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MATTER AT A CROSSROADS: GIVENNESS VS FORCEFUL QUALITY

abstract

This paper aims to develop a concept of matter as something both knowable and relevant for the empirical test of our knowledge statements. In light of the debate between logical empiricism and phenomenology, the paper discusses the forms of realism and theory of experience revolving around the observable/unobservable and visible/invisible distinctions. On this basis, a notion of matter is outlined that is based on the concept of forceful quality, rather than on givenness. Finally, it is shown that the concept of forceful quality can be a good candidate for solving the paradox of categorization, by moving beyond the solutions proposed so far.

keywords

paradox of categorization; phenomenology; logical empiricism; power; material a priori

1. Introduction

The present paper aims to offer a fresh contribution to the debate on the philosophical concept of matter. This debate, which originated in philosophy of science and scientific-theoretical contexts (Banks, 2003; Parrini, 1994), has become an object of renewed interest in contemporary empirical research. Materiality is explicitly included among the foundational topics of scientific disciplines – such as cognitive science and the philosophy of the human person – that rely on the concept of embodied mind (Calvo & Gomila, 2008; De Vecchi, 2019). In the tradition that extends at least from Kant to the present day, through neo-positivism, matter is taken to perform a fundamental role in the empirical test of our knowledge statements. For both Kant and neo-positivism it is necessary to appeal to a material criterion of truth, which is to say to the immediate experiences that constitute the point at which language *touches* reality, in order to set some limits to the potentially unlimited freedom that the formal criterion of truth affords (Parrini, 1994).

Like many topics of scientific-foundational relevance, materiality constitutes one of the thorniest problems faced by Western philosophical thought. In this context, the conception of what is considered *matter* parallels that of what is considered *form*. More specifically, matter is defined as an aspect essentially linked to particularity, sensibility, inexpressibility, intuition, content, quality and reality, in the sense that it is ontologically pure, or *mind-independent*. Correlatively, form is characterized as an aspect defined by universality, epistemicity, intellect, rationality, structure and ideality, in the sense that it is ontologically spurious, or *mind-dependent*.

Based on this defining framework, the epistemic importance of matter generates the so-called paradox of categorization (Scheffler, 1982). This paradox, which has been formulated in a number of different ways, constitutes one of the crucial problems in contemporary philosophy of science. Within it, two parallel approaches to matter can be distinguished: one that we may define as ontic and another that we may regard as specifically epistemic. This paradox and these two approaches have logically given rise to several debates, e.g. the one between conceptual and non-conceptual content, and several theses, like those on the circularity of empirical test and the incommensurability of alternative conceptual schemes (among others). This paper will address the issue of matter in way general enough as to avoid having to choose one approach or the other.

The paradox of categorization stems from a focus on the point of contact between the authentic cognitive, or formal, dimension and direct experience, i.e. the material dimension. In this context, matter cannot be, at the same time, ontologically pure, or real, and

epistemically relevant. Indeed, if matter is ontologically pure, then it becomes difficult to understand what actual role amorphous, unchanneled content can play in terms of theoretical test. On the other hand, if we attribute some form, or sensible content, to matter, it becomes difficult to understand how this sensible experience may act as a brake on our theoretical and conceptual assumptions.

With respect to this paradox, two kinds of positions have been adopted. One position, which we may define as the *negative critical position*, tends to support the idea of the unknowability of matter. The other, which we may define as *positive critical position*, tends to support the notion of the knowability of matter.

On the negative critical side, we find the views traditionally associated with Kant and logical empiricism. The former argues for the impossibility of having a general material criterion of truth. Logical empiricists instead contend that intuitive content is unknowable: a fundamental axiom of 20th-century scientific philosophy, in which content, or matter, is considered to have to do with life [*Erleben*] and not with knowledge (Schlick, 1979c).

In opposition to the Kantian and neo-positivist negative critical position, the positive critical one was developed – that of Husserlian phenomenology. According to its perspective, pure matter is knowable in light of its own normativity, i.e. material a priori. However, in light of certain objections, positive critical stances proves hardly distinguishable from their rival ones. Material a priori statements would turn out to be conceptual in nature, i.e. formal, until proven otherwise. Thus, in wishing to maintain a positive critical position with respect to the paradox of categorization, phenomenology might end up reinforcing the opposite stance (Schlick, 1979a).

In the face of this largely aporetic picture, the present article aims to suggest a new line of research. It will do so by putting forward the general hypothesis that the positive and negative positions adopted so far are all based on a shared tenet, namely: the assumption that matter must, on the one hand, serve as an epistemic foundation and, on the other, rest on the concept of *givenness*.

As the fluctuating development of Schlickian thought shows, the negative critical position tends to uphold both the unknowability of content and its unavoidability in the procedure of empirical testing of our knowledge statements. The introduction of protocol sentences in early logical empiricism can indeed be interpreted as an attempt to find a balance between these two tendencies. In terms of its givenness and foundational epistemic function, the idea of matter entailed by the concept of protocol mirrors the one at work in the phenomenological positive critical position. In the history of the debate on the relationship between theory and experience in cognitive processes, as notably exemplified by the debate between Schlick and Neurath, the negative critical position – unlike the rival one – tends to modify the material nature of protocol sentences by positing the unavoidable presence of overdetermining theoretical elements.

Within this context, the specific hypothesis we wish to put forward is that the modification of the axioms of givenness can lead to a non-aporetic and more virtuous philosophy of matter. A comparison between the observable/unobservable distinction and the visible/invisible one – respectively drawn by the neo-positivists and the later phenomenologists – may prove crucially useful in this respect.

To develop our hypothesis, we have chosen to divide the article into three sections. The first section (§2) singles out the assumptions underlying the model of matter based on the concept of *given*. In the second section (§3), these presuppositions are embedded in a new type of realism and theory of experience, which we will deem *synthetic*. In the third section (§4), a redefinition of the concept of given is provided. Finally, this section outlines a solution to the paradox of categorization by introducing the concept of *forceful quality*.

2. Matter as Residue The negative critical position and positive critical one with respect to the paradox of categorization rely on a theory of experience according to which matter is as unknowable as it is epistemically fundamental. The choice to formulate a theory of experience stems from the rejection of metaphysical realism, understood as the idea that things in themselves exist, i.e. elements that are unobservable or unknowable in principle. This notion is regarded as being a contradictory, impossible, nonsensical, or counter-sensical one (Lanfredini, 2018, pp. 107-108). In order to find a way out of the dichotomies it engenders, the Kantian, neo-positivist and phenomenological philosophical traditions assume a fundamental theory of experience which defines the latter in a purely *epistemological* way, as co-extensive with the observable, knowable and structural domain.

Givenness emerges as the minimal component of this theory of experience. It must therefore be determinable according to the epistemological requirements of structurability, knowability and observability, to avoid the nonsensical positing of a “world outside our world” (Husserl, 1976, pp. 108-109) – that is, a reality in itself, lying in principle outside the grasp of any knowing subject. Determinacy, or determinability, thus turns out to be the fundamental axiom of givenness and of the concept of matter based on it. Given its unquestionable progress towards a scientific view of what one can understand by “given”, phenomenology can provide for a suitable means to clarify the assumptions we are now interested in.

Determination consists of three fundamental elements; listed from the simplest to the most complex, these are: *essence*, *part* and *synthesis* (Lanfredini, 2022). These fundamental elements are characterized by mainly formal aspects. In particular, the notions of essence, part and synthesis are defined as invariants in relation to variations in individual facts, moments and experiential perspectives, respectively (Husserl, 1976).

On the basis of an essentially epistemological view of givenness, matter is characterized as a residual element. Indeed, the notions of essence and synthesis refer to the impossibility of the manifestation of individual facts without eidetic invariances or of perspectives without objectual unifications. In turn, the notion of part establishes – through the concept of material a priori – the foundational character of the notion of extension, which becomes a condition of possibility for any manifestation of qualities. The purely ontological element of matter thus necessarily becomes something elusive, insofar as it is essentially non-determined, i.e. qualitative, variable and fluctuating.

The axiomatic framework of givenness shows that the aforementioned negative critical and positive critical positions rest on an ontologically spurious notion of matter. From this point of view, it could consequently be argued that in the debate on intuitive content between Schlick and Husserl, the former’s view of this content as unknowable is more correct than the latter’s illusory belief that it can be known.

3. Visible/Invisible VS Observable/ Unobservable According to the specific hypothesis this article is presenting, the modification of the axiomatic framework outlined above may lead to the formulation of a non-aporetic concept of matter. To achieve this end, we must meet two main goals: 1) to overturn the residual logic entailed by the concept of determinacy and 2) to redefine the concept of given. This section deals with the first goal.

The epistemological assumptions of the theory of experience outlined so far support the epistemic framework within which a good deal of results is achieved in cognitive sciences (cf. Calvo & Gomila, 2008). Replacing such assumptions might cause the philosophical concept of matter to lose much of its explanatory power. In accordance with the moral expressed by the famous Horatian hexameter *Graecia capta ferum victorem cepit*, it would seem more expedient not to replace these assumptions at all, but to incorporate and explicate them within a more comprehensive theory of experience. Without compromising our rejection of metaphysical

realism, we must broaden the horizon of experienceable entities.

It is interesting to note that logical empiricism itself adumbrates – yet does not theoretically develop – a notion of matter that is different from the one at work in the epistemological paradigm of protocol statements and phenomenology. What we are referring to, in particular, is the idea of materiality associated with the early Schlick's concept of *Konstatierung* (1979b) and with the concept of *chaos* found in Carnap's preparatory writings to the *The Logical Structure of the World* (Carnap, 1967; 1922; Del Sordo & Mormann, 2022). This kind of materiality shares with the protocolar and phenomenological one the property of being epistemically fundamental, while at the same time differing from it insofar as it is essentially non-given. A philosophically more detailed notion that moves in the same direction as *chaos* and *Konstatierung* is that of the *invisible* (James, 1902; Merleau-Ponty, 1968). This meets several interesting requirements for the achievement of our first goal.

Firstly, the invisible dimension displays a defining characteristic of materiality, namely being linked to a real, sensible, particular, contentful and qualitative domain of entities. As a subset, it also includes the horizon of visible entities which is co-extensive with that of observable entities. Secondly, unlike the notion of the unobservable, that of the invisible meets the conditions for a form of realism, yet not those for the positing of entities that are unobservable, or unknowable, in principle. This theoretical divergence is rooted in the conception of the invisible as a dimension that lies not *outside* or *beyond* the observable, but in contiguity and continuous interaction with it (*ibid.*).¹ Finally, whereas in the epistemological conception of experience the observable realm of entities has logical primacy over the unobservable, the relation between the visible domain and the invisible entails an inverted *structure*, whereby the latter has biological, or genetic, primacy over the former.

Based on these requirements, the invisible dimension of entities presents itself as a good candidate for a non-aporetic presentation of the philosophical concept of matter. For it not only satisfies the characteristics of materiality, expanding the epistemological notion of experience, but also overturns the residual logic to which the latter had led. As this overturning occurs not on the logical or static level, but on the genetic or biological one, we define the resulting realism and theory of experience as *synthetic*.²

This proposal certainly puts forward a neutral view of the relationship between subject and object, as well as of the disputes stemming from it, such as those between idealism and realism, instrumentalism and scientific realism, phenomenalism and physicalism. However, we wish to emphasize that the type of neutrality suggested here is not based – as in Carnap – on the concept of constitution (Carnap, 1967). It is, rather, a genetic type of neutrality, which Carnap may have adumbrated in the aforementioned concept of *chaos* in his early 1922 and 1923 writings (Del Sordo & Mormann, 2022, p. 241), and which can be found in the Bergsonian concept of *duration* (Bergson, 1907), as well as in the Jamesian concept of *pure experience* (James, 1977).

The notion of constitution could be borrowed by the synthetic-biological paradigm only once it has been stripped of those epistemological elements that have traditionally distinguished it. An attempt in this direction could be made by considering Husserl's work on passive synthesis (Husserl, 1966). However, this updating of the concept of constitution would require detailed additional considerations that, due to space constraints, cannot be provided in this paper. For the time being, we will limit ourselves to pointing out the genetic and non-constitutive nature of the philosophical neutrality we are presenting here.

1 This idea of interaction is also present in the neutral monism of Mach and Russell (see Banks, 2014).

2 We use the term *synthetic* here in a sense not opposed but akin to the original sense of the term *analytic* that we find in Aristotle's biological writings (Friedman *et al.*, 2010).

4. Forceful qualities

In order to develop a non-aporetic model of matter, we have set ourselves the task – as our second objective – to redefine the notion of givenness. In line with the historico-philosophical reappraisal of the phenomenism of early logical empiricism that has occurred over the last ten years, we believe that the concept of *forceful quality* may be a promising candidate in this respect (Banks, 2014). The literature defines it as follows:

Elements [forceful qualities] are embedded in real causal-functional relations to each other (Banks, 2014, p. 5).

[They] are concrete natural qualities like our sensations [...] the qualities of these elements are actual individual manifestations of natural forces (p. 49).

[...] each [natural force] is token-identical with its particular manifestation [...] There is no such thing as unmanifested energy “in itself,” no universal substance or fluid [...] (p. 149).

The adoption of forceful qualities as a synthetic-biological enhancement of the concept of given can be supported by the following arguments.

Firstly, the qualitative and manifestative aspects of forceful qualities enable them to display both material and determinable aspects, which seemed incompatible within the epistemological paradigm. Secondly, what is manifested in forceful qualities is considered token-identical with respect to its manifestations. Although being a “manifestation of” (Banks, 2014, p. 49) nominally refers to something *other* than the manifestation *per se*, forceful qualities do not convey the existence of entities that are in principle unobservable (a concept dear to metaphysical realism). Finally, the concepts of force, disposition and power enable a reinterpretation of the notions of essence, part and synthesis. Conceived of as invariances with respect to variations within the epistemological paradigm, these notions undergo a *Gestalt* switch in the synthetic-biological paradigm, which presents them now as variations with respect to invariances, as well as the opposite.

With regard to essence, forceful qualities, as the minimal components of an impersonal metaphysics (Banks, 2014), can be representative of individual facts. Essence thus reorients itself by supporting the primacy of facts, rather than of eidetic invariants.

The particularity of causal-functional relations, in turn, enables a reorientation of the normativity of material a priori characterizing mereological relations. Whereas the epistemological paradigm emphasizes the more formal and structural aspect of normativity, the concept of forceful quality brings to the fore a kind of normativity based on concrete relations, which in their very coming into being constitute – a posteriori – the *relata* themselves.

In comparison with the notion of synthesis, which emphasized the identity function of objectual unification, forceful qualities bring out the process of differentiation of complexes, or blocks, of causal-functional relations (*ibid.*).

When it comes to forceful qualities, contemporary research has taken up two important challenges, which reflect the ontic and specifically epistemic approaches included within the paradox of categorization. One challenge pertains to analytic metaphysics and philosophy of mind, the other to the problem – an open one until proven otherwise – of deriving from the complexes of forceful qualities the substantial stability characterizing natural world objects (*ibid.*; Grasso & Marmodoro, 2020). Although these questions cannot be addressed here, the present paper represents a contribution to the debate surrounding them. Indeed, by employing the notion of forceful qualities, it has outlined a concept of matter that is both non-aporetic with respect to the paradox of categorization and broad enough to serve as a basis for the epistemic framework of many branches of empirical science.

According to the previous sections, it is possible to develop a concept of matter that retains epistemic significance while not relying on the epistemological concept of givenness. In this sense, the concepts of forceful quality, synthetic-biological realism and the theory of experience may provide the sought-after solution to the paradox of categorization.

With respect to the paradox, the research conducted so far has adopted either a positive critical or a negative critical stance – i.e. a stance either in support of or against the idea of the knowability of matter. On the basis of the broadening of the framework of assumptions developed in the present paper, it is possible to conclude that within the synthetic-biological paradigm the question of the knowledge of matter can be posed in terms that are not strictly epistemological.

In particular, the synthetic-biological paradigm fosters an embodied notion of knowledge which proves different, yet fundamental, with respect to the strictly epistemological one. The paradigmatic shift envisaged here thus opens up a new theoretical perspective on matter, which makes epistemological unknowability and embodied knowability compatible, bypassing the positive critical and negative critical stances formulated so far.

A further development of this path entails a discussion of the notion of *flesh* (Merleau-Ponty, 1968). Linked to it are numerous open problems that cannot be addressed in this paper. Two examples are the hotly debated issues of the embodied mind and embodied cognition (Calvo & Gomila, 2008; Shapiro, 2019), which are addressed in the empirical field of cognitive science and the philosophical one of post-Husserlian phenomenology.

5. Conclusions

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