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ARTICLE

Religion and scientism: a shared cognitive conundrum

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Abstract This article challenges the claim that the rise of naturalism is devastating to religious belief. This claim hinges on an extreme interpretation of naturalism called scientism, the metaphysical view that science offers an exhaustive account of the real. For those committed to scientism, religious discourse is epistemically illegitimate, because it refers to matters that transcend—and so cannot be verified by—scientific inquiry. This article reconstructs arguments from the phenomenological tradition that seem to undercut this critique, viz., arguments that scientism itself cannot be justified without recourse to matters that transcend scientific inquiry. If this is true, then scientism and religion share a cognitive conundrum: a commitment to truths that cannot in principle be known from our current perspective.

Keywords Naturalism · Scientism · Phenomenology · Atheism · Rational belief

Naturalism is now widely accepted as the reigning theoretical paradigm. Moreover, a spate of recent influential books have spread the idea that the consequences of this trend for religion are dire, arguing that as science flourishes, religion withers, because science discredits religious belief.[1] This popular movement stems from and develops a number of ideas from academic philosophy, in particular the notion that "Science, or rather a scientific attitude, is incompatible with religious belief."[2] But the popular critique of religion represents a more aggressive and radical version of

[1] This is a central theme in a number of popular books by the so-called 'New Atheists': Dennett (2006), Dawkins (2006), Harris (2004), and Hitchins (2007).

[2] Worrall (2004, p. 60).

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this claim: not only do science and religion stand in conflict, but the truth of naturalism makes religious belief illegitimate. From this perspective, to endorse the faith commitments of most major religions an individual must be ignorant of scientific progress, lost in bad faith, irrational, or some combination of these—for it is irrational to simultaneously and knowingly affirm the truth of naturalism and the commitments to the supernatural that most religions entail.

Of course, the term naturalism denotes a diverse array of views, not all of which purport to discredit religious belief.[3] What interests us here, then, is not naturalism as such but rather the strand of it so often set in opposition to religion—what McDowell calls 'hard' or 'bald naturalism'. Bald naturalism is the metaphysical view maintaining that, as McDowell puts it, reality is "exhausted by the natural world, in the sense of the world as the natural sciences are capable of revealing it to us."[4] Here I will follow the trend of referring to bald naturalism as scientism—the belief that science holds the answers to all meaningful questions. Since scientism maintains that reality and nature are coextensive, it also holds that there is no place in reality for any non-natural, supernatural, or otherwise spooky 'nomological danglers'.[5] Religious discourse, on this view, is thus a confused and illegitimate mucking about with pseudo-concepts that make no contact with reality.

This article challenges the claim that scientism poses a devastating threat to religious belief. In the first section I reconstruct the argument for this claim. In the second, more substantial section, I argue that scientism's critique of religion seems to level a criticism to which it is itself vulnerable. More specifically, scientism claims that religious discourse is illegitimate because it entails commitments to things that cannot be reduced to purely natural terms, i.e., things that cannot be reduced to "the world as the natural sciences are capable of revealing it to us."[6] However, as phenomenological inquiry reveals, scientific discourse itself depends on things that are irreducible to the terms of the natural sciences. That is, phenomenology shows us that a purely naturalistic justification of science—at least as scientism construes nature—is from our current perspective inconceivable, because the subjectivity that accomplishes science seems to be irreducible to purely scientific terms. This fact seems to place the person committed to scientism in a cognitive predicament much like that of the religious believer, i.e., deeply committed to the eventual revelation of a mystery, a truth that from our current circumstances is in principle unknowable. For scientism, this truth is the belief that we will one day be able to offer an exhaustive inventory of reality in purely natural terms. For religion it is a belief in the supernatural that cannot in principle be demonstrated from a merely human standpoint. I conclude by discussing some of the implications of this result for naturalism and religious belief.

[3] Papineau (2009).

[4] McDowell (1998, p. 173).

[5] This is J.J.C. Smart's term. In his (1959), 'Sensations and Brain Processes', he argues that mental states must be identified with brain states if they are not to become "nomological danglers", i.e., entities that play no role in the explanation of behavior.

[6] McDowell, op. cit., p. 173.

Scientism's case against religion

To flesh out the basic commitments of scientism, I turn to Husserl's famous analysis of naturalism in "Philosophy as a Rigorous Science."[7] To be clear, I do not take Husserl's account to encompass all forms of naturalism; rather, my sense is that what he analyzes there is very close to what I here call scientism.[8] According to Husserl, naturalism (or in our terms scientism) tends "to look upon everything as nature…and primarily physical nature" ('PS', 79). Nature here is 'the spatiotemporal world of bodies' ('PS', 104) that are observable from a variety of perspectives as self-identical. By synthesizing the information we gather from these many perspectives, we fix their real properties in precise, objective terms that transcend any one viewpoint ('PS', 104). This process allows us to determine the reality of each object within one space–time continuum, strictly in terms of its causal relations with other objects. The being of each object is thereby determined as the precise "union point of causalities within the one all-nature" ('PS', 104). The possibilities of all real objects are thereby "preindicated according to the laws of causality" ('PS', 104), and so the universe of natural objects is closed under purely natural causation and rigidly deterministic.

On this view, first-person experience is a purely natural phenomenon—the psychical, as Husserl puts it, is for scientism merely "a variable dependent on the physical" ('PS', 79). To illustrate Husserl's point with a contemporary example, for scientism, neuroscientists can discover correlations between brain functions and mental behavior because the latter are reducible to the former. The brain-body causal nexus that gives rise to a person's mental life is somehow identical to it; it is the real essence of the mind. First-person experience, like everything else we call real, is nothing more than an "objectively and temporally determinable fact of nature" ('PS,' 86).

The implications of scientism for religion are fairly narrow. If all that exists are natural objects extended in the closed causal system of space–time, then either (i) God does not exist, or (ii) God exists and therefore must be a natural object extended in space–time interacting causally with other such objects. From here, scientism raises the following sort of skeptical questions about reasonable religious belief. If scientism is true, is it more likely that God is a natural object interacting with us causally, or that matter is matter and nothing besides? Is it more likely that we are having veridical, subjective experiences of God's physical presence, or that peculiar brain states trigger a mental state we call 'religious experience', a state that evolved to solve problems for our early ancestors, e.g., social cohesion, promoting self-sacrifice in war, or managing the terror evoked by an awareness of our own death?[9] Is religion God's way of talking to us, or a persistent meme that meets a suite of evolutionary needs? When we consider religion in this light, Ockham's razor certainly seems to cut in favor of an atheistic scientism.

[7] Husserl (1965). Henceforth cited in the text as 'PS'.

[8] Husserl never uses the term scientism, but what he has in his sights is pretty close to 'bald' or 'hard naturalism', so I will continue to use the term scientism.

[9] Greenberg and Arndt (2011).

However we answer these questions, it doesn't really matter for the issue under discussion, as believers who restrict their religious commitments to a purely natural conception of the divine are few and far between. That is, if the truth of scientism rules out the rational endorsement of anything non-natural—i.e., anything that doesn't belong within 'the spatiotemporal world of bodies' ('PS', 104)—then it rules out the vast majority of religious belief.

From this standpoint, then, the believer's oblivion to the contradiction between the truth of naturalism and his beliefs in the supernatural implies that he falls under at least one of the following three categories of people: (1) ignorant believers whose lack of education leaves them unaware of naturalism, (2) bad faith believers who somehow manage to maintain a mental partition between their knowledge of science and their religious commitments, or (3) irrational believers who broadly recognize the truth of naturalism while simultaneously endorsing traditional religious beliefs, which, according to scientism, reveals an underlying deficit in their normative competence—when it comes to religious matters they simply fail to respond appropriately to reasons.

A shared cognitive conundrum

There is an irony implicit in this critique. Scientism claims that religious discourse is bankrupt because (i) reality is exhausted by that which can be known by scientific means and so is reducible to purely natural terms, and (ii) religious belief entails commitments to things that cannot in principle be known by scientific means or reduced to purely natural terms. However, on these terms, scientism itself is bankrupt, because it too entails commitments to things that cannot in principle be known by scientific means or reduced to purely natural terms.

To see why, Husserl's "Philosophy as a Rigorous Science" once again proves helpful. For Husserl the chief problem with scientism is its failure to see that it cannot account for its own preconditions. Striving for precision, science abstracts from everyday life and strategically ignores aspects of reality that are difficult (or impossible) to model in terms of natural causation. It focuses strictly on features of the world that can be subjected to verifiable hypotheses and experimental research. This is perfectly appropriate for its purposes. However, it takes for granted a fundamental precondition that it cannot account for in its own terms, i.e., the fact of intelligibility. Why is reality intelligible at all? According to Husserl, we cannot answer these questions from the standpoint of science—for each science simply presupposes a field of intelligible evidence as given: "The nature that it will investigate is for it simply there" ('PS', 85). In other words, reality is only known through the medium of consciousness—the normative space of meaning opened up by first-person experience; naturalism assumes that consciousness can know nature as it truly is (at least in its measurable dimensions); but it cannot explain how this is possible.

Intelligibility, for Husserl, is a philosophical matter because it only comes into view from a critical standpoint that not only employs reason but also reflects on its preconditions. To take this stance, one must make an attitudinal shift that scientific

practice does not survive: a shift away from objects towards the structures of human thought that make those objects meaningful. The scientific attitude cannot survive this shift, Husserl tells us, because its defining task is to report factual knowledge about objects—it excludes the intelligibility conditions of first-person experience "in order to look for nature that presents itself in the phenomenal" ('PS', 101). As Heidegger later makes the same point, scientific inquiry focuses on "beings themselves—and beyond that, nothing."[10] If the scientist is to work, the preconditions of intelligibility have to be at work *in the background* so that she can focus on the empirical features of the objects they make intelligible. To foreground such preconditions is to undermine her task. As soon as thinking turns away from objects to the conditions of their intelligibility, it is no longer science. The riddle of intelligibility is "inherent in principle to natural science" and its solution "in principle transcends natural science" ('PS', 89). To suppose otherwise is to enter "a vicious circle" ('PS', 89), i.e., it is to assume the intelligibility of the world to make empirical observations that one then relies on to demonstrate the intelligibility of the world.

According to Husserl, then, the entities that each science studies are only intelligible on the basis of a framework of meaning that philosophy, not science, takes as its theme. This framework is in part constituted by the scientific practice in which each scientist trains, learning to identify relevant evidence and to relate new findings to existing knowledge. But, as Husserl argues throughout his work, this practice itself is grounded in the form of subjectivity of those engaged in it. Even instruments designed to take objective measurements—to remove the subjective dimension—are only useful because we interpret their deliverances in light of the norms of valid thought. Thus, a given empirical datum counts as evidence because it takes its place in this framework of meaning. We can corroborate or correct one experience with another, use new evidence to adjust existing theories, distinguish confounding variables from genuine counterexamples, and so on, only because these things present themselves within a horizon of sense governed by the norms of a scientific practice—norms which in turn are grounded in the structure of human subjectivity. In other words, scientists can only do these things because they master the standards of evidence specific to their object domain; and this mastery is in turn possible because these standards are founded on the norms of valid thought. Science is carried out in "the interplay of experience and thought", and thought—governed by its own "rigid logical laws" ('PS,' 87)—ultimately determines which aspects of experience count as evidence. Science, Husserl insists, cannot account for the norms of valid thought; rather, it presupposes them.

But Husserl doesn't stop here. Since the laws of thought that determine what counts as evidence are normative and not causal, he claims, they are in principle irreducible to the natural forms they explain. These laws are not merely what *Homo sapiens* evolved in order to process information. Even though they emerged from an evolutionary process, they are not just the laws of human thought—they are the laws of what is thought, i.e., they hold independently of the contingent, empirical circumstances of any given animal brain. No matter how the average brain in our

[10] Heidegger (1998, p. 84).

species happens to process information, the laws of logic hold—they are valid for—rational thought as such. Husserl is telling us that even if every living person—due to contingent processes that affect the way we think—failed to recognize *modus ponens* as a valid argument form, everyone would be wrong, because the law holds not of contingent psychological processes but rather of valid thought as such. Thus, when I grasp a norm as valid, I do not simply encounter something agreeable to my animal brain; in fact, I do not attend to what *I feel* at all but rather focus on the norm itself *as* valid. The intentionality of the experience is directed at the norm. And this, Husserl argues, is because there is a difference—an unbridgeable gap—between the real-time performance of logical norms in occurrent thoughts and the ideal content of such thoughts. The former is ephemeral and subject to error; the latter is seemingly eternal and independent of any mental state. Psychology deals with real mental facts; whereas logic and mathematics identify truths, some of which cannot be embodied in real mental facts: "There are decimal numbers with trillions of places, and there are truths relating to them. No one, however, can actually imagine such numbers, nor do the additions, multiplications, etc., relating to them."[11]

To bolster this point, Husserl shows that the endeavor to reduce normative laws to natural processes is self-refuting, because it presupposes the *normative validity* of the standards it hopes to reduce to *merely contingent* natural processes. For example, if we argue that logical laws are reducible to causal transactions in the brain, our argument relies on the validity of logical principles like entailment, even as we claim that such principles are nothing more than a particular causal sequence. The same applies to evolutionary explanations of human reasoning: we argue that logical modes of thought are selected because they are adaptive, even as we employ them as if they are valid, i.e., as if they hold independently of contingent circumstances. These equivocations in turn give rise to skeptical worries. If we take such principles to be valid only because of contingent processes—e.g., we have evolved to see them as such—why should we continue to think of them as valid, as holding independently of contingent facts? More to the point, why take scientism seriously, if the logical forms it deploys are not valid but rather the products of contingent natural processes?[12] But these questions are themselves absurd—for the matter simply is not up for a decision. Inasmuch as we think coherently, we must think of the laws of valid thought as holding independently of contingent facts. We can *say* that such laws are merely contingent; but these words are empty, because we cannot have a fulfilled intuition of the thought they represent. If a logical norm holds whenever we think it, we cannot but think of it as a necessary norm of thought. This is why Husserl claims that "naturalism refutes itself" ('PS', 80)—it presupposes the necessity of the norms it deems contingent, arguing that "the only rational thing to do is to deny reason" even as it relies on reason ('PS', 81). Thus, we cannot understand normative laws in strictly causal terms: it is absurd to look for causal connections among thoughts, an absurdity "no better than if one wanted to ask about the causal properties, connections, etc. of numbers. It is the absurdity of

[11] Husserl (2012, p. 118).

[12] Husserl's argument against strong naturalism clearly bears a certain resemblance to Alvin Plantinga's argument in "An evolutionary argument against naturalism" (1999).

naturalizing something whose essence excludes the kind of being that nature has" ('PS', 107). When scientism indulges in the pretension of completeness, it refutes itself, because the canons of thought that its arguments presuppose are irreducible to natural forms—at least as it construes nature—and every attempt at such a reduction results in equivocation.

Intelligibility and the laws of valid thought are by no means the only aspects of reality that undermine the possibility of a complete naturalistic reduction; rather, they offer a way into a broader phenomenological critique of scientism whose general strategy is to identify the features of first-person experience that the natural sciences presuppose but cannot reduce to natural terms. I can't offer an exhaustive inventory of these first-personal preconditions of scientific inquiry here, but I will discuss a few more that the foregoing discussion has prepared us to see as problems for scientism.

The problem of intelligibility raises questions about the space of intelligibility itself, i.e., consciousness. Scientific inquiry clearly cannot get off the ground without presupposing consciousness, as it is the medium of all inquiry, but can science offer a purely naturalistic account of it? Some have argued that the mere fact of phenomenal consciousness rules this out. As Nagel famously argues, to characterize phenomenal experience in third-person terms is to mask its distinctive kind of being.[13] Since *what it is like* to be conscious is intrinsically subjective, he argues, it cannot be reduced to objective terms without disappearing from view. This argument has inspired inquiry into what Chalmers calls the 'hard problem of consciousness.'[14] Why is there something it is like to be the subject of experience at all? And how can we account for this phenomenal consciousness in purely naturalistic terms?

This, however, was not the problem of consciousness that exercised Husserl in his critique of scientism. Chalmers is no doubt right that the phenomenal experience that accompanies the brain's information processing constitutes a major philosophical problem, but what occupied Husserl's attention were the asymmetries between the normative character of first-person experience and the causal relations of the natural world. As Husserl puts it, "the psychical, rather than being the presentation of a nature, has an essence proper to itself ('PS', 102)—an essence that "has nothing at all to do with nature, with space and time or substantiality and causality, but has its thoroughly peculiar 'forms'" ('PS', 107–108). And these peculiar forms are normative, pertaining not to what *is* but to what *should* be. For Husserl, the fact that first-person experience is shot through with such normative forms is the hardest problem consciousness poses scientism. And it is a problem that presents itself at every level of experience, right down to perception:

> How can experience as consciousness give or contact an object? How can experiences be mutually legitimated or corrected by means of each other, and not merely replace each other or confirm each other subjectively? How can the play of a consciousness whose logic is empirical make objectively valid

[13] Nagel (1974).

[14] Chalmers (1995).

> statements, valid for things that are in and for themselves? Why are the playing rules…of consciousness not irrelevant for things? ('PS', 88).

Husserl's point here is that even simple acts of perception contain a normative moment in that they purport to 'give or contact' real objects in the world. When I intend the flowers in my wife's office as fresh flowers, I do so in light of what they are supposed to be. And this normative set of expectations makes it possible for my unfolding perceptual experiences of the flowers to be 'mutually legitimated or corrected by means of each other'. For example, it is only because I perceive the flowers in light of what it means to be fresh flowers that my experience of them can be corrected when I lean in closer and, instead of the fragrance I expect, I smell stale fabric. One perception can correct another, then, because the experience is normatively structured. To take a more fantastic example, had I rubbed my eyes and discovered that what I thought were flowers were in fact a hallucination brought on by exhaustion, this surprise would highlight a fundamental feature of the normative expectations built into everyday perception—that it puts me in touch with the real world; or, in Husserl's terms, that "experience as consciousness [can] give or contact an object." This, again, is a precondition of science that it cannot justify on its own terms—for any scientific justification of the claim that perception puts us in contact with the real world would be circular. It would have to assume perception puts us in contact with the real world to make the empirical observations necessary to prove this assumption.

Setting Husserl's work aside for a moment, we can turn to his best-known student for some relevant insights. Another feature of first-person experience that seems to undermine the possibility of a naturalistic reduction is each person's ownership of his or her intentional standpoint, or what Heidegger calls "mineness". Mineness refers to the fact that from the first-person perspective I experience myself as being entrusted with my own existence; I carry out my life with an undeniable sense that it is "in each case mine."[15] This is a precondition of intelligible experience—for only that which is characterized by ownership can be understood as experience. There is no such thing as anonymous experience, or a first-person event with no owner. Mineness is an intrinsic feature of the first-person perspective—I experience every moment of my existence (tacitly or explicitly) as mine.[16] The fact that my being belongs to me in this way makes it possible, as Heidegger analyzes in detail in *Being and Time*, to take responsibility for my existence or to evade such responsibility. Mineness is the existential burden (or gift) of self-possession from which the irresponsible take flight and to which the responsible own up in order to be accountable for the standpoint they occupy.

It's difficult to imagine what a naturalistic reduction of mineness would look like. That which can be grasped third-personally is anonymous and available from multiple perspectives. That which is characterized by mineness belongs to and is only available from one perspective. Furthermore, what is properly mine is not this chunk of space–time but rather my existence, which consists primarily of activity

[15] Heidegger (1965, p. 42/68). [Henceforth cited as *BT* with German pagination followed by the English].

[16] For an in-depth discussion of the concept of mineness and the essential role that it plays in the possibility of consciousness, see Zahavi (1999).

that has its sense not in terms of natural laws and causes but rather in terms of reasons for action and normative standards for succeeding or failing at what I am trying to do, or who I am trying to be. Thus, it seems absurd to think that what is properly mine—my existence—could be reduced to natural terms, since what is mine is for the most part non-natural.

Moreover, though self-ownership cannot be reduced to natural terms, it is a precondition of the natural sciences—for all inquiry takes place from the perspective of some inquirer to whom it belongs. Of all research, some inquirer can say, "it's mine", or "that's my responsibility", and this sense of ownership has its sense in the fact that the inquirer sustains the work from her own standpoint and (what at least feels like) her own free endorsement of the project. To object that these inquirers are reducible to natural terms because they are just so many animals is to ignore the point just made—the perspective of these animals is characterized by mineness, which is irreducible to anonymous, natural terms. Such work only *is* inasmuch as some agent takes it up from a first-person standpoint that is characterized by mineness and a sense of self-responsibility.[17] Scientific inquiry, it seems, presupposes mineness but cannot account for it in purely natural terms.

Yet another feature of first-person experience that seems to be irreducible to natural terms but presupposed by scientific inquiry is what Heidegger calls care—the fact that the existence that is mine matters to me. As Heidegger points out, our affective dimension underwrites such existential mattering. My moods allow projects and people to stake a claim on me, and these claims afford me with a sense that my life is meaningful and a motivational basis for my actions. They are the positive incentives that attract me to certain features of the world and the negative sentiments that repel me from others; thus, they provide the fundamental likes and dislikes that constitute the starting point of all deliberation. Such mattering is essentially related to mineness—things must stake a claim *on me* to matter. This does not mean that things only matter inasmuch as they matter to me; but it does mean that nothing matters as such. Things can only matter from some point of view, so a universe without mineness would be a universe without mattering.

Since nothing matters from an objective value-neutral standpoint, it is unclear how we could reduce such mattering to anonymous, natural terms. Again, you can identify the physical structures that give rise to the experience of things mattering but no description of these structures—e.g., nervous tissue and neural states—would do anything to clarify mattering itself. Scientism cannot catch sight of mattering, because the phenomenon only has its being within the first-person perspective. I can ask myself, "On a scale of 1–10, how much does my wife matter to me?" But this question only makes sense insofar as we understand it in light of an antecedent grasp of what it means for something to matter; and this working, pretheoretical sense of what mattering means is only available from the first-person perspective. This kind of circularity plagues any naturalistic reduction of mattering. For instance, one might reduce mattering to neurochemical transactions, arguing that this accounts for

[17] Husserl explores this feature of the first-person perspective in Meditation I of his *Cartesian Meditations* (1960) and in the Epilogue of his *Ideas Pertaining to Pure Phenomenology and to a Phenomenological Philosophy, Book II* (1990a).

the fact that controlled substances affect our moods—and correlatively the way things weigh with us—in predictable ways. However, the fact that I rate someone's mattering at 10 rather than 4 after I receive an injection of vasopressin tells us nothing about what mattering *is*. It reveals a fact: when X receives Y amount of vasopressin, X registers a six-point increase in Z's mattering. But this fact derives its sense from the first-person meaning of mattering that allows person-X, the researcher, and any reader of the study to gauge what this six-point increase amounts to. If we attempt to remove the subjective dimension altogether, only measuring a drug's effect on blood pressure, skin temperature, neural activity, etc., the relevant physiological phenomena will have been selected due to their correlation with the first-person experience of mattering, and so the study remains beholden to a phenomenological concept that it cannot account for in naturalistic terms. Moreover, if researchers bracketed all reference to first-person phenomena, reporting nothing but physiological responses to a drug with no purpose specified in first-person terms, such a study would be pointless. It would mean nothing to anyone. The sense and direction of such studies are rooted in our desire to know how certain drugs affect *mattering*; and so their very existence presupposes a first-personal sense of what mattering means.

But how is it that all scientific inquiry—and not just naturalistic reductions of mattering—presupposes mattering? How is it a precondition of the value-neutral standpoint achieved by the natural sciences? Part of the answer is simple: the value-neutral standpoint of science is itself sustained by the existential commitment of practitioners whose research, one way or another, stakes a claim on them.[18] Prior to any inquiry, the inquiry itself—or some consequence of carrying it out—must matter to the inquirer. This simple fact would be enough to show that mattering is a precondition of natural science. But it points to a more fundamental fact about the relation between self-concern and inquiry that is also worth noting: a line of inquiry can only matter in this way because the inquirer's being is already at issue, i.e., his being is already characterized by care or self-concern. This is one of Heidegger's core claims—care is the precondition of all inquiry, because what *motivates* all striving towards the clarification of being is each individual's self-concern as "an entity…that, in its very Being, that Being is an *issue* for it" (*BT*, 12/32). The fact that my being is an issue for me gives rise to a tendency towards self-clarification and the clarification of being; it is one of the existential sources of all inquiry into entities (science) and the intelligibility conditions of entities (philosophy). Even if I study entities that make no apparent reference to my own being, for Heidegger, self-concern must be understood as the ultimate motive for the inquiry—for taking anything to matter presupposes a sense (even if only a tacit one) that my own being matters. This does not mean that black holes *only* matter if they matter to me. It means, rather, that pursuing an interest in them presupposes my sense that their mattering to me is significant enough to warrant action; and my sense that my interests warrant action implies that my being matters to me. I reflect my self-

[18] To my knowledge John Haugeland offers the best defense there is of the claim that existential commitment underwrites all scientific research. See his *Having Thought: Essays in the Metaphysics of Mind* (1998).

concern when I actively demonstrate that I take my interests to be worth pursuing. With this line of argument, Heidegger takes some of the edge off the modern fear that the ascent of a value-neutral perspective (science) will result in the death of God (or a culture of nihilism) in which nothing seems to matter. Mattering, he shows, is an existential source—and likewise a precondition—of the pursuit of the value-neutral perspective itself. And science cannot eradicate its own preconditions.

Finally, developing another insight from Heidegger's work, one last feature of first-person experience that undermines the possibility of a naturalistic reduction is the fact that each of us lives his or her life from the standpoint of an articulated sense of self—a practical identity—that is fundamentally non-natural.[19] The existence that is mine, Heidegger argues, always matters to me in terms of a constellation of practical roles that I occupy and in light of which I deliberate, frame my responses, structure my work, organize my life, etc. I am a husband, a father, a researcher, a teacher, and so on, and it is in terms of these roles that persons, projects and things in my life weigh with me. Things that are relevant to my sense of self stake a claim on me; those that are not leave me cold. The relevant things are normatively ranked according to the hierarchy among my practical roles—the more central the role is to my sense of self, the more value accorded the entities and others associated with it. To take up each of these self-defining roles I must be socialized into the practice wherein the role has its place. Socialization into a role involves learning to act in light of the norms that structure and constitute the relevant practice. I learn to do so in part by studying these norms but primarily by striving to embody them in the activities they structure. I appropriate the norms of the practice as the guiding principles of my own action, and over time I internalize them by mastering practical activities and developing skills that constitute my core entitlement to identify with a role. Once my socialization into a practice is under way the norms that govern it not only guide my behavior but they also measure my success or failure at being who I am trying to be. For the most part, my skills allow me to glide through my life on 'auto-pilot'; however, when a difficulty disrupts my activity and forces me to deliberate, I decide how to proceed by referring to my practical identity, which furnishes me with normatively ranked reasons and standards of judgment in light of which I make up my mind.

No part of a practical identity seems to be reducible to natural terms as defined by scientism. A practical role is not a natural object, nor is it a property that adheres to such an object; it has no 'thatness'. Rather, it is a distinctively human possibility—a way of being human—that only *is* as long as someone is actively engaged in taking it up. It is not part of the spatiotemporal nexus called nature. The socially shared practices in which these roles have their place are likewise irreducible to natural terms. Most practices involve equipment that is physical and therefore closed under natural causation, but what makes a practice what it is—what gives it its particular being—are the norms that constitute it. Horses and sticks do not make a Polo match; participants need to act in light of the norms that guide their use of the equipment to

[19] My discussion of the concept of practical identity here is inspired by Christine Korsgaard's work (especially *The Sources of Normativity,* 1996) and Heidegger's account of the self as "being-in-the-world" Division I of *Being and Time* (1962). For an illuminating analysis of Heidegger and Korsgaard's respective conceptions of practical identity, see Crowell (2007).

get the game off the ground. The sociality of these norms implies that their being transcends any one physical location (or brain). In fact, qua norms, their being must in principle be independent of any real-time implementation of them, because there is a difference between the application of a norm and its ideal content. Furthermore, since these norms are normative and not causal, even if we could correlate exact brain states to their implementation in some social group, there is no sensible way to equate one with the other. A normative rule is taken up from the inside; I endorse it as an internal principle of my action, thereby giving a rule to myself. Such a norm is essentially different than anything causal that determines my action from the outside. Once again, there is no basis for equating the two. Finally, my practical identity is the standpoint from which I deliberate, and this activity likewise cannot be reduced to natural terms without remainder. When I deliberate, I do not inquire as to which force is likely to *cause me to act*; rather, I ask myself which *reason I should act on*. Thus, such reflection concerns matters that are intrinsically first-personal and non-natural, at least as scientism understands it. We might identify the brain activity that correlates to the experience of weighing a particular reason. But we cannot in principle show how that reason—a consideration that counts in favor of some action or belief, that presents itself as a motive to be endorsed or rejected—is the same thing as some cause—a force that acts on a body from the outside. Once again, the equation is absurd because it refuses to recognize the essential difference between the causal and the normative.

Though none of these features of a practical identity can be accounted for in natural terms, every one is a precondition of scientific inquiry. Physicist, biologist, chemist, neuroscientist and so on—each is a practical role that provides the agent with norms to internalize and skills to master in order to cope successfully within the practice. And each affords her reason candidates and standards of judgment that structure her deliberations about how to go on when she faces difficulties that resist her skills and understanding. So, for example, to be a physicist one must be socialized (educated and trained) as a physicist in order to master the norms and skillsets that make it a distinct practice. To commit to the work of physics is to understand oneself as a physicist—the role in part defines who one is and the work matters in terms of that identity. Moreover, when a physicist works, she does not experience herself as driven by causes; rather, reasons motivate her work. She acts in light of what she takes to be the most promising direction for her research. Thus, even the work world of a *physicist* is not intelligible in terms of the laws of physical nature; rather, it has its structure and sense in terms of non-natural normative standards. The physicist structures the meaningful activity she calls her work in light of the standards of a practice that she shares with her colleagues. And her success or failure at being a physicist is judged in terms of her ability to live up to these standards. She strives to meet them—or begrudgingly submits to them—for the sake of sustaining her identity as a physicist, so long as that identity continues to matter to her. Thus, the activity of any researcher in the natural sciences has its sense, structure and purpose in terms of a practical identity that cannot be reduced to natural terms. It is a precondition of the work that the work cannot explain in its own terms.

For scientism to legitimate itself with strictly scientific means, it would have to account for its own preconditions in purely natural terms. I have argued that this seems to be impossible, because many of the preconditions of scientific inquiry are irreducible to natural terms, at least as scientism understands nature. That vital pivot point of being where anonymous matter becomes a mind that is mine—where the space of reasons emerges from the space of causes—seems to foil any attempt at a naturalistic reduction in the vein of scientism.

Without sufficient justification, then, proponents of scientism believe that they will 1 day reduce the normative to the natural without remainder. In holding this belief, they commit themselves to the future revelation of a mystery, a truth that from our current circumstances appears unknowable. Their cognitive predicament is therefore reminiscent of St. Paul's hope that though we currently see "through a glass, darkly", we will 1 day receive the gift of full understanding (I Cor 13:12). Scientism secularizes Christian eschatology: the perfect science of the future is a secular version of the divine dispensation of understanding that many believers hope for. The main difference between the two is that the religious believer is typically aware of her condition, using terms like faith and hope to describe her epistemic condition, whereas proponents of scientism seem to be unaware of their cognitive predicament.

To be clear, to compare the cognitive predicaments of religion and scientism is in no way meant to imply that the particular claims of religion and science are on a par, as one often hears in popular discussions. In other words, it by no means implies that the belief in heliocentrism is epistemically equivalent to the belief in angels. The comparison here is between religion and scientism, not religion and science. Science doesn't require anything akin to faith; scientism does.

Conclusion

Are there broader implications of this argument for naturalism and religious belief? I have attempted to show that scientism (or bald naturalism) is incoherent, but what about a 'soft naturalism', i.e., a naturalism that broadens the concept of nature so as to encompass normative aspects of reality while rejecting the appeal to any "mysterious gift from outside nature'"?[20] This, indeed, is one way to understand the overarching goal of Husserl's phenomenological project, a discourse that encompasses the subjective and objective dimensions of reality, a truly unified science.[21] Although this is a promising direction, it seems that even an approach that attempts to bring the normative within the sphere of nature will never be able to explain the basic mystery at the heart of human cognition, i.e., how it is that normative laws that are valid as such, independent of any material circumstances, emerge from but are irreducible to the physical world governed by causal laws. One of phenomenology's

[20] McDowell (1998, p. 173).

[21] Crowell makes a start at formulating a phenomenological approach to soft naturalism in light of Husserl's critique of scientism in "Philosophy as a Rigorous Science." See his *Normativity and Phenomenology in Husserl and Heidegger* (2013).

virtues is that it avoids such metaphysical rabbit holes by *describing* first-personal normative experience rather than *explaining* its origins. But bracketing these issues is not the same as resolving them. Soft naturalism might avoid mysterian language but it remains conditioned by a mystery, i.e., the fact that the human mind with its characteristic normative, 'peculiar forms' emerges from and is capable of grasping a physical world to which it cannot be reduced. Why is this possible? To paraphrase Husserl, why are the playing rules of consciousness relevant to things at all? It seems no amount of scientific inquiry or phenomenological analysis will ever satisfactorily answer to this question.

What about religious belief? Because of its metaphysical neutrality,[22] phenomenology's role vis-à-vis science is a strictly transcendental one—it clarifies the preconditions of intelligibility that make scientific inquiry possible. Can it offer something more when it comes to religious belief? Phenomenologists are divided on this question.

On the one hand, some representatives of the "Theological Turn"[23] argue that phenomenology, appropriately expanded or refined, can offer positive analyses of strictly religious phenomena. Namely, it can not only describe the necessary features of intelligibility, but can also lead to metaphysical conclusions on the basis of these descriptions—conclusions that are congenial to traditional religious views. For example, consider Marion's account of revelation in *Being Given*.[24] To get his analysis off the ground, he appeals to Levinas' analysis of alterity. This is a promising start, because the early Levinas rigorously adheres to the phenomenological demand for first-person evidence. In his early writings, he argues that I experience the alterity of the other only inasmuch as I experience *myself* as constituted by the encounter with her in a particular way. Moreover, he is clear that this radical alterity itself cannot be given any conceptual determination, because it is not a part of my world at all—it "does not fit into any a priori idea…[but rather] overflows all of them."[25] By contrast, Marion's approach goes further and imputes a name to this experience of Alterity, i.e., God/the divine. This imputation bears a metaphysical significance that cannot be grounded in the first-person evidence isolated by the transcendental-phenomenological reduction.

I have argued elsewhere that this attempt to draw metaphysically loaded religious conclusions from phenomenological analyses violates the core ideal of phenomenology—namely, the commitment to first-person evidence.[26] It is for this reason that Heidegger insisted on the fundamental "atheism"[27] of phenomenology and claimed that mixing theology and philosophy "ruins both".[28] Though one might attempt to argue that there are radically unique first-person experiences of the divine

[22] Yoshimi (2015).

[23] For a balanced perspective on this movement, see the following: Bornemark and Ruin (2010), Janicaud et al. (2001), Schunke (2009) and Tengelyi (2012).

[24] Marion (2002).

[25] Levinas (1987, p.59).

[26] I analyze Marion's breach of phenomenological method in Burch (2010).

[27] Heidegger (1992, p. 80).

[28] Heidegger (1999, p. 22). [Henceforth cited as *OHF*].

that reveal themselves as such, for Heidegger, the phenomenological treatment of such religious phenomena is illegitimate not only because it fails to enact the phenomenological reduction, which requires that we bracket existence claims and theories about transcendent reality, but because it also neglects the equally important eidetic reduction, which considers particular instances of first-person lived experience in order to distill universal rather than idiosyncratic structures of that experience. Thus in *Being and Time* Heidegger indicates that his analyses of everyday experience will exhibit "not just any accidental structures, but essential ones which, in every kind of Being that factical Dasein may possess, persist as determinative for the character of that being." (BT 17/38). The reduction is what gives phenomenology its rigor, by restricting its analyses to that which admits of first-person *Evidenz* for *any subject*. In other words, it makes possible the universal communicability and assessibility of its claims by restricting the method to the necessary structures of experience as such. It is not a method to explore idiosyncratic, mystical moments. For Heidegger, anything that fails to heed these methodological demands imposed by phenomenology quickly falls into "wishy-washiness, thoughtlessness, and summariness" (*OHF*, 58), running afoul of Husserl's original demand for "ultimate self-responsibility."[29]

With that said, however, so long as we are clear that we are no longer doing phenomenology, we can deploy the results of phenomenological analysis—for instance, the way it undermines scientism by revealing necessary structures of intelligibility that fall outside scientism's purview—to defend religious belief in the context of a more speculative philosophy of religion. Let us conclude with a sketch of how one might do so. In the first section of this article, I asked a series of skeptical questions of the form, if scientism is true, which is more likely, X or Y? In those questions, X was a religious interpretation of experience and Y was a purely material one, and we found that under the assumption of scientism Y seemed to be the only plausible answer. If we engage in a similar exercise in light of the findings of our phenomenological analyses, our answers might lean in the other direction.

After all, we found above that consciousness—or first-person experience—has access to the a priori and seemingly eternal laws of valid thought and is characterized by intelligibility, mattering, being at issue, self-concern, self-ownership, reasons for action, normative standards for success and failure, an articulated practical identity, normatively ranked values, capacities for deliberation and free commitment, and the feeling of personal responsibility.[30] Now we can ask ourselves, if human existence is indeed characterized by these things, which is more likely, that this normatively structured mind geared towards knowledge and imbued with a sense of responsibility (a) emerged by chance through purely causal transactions to which it cannot be reduced or (b) that it was the product of a divine intelligence to which it bears some resemblance? One can at least see why so many thinkers past and present have leaned towards (b).

[29] Husserl (1990b, p. 406).

[30] This is by no means an exhaustive list. Phenomenology has been clarifying first-person phenomena that undermine scientism for over a century now, and it has uncovered too many to address here.

Despite the rising popularity of scientism and its attack on religious belief, a phenomenological analysis of its commitments and the conditions that enable them reveal it to be a philosophically tenuous position. Though phenomenology's findings regarding the intrinsically normative features of first-person experience—which emerge from but are irreducible to purely natural terms—could never demonstrate the truth of religious belief and thereby remove the need for faith, these findings can nevertheless be used in the kind of argument just sketched, one that at least makes religious belief seem more plausible than a purely naturalistic view of the world and our place in it.

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