

## **Objectivity: its Meaning, its Limitations, its Fateful Omissions**

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### *Introduction*

This volume collects papers presented at a symposium entitled *Yes we Kant! Critical Reflections on Objectivity*, held in Ghent in May 2010 by the Centre for Critical Philosophy, a research unit at the philosophy department of Ghent University. As the title indicates, this conference brought together philosophers reflecting on objectivity as it appears within the work of Immanuel Kant and the philosophical tradition he inaugurated. The main concern of the conference, however, was not primarily exegetical, but aimed rather at a re-evaluation and re-interpretation of the transcendental conception of objectivity-as-constituted. This conception has enjoyed a considerable popularity since it was first voiced in 1781, when Kant released the first edition of his *Critique of Pure Reason* on the philosophically engaged German-speaking world, but has equally been the target of harsh criticisms from friend and foe alike.

Some of the defects traditionally associated with the Kantian conception of objectivity are its rigid apriorism, which neglects or downplays contingency and historicity alike; its obsessional architectonic, which forces a variety of otherwise valuable discussions into an outstretched overarching set of structural isomorphisms; and its rampant dualisms, which burden human thought with brute and impassable fissures and discontinuities. These traits make the transcendental conception of objectivity seem unattractive to an era that values contingency, historicity, naturalism and immanence.

In light of this general challenge, the symposium set out to address the question as to whether and how the critical conception of objectivity could still be relevant in contemporary philosophy. This meant reflecting on the validity of the ascription of these defects to the Kantian system, as well as on their very description as defects. In order to do so, the conference brought together presentations that treat Kantian objectivity from many different angles. Some are more traditionally exegetical in nature, and discuss the interpretation of concepts within or traits of Kant's philosophy. Others trace the fate of the Kantian legacy in later philosophical and scientific thought. Still others reflect on the potential of transcendental perspectives for contemporary philosophy and science. It is this variety in focus that makes the engagement with critical objectivity in this volume of interest not only to professional historians of philosophy and science, but to researchers engaged with the philosophical aspects of objectivity in their fields in general.

In this editorial introduction, we explore the guiding thread of this volume further by first discussing how the main question pertaining to transcendental objectivity arose at the Centre for Critical Philosophy. This exposition will take the form of a microhistorical genealogy, from which the main ideas pursued in the research conducted at this Centre can be distilled. In the second part of this introduction, we briefly sketch how the different contributors have addressed this question. We hope this will facilitate the reader's navigation through the variety of topics and perspectives addressed throughout this volume, and incite further reflection on the central issue it pursues.

### *1. Critical Philosophy Today? A Transcendental History*

The attention for Kant at the Centre for Critical Philosophy first arose about ten years ago, through the work of a group of philosophers and biologists interested in the topics of self-organization and complexity in the context of living systems. The research unit, which was called "Evolution and Complexity" at the time, studied the implications of complexity thinking for evolution and

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development in view of articulating the epistemological consequences of complexity for neo-Darwinian evolutionary theory and Developmental Systems Theory.

Through their engagement with these issues, several members of the research unit were struck by the fact that the epistemological discussions about self-organization and complexity were marked, even dominated, by the opposition between reductionism and holism, or the intimately related opposition between objectivism and subjectivism.<sup>1</sup> Against the background of these fundamental oppositions, complexity usually showed itself from its negative side only, i.e. as that which cannot be objectively apprehended. However, instead of genuinely addressing the issue of impossible objectification, and attempting to critically assess the underlying issue of objectivity, complexity was, as a rule, treated from what could be called a "waiting room perspective", a kind of subjectivist no man's land (or, for that matter, everyman's land) of science that says: "as there is, for the moment, no adequate way of dealing with complex systems, we should attempt to deal with them anyway, with the provisional means currently at our disposal, which are, inevitably, of a subjective nature". The problem with this perspective is that it keeps the ideal of objective knowledge intact in a silent, uncritical way, and disregards all that escapes it by making it wait for better times, for a miracle perhaps. Within the leading view on complexity, then, subjectivism and objectivism are no longer simply each other opposites: they are two sides of the same coin.

It was through our reading of the work of Immanuel Kant that it became clear to us that it is neither necessary, nor relevant, to remain *in* the dualist opposition between objectivism and subjectivism - as if it constitutes an exclusive and exhaustive disjunction, as if the absence of possible objectification, as such, leaves room only for subjectivism. *Transcending* the opposition, however, is not obvious either, in as far as the two poles of the opposition are uncritically accepted and are, as such, in need of reconciliation.

Kant addressed this dilemma by taking one step back from the opposition, i.e. by inquiring back into its very meaning. Such an inquiry requires us to focus, in the first place, on the conditions of possibility of the opposition itself. In technical terms, this means that the issue of constitution comes to the forefront of the reflection on objectivity, for it is arguably the core of Kant's view of objectivity. In this view, objectivity is not primarily the correlate of a somehow external object that dictates the ways in which it needs to be apprehended, and that distributes the roles of what is objective and what is subjective. That objectivity is constituted means, rather, that it is the result of a very specific questioning activity that leads to the acknowledgement of objects that have their validity only within the range of the questioning activity. If universality and necessity can be connected to scientific knowledge, it is because of the fact that the questioning subject succeeded in constituting nature's answering potentiality into a point of invariance, of exactness, of necessity and universality, and not because there is an object out there that is finally, fully, adequately, objectively, known.

The Kantian theory of objectivity came to us primarily through the engagement with the third *Critique*, especially the second part, which deals with the living. In discussions within the philosophy of biology, Kant is generally acknowledged as a precursor of the 20th century attempts to think about self-organization and complexity for his treatment of the problem of living systems. Through our reading, however, a twofold problem became clear. On the one hand, even if Kant was acknowledged in philosophy of biology because of his introduction of the concept of self-organization, his epistemology was largely neglected or oversimplified. As a result, the contemporary debates that deal with this concept leave little or no room for a critical, i.e. transcendental viewpoint of objectivity. On the other hand, it became ever clearer that Kant's viewpoint on self-organizational systems presented a very special challenge to reflections on objectivity in general.

With these insights, our adventure with Kant and the transcendental tradition began, and we started subjecting the Kantian theory of objectivity and transcendental thinking in general to careful scrutiny, with a view to their actualization for recent approaches in the sciences, particularly those involving self-organization and complexity. Our entry-point into these investigations, however, made us highly receptive towards an aspect of the transcendental theory of constitution that is more dynamic, and that we now relate to the idea of *co-constitution*.

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<sup>1</sup> For this analysis, see Van de Vijver et al. 2005: 58-61.

Such a sensitivity for the historical and the contingent in the idea of constitution equally arose from our engagement with another major branch of transcendental philosophy, phenomenology, and Husserl's late writing *Crisis of European Sciences* in particular. The latter work has furnished an important portion of our interpretative framework.

In what follows, we sketch the achievements of this adventure and the challenges still to come by developing three ideas. The first idea is the interpretation of Kant's basic point in the Critique of Teleological Judgment as saying that the living is a "pièce de résistance", something that *essentially* resists efforts of objectification. In this view, a living system's capacity for resistance is intrinsically related to its organization, to its dynamic structure. The recognition of a structure as intrinsically resistant to objectification has drastic epistemological implications, especially for the nature of objectivity and its relation to subjectivity.

The second idea is that this resistance to objectification is related to the intrinsic contingency of the feeling of pleasure and displeasure. It is this faculty that Kant considers the core issue of the *Critique of the Power of Judgment*, and that he believes to complete and unify his "tour" of the faculties throughout the *Critiques*.

The third idea is that Kant's reflections on the living can be fruitfully extrapolated to other domains and subjects. This idea led us to examine the potential of the specific conception of objectivity at work in the third *Critique* for the natural sciences, the social sciences and eventually for history.

### 1.1. The Living as "pièce de résistance"

In the Analytic of Teleological Judgment (KU §§64-65), Kant argues that living beings are natural purposes: organized and self-organizing structures in which nothing is in vain, every part is a function of the whole, and the whole is a function of every part. Kant is adamant about these structural requirements: if it were possible to cut those systems into pieces, and reconstruct them afterwards from the pieces, then we would not be dealing with living systems. So there is no doubt in his mind that living beings are organized in such a way that an atomization or a reduction to their constitutive parts completely misses the mark. If those systems are to be seen in teleological terms, it is because of their internal organization, rather than any feature of design they exhibit. They cannot be objectively known on the basis of *a priori* universal concepts because of their internally driven, *self-organizational*, autonomous nature. The self-organization of an organism takes place through contingent sensitive encounters that result in, among other things, feelings of pleasure and displeasure. The latter install limits for the living system and inscribe it into a contingently based, local and historical context. According to Kant, no universal concept can possibly dictate the lawfulness of this contingency. (AA XX: 17).

There is, however, an answer to this impossibility. It is indeed possible to *connect* to living systems, on the basis of an assumption, an "as if", that can be qualified as a "supplement of meaning"<sup>2</sup>, that precisely holds that living systems are natural purposes that cannot, and will not, be objectified. Judgment must assume such an *a priori* principle for its own use (KU, AA V: 183), but it can neither be a concept of nature as it attributes nothing to the object, nor a concept of freedom. It is a principle of purposiveness for our cognitive power, a subjective principle of judgment that proposes a way to proceed when reflecting on the objects of nature in view of a coherent experience (KU, AA V: 184). The "as if" in this way simultaneously captures an impossibility –that of objectively *knowing* living systems–, and a possibility – that of coherently grasping and connecting to the living dynamics by somehow *bearing* the assumption of their intrinsic purposiveness. In more general terms: the subject accedes to a *possibility* through the acknowledgement of a radical *impossibility*. Or else, the "subjective supplement" expresses the possibility of a relation, of a connection, of a communication,

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<sup>2</sup> The idea of a supplement of meaning finds inspiration in Philonenko's interpretation of Kant's third *Critique* in terms of a "logic of meaning", that he views as a "logic of intersubjectivity" that is intrinsically indirect but rests on the presupposition of a universal communicability of human knowledge (Philonenko, 1993: 11-12). Kant himself stresses the need to *add* a concept of purpose in our thinking of natural purposes: "(...) purposes in nature are not given to us by the object: we do not actually *observe* purposes in nature as intentional ones, but merely add this concept [to nature's product] in our *thought* [hinzudenken], as a guide for judgment in reflecting on these products." (KU, AA V: 399).

as Alexis Philonenko (1993: 13-14) states, exactly by endorsing the idea that the living is not objectifiable. Still in other words, the failure of objectification awakens and even installs subjectivity in the form of a supplementation with regard to that which escapes it. The living as an impossible possibility, implying a subjectivity as a supplementation to the failure of objectification, is the first idea to be stressed in relation to Kant's viewpoint on the living.

### 1.2. *The Feeling of Pleasure and Displeasure as the Horizon of Objectivity*

On December 28 and 31, 1787 (AA X: 514-515), Kant wrote a letter to Carl Leonhard Reinhold expressing his confidence that a third *Critique* was near completion. At the time, he envisioned this final panel of his critical triptych as a *Critique of Taste*, a work that would deal with a third “faculty” of the *Gemüth*, the feeling of pleasure and displeasure, which he situated between the Faculty of Knowledge and the Faculty of Desire. The latter two were the focus of the *Critique of Pure Reason* and the *Critique of Practical Reason* respectively. In accordance with the threefold division of the faculties, Kant distinguishes three parts of philosophy itself: Theoretical Philosophy, Teleology and Practical Philosophy. Thus, teleology and the feeling of pleasure and displeasure already occupy the same place in this early testament: they constitute the core of the *Critique of the Power of Judgment*, and have their place between cognition and desire.

The prominent place of the feeling of pleasure and displeasure provides us, first of all, with a clear hint at the unifying core of the *Critique of the Power of Judgment*: the beautiful, the sublime and the living, all, in one way or another, involve the feeling of pleasure and displeasure. This means, at the very least, that an element of contingency is implied in every one of these concepts. Indeed, it is specific to the feeling of pleasure and displeasure that it becomes manifest in the context of living systems, and that it cannot be anticipated in a universal, mechanically grounded, *a priori*, objective way. Even though it does install limits for the living subject, it does so in a way that is inevitably local and regional, and not amenable to treatment in universal and objective terms.

The way in which the limits are set by the feeling of pleasure and displeasure marks an important shift with regard to the way limits function in the previous *Critiques*. In the *Critique of Pure Reason*, the limits are set by natural laws, and it is from within this limitation that the necessary conditions of all possible experience can be made manifest. The starting point for this inquiry is the presupposition of the possibility of objective knowledge in the form of classical mechanics. In the *Critique of Practical Reason*, the limits are those framed by the moral law, which grounds the possibility of a human being that it is not a merely empirical being, i.e. an animal. Its starting point is the possibility of morality in the form of human freedom. The first two *Critiques*, then, are unified by their reliance on the notion of a law for the determination of their limits, be it a natural, empirical law or the noumenal analogue of such a natural law<sup>3</sup>. In the third *Critique*, in contrast, Kant no longer addresses the issue of limitation from the perspective of *law-like* structure, but from the perspective of the basic *contingency* of the feeling of pleasure and displeasure at work in a living, actively feeling subject.

This shift in the function of limitation has important consequences for objectivity, since Kant no longer addresses it by *presupposing* its possibility. Instead, he now *questions* this very possibility, including that of a differentiation between subject and object is possible in the first place. Far from denying that such a differentiation is possible, he indicates that it can only occur as the result of a particular kind of struggle, one that involves contingency and hence cannot be dealt with in terms of *a priori* concepts.

Throughout the *Critique of the Power of Judgment*, then, it becomes clear that the struggle for objectivity is in fact the struggle for an adequate orientation in a phenomenal world obtained from within the living dynamics. It is for this reason that the living confronts with the question of origins: an object is that which has successfully been “pushed outside” of the sphere of the contingently based,

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<sup>3</sup> Kant characterizes the moral law as an analogue of a natural law in the “second formulation” of the categorical imperative from the *Grundlegung zur Metaphysik der Sitten*: “Since the universality of the law governing the production of effects constitutes what is properly called nature in its most general sense (nature as regards its form)—that is, the existence of things so far as determined by universal laws—the universal imperative of duty may also run as follows: ‘Act as if the maxim of your action were to become through your will a universal law of nature’.” (AA IV: 421; trans. H.J. Paton)

largely implicit, practices of the living subjects. Addressing the question of how such an object can be delimited therefore involves addressing the delimitation of the sensible subject itself in its objectifying practices. It is the inquiry into the reciprocal genesis of subject and object *as* subject and object: their *co-constitution*.

This interpretation of Kant's theory of constitution as a theory of co-constitution arises mainly from a focus on the Critique of Teleological Judgment, since it is there that we find the threefold way in which living systems prompt the reflection on the position of the subject. Firstly, Kant's treatment of natural purposes reveals how the possibility of objective knowledge rests on a more fundamental organizational layer. It concerns what precedes – or what has to be presupposed as preceding – more explicitly distinguished forms of outside and inside, I and not-I (to use Fichtean terms), subjective and objective. This point of origin in a more fundamental organizational substratum, however, can only be regarded retroactively (*nachträglich*). It logically precedes the possibility of positive determination, and is "anonymous" in the sense that it is prior to any allocation to an inside or an outside, to a subject or an object. It does so only in so far as it is the condition of possibility articulated from the perspective of this very possibility.

Secondly, the *Critique of the Power of Judgment* illustrates how the need and the capacity to go beyond this undifferentiated point of origin only emerge to the extent that something *resists* the anticipative procedures of a living, actively engaged being. If there can be orientation at all, it has to be obtained *from within* the active engagement of the living subject by "taking note" of the resistances and disappointments that appear within the contingent encounters leading to pleasure and displeasure, and in the radical absence of an absolutely valid *a priori external* principle.<sup>4</sup>

Thirdly, the *Critique of the Power of Judgment* has particular relevance in the transcendental "fabric of knowledge" precisely because it *explicitly* addresses this issue of active engagement in the constitution of objectivity and subjectivity. More than anything else, natural purposes bring the dynamic tension of subjective conditionality to the fore. This tension emerges as a consequence of the subjective need to objectify being thwarted by the resistant structure of the living system. reflective judgment, in the form of the "as if", is the knowing subject's response to the impossibility to objectify threatening it. We thus take the failure of objectification as the basic means to understand the possibility of the distinction between objectivity and subjectivity, a failure underlying *and* continuously affecting the forms of purity that Kant distinguished in his first *Critiques*.

### 1.3. Husserl's Crisis: History, Horizon, Abyss

The issue of objectifying living systems may have been the context where the dynamic view of objectivity in terms of co-constitution rose to the surface in Kant's work, and it may have been the context in which we became sensitive to the contingency of the transcendental; but this does not mean that this new framework is only relevant within this issue. Our recognition of the important role of the Critique of Teleological Judgment in the Kantian oeuvre as a whole made us attentive to the passages in which Kant characterizes reason itself as organic or stresses the negativity or indeterminateness involved in constitution, as well as to the global relevance of some passages that appear in the periphery or the margins of the main texts, such as notes, remarks or appendices. These passages all suggest that the production of objectivity always involves a point of escape or resistance, an irreducible element of indeterminacy. It is in the face of such resistance and indeterminacy that subjectivity enters the scene, in an attempt to articulate, in retrospect, in a movement of supplementation, something about the objectivity that is already in a way produced.

Generalizing the account of objectivity prompted by the confrontation with living systems clears the way for an extrapolation of Kant's insights from the *Critique of the Power of Judgment* to other domains of inquiry and other sciences. Our attempts at such an extrapolation were greatly facilitated by the parallels between the view we read in the *Critique of the Power of Judgment* and that we discerned in Husserl's *Crisis of European Sciences and Transcendental Phenomenology*. In this late writing, Husserl formulates a critique of the opposition between objectivism and subjectivism by

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<sup>4</sup> Cf. Van de Vijver & Noé (2011).

inquiring into the status of the subject in light of the developments in the sciences since modernity. In contrast to Kant, who sought to address the status of subjectivity and objectivity through the issue of the resistance to objectification encountered in living systems, Husserl contrasted the role of constitution in the natural science par excellence, physics, with the science he associated with failure of objectification, psychology.

Husserl and Kant not only differ in the sciences they choose to focus on: they also adopt a different kind of investigation. For Kant, the question is framed in terms of an Analytic and a Dialectic of a particular kind of judgment, a faculty of the *Gemüth*. The third *Critique* ultimately reveals the dynamic, historical and contingent aspect of constitution. Husserl's investigation takes, from the start, the form of a historical-teleological reflection on the history of modern science and philosophy (Husserl 1970: 70). This history is marked by an original operation of mathematization, whereby the world is divided into natural, mathematizable and objectifiable properties on the one hand, and psychic, non-extended and subjective properties on the other (Husserl 1970: 60). Through its subsequent development, the status of the former properties as abstractions from the original subjective life-world is omitted, and this "fateful omission"<sup>5</sup> gives rise to the naturalist objectivism that makes up the crisis of the European sciences.

Despite his criticism towards Kant<sup>6</sup>, Husserl's solution to this problem is clearly reminiscent of the account based on the Critique of Teleological Judgment. Instead of simply affirming the subjective properties studied in the developing science of psychology over the objective natural world of mathematical physics, Husserl points towards the original unity of objectivity and subjectivity in the underlying subjective life-world from within which both poles are articulated. The subject Husserl has in mind, then, is not a Cartesian ego, but a living, engaged, sensitive being out of which every scientific production emerged and towards which it is, willingly or not, ultimately directed. The price to pay for objectivism is that one loses sight of the contingency and indeterminacy of the subject's engagement with the life-world, and thereby loses the ability to reflect on its own place as a place among others.

Husserl's most interesting contribution to the transcendental theory of constitution is perhaps that his articulation, in more "modern" terms than Kant ever could, of the idea that objectivity and subjectivity are ultimately a matter of participating in symbolic systems. Husserl describes the history of the modern sciences in terms of the gradual development of writing, first and foremost that of mathematical symbols. Symbolizations, as structural systems, enjoy a certain kind of autonomy with regard to that which they are supposed to symbolize. Husserl points out, however, that there is a danger to this autonomy, namely that the symbolic system starts mistaking itself for that which it was intended to symbolize, to "refer" to. This loss of reference means that the subject is no longer divided between its status as a sensible being embedded in the life-world and its status as something inscribed in language, and both aspects become radically disconnected. Objectivism is the symptom of this disconnection.

The alternative is not so straightforward though, and Husserl was not really lucid about it. The problem indeed is at least twofold. First, it becomes necessary to think about subjectivity as intrinsically and inevitably divided between sensibility and language, and as presented with the challenge to come to an identification of his own being through the objects that are produced around him and by him. The following "logic", announced by Kant and further elaborated by Husserl, is at work here: teleology, contingency, resistance, taking act in retrospect. Secondly, if we take the dynamical option in relation to objectivity seriously, then a very specific metaphysics is required. Metaphysical questions with Kant became already purely a matter of pointing at a place, where something can come as a fulfillment. The *Ding an sich* is indeed not knowable, there only remains the pointing at a place. But what becomes manifest here, is that the fact of articulating objectivity and subjectivity "from within" the living dynamics indeed implies that subjectivity (history) is actively written, with its points of indeterminateness inevitably accompanying it. We are, in other words, in a

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<sup>5</sup> "It was a fateful omission that Galileo did not inquire back into the original meaning-giving achievement which, as idealization practiced on the original ground of all theoretical and practical life—the immediately intuited world (and here especially the empirically intuited world of bodies)—resulted in the geometrical ideal constructions." (Husserl 1970: 49).

<sup>6</sup> Cf. Husserl 1970: 99.

metaphysics of the production of indeterminateness, no longer in a metaphysics of the observation, verification or confirmation of indeterminateness.

## 2. Taking up the Challenge

The papers in this volume have been divided over four thematic parts. Each of these parts takes up a challenge posed by the engagement with the Kantian theory of objectivity-as-constituted. In this section of the introduction, we briefly situate each part within the volume as a whole and the contribution each of the papers in it makes to the issue.

### 2.1. Objectivity and Constitution in the Natural Sciences

It is a commonplace of intellectual history that Kant articulated his critical system in relation to the Newtonian paradigm that had become the hallmark of physical science during the first half of the eighteenth century. But if this is true, then we can legitimately ask what future Kant's arguments have in a decidedly post-Newtonian era. Philosophers as early as Hermann Cohen, who established the view of Kant as he who primarily sought to lay bare the a priori principles on which Newtonian science rested, have insisted that only the transcendental method itself can truly survive scientific change.<sup>7</sup> Questions that arise, then, are: to what extent is Kant's picture of objectivity defined or tainted by his allegiance to the sciences of his time? How did his followers solve the problem of scientific change? What relevance does the Kantian perspective have for current developments in physics?

Frank Pierobon addresses the deep problem of Kant's theory of mathematics, which seems not only outdated to modern readers, but can even be argued to have missed the shift to the Newtonian paradigm itself. The main reason for this is that Kant seems to work with a Euclidean interpretation of mathematics, where intuition and construction are prerequisites for abstract reasoning, whereas Newton's mathematical means were those of analytical geometry and arithmetic. In the latter method, intuition seems far less involved than in the former. Pierobon argues that the dismissal of Kant's views on mathematics for this reason would be mistaken, since Kant's view of intuition cannot be equated with our current interpretation of it in terms of "sight": it involves considerable effort of abstraction. This means that geometrical construction, too, is a form of symbolization, of writing, albeit a less abstract one. Pierobon concludes that Kant's allegiance to the earlier model was perhaps indicative of his efforts to maintain reference to the life-world, the loss of which through symbolization Husserl deplored.

Liesbet De Kock addresses the legacy of the Kantian theory of intuition and its meaning for the constitution of objectivity from a very different angle: that of the psychophysiological neo-Kantianism of Hermann von Helmholtz. Her main interest lies in uncovering the philosophical foundations of Helmholtz's empirical, scientific view on optics and perception, and showing how it is embedded in the transcendental tradition. In order to do so, she traces Helmholtz's dissatisfaction with the Kantian theory of intuition to his hostility towards the apriorism and nativism he discerned in it. His quest to remediate this problem in the theory of perception led him, De Kock argues, to a highly dynamic, genetic view of the constitution of objectivity, one explicitly inspired by Fichte's recasting of the Critical System. This view, which is easily and often overlooked in the assessment of Helmholtz's contributions to science and philosophy, describes the constitution of objectivity as the result of an active engagement of a living subject with the resistance offered in sensation.

Norman Sieroka offers a view of a historical debate on the status of matter in physics. He focuses specifically on the scientist-philosopher Hermann Weyl, who explicitly addressed the problem of matter in the theory of relativity and in quantum mechanics. Specifically, Weyl sought to introduce a more active theory of matter, or rather an *agent* theory of matter, which he contrasted with the substantialist idea that regarded matter as an inert bearer of physical properties. In his view, matter does not simply occupy time and space, but transcends them, and is even their condition of possibility. This idea that matter is both transcendent and transcendental can be traced back to the post-Kantian

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<sup>7</sup> Cf. Cassirer (1917: 261). Paul Natorp (1917: 199) makes the further claim that the transcendental method can survive its content because it is itself dynamic, i.e. a process.

tradition, and Sieroka especially notes Weyl's deep engagement with the philosophy of Johann Gottlieb Fichte. Sieroka equally relies on a Fichtean notion, that of the "wavering" in imagination, in order to describe the wavering between substantialist and agential theories of matter in physics. He offers this notion of wavering as a supplement to Cassirer's philosophy of the history of science in terms of the evolution from substance to function, which he is otherwise sympathetic towards.

Filip Kolen's contribution to the exploration of objectivity and constitution in the natural sciences engages with the use of Kantian arguments and concepts in the contemporary philosophy of physics. This use, he argues, is usually superficial, in the sense that one rarely finds reflections on its compatibility with the broader Kantian epistemological framework. In order to remediate this, Kolen first provides an analysis of the notorious notion of the "Copernican revolution", and reveals that it involves a third term besides the subject (observer/earth) and the object (the sun): that of the center of mass of the global system. The idea of a "third term" can be found in several philosophies belonging to the transcendental tradition, such as those of Merleau-Ponty and Cassirer. Kolen's suggestion is that this idea can be worked out through a philosophical interpretation of the mathematical concept of symmetry. In current philosophy of physics, this concept is linked to objectivity, but this objectivity is rarely linked to subjectivity. For Kolen, on the contrary, the invariance obtained in symmetries involves a subjective perspective. In this view, subjectivity is not a threat to objectivity, but is part of the process of co-constitution whereby both objectivity and subjectivity arise.

Koichiro Matsuno starts from a critique of Kant's specification of time and space, which he considers as an a priori, externalist, third person perspective that emphasizes apperception over sense-perception and that acknowledges the transcendental ego in its apperceptive capacities to create order and organization. This is taken to be the overwhelming discourse in science and philosophy. In opposition to this viewpoint, Matsuno explores more appropriate ways to formulate the efforts of a subject regulating and organizing first hand perceptions from within. The latter subject, which acts within the priority of perception over apperception, continuously struggles to find ways to carry over its identity from one moment to the next. What is the precise relation between the first person, local, performative perspective and the third person, global, propositional perspective? To be faithful to the internalist perspective, Kant's regulative principle –that is, for Matsuno, a "read-into organization" regulated by the transcendental ego–, needs to be naturalized, e.g. referred back to the first person descriptions in which both space and time are derivatives from the local actions of material units keeping their identities throughout.

## 2.2. *The Living as a "pièce de résistance"*

Ever since Kant, at the eve of the true arrival of "Biology" as a separate science, expressed his skepticism regarding the status of the life sciences by famously predicting that there will never be a Newton of a blade of grass, philosophers and scientists alike have been concerned with the pertinence of his fatalism. For to what extent can Kant's analysis of biological form and its resistance to objectification be maintained in light of the major advances and paradigm shifts the study of life has underwent in the nineteenth and twentieth centuries? This question has not been decided by the development of science and philosophy in itself, and the past two decades have seen its interest to professional philosophers rise markedly. The papers in this part of the volume all bear witness to this actuality of reflection on and engagement with the "organismal" point of view outlined in the Critique of Teleological Judgment.

Joan Steigerwald addresses a tension between two of the major goals of the *Critique of Judgment*. On the one hand, Kant introduces reflective judgment and the purposiveness it is bound up with in order to provide a warrant for the cognition of the natural world. Through reflective judgment, empirical nature can be grasped as a harmonic, purposive whole that seems adjusted to our cognitive means. On the other hand, however, the *Critique of Judgment* introduces the notion of a natural purpose, an object that resists our cognitive means. Steigerwald argues that these two aspects constitute an irresolvable tension in the third *Critique*, since the one postulates that the world is fully knowable by mechanical reasoning, and the other introduces the concept of something that principally

resists treatment in terms of mechanical reasoning alone. She equates this tension with the Antinomy of Teleological Judgment, and goes on to show that the latter is not truly resolved in the Critical framework. Kant's own suggestion for the solution of the antinomy is the assumption of a "supersensible ground" wherein mechanism and teleology can be united. Steigerwald, however, refuses to unambiguously identify this supersensible ground with the idea of an intelligent designer, and prefers the epistemological over the metaphysical interpretation of this principle. This implies, however, that the antinomy is not fully resolved, and hence that there is an important and ineliminable indeterminateness in our judgment of the natural world.

Boris Demarest argues that Kant's transcendental philosophy contains the seeds for a new organicism, one where the concept of an organism developed by Kant can be applied to other contexts. In order to defend this view, he starts off by dissociating Kant's philosophy from two common criticisms of organicism. The first criticism is that it entails an account of holism whereby the autonomy of the parts is sacrificed to the structure of the whole. Demarest argues that Kant's conception of the mereological relation exhibited by an organism is one where the parts acquire a radical autonomy *through* their functional relation in the whole. The second criticism is that organicism brings up the scientifically reprehensible idea of design. Demarest counters this by showing that the Kantian philosophy of biology denies that the teleological properties of an organism are due to its exhibiting design. This vindication of the concept of organism, however, is not meant to clear the way for a facile extrapolation of organicism to other domains. On the contrary, Demarest argues that Kant's notion of an organism can serve only as an *analogy*. Kant's notion of analogy, he believes, has a wider application than is usually maintained, and is primarily marked by the fact that it is more an analogy for a reflecting subject than an analogy between two concepts. He closes off with a brief discussion of the importance of this organicist account for Kant's political theory, his philosophy of science and his epistemology.

Sergueï Spetschinsky analyzes the link between Kant's transcendental philosophy and his "raciology", i.e. his theory of human races. Kant first formulated this theory in a writing from the 1770s, the period in which he was working on the *Critique of Pure Reason*, and can therefore be situated at the very beginning of the critical period. Spetschinsky argues that Kant wished his raciology to be a theory, i.e. a natural science based on empirical facts. This theory is supported by two principles: that of a race as a group of individuals that can interbreed, and the idea that natural description needs to be supplemented by natural history: a historical view taking lineage into account. Since the facts and these two principles fail to ground the raciology, Kant introduces the idea of a germ as an assumption of teleology in race. Spetschinsky argues that this constitutes the first moment at which the transcendental turns out to be "sub-objective", i.e. involving an irreducible subjective element. Over the course of the development of the critical system, this subobjectivity is taken account of in the idea of reflective judgment and thereby internalized. Spetschinsky thus interprets the Kantian system as a growing totality that continues to absorb what used to lie outside it, but was involved in it from the start. He closes off his paper, however, by warning that the racism from Kant's writings on race is not contingent or external to the critical system; it is the core and the origin of transcendental philosophy, and prefigures the later developments in European colonialism.

Arran Gare devotes his paper to Schelling's attempt to come to terms with the Copernican revolution in epistemology. Schelling sought to overcome the dualisms that are typical of Kant's original version of transcendental philosophy through the pairing of a System of Transcendental Idealism and a Philosophy of Nature. In Gare's opinion, this has a number of advantages over the Kantian approach. A first advantage is that Schelling's conception of nature is neither bluntly materialist nor idealist, and may even be considered a naturalization of the transcendental. A second advantage is that Schelling attempts to overcome the gap between science and metaphysics, by allowing the latter to contribute to the development of a revolutionary, post-Newtonian science, and offering an interpretation of experimentation that is compatible with speculative idealism. A third advantage highlighted here is the historical, dynamical and revisable nature of the synthetic a priori. Gare concludes by indicating that Schelling's conception of nature as active, productive and a process of historical development can overcome the lamented gap between the sciences and the humanities.

Joris Van Poucke argues that Robert Rosen's theoretical biology contains importantly transcendental elements. These elements pertain mostly to his idea of the modeling relation. Van Poucke maintains that the modeling relation, i.e. the relation between a natural system and a formal system, is not a representational relation, but a symbolic one. The idea of a symbolic relation can be found in the Kantian theory of hypotyposis, which denies that there needs to be a similarity between the two elements of the relation. Van Poucke suggests that Rosen could have gotten the idea of a symbolic relation from the influential introduction of Heinrich Hertz's *The Principles of Mechanics Presented in a New Form*. On some interpretations, the latter work shows Hertz denying representationalism and advancing the idea that there is an underdetermination of theories by evidence that can only be resolved by resorting to a third criterion besides logical consistency and experiential adequacy: purposiveness. Van Poucke argues that a similar idea of purposiveness is at work in Rosen's idea of the modeling relation. Rosen argues that the diagram of the modeling relation contains one thing that is unentailed: the modeling relation itself. This relation is accounted for by introducing the idea of a final cause (besides the other three Aristotelian "causes" already at work). Since the modeling relation is a creative act of the investigator/subject, it can only be accounted for by introducing purposiveness, much like in Hertz's account. Van Poucke stresses, then, that both Hertz's and Rosen's theories involve the following transcendental ideas that can be traced back to Kant: that objectivity requires mediation by a symbolic relation, that it is based on subjective rules and that it involves the living dynamics of human creativity.

### 2.3. Objectivity and (Inter)Subjectivity in the Cultural Sciences and the Humanities

Many philosophers have feared that Kant's focus on the rise of the natural sciences as the occasion of the critical system has biased transcendental philosophy towards physico-mathematical approaches to explanation. Such a bias entails that there is little or no room for attributing scientific or objective standing to the social sciences and humanities, which are arguably far worse off than biology as far as adherence to mechanism is concerned. For this reason, the late 19<sup>th</sup> century saw the advent of a distinct program for philosophically legitimating the "soft" sciences that had made considerable advances since the late 18<sup>th</sup> century. This gave rise to a number of questions regarding the tenability of a transcendental framework within a view that took the social and the cultural seriously. Did or could Kant's philosophy attribute some level of adequacy to the humanities? Were subsequent revisions of the critical program more successful or fertile? To what extent is Kantianism compatible with some more recent approaches that were articulated with the issue of the "Geisteswissenschaften" in mind?

Emiliano Acosta investigates the notion of intersubjectivity in Kant's philosophy through an analysis of the famous short writing "What is Enlightenment?". Acosta argues that we can discern three different kinds of intersubjectivity in this writing, each of which corresponds with a moment of the category of modality. The first form of intersubjectivity corresponds with the moment of necessity, and is based on the definition or essence of man as rational. The essential rationality of man makes the process of enlightenment necessary and unavoidable. But leaving out reality and possibility involves the risk of fanaticism and revolution. This is why Kant adds a further form of intersubjectivity, which corresponds with the category of the real. In reality, the capacity for enlightenment is not as universal as one would believe on the basis of the definition of man as a *Vernunftwesen*. Many people reside in a state of self-incurred immaturity. Here, Acosta claims, Kant stresses the extent to which oppression and subjugation are willingly maintained by the victims themselves. Thus, the real moment of intersubjectivity seems to make Enlightenment impossible. There is, however, a final form of intersubjectivity, one corresponding with possibility. This form does not appear from the perspective of a state, but from that of a process. This intersubjectivity is that of the few self-enlightening individuals who implore the state to constitute a place for free public discussion where the limitations imposed by the second form of intersubjectivity are removed. Acosta stresses, however, that his reading of "What is Enlightenment?" is not a reconstruction of Kant's original position, for he believes knowledge of such a historical "thing in itself" is impossible. Every contemporary reading arises from

the perspective of the present, and is meant to respond to current challenges. Acosta therefore points out how Kant's picture of intersubjectivity can respond to some shortcomings of current approaches.

Anton Froeyman discusses the role of Kant in the birth of the humanities. He argues that Kant facilitated the shift towards the idea of the cultural and historical other through his Copernican revolution, which gives central place to the subject in epistemology. He finds, however, that Kant's version of transcendental philosophy ultimately cannot provide the basis for a conception of objectivity that is required for the humanities. In light of these shortcomings, Johann Gottfried Herder is a better candidate for the status of father of the humanities, because his perspective is less focused on scientific objectivity. But Froeyman maintains that both perspectives have their shortcomings: the problem of values in the humanities only arises when the other is not an absolute other to which we cannot relate at all (a Herderian Other), nor when we merely regard the other as having a universally human core or essence (the Kantian other). Froeyman argues that the neo-Kantians responsible for the vindication of the *Geisteswissenschaften* tried to combine both views by broadening the role of the historically and culturally contingent in a Kantian framework. The only universalism at work in such a view is the one opening a plane of communication where differences in values are possible and relevant.

Hans-Herbert Kögler formulates the idea of a project that complements the shortcomings of the philosophical tradition of hermeneutics by regarding interpretation as a type of reflective judgment. Kögler finds fault with the philosophical hermeneutics championed by Hans-Georg Gadamer for its excessive focus on the linguistic aspect, its conflation of meaning and value and its mistaken omission of reference to a self. Kögler suggests these defaults can be eliminated by formulating a broader conception of agency as the basis for interpretation. This means broadening the quasi-transcendental conditions of understanding beyond the merely linguistic. Kögler attempts to formulate some such new background capabilities for understanding on the basis of George Herbert Mead's account of play. Play involves "role-playing", i.e. imagining oneself in someone else's place, and hence develops the capacity for empathy and understanding. This form of understanding is mostly relevant when one is faced with someone or something that resists one's interpretative framework. In such a context, interpretation is a kind of reflective judgment: it does not seek to subsume the other under a pre-given framework, but rather seeks to reconstruct his background assumptions.

#### 2.4. Objectivity and (Inter-)Subjectivity in the Critical Tradition

Kant deserved his place as one of the major thinkers of our philosophical tradition because of the Copernican revolution in epistemology that is linked to his name like an epithet. Those who followed him in this new perspective, however, rarely adhered to the specific arguments developed in his *Critique of Pure Reason*, and many prefer the spirit of the Kantian idea over the letter of the Critical writings. The authors contributing to this part of the volume all analyze such an argument or concept and seek to assess how Kant revolutionized it or how those who found inspiration in his efforts sought to revolutionize his own concepts or ideas.

Mario Caimi opens this part with his analysis of the Kant's concept of existence. For the dogmatic rationalism of Christian Wolff and Alexander Baumgarten, existence or actuality was the complete determination of an object. In Kant's theory, however, the notion of existence needs to be analyzed from two different angles: that of the purely logical category, and that of its schema. The pure logical category of existence maintains the idea of complete determination, but it is no longer that of the complete determination of an object. In pure logic, actuality is predicated of a judgment, not of an object: it concerns its claim to truth (its assertoric nature). In order for existence to be predicably of objects, it needs to be schematized. Caimi derives the schema of existence by applying the pure category to time. It thus involves a complete determination of time as a unity. This can be done only by determining the moments of time, and since each of these is identical to every other in as far as pure time is concerned, we must resort to sensation. A moment of time can be individuated by giving it content: sensation. We can then apply the concept of existence to an object by relating it to a

determinate moment in time. Caimi concludes that the Kantian concept of existence thus differs from previous versions because it is not purely conceptual, but involves sensibility.

Sasa Josifovic turns his attention to the difficult and often misconstrued notion of the transcendental apperception. He argues that it is a transcendental faculty, a necessary function for constitution, rather than an entity or subject properly speaking. In order to make this point, Josifovic analyzes the process of synthesis as it appears in the transcendental deduction of the *Critique of Pure Reason*. He reads Kant as claiming that, in order for representations to form a manifold, they cannot belong to a same moment in time, as a single time-moment always constitutes a unity. This implies that synthesis is essentially a process of relating different moments of time and the representations they contain to each other. But such a relating can only take place if the representations can be present at the same time, even though they are by definition from different time-moments. This problem is solved by the transcendental faculty of imagination reproducing the representations from previous time-moments in the moment in which the synthesis takes place. These reproductions of the original representations cannot be numerically identical however, and hence they must have a conscious identity, i.e. an identity for the subject. This means that the numerical identity is not that between the synthesized representations and their originals, but that between the subject of the representations. Only the identity of this subject guarantees that the synthesis is synthesizing reproduced, and not merely chimerical, representations. Transcendental apperception, then, is properly understood only within the context of this process of synthesis, and is an act or a faculty rather than a subject of properties, acts or processes.

For Paul Cobben, Kant's solution to the problem of objectivity is faced with deep problems. Kant indeed shows that objectivity and subjectivity determine each other in the process of constitution, but this is only so for phenomenal reality. As far as the level of the noumenal is concerned, the transcendental subject that is supposed to be absolute freedom, finds itself limited by the a priori logical categories. Cobben therefore turns to Hegel for an account of the relation between objectivity and subjectivity that does away with this unfortunate gap between the noumenal and the phenomenal, and between the a priori and the a posteriori. Cobben argues that the point of departure for Hegel is not, like for Kant and Hume before him, that of a multitude of sensations that are then unified by a series of powers of cognition, but rather the unity that experience always already has for a *living being*. This unity that we find in sensation, perception or experience is the realization of the living subject's own unity. For Cobben, this marks the difference with the Cartesian cogito and the Kantian transcendental "I": Hegel's is a corporeal subject. But the unity of this subject is threatened by the multiplicity of sensation, which it tries to cancel out by appropriating a part of nature. Since such satisfaction is usually only temporary, the embodied self instead relates to other embodied selves that are of the same species. But the notion of a species itself cannot serve the unity required unless it is a notion of a species as a rational animal that objectifies itself into the state: the social organism, in which the subject recognizes its own self-realization. The unity of the social organism however is constituted by a "lord", who arises through the dialectic of the fear of death faced by every organism. The latter dialectic is not a factual historical process, since human life is always already to be conceived of in the context of a social organism. Thus, for Hegel, a social basis underlies the theoretical synthesis Kant imagined as constitution, albeit in a manner that is not reducible to any form social constructivism or Marxist social determination.

Jacinto Rivera de Rosales devotes the final paper of this volume to Kant's refutation of idealism. He starts from Heidegger's famous elaborate criticism of the "scandal of philosophy" as the recurrence of the question of the outer world. Heidegger finds fault with Kant for not recognizing that the relation to the world is not that of an enclosed "self" that subsequently opens itself to the world, but rather a primordial relation that is a condition for knowledge and interaction. Rivera de Rosales argues that Heidegger may have misconstrued Kant's own answer to the problem of solipsism and idealism. He shows that the refutation of idealism was not a great concern of Kant's, but rather a clarification of the transcendental standpoint to his opponents. In fact, Rivera de Rosales claims that Kant's operation is similar to Heidegger's, and consists in showing that the question regarding the existence of the external world is irrelevant when one adopts the transcendental point of view. But Rivera de Rosales goes further, and suggests that the path taken by Kant in the refutation of idealism provided the

foundation for a second Copernican revolution, one that Kant eventually did not carry through himself: that of considering the subject as essentially embodied. In this view, the strict distinction between inner sense and outer sense is uplifted by the body as a double-object: one that is experienced from the inside and from the outside. The corporeal perspective does not allow us to regard the relation of the subject to the world as that of a consciousness breaking through its limits: it is always already in the world, as a corporeal and sensitive being. Rivera de Rosales closes off with the suggestion that Heidegger missed this aspect of Kant's philosophy because he failed to see that the central role is played by synthesis, rather than intuition or understanding and that the transcendental cogito is a condition for the former. Such an interpretation provides the basis for regarding the transcendental as something transparent and open, rather than as something reified.

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### *Abbreviations used*

AA: Akademie Ausgabe of *Kants gesammelte Schriften* (Königlichen Preussischen Akademie der Wissenschaften, Ed.) (29 vols.). Berlin: G. Reimer. KU: Kant I. Kritik der Urteilskraft, in Akademie Ausgabe of Kant's works, vol. V.  
KU: Kant, I. *Kritik der Urteilskraft*. In Akademie Ausgabe of Kant's works, vol. V.

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