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Normativity between Naturalism and Phenomenology

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ABSTRACT

There is an unresolved stand-off between ontological naturalism and phenomenological thought regarding the question whether normativity can be reduced to physical entities. While the ontological naturalist line of thought is well established in analytic philosophy, the phenomenological reasoning for the irreducibility of normativity has been largely left ignored by proponents of naturalism. Drawing on the work of Husserl, Heidegger, Schütz, Stein and others, I reconstruct a phenomenological argument according to which natural science (as the foundation of naturalization projects) is itself a part of the essentially normative life-world to the effect that ontological naturalism faces a bootstrapping problem. I aim to demonstrate that this stand-off is grounded in a deep disagreement about the possibility of reduction. I close by arguing that this deep disagreement turns on the question which conception about the nature of (natural) science is true. This result pits a perfectionist model of science (implied by ontological naturalism) against a pragmatist conception of science (in favour of the phenomenological argument). The motivation is that transforming the disagreement about the controversial principle into a disagreement about conceptions of science may help to offer a foundation for different attempts at solving the stand-off.

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1. Introduction

The question whether normativity is either a genuine feature of the world or reducible is of central importance to both ontological naturalists and the phenomenological tradition. Resistance against ontological naturalism within the tradition of analytic philosophy has been growing in the last few decades. The main strategy of critics of different forms of naturalism ('scientific', 'ontological', 'methodological', 'strict') is to offer a different kind of non-reductive naturalism ('liberal naturalism', 'relaxed naturalism', 'soft naturalism', 'naïve naturalism', 'Aristotelian naturalism', 'near-naturalism',

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'subject naturalism') that countenances normativity as a genuine part of the world. Apart from this more recent line of critique, the phenomenological tradition has been critical of any kind of reductive naturalism virtually since its inception,[1] but has provoked fewer responses than the aforementioned non-reductive forms of naturalism stemming from the analytic tradition. This paper deals with a dialectical stand-off between these two parties regarding the question whether normativity is reducible to entities amenable to physical inquiry. As such, this paper will focus on reductive forms of (ontological) naturalism and simply omit debate on non-reductive, or liberal forms of naturalism (Spiegel 2022). At the heart of this stand-off lies the question, as will be demonstrated, whether the so-called life-world itself is fundamental in the sense that it figures as a transcendental enabling condition for science as such (as the phenomenologist asserts), or whether naturalism can bootstrap itself out of this predicament.

Forms of naturalism are common and popular in contemporary philosophy. Large swathes of the debate have been dominated by Moore's *open question* argument (Moore 1903, §13). However, another more recent strand of the debate is informed more directly by ontological naturalism as is a form of physicalism according to which everything that exists must be physical in some sense. Forms of ontological naturalism have been given exemplary expression in Sellars' *scientia mensura* dictum: 'science is the measure of all things, of what it is that it is, and of what is not that it is not' (Sellars 1997, §41).[2] One of the greatest challenges for ontological naturalism comes in the form of placement problems (Price 2013): hard-to-place phenomena like morality, rationality, normativity and mental properties seemingly do not fit into a physicalist landscape. This sets the stage for so-called naturalization projects which aim to demonstrate (usually by way of reduction, elimination or supervenience relations) that the hard-to-place phenomena turn out to be physical in some sense after all.[3] Indeed, as Robert Audi remarks, contemporary 'philosophy is witnessing an age of naturalization projects' (Audi 2012, 169). Ontological naturalists thus commonly believe that normative concepts pose in principle no problem for the project of naturalization (e.g. Jackson 1998; Searle 1995; List and Pettit 2011) because future-ideal physics will be able to convincingly demonstrate that normative facts reduce to physical facts (e.g. Ney 2008; Papineau 2009; Kim 2005).

However, before the current shape of ontological naturalism rose to prominence and before opposition to it in form of different liberalized, non-

[1]Bergson succinctly stated already in 1898 in that naturalism is merely 'unaware metaphysics, which is presented to the ignorant under the mask of science' (Bergson 2006, 83).
[2]Methodological naturalism, on the other hand, is usually traced back to Quine's proclamation that philosophy is continuous with science (Quine 1960, 209).
[3](Putnam (2004), 70) is even lead to state that ontological naturalism is motivated 'by a horror of the normative'.

reductive naturalisms took foothold, thinkers in the phenomenological tradition have already objected to ontological naturalism. Such thinkers have steadfastly resisted any such attempt at naturalization insofar it means doing away with something that phenomenologists deem a genuine part of reality insofar it is a direct part of our experience. For example, Husserl writes that 'only blindness to the transcendental, as it is experienceable and knowable only through phenomenological reduction, makes the revival of physicalism in our time possible [. . .]' (Husserl 1970, §72, p. 265). Much later, partially as a result of his engagement with Heidegger, Husserl formulates the key phenomenological idea that natural science, on which such reductive physicalism is dependent, is itself merely a part of an irreducible life-world. And this, *mutatis mutandis*, amounts to the idea that normativity itself cannot be naturalized by way of physicalist reduction.

Hence, naturalists and phenomenologists are diametrically opposed regarding the status of normativity. There has been some engagement between these traditions in recent decades. The majority of these contributions, however, have dealt with the question whether something like a naturalized phenomenology is possible (Moran 2013; Zahavi 2013). But there has been no focus on the question whether the phenomenological tradition has resources to offer a counter-weight against naturalization projects. There is still space to study the relationship between the naturalistic and phenomenological framework, as these two traditions may perhaps be viewed as prime competitors which are actually not much interested in what the other has to say. It sometimes seems instead that these traditions develop like two parallel lines which are, for the most part, content never to intersect. Part of what makes answering the question about normativity difficult is an apparent lack of engagements with this problem from the naturalist side although iterations of the phenomenological argument go back at least to the beginning of the 20th century. This is perhaps partially due to the dominance of analytic approaches and partially due to the fact that some phenomenologists have rarely articulated their arguments for the irreducibility of normativity in a way that is accessible for 'outsiders'.[4] A reconstruction and re-appreciation can re-affirm a way of resisting ontological naturalism which comes 'outside' the current framework of non-reductive naturalisms.

In this paper, I aim to unite these two sides in argument. To that end, this paper pursues two aims, one interpretive, one systematic. The interpretive aim is to make sense of the anti-reductive sensibilities regarding normativity

[4]For example, in an otherwise excellent treatment of Dilthey's philosophy of science, Robert Scharff simply asserts the picture is to be rejected that 'natural scientists (and the traditional epistemologists who speak for them) conduct their affairs as explanation-seeking, disembodied minds that have been resolutely stripped of their real vitality and reduced to ahistorical subject-knowers' (Scharff 2019, 129). While this presents a succinct expression of the main idea of the phenomenological argument, it is likely that just an assertion of this idea will not convince any doubters.

shared by a number of influential phenomenologists by way of capturing these sensibilities in argument form. The systematic aim is to investigate how the stand-off between phenomenological and naturalist intuitions can be resolved. Rather than giving a straight solution, I argue that this question turns on another, broader matter. Whether normativity is reducible depends on whether naturalization projects can be 'purged' of normativity; but this in turn depends on what conception of science is correct. The overall trajectory of this paper is modest: it tries to clarify the respective positions and specific points of contention between the two sides of the argument. And it argues that in trying to find the correct answer to this question, we have to start looking elsewhere at a 'broader picture', namely at the nature of (natural) science – assumptions about which often are implicitly invested in debates regarding the reduction of normativity.

Some preliminary remarks are in order. Firstly, it is sometimes stated that one of the defining features of phenomenology as a methodology is its priority over metaphysics in the sense that it brackets metaphysical questions about certain objects in order to pay actual 'attention to the phenomenon under study' (Gallagher and Zahavi 2008, 6). This general rule certainly has to be specified in each context, however. The phenomenological argument reconstructed here is such a specification of this general rule: an argument that can demonstrate why one is entitled to look at normative phenomena in a way that is prior to metaphysical theorizing, and thereby logically prior to reductive efforts. Furthermore, the trajectory of this paper will thus be controversial in the sense that readings of Husserl (and others) differ with regard to the overall stance of ontology. The main difference in viewing the life-world as prior to the sciences is methodological versus ontological. A methodological interpretation of the priority of the lifeworld states that the life-world is the fundamental way of 'access' to any world, yet that the natural sciences can still find out what is ontologically fundamental. For example, Berghofer (2022) writes that there is 'no reason why phenomenologists should be obligated to deny' such an ontological priority of, say, physics (cf. also Berghofer 2020, 23). By contrast, the ontological reading states that the life-world is ontologically fundamental such that the theories of the natural science do not provide ontologically fundamental entities 'substructed' to the life-world. For example, Trizio (2020, 299) calls it an 'ontological mistake', going back to Galileo, to assume that the results of the mathematized physical sciences constitute a kind of true beyond to the life-world.[5] Arguing for either interpretation is well beyond the

[5]A kind of middle-ground seems to be taken by Hardy (2013, 236ff.).

scope of this paper[6] which is why for the sake of this paper, I shall presuppose the ontological reading of the priority claim. In other words, if the methodological reading were to be true, there would be no stand-off regarding normativity between ontological naturalism and phenomenology as such.

Secondly, the concept of normativity is familiar, yet not always easy to pin down. I use the term 'normativity' here loosely in order to allude to the whole realm of matters in which correct and incorrect, right and wrong can play a role. This means the whole domain of interpersonal social phenomena, from I-Thou relations to complex social institutions like nation states involve some form of normativity. Phenomenologists are often not wont to using the terms 'normative' or 'normativity'.[7] Some phenomenologists may, nevertheless, prefer to speak of 'second person' or the 'Other'. There are obviously manifold conceptual differentiations and types of normativity since von Wright's seminal *Norm and Action* (1963) and it would be impossible to do these debates justice without entirely derailing this paper.

Third, some who call themselves naturalists will not feel represented by what is called 'ontological naturalism' (or sometimes 'scientific naturalism') in the debate. Some will feel, for example, that they still deserve the 'honorary badge' of being called 'naturalist' in virtue of endorsing something weaker than ontological naturalism. Weaker forms of naturalism have been called 'modest naturalism' which consists in (i) respect for science, (ii) rejection of philosophical foundationalism, and (iii) rejection of supernaturalism (magic, witches, ghosts, goblins) (De Caro and Macarthur 2004). To be clear: modest naturalism is not the kind of naturalism in question in this context since its content is not potent enough to underwrite a controversial forms of naturalism that aims to reduce normativity. Whether or not endorsing a modest form of naturalism is sufficient for being allowed into the naturalist club is

[6]There are a few reasons why I am prone to hold that the epistemological reading is problematic. One such reason is that granting physics ontological priority seems to be in tension with the transcendental elements of phenomenology as transcendental intuitions about the priority of (some aspects of) *Geist* are usually seen as incompatible with any kind of materialist view of the world espoused by ontological naturalism. A second potential problem relates to the endorsement of Berghofer (2022) just cited. On the one hand, Berghofer states that physics has or may have ontological priority over the life-world. On the other hand, he states that Husserl – and it seems by extension Berghofer himself – rejects ontological naturalism, i.e. the idea that only 'what is governed by the empirical sciences can be real' (p. 285). The potential problem is that if one grants ontological priority to physics, then one has to claim at least that physical entities are ontologically fundamental. But if non-physical entities are less fundamental, one has to account in which sense they are equally real as the physical entities they, say, supervene on. The danger in claiming that physical entities are fundamental is that one divides reality into real and somewhat less real entities. This is, of course, analogous to Huw Price's critique of object naturalism which divides the world into 'first class' and 'economy class' passengers (i.e. entities).

[7]One of the main reasons is that the term 'normativity' does not originate in the phenomenological tradition, but has rather been a staple of the analytic tradition. The second reason is that the way in which the term 'normativity' is used suggests some form of objectifying sideways-on view onto normative phenomena, i.e. a methodological approach onto such phenomena that suggests that they can be viewed from the 'outside'.

a matter to be kept separate here – this paper mainly operates with the relatively demanding notion of ontological naturalism (cf. part 1).

The roadmap is then this: I will first provide a birds-eye overview of a part of the dialectical situation regarding projects aimed at naturalizing normativity in part one. The second part reconstructs what I call the phenomenological argument, based off different expressions by prominent figures of seemingly the same idea: that (natural) science itself is part of the life-world. And since science is part of the life-world, which itself is normative, the results of natural science, most notably those of a future-ideal physics, necessitate a form of genuine normativity. I then argue that this stand-off exemplifies a deep disagreement about a controversial principle about the impossibility of reduction that does heavy lifting in the phenomenological argument. I close by suggesting that whether and how this question is resolved depends on which conception of science is correct.

2. A Generalized Naturalist Treatment of Normativity

Ontological naturalists treat normativity as something that needs to be naturalized as it is not part of nature as such. Naturalization projects can typically take the shape of reduction (e.g. Jackson 1998; Millikan 2000; Brandom 1994) or supervenience (Lewis 1983; Stoljar 2010; Ridge 2012), and elimination (Churchland 1981). While the reductionist and supervenience accounts of aim to solve the placement problems by identifying normativity as something ultimately physical, eliminativist accounts would aim to demonstrate that normativity does not exist simpliciter.

Some popular forms of ontological naturalism are supervenience-based. For the context of this paper, these supervenience-based approaches are not primarily relevant. This is for two reasons. First, supervenience-based ontological naturalism faces some difficult challenges (cf. Fodor 1974; Horgan 1993; Buekens 2018) including critiques of bridge laws (von Kutschera 2011). The more important, second reason is, however, that supervenience-based ontological naturalism is not sufficiently demanding in order to constitute a position that could not also be held by critics of naturalism. Of course, even supervenience-based ontological naturalism would be anathema to a classical substance dualist. Yet, even card-carrying non-naturalists like, for example, John McDowell or Thomas Nagel, as well as a number of phenomenologists, could endorse supervenience-based ontological naturalism without contradicting their other philosophical convictions. This is because the idea that normative (and mental) properties supervene on physical properties is not very demanding in and of itself. Reduction-based ontological naturalism admittedly faces problems as well, yet these challenges can be reasonably set aside in this context in order to take the reductive claim itself seriously. Therefore, the kind of ontological naturalism that is relevant to the context of

this paper is reductive-based, i.e. the idea that normative features of the world are nothing over-and-above physical features.

There has been a steadfast defiance against the naturalization of normativity. Critiques of ontological naturalism (i.e. physicalism) and its treatment of normativity come in different forms. One traditional line of argument is, for example, to attack the metaphysical reduction relation directly as unsuitable. Another principled and general argument, however, is that the main problem for ontological naturalism lies in the fact that current physics does not provide a theoretical basis which is sufficient to demonstrate that things like normativity and the mind turn out to be nothing but physical themselves. This latter argument leads to a specification of ontological naturalism: It is not *current*, but *future-ideal* physics which provides to foundation on which normativity (and other phenomena like the mind) can be naturalized.

On what grounds can the ontological naturalist defer to a future-ideal physics of which we know nothing yet? There are typically two related arguments for this: the success argument and the miracle argument. The success argument is neatly expressed in the following statements:

> "So what are the fruits of naturalism? First, the scientific enterprise has a remarkably *successful history*, and naturalism is little more than a statement of our continued support for that enterprise." (Colyvan 2008, 307; italics Author)

> "Commitment to the method [of natural science] can be sufficiently justified by appealing to *past successes* at finding naturalistic explanations [...]. One might argue even that the success rate has been going up for the past 300 years." (Giere 2000, 214f.; italics Author)

> "[...] even if naturalism depends on metaphysical assumptions, the naturalist can argue that the metaphysical assumptions in question are vindicated by the *success of science*, by contrast with the metaphysical assumptions on which autonomous metaphysics is based which are not vindicated by the success of metaphysics since it can claim no such success." (Ladyman and Ross 2007, 7; italics Author)

The success arguments states that since natural science can boast an unprecedented history of success, a commitment to ontological naturalism (relying on a future-ideal physics) is justified. Adjusted to the context of normativity, the past successes of natural science, as it were, should give us a justified confidence that future-ideal physics will be able to provide a metaphysical framework for a full naturalization of normativity (among other things).

The success argument is closely related, yet not identical to the more familiar miracle argument. The miracle argument dates back to Hilary Putnam's earlier work:

> "The positive argument for realism is that it is the only philosophy that doesn't make the success of science a miracle. That terms in mature scientific theories

> typically refer [. . .], that the theories accepted in a mature science are typically approximately true, that the same term can refer to the same thing even when it occurs in different theories – these statements are viewed by the scientific realist not as necessary truths but as part of the only scientific explanation of the success of science, and hence as part of any adequate scientific description of science and its relations to its objects." (Putnam 1975, 73)

The miracle argument is restated in an even more impassioned manner by arguably naturalism's most fervent proponent Alexander Rosenberg:

> "The reason we trust physics to be scientism's metaphysics is its track record of fantastically powerful explanation, prediction, and technological application. If what physics says about reality doesn't go, that track record would be a totally inexplicable mystery or coincidence. [. . .] The no-miracles and inference-to-the-best-explanation arguments are on the right track. Their alternatives are obviously mistaken." (Rosenberg 2014, 19)

The miracle argument states that the best explanation for the explanatory success of the natural sciences is that natural-scientific theories are true and refer to entities that really do exist (against, say, instrumentalist accounts like Van Fraasen 1980). Rosenberg even adds that any alternative is 'obviously mistaken'. Adjusted to the current context, the miracle argument lends support to the idea that the explanatory track-record of the natural science is so well-established and documented that an ontological naturalist would be justified in assuming that the success of physics converges on an account of reality which can serve as a basis for the naturalization of normativity, even if such an account is still forthcoming.

There are at least two ways in which an opponent of ontological naturalism could proceed here, both of which the ontological naturalist will find wholly unconvincing. The first way of responding would simply be to double-down on specific critiques of metaphysical relations of reduction or supervenience in an attempt to discredit the ontological naturalist's preferred philosophical devices. Naturalists could either simply ignore such criticism or refine their accounts of reduction or supervenience further into a specific brand that does not fall prey to the anti-naturalist sentiment. Considering the relatively high amount of different supervenience accounts, this dialectical cat-and-mouse game has been going on for quite some time.

The second rebuttal is about the status of the appeal to future-ideal physics as a *promise*. An opponent of ontological naturalism could perhaps dig their heels in and simply state that if the ontological naturalist can promise that in the future, accounts of naturalization will be fully vindicated by the empirical natural sciences, then the opponent, too, can promise that future developments in philosophical thought will be able to provide adequate counter-arguments against the naturalistic promise. For example, an opponent of ontological naturalism could perhaps simply counter-promise

that future-ideal physics would support an emergentist account of normativity, running counter to naturalization efforts.

It is doubtful that an ontological naturalist would find such rebuttals convincing. Firstly, arguments attacking supervenience and reduction have not caused the philosophical community to abandon such endeavours, but have rather motivated physicalists to come up with more refined versions. It seems to be the case that ontological naturalists will want to hold onto the physicalist picture, no matter what the opposition states. It is even more doubtful that naturalistically minded philosophers would take a counter-promise of the kind alluded to above seriously, especially since, they might claim, philosophy has no such comparable success to offer. It is more likely that naturalists will still view their optimism in future-ideal physics vindicated.

While this assumption is not without its challenges, we shall go forward with this reinforced notion reduction-based ontological naturalism because it presents the greater challenge for a phenomenological argument that aims to vindicate a genuine status of normativity. What, then, would it take to provide a proper argument against ontological naturalism, an argument that has potential to undercut the optimism for a future-ideal account of physics which serves to vindicate current naturalization projects? Such an argument would have to operate on a more fundamental level. The next section is dedicated to demonstrating that the phenomenological tradition has the resources to establish such an argument.

3. The Phenomenological Argument

Many thinkers in the phenomenological tradition have been critical of naturalism and the scientific image as a whole. It is a peculiar undertaking to ascribe anything more specific than that to the different, specific thinkers in the broad, multifaceted tradition of phenomenology. This is due to the different influences, aims, and intellectual ramifications special to thinkers like Husserl, Stein, Heidegger, Levinas, Ricoeur, or Merleau-Ponty. This caveat notwithstanding, a large part of this critical attitude is rooted in the idea of life-world as something more fundamental than the domain of science. The main assumption is that science (and *a fortiori* natural science) is merely a part of the life-world as a whole. This idea in turn is closely related to the idea constitutive of the phenomenological tradition that the first-person perspective qua experiential character is irreducibly *sui generis*.[8] The phenomenon of normativity (the realm of the first, second, and third

[8]This idea is not exclusive to the phenomenological tradition, however. Thinkers like Anscombe (1957) and Perry (1979) have argued in different ways that the first-person perspective is irreducible, albeit for different reasons and with different motivations.

person together in the life-world broadly understood) can then be viewed as an extension of the irreducibility of the first-person perspective. One difficulty is that such an argument itself is rarely fully worked out by thinkers in the phenomenological tradition, at least not to a degree to which the opposing naturalists would find it plausible or worthy of consideration. In this part, I shall first gather and reconstruct phrasings of the thought that normativity is irreducibly part of life-world somehow. I will then show how this thought relates to ontological naturalism, more specifically, how this thought can be elaborated into an argument against ontological naturalism.[9] There are two necessary caveats in order. The first caveat is that Husserl's concept of the life-world as garnered more scholarly attention than can be reasonably accounted for in this paper (e.g. Hyder and Rheinberger 2010). The second caveat is that the authors cited over the course of the following pages – Husserl, Schütz, Heidegger, Stein, Schmitz, Zahavi – are all engaged in vastly different projects, despite being key figures in the phenomenological tradition. The point of this part is to argue that despite their differences, they might share an underlying fundamental idea regarding the relationship of science and the life-world even though it may be expressed in very different contexts and styles. If the idea of the life-world should, in what follows, remain somewhat 'vague' by some standards, this is perhaps a necessary feature of this concept which Husserl himself acknowledged (Husserl 1970, §33).

Husserl outlines in his *Krisis* the following relation between the sciences and his idea of life-world:

> "It is, of course, the one world of experience, common to all, that Einstein and every other researcher knows he is in as a human being, even throughout all his activity of research." (Husserl 1970, §34b, 125f.)

Husserl asserts that the sciences 'build upon' the life-world by utilizing parts of it. Using Einstein and Michelson as exemplary scientists, Husserl adds that that a life-world shared by the scientists engaging one another is the condition ('*Voraussetzung*') for any kind of objective research. In all their research activity, researchers remain part of the world of experience ('*Erfahrungswelt*'). What is life-world in Husserl's technical sense? He describes it as follows:

> "The life-world is a realm of original self-evidences. That which is self-evidently given is, in perception, experienced as 'the thing itself,' in immediate presence, or, in memory, remembered as the thing itself. All conceivable verification leads back to these modes of self-evidence [. . .]." (Husserl 1970, §34d, 127f.)

[9]Variations of this idea have also been proposed by some who are not card-carrying phenomenologists, e.g. Peels (2017, 7), Habermas (2004), Baker (2017), Murdoch (2001, 33), Tetens (2015) (32 f.), Mittelstraß (1989)

According to Husserl, the life-world is the immediately self-evident. All conceivable justification harkens back, eventually, to the self-evidences of the life-world; it is, in other words, the source of all justification. This holds, a fortiori, all scientific justification. Husserl is very explicit about this:

> "As we already know, physicists, who are men like other men, who know themselves as living in the life-world, the world of their human interests, have, under the title of physics, a particular sort of questions and (in a broader sense) practical projects directed toward the things of the life-world, and their 'theories' are the practical results.". (Husserl 1970, 140)

Physics here is taken as a *pars pro toto* for all science. Even the sciences are in this very sense dependent on human practice as mediated by the life-world.

This fundamental idea has been taken up and further developed by students of Husserl. Alfred Schütz adopts Husserl's idea of the life-world, recoins it as *Alltagswelt* (i.e. the world of everyday life, also: *Welt des Wirkens*), and uses it as one of the foundational pillars of his phenomenological sociology. The world of everyday life (or life-world) is 'the world [. . .] within which I and you, Peter and Paul, anyone and everyone have confused and ineffable perceptions, act, work, plan, worry, hope, are born, grow up and will die – in a word, live their life as unbroken selves in their full humanity' (Schütz 1962, 255). Schütz argues that life-world constitutes a 'paramount' reality (Schütz 1962, 341) under which other domains – among them the domain of science – are somehow subordinated or, at the very least, continuous. Accordingly he writes:

> "The finite provinces of meaning are not separated states of mental life in the sense that passing from one to another would require a transmigration of the soul and a complete extinction of memory and consciousness by death [. . .]. They are merely names for different tensions of one and the same consciousness, and it is the same life, the mundane life, unbroken from birth to death, which is attended to in different modifications." (Schütz 1962, 257f)

Schütz is opposed to the idea that human life is a conglomerate of entirely autonomously disjoint domains, not as 'separated states of mental life'. The paradox of communication concerns the transposition or crossing over from one domain to another: if such domains of the life-world were starkly separated, the 'communication' between such domains would not be possible. To use an example that is directly relevant for the current context: the person coaching a middle school soccer team on Tuesday night does not enter an entirely new domain when he puts on a lab coat on Wednesday morning to grow bacteria cultures as part of his biology graduate program. These different domains are united under and different expressions of a unifying life-world. In such different contexts, the 'same consciousness' is in different tensions; it is not that different consciousnesses are going in and out of existence when transgressing different domains of the life-world. So

the fact that we can move between different social domains (religion, the as-if word of games, science) seamlessly is made possible by the fact that these domains are grounded always already in the life-world as 'paramount reality'. And it is obviously of the highest importance for Schütz that the life-world is permeated by social relations between a multitude of subjects (i.e. normativity) since his life's work is the development of a genuinely phenomenological approach to sociology.

While Schütz is the student of Husserl who perhaps made most of this idea, similar, yet less elaborate remarks on this matter can be found in Heidegger's early and late thought. In *Being and Time* (Husserl 2001) he writes:

> "The basic structures of any such area [science, TJS] have already been worked out after a fashion in our pre-scientific ways of experiencing and interpreting that domain of Being in which the areas of subject-matter is itself confined." (Heidegger 1962, 29)

While Heidegger is not as concerned here with the relationship between science, Being and *Dasein* as he is in his later work, this quote already expresses the idea that Heidegger takes there to be a kind of natural continuity between pre-scientific understanding and the domain of institutionalized science. In his *Age of the Worldpicture* (Heidegger 1977) Heidegger aims to analyse the 'essence' of modern science and modernity as such. In this context he identifies constant activity (*Betrieb*) as one of its essential features:

> "For the character of modern science is determined by a third fundamental occurrence: constant activity [Betrieb]. By this term is to be understood, first of all, that phenomenon whereby a science, whether natural or humanistic, in order to achieve proper recognition today as a science is required to be capable of being institutionalized. Research is not, however, constant activity because its work is carried out in institutions; rather, institutions are necessary because science, as, intrinsically, research, has the character of constant activity. [. . .] That character however is the inner ground for the necessity of its institutional character." (Heidegger 2002, 63f.)

Heidegger asserts that the institutionalization of scientific research is necessary for the existence of modern science as such. While he does not explicitly state it, institutionalization and professionalization of science (*Wissenschaft*) imply a certain degree of sociality which is not implicit in the idea of the scholar (*Gelehrter*) which he puts in contrast with the researcher of constant activity.

And even Husserl's other key student, Edith Stein, states at the very beginning of her *On the Problem of Empathy* that 'research in natural science' is the 'continuation' of 'natural experience' (Stein 1964, 4). Natural science is, as it were, somehow embedded in or continuous with natural, everyday

experience of the world. Although Stein does not elaborate much on this idea (let alone provide a justification for this intuition), it is perhaps among the more lucid expression of the idea of the primacy of the life-world over science in this tradition.

These students of Husserl (Stein, Heidegger, Schütz) are also seconded by more recent scholars of phenomenology. Dan Zahavi states that we 'cannot look sideways at our experiences in order to see to what extent they match with reality' (Zahavi 2019, 28) and asserts:

> "As Merleau-Ponty insists, however, we should never forget that our knowledge of the world, including our scientific knowledge, arises from a bodily anchored first-person perspective, and that science would be meaningless without this experiential dimension. The scientific discourse is rooted in the world of experience, in the experiential world, and if we wish to comprehend the performance and limits of science, we should investigate the original experience of the world of which science is a higher-order articulation." (Zahavi 2019, 66)

Zahavi reiterates with Merleau-Ponty that the origin of the third-personal scientific knowledge is intertwined with the first-person perspective. All scientific practice requires the dimension of 'first-personal and necessarily pre-scientific experience' of the people engaging in scientific research. This is to the effect that the third-personal results of science – their immense value and impressiveness notwithstanding – presuppose a kind of 'original experience' of the world. This world referenced by Zahavi is the same life-world from above, that is, the world that includes many different subjects and their normative interrelations.

It is time to pause and take stock of the ideas expressed in these different quotes by prominent phenomenologists. We can find two interrelated ideas there. The first idea is that the life-world (including the multitude of first-person perspectives) is irreducible and *sui generis*. This is one of the central ideas of the phenomenological tradition. The second idea is that science as such, most notably natural science, is in some important sense a part of that life-world or an extension of the life-world (despite all of science's particular features), and does not constitute a kind of privileged domain in total opposition to ordinary experience. In other words, the 'life-world is also the world *from which* the world projected in the natural sciences arises [. . .]' (Kerzsberg 2010, 225). These two points are related. The idea is that science itself is permeated by normativity in virtue of being grounded in some important sense in the life-world. The thought that science itself is part of the life-world can be viewed as an elaboration and extension of the thought that the I or first person itself cannot be naturalized.

How does this relate to the question regarding naturalization and ontological naturalism? Using these interrelated ideas, one can construct an argument directed against the reductive naturalization attempts of

ontological naturalism: Science as an institution itself is a part of the life-world – this is the phenomenological thesis defended by Husserl, Schütz, Stein, Heidegger and others. The life-world is essentially normative (even though 'normative' is perhaps not their preferred term). Therefore, science as an institution is essentially normative. And since science as an institution is just part of the life-world, then the results of science are a part of the life-world. The results of science are the foundation for naturalization projects. Yet, the results of science are essentially normative. Therefore, the foundation for naturalization projects as such are essentially normative. And if the foundation for naturalization projects is essentially normative, then naturalization projects are inconsistent.

This inconsistency begins by noting that naturalizing normativity necessarily requires the results of natural science, most notably those of physics. The results of the natural sciences themselves require science as a social institution. By trying to naturalize normativity on the grounds of the results of the natural sciences (i.e. theories and theses of physics), naturalization projects are designed to naturalize that what would enable naturalization of anything in the first place. The overall conclusion then is that normativity is essential, i.e. it cannot be 'naturalized away' in any reductive or eliminative effort.

1. The life-world is an enabling condition for there to be science as an institution. [phenomenological intuition]

2. The life-world is normative. [phenomenological intuition]

3. If x is normative and if x is the enabling condition for y, then y is normative.

4. Therefore, science as an institution is normative.

5. Science as an institution is the enabling condition for there to be scientific theories at all.

6. Therefore, scientific theories are normative.

7. Scientific theories are presupposed by naturalization projects.

8. If scientific theories are presupposed by naturalization projects and if scientific theories are normative, then naturalization projects presuppose normativity.

9. Therefore, naturalization projects presuppose normativity.

10. Naturalization projects reduce normativity.

11. If x presupposes y, then y cannot be reduced to x. **[controversial principle]**

12. Naturalization projects cannot reduce normativity.

13. If naturalization projects cannot reduce normativity, then naturalization projects necessarily fail.

14. Therefore, naturalization projects necessarily fail.

15. If naturalization projects necessarily fail, then normativity is irreducible to non-normative properties.

16. Normativity is irreducible to non-normative properties.

The argument itself could certainly be abridged while retaining its force. However, a long-form reconstruction of this kind serves to make explicit important and pervasive assumptions seemingly at play regarding the reducibility of normativity. It should be noted, starting off, that the argument seems to be valid at least. Due charity compels us to construe the phenomenological argument as valid if it is to be in the vein of the phenomenological thinkers previously discussed.

Furthermore, the argument can not only be understood as phenomenological, but simultaneously as transcendental. While it is controversial how exactly transcendental arguments are to be understood, this phenomenological argument features at least two key aspects of transcendental arguments. The first aspect is that some of its premises include enabling conditions.[10] Enabling conditions are akin to what Stern (2000) calls 'transcendental conditionals' according to which 'x is only possible if y'. The second aspect is that it centres on some aspect of reality being genuine; this is analogous to how Strawson's transcendental argument against skepticism concludes that external objects exist (cf. Strawson 2011). Qua transcendental status, the phenomenological argument will face the additional burdens that normally beset transcendental arguments. However, in order not to dilute the focus, I shall not discuss the transcendental status further as debating this aspect would require its own dedicated investigation (cf. Pihlström 2001).

Moving forward, the argument can be divided in two parts. The first part spans statement 1. through 9. and is arguably not very controversial (save for the transcendental enabling conditions. The second, controversial part begins with statement 10. All the way through the overall conclusion 16. It is the second, controversial part that will become relevant for the rest of this paper.

The first part is mainly comprised of phenomenological intuitions which even a reductive naturalist might share.For example, rejecting 1. and 2. would require the naturalist to tell a long and probably very counter-intuitive story why science as an institution does not require people *doing* science (ad. 1.) or why there are no normative properties at all (ad. 2.). There are indeed some forms of naturalism, namely eliminativism, which would claim that norms do not exist full stop. But eliminativism is a far less popular and compelling form of naturalism than its reductive counterpart, therefore making it a less attractive interlocutor. It seems that it is not controversial *that* there are norms or *that* science involves practical activity, but rather which methodological and/or ontological inferences can be drawn from such facts.But a full appreciation and discussion of this idea would require its own

[10]'All transcendental arguments make some claim about necessary enabling conditions.' (Bardon 2020, *Transcendental Arguments*)

paper. While perhaps not entirely uncontroversial, it shall suffice to say that this idea has at least influential proponents, mainly those in the pragmatist tradition (Dewey 1938; Putnam 1994), constructivist tradition (e,g. Mittelstraß 1973; Kambartel 1974), but also in analytic philosophy (e.g. Resnik 2008). Given 8., at least *prima facie*, the idea that scientific theories are intimately connected with normative considerations in a relevant way, is not preposterous. Furthermore, a naturalist may not even take issue with this since he or she can admit that naturalization projects presuppose normativity without contradiction.

4. A Deep Disagreement about Reduction?

> The second part of the argument, however, features at least one premise which the reductive naturalist will want to disavow and reject statement 11. which I dub the 'controversial principle':
> [Controversial principle]: If x presupposes y, then y cannot be reduced to x
> This principle expresses the central point of contention between phenomenologists and reductive naturalists.[11] Adjusted for our context, it translates to something like 'If scientific theories presuppose normative properties, then normative properties cannot be reduced to scientific theories'. The variables in this principle can of course also be assigned different contexts, such as 'if sets presuppose numbers, then numbers cannot be reduced to sets' (regardless whether this is true). This would mean, for example, that if it turns out that it cannot be true that numbers are nothing over-and-above sets, Another example from social ontology, in particular the individualism-holism debate, would be: 'If the existence of individuals presupposes social groups, then social groups cannot be reduced to individuals', thereby expressing a holist intuition.

While the naturalist may have no issue accepting that scientific theories presuppose normativity, he or she will have to fight this principle tooth-and-nail. This is because this principle prevents any reductive ambitions the naturalist has towards normativity. Conversely, this principle is what sets apart the phenomenological argument against the reducibility of normativity as particularly radical. This principle is what the phenomenologist has to assert in order to give his or her argument a transcendental, non-reductive bite since it determines that the life-world qua genuine normativity is fundamental for scientific theories in a manner that makes it impossible

An anonymous referee has correctly pointed out that it would be preferable to have a list of authors who either overtly endorse or reject the controversial principle. But part of the main issue is that this is an underlying commitment that is rarely, if ever, openly expressed, yet motivates the philosophical positions that lead to the stand-off between naturalists and phenomenologists on normativity.

for naturalization projects to claim that normativity be nothing 'over-and-above' the physical.

The situation so far seems to be this: naturalist accounts of normativity must rely on results of the natural sciences (mostly a form of future-ideal physics) in order to reduce normative properties to non-normative, physical properties. Against this, the phenomenological argument suggests that the results of the natural sciences themselves are normative in virtue of science as a *holon* of socio-normative relations enabling natural sciences in the first place. This turns on the question whether natural science presupposing normativity makes the natural sciences and their results themselves fraught with normativity in a way that does not allow for its reduction – this was expressed in the controversial principle featuring as statement 11. in the phenomenological argument.

This point can be recast in a famous metaphor. According to the phenomenological argument, like Baron Münchhausen stuck waist-deep in a bog, the natural sciences are steeped in the 'normative swamp' of the life-world (cf. Nietzsche 2001, 21). And just like Baron Münchhausen tries to pull himself out of the swamp by his own hair, the naturalist tries to pull herself out of the life-world by the results of the (future-ideal) physics which itself is not outside the swamp, according to the phenomenological argument. Less metaphorically, bootstrapping amounts to the idea that ontological naturalist accounts of normativity can simply, as it were, naturalize the normative features of the natural-scientific research which provides the theoretical results which are used as a foundation for naturalization of normativity. Naturalists must be able to bootstrap themselves out of the normative practices that permeate natural-scientific research. In other words: The naturalist would have to demonstrate that the results of the natural sciences are not part of the life-world in a substantial sense and bestowed with the power to reduce all normativity. Normativity is the target of naturalization, naturalization itself is based on results of scientific practice (i.e. physical science). But this turns out to be unproblematic, as it were, since a full account of the world based on future-ideal physics will simply include a naturalist account of the natural-scientific practice itself.

The bootstrapping assumption seems to provide the ontological naturalist with an elegant solution to the phenomenological argument. But the phenomenologist might rebut here that naturalism exercises a 'studied suppression' of natural science's life-world origins (Scharff 2019, 129). However, the bootstrapping assumption is exactly what is targeted by the phenomenological argument which implies that the results of the natural sciences, on which naturalization projects are based, presupposes the phenomenon (normativity) which the naturalist wants to reduce away. Thus, the naturalist and phenomenologist seem to have reached an impasse. The phenomenologist

will state that there is no escaping the normative swamp, yet the naturalist will assure us that she can pull herself out of it.

This impasse is an instance of what has been called *deep disagreement*. Deep disagreements are disagreements in a context that lacks sufficient common ground that would be necessary to decide the argument in either party's favour, or even to reach a compromise (Fogelin 1985, 7). I shall not provide an answer that would resolve this disagreement – that would be overly presumptuous. Instead, the purpose here is to *pinpoint* the nature and content of the deep disagreement between (reductive) naturalism and phenomenology on this issue. A further suggestion at how this disagreement *might* be solved (further argument pending) is that whether the controversial principle is true depends on one's background assumptions on the nature of science as such.

In describing the nature of deep disagreement, I follow Ranalli's (2020) recent account. Ranalli characterizes deep disagreement as 'systematic disagreements rooted in contrary worldviews' (Ranalli 2020,4976). Furthermore, he ascribes the following key properties (Ranalli 2021, 3):

Disagreement: deep disagreements need to be genuine, e.g. not merely about terminology.

Reason-taking: parties in deep disagreements take themselves to be giving reasons for their views, i.e. they are not merely dogmatic about their beliefs in question.

Systematicity: deep disagreements are systematic in the sense that they do not concern only a few statements, but a system of different inferentially connected beliefs.

Persistence: deep disagreements remain over time, seemingly untouched by length and quality of debate and exchange of arguments.

Two main theories that aim to account for these properties of deep disagreement are the Wittgensteinian hinge theory and the epistemic principle theory. According to the former, deep disagreements are disagreements about hinge commitments (such as 'the earth is very, very old'), whereas the latter suggests that deep disagreements are about fundamental epistemic principles, i.e. about, say, belief-forming mechanisms (Ranalli 2018, 9 f.). Furthermore, there is a variety of topos-specific deep disagreements: deep metaphysical disagreement, deep ontological disagreement, deep moral disagreement, or deep methodological disagreement.

We can tie these characteristics together with the example of Young Earth Creationism. Such disagreement is perhaps best described ontological, but certainly not as a moral disagreement. Regarding the four characteristics, disagreements about the age of the world are genuine, i.e. not merely about terminology, but about a tangible, material, important matter. Both Young Earth Creationists and, say, geologists, take themselves to provide good reasons (e.g. Bible scripture versus scientific evidence). Both parties'

positions are systematic; for example, a Young Earth Creationist will not only state that the world is only 6000 years old, but is also committed to believing that geology is largely false and that the scientific community is proliferating a kind of conspiracy theory. And finally, the disagreement is very persistent, despite the long-lasting academic and political debate around these issues.[12]

The philosophical concept of deep disagreement can be applied to the controversial principle. It seems that the epistemic principle theory can account better for this case. This is for the reason that the controversial principle itself is a metaphilosophical statement about the feasibility of reduction. It seems that the soundness of the phenomenological argument hinges on whether the controversial principle is true. Phenomenologists seem to take the controversial principle for granted, whereas naturalists will typically find it intuitively plausible that the controversial principle is false. Firstly, this disagreement seems to be genuine, i.e. not easily resolvable through some terminological stipulation. It is probable that either side will simply dig their heels in. As I have argued elsewhere, some critiques of naturalism are left generally ignored (Spiegel 2020); and an analogous case might perhaps be made for some strands in the phenomenological tradition. Secondly both parties take themselves to be at least in principle to be in a position to justify their respective positions. Thirdly, the disagreement is systematic in the sense that the truth or falsity of the controversial principle would have far-reaching consequences for a whole host of questions in metaphysics and metaphilosophy. Lastly, the disagreement is persistent: reductive and phenomenological treatments of normativity have been around for at least 150 years, and there does not seem to have been substantial progress towards a 'decision' on the matter.

5. The Controversial Principle and the Nature of Science

Is there hope of solving this deep disagreement? Can either side decide the disagreement in their favour? It would be presumptuous to claim that there is an easily accessible argument available that has been simply overlooked in this long-standing deep disagreement. Given that further argument is unlikely to resolve the conflict, I shall demonstrate how the conflict might be transformed in a way that might render the disagreement more accessible.

As a short preface for this 'roundabout' answer, it is helpful to pin down what the phenomenological argument demands of the naturalist here: An ontological naturalist would have to demonstrate that the propositions or theories of a future-ideal physics are of a different status in a way that it

[12]Should the reader find themselves tired or appalled by the example of Young Earth Creationism, finding it understandably outlandish, please note deep disagreements very often are such that anyone will find at least one of the sides of this divides outlandish. As such, I would consider it a virtue of Young Earth Creationism to be polarizing as an example of deep disagreement.

becomes clear that they are entirely divorced from their socio-normative origins. In other words, an ontological naturalist would have to demonstrate that scientific theories *as propositions* can be used as bootstraps to escape the normative swamp once and for all. Instead of providing a straight answer, I shall instead argue on behalf of the naturalist that an answer to this question is essentially dependent on which conception of science as a real-world institution is correct, i.e. what I call a perfectionist model versus a pragmatist model of science.

Ontological naturalism operates on a *perfectionist model* of science which it wears on its sleeves. As cited above (section 1), at least some prominent ontological naturalists, like Alex Rosenberg and Ronald Giere, are very vocal about their view that the successes of natural science justify our belief in there being a future state in which natural science as such is more or less concluded. Such a belief to a future-ideal state indeed must be baked into ontological naturalism. This is because at least *current* physics is not able to account for a seamless reduction of normative properties to physical ones (being one of the reasons for some to reject reductive for supervenience physicalism) (Stoljar 2017, 17 f.). According to this model, the teleological end-point of science lies in a set of theories, interlocking to provide a full picture of the universe on which no further improvements can be made. This picture would *a fortiori* also yield the foundation for assigning normativity a place in the physical world. This final set of theories would also be impersonal, allowing for a complete spectator-perspective on the world, something like a new from nowhere (Nagel 1986). Once this putative perfected state is realized, there is no need for either science nor for scientists anymore. And this is how the perfectionist model would ultimately enable the kind of reduction of normativity the naturalist assumes to work: once we have reached this putative perfected state and attained a hopefully slender, self-standing set of physical theories in the form of propositions, it will be possible to show how normativity xis 'nothing over-and-above' physical properties. The perfectionist model thus enables or licenses the reductive proclivities of naturalism.

In contrast, the phenomenological argument demands a broadly *pragmatist conception* of science championed by thinkers in the pragmatist tradition (e.g. Dewey, Kitcher 2015) and also some phenomenologists (most notably Heidegger, at least his pragmatist readings).According to the pragmatist conception, science is a project that accompanies human practice as human life continues. According to the pragmatist model, science is not able to yield a pure observer-perspective on the world without involvement; the participant perspective is essential. The pragmatist model views science more like a democratic process which is open-ended and never finished. As a potentially open-ended project of humankind, science cannot even

reproduce itself without personified scientists. Science enables learning processes, not dogmatic beliefs, according to such a view.

And this is how the pragmatist conception of science precludes the reduction of normativity. First, on the pragmatist conception science as an institution is always permeated by normative relations. The quasi-democratic structures of science as an institution require a robust sense of normativity. And secondly, if science is essentially a human practice which is essentially designed to accompany human life as such, then science is never 'finished' as a matter of principle. Therefore, on this model, scientific theories can never be 'emancipated' from their normative foundations in science as an institution as the perfectionist model aims to. Thus, the pragmatist model precludes any kind of metaphysical reduction of normativity, at least on the basis of scientific theories in naturalization projects.

If it is correct that two different conceptions of science tacitly underlie the naturalist and phenomenological treatment of normativity, then how does that help resolve the stand-off? In the first instance, this shifts the question from (meta-)metaphysical questions regarding reduction and fundamentality onto a different field, namely the 'nature' of science. The question regarding the nature of science is, perhaps, no less intricate than the former. After all, the question which conception of science is more accurate will have a multitude of perhaps unforeseeable implications across a wide range of areas. So some may say that manoeuvre leads from one impasse to the next. Contrary to such pessimism, the shift to a question about the nature of science may help resolve the stalemate as a small dialectical step. This is because the question about the 'nature' of science is, unlike questions about reduction, *not exclusively* a metaphysical question, but rather a question which is investigated by several scientific disciplines (next to philosophy of science itself, of course). More specifically, the transdisciplinary field of *science studies*, as a kind of science of science, which encompasses approaches from different disciplines, chief among them social science.

This shift is then helpful in two ways. First of all, if the question about whether normativity is genuine leads us to consider the 'nature' of science, then we do not have to rely solely on metaphysical reasoning, but can look at evidence provided by scientific investigation into science. Methodological agreements might be more easily resolvable than metaphysical disagreements. Second, and relatedly, this is an approach which ought to be palatable and agreeable particularly to defenders of ontological naturalism. While the kind of naturalism at question here is ontological, and although ontological naturalism does not imply methodological naturalism, ontological naturalists have good reason to endorse some form methodological naturalism. This is mirrored in philosophical practice since, at least anecdotally, ontological naturalists tend to subscribe to some form of methodological naturalism (I have argued for this connection in Spiegel 2021, ch. 1). Methodological

naturalism in the tradition of Quine states that philosophy ought to be continuous with science (Quine 1960, 209). While this can be interpreted in different ways – De Caro (De Caro 2009, 369 f.) identifies a dozen possible interpretations – it usually amounts to the idea that science ought to be the ultimate arbiter of how philosophy ought to be done. Applied to the current context, this means that a commitment to methodological naturalism (which many ontological naturalists do hold) renders it attractive to reconceive the question about the reduction of normativity to become a question about the scientific investigation about the nature of science. This is, of course, not a conclusive answer, but would rather call for further research into what evidence the science of science can be utilized to be applicable for the question what the 'nature' of science amounts to.

6. A Slightly Optimistic Conclusion

This paper aimed at providing a systematic reconstruction of the phenomenological intuition that the life-world is in some sense more fundamental than scientific inquiry. This is ultimately an argument against the attempts of ontological naturalism to reduce normative properties. In reconstructing the argument, it turns out that the crucial point of contention is whether the fact that normative properties of the life-world enabling science implies that those normative properties cannot be shown to be nothing over-and-above physical stuff. Instead of providing an argument for either side to settle this question, I have suggested that pushing the dialectic here further is contingent upon what conception of science one endorses: a pragmatist conception or a perfectionist conception. The broadly pragmatist conception views science as a potentially never-ending quasi-democratic process which accompanies human practice as it goes forward. In contrast, the perfectionist conception views the project of science as engaged in a progress towards an ultimate set of theories upon which no further improvement can be made, essentially completing science. Out of those two, only the perfectionist view implies that the ontological naturalist can pull herself up by her hair out of the normative swamp of the life-world; for if we can hope for a future-ideal physics, then that set of theories will be able to demonstrate how a completely satisfactory reduction of normative properties to physical properties is possible. On the other hand, the pragmatist conception of science suggests that normative properties are always already operative and essential to the scientific process in a way that precludes them being reduced.

It would be presumptuous to have claimed that one of the most intractable difference between two major traditions of thought – naturalism and phenomenology – can this easily be settled. I have therefore not arrogated the right to provide a conclusive answer. What I hope to have demonstrated, however, is that one of the central discrepancies between these two

competitors – whether normativity is reducible – turns on the question what conception of science is correct. It might therefore be preferable to inquire further into this direction rather than either look for more refined physicalist accounts on the one hand or to simply restate the priority of the life-world without further argument on the other hand. In any case, the optimistic hope is that shifting the question of the reducibility of normativity to the question of the right conception of science, we can contribute to a further dialogue between the vastly disjointed tradition of phenomenology and naturalism.

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