby.

In the introduction, Dobre and Nyden present these studies as highlighting the extent to which a wide range of often neglected Cartesians relied on experience, but also as challenging large-scale historiographical narratives of the history of philosophy and science. According to Dobre and Nyden, the very existence of Cartesian empiricists raises difficulties for narratives based on the empiricism/rationalism distinction (RED) and the experimental/speculative distinction. This depends on how one spells out the relevant distinctions. For instance, on some versions of the RED, most of the authors discussed in this volume qualify as rationalists as they hold that some substantive truths on the natural world can be known a priori. Some of them did not perform experiments or granted rather modest roles to them. On other versions of the RED, the authors discussed qualify as hybrid, intermediate figures. Yet, there have long been RED-based narratives that allow for the existence of “eclecticsisms and synthesis” (7-8), besides clear-cut cases of empiricism and rationalism. At any rate, any plausible assessment of historiographical narratives should take into account more figures and topics than have usually been the object of scholars’ attention. In the light of this, the main motive of interest of this collection lies in its up-to-date discussions of a broad range of authors, some of whom have not been widely studied. This makes it a welcome addition to the literature.
As the two editors inform us in the preface, this special issue arose out of a colloquium held at the Edward Worth Library in Dublin, in December 2011, to mark the 350th anniversary of the publication of Robert Boyle’s most famous work, *The Sceptical Chymist* (London 1661). It contains seven articles and a substantial introduction and covers a good number of important aspects in the field of early modern studies: the evolution of Robert Boyle’s thought, his ‘conversion’ from moral to natural philosophy, his formative relation with his older sister, Lady Ranelagh, his way of reading and writing, his theology, his experimental practices, and some of his reception and immediate posterity.

The first two articles deal with the immediate context of Robert Boyle’s formation as a natural philosopher. In his opening paper, Michael Hunter revisits the much debated subject of Boyle’s early ‘conversion’ to natural philosophy. In many ways, the article is a rewriting of Hunter’s earlier paper on the same subject, taking into consideration subsequent debates and responding to criticism. At stake is the moment of Boyle’s shift of interest from moral to natural philosophy, but also Boyle’s links with such groups as the ‘Invisible College’, the Hartlib Circle and the Oxford Group (later to become the early Royal Society). After discussing some of the criticism formulated against his earlier “How Boyle Become a Scientist?”, Hunter concludes by standing behind his old thesis, i.e., that of a ‘Great Divide’ in Boyle’s life, taking place in 1649; a rift dividing an earlier philosophical career and a later “scientific career,” marked by an “obsessive experimentalism” (p. 14).

The paper by Michelle DiMeo offers an insightful investigation into a much less explored subject, i.e., Robert Boyle’s relation to his elder sister, Lady Ranelagh. DiMeo’s analysis focuses on the brother’s and sister’s mutual interests in medical and chemical matters and devotes substantial attention to their shared religious views.

The third article, authored by Iordan Avramov and Michael Hunter addresses Boyle’s reading practices, his techniques of collaborating with amanuenses and assistants, and his ways of making use of various experts in order to obtain access to data. It is an impressively well documented piece of scholarly research, which combines harmoniously historical archival research and a keen awareness of recent historiographic developments. Avramov and Hunter discuss Boyle’s practice of reading ‘by deputy’ and the functioning of his complex network of research assistants.

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within the larger context of recent findings regarding humanist methods of reading and writing, common-placing and collaborative research. The emerging picture is remarkable and multi-faceted; and it clearly persuades the reader that much more research is necessary in order to fully understand Robert Boyle’s research methods.

Salvatore Ricciardo’s article investigates the development of Boyle’s views on the immortality of the soul and the resurrection of the dead, showing how Boyle’s position evolved from a predominant concern with Aristotelian, early Christian and Socinian views, to a considerable interest in Descartes and mechanism. Ricciardo’s claim is that Boyle’s views on the immortality of the soul developed from a quite sustained interest in Descartes’ Meditations (p. 103); and that after 1660s, Boyle modified many of his arguments for the immortality of the soul so that they incorporate corpuscularianism and his particular brand of ‘mechanical philosophy’.

Kleber Cecon’s article investigates Robert Boyle’s ‘experimental programme’, i.e., the method and scientific practices which, according to Cecon, have grounded Boyle’s scientific agenda. The purpose of the paper is to illustrate, on particular examples, some of Boyle’s methods for developing novel experiments from trials already carried out. Cecon claims that in pneumatics and chemistry alike, Boyle’s experimental programme relied heavily on spelling out expected results and invoking ‘intermediate’ likely causes. It is not entirely clear to what extent the examples chosen are illustrative of a more general methodology of experimentation. Furthermore, the author works with a somewhat limitative perspective, focusing mostly on how theoretical elements ‘guide’ experimental practices, without paying attention to more subtle interplays between experiments and theoretical commitments.

The last two articles in this special issue treat of Boyle’s reception and immediate posterity. Susan Hemmens investigates the natural historical investigations and the experimental practices of Dublin Philosophical Society’s in the 1680s. Hemmens’ article documents an interesting shift from a more general Baconian mode of investigation (directed by heads and queries) to one where Boyle’s influence becomes more pregnant.3 By contrast, Peter Anstey’s article focuses upon the gradual waning of Boyle’s direct influence upon ‘experimental philosophy’ in the first decades of the eighteenth century. Anstey discusses the ways in which an increasingly prominent ‘mathematical paradigm’ came to the fore of the early modern science, shaping in a decisive way the experimental philosophy of John Keill, Francis Hauksbee the Elder and John Theophilus Desaguiliers. Although Anstey is clearly right in claiming a “peripheralization of Boyle’s natural philosophy” in the first four decades of the eighteenth century (p. 117), his distinction between ‘Baconian’ and mathematical modes of practicing natural philosophy is far too sharp and too much reminiscent of the much criticized Kuhnian divide to be entirely convincing. Perhaps a less strong emphasis on this traditional divide between two competing natural philosophical “modes” (the natural historical and the mathematical experimental) would have brought to the fore alternative explanations for the “demise” and “peripheralization” of Boyle’s particular brand of “experimentalism.”

Despite their diversity, all the articles published in the recent special issue of Intellectual History Review have a common emphasis: they focus on the premises, context and development of Robert Boyle’s experimental philosophy. They revisit some
themes, but also address a handful of fresh questions regarding Boyle’s experimental practices and research methods, as well as their context and immediate posterity. The reader can clearly benefit from reading this volume as a whole, even if she might find it a bit odd that one of the editors is co-authoring two papers in it.

References