Studia Philosophiae Christianae
UKSW
61(2025)2

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HOW NATURALISM REFUTES ITSELF: PRAGMATIST CHALLENGES FOR NATURALISM (WILLIAM JAMES AND CHARLES SANDERS PEIRCE)

Abstract. This paper examines how radical naturalism, when defined as an ontological position grounded exclusively in the scientific method, is ultimately self-refuting. Drawing on the works of William James and Charles Sanders Peirce, I argue that both thinkers, though in different ways, pose significant challenges to naturalism. James interprets naturalism as an "overbelief," a dogmatic worldview that is assumed rather than justified through science. Peirce, in turn, highlights the indispensable role of abduction in scientific inquiry, a conjectural process that cannot itself be naturalistically explained. When combined with Jaegwon Kim's analysis of the epistemological and metaphysical dimensions of naturalism, these insights reveal that radical naturalism cannot justifying itself and it is also self--refuting. As a result, the scope of legitimate naturalistic positions must be reconsidered within more modest boundaries.

Keywords: naturalism; pragmatism; William James; Charles Sanders Peirce; abduction; overbelief; scientific method; Jaegwon Kim

1. INTRODUCTION

Pragmatism, just like naturalism, comes in a variety of forms. For most pragmatists, these two positions have tended to converge – one need only recall figures such as John Dewey, Sidney Hook, Willard V.O. Quine, and Richard Rorty. From the outset, however, it is crucial to emphasise that they are not intrinsically related. As Michael Slater (2014) demonstrates in his book *Pragmatism and the Philosophy of Religion*, pragmatism as such is not committed to naturalism. Indeed, two of the tradition's most influential architects – its founder,

Charles Sanders Peirce, and his celebrated successor, William James – both advanced non-naturalistic positions.

This paper seeks to show that each of them, although in a slightly different manner, posed formidable challenges to naturalism. What unites their approaches is the conviction that naturalism, insofar as it grounds itself exclusively in the scientific method, cannot provide a justification for its own presuppositions and must therefore look beyond the domain of science for warrant. I shall begin by examining James's treatment of naturalism as an "overbelief," which reveals metaphysical naturalism to be a dogmatic doctrine that is rather assumed than discovered by scientific inquiry. Turning then to Peirce, I will argue that radical naturalism is not self-explanatory and, what is more, that it is ultimately self-refuting. I will show how on his account of scientific inquiry – which necessarily includes abduction as indispensably conjectural (i.e., as including an element of guessing) – radical naturalism refutes itself as something that cannot be justified by the scientific method alone.

2. PRAGMATISM IS INDEPENDENT OF NATURALISM

Slater (2014) begins with describing the "Two rival versions of pragmatism:" anti-naturalistic pragmatism and naturalistic pragmatism. The first strand was initiated by Peirce and James, the second by John Dewey (Slater, 2014, 1-3).

In this paper I will adopt Slater's view, but it is relevant to stress here that it is debatable whether Peirce and James did not indeed develop rather naturalistic positions.[1] In the end, it all boils down

1 In the case of Peirce, see e.g. Corrington (1993) and Gava (2019). The latter writes: "Was Charles S. Peirce a 'naturalist'? If one has a look at the literature on Peirce, it seems that there is no straightforward answer to this question. Some interpreters argue that he clearly is a naturalist, but perhaps of a very original sort" (Gava, 2019, 208). For the background of this discussion, see Gava (2019, 227, footnote 1 and 2). For James, see the recent doctoral thesis by Bunzl (2019). In Chapter 1, he analyzes where to locate

to the issue of how one defines naturalism. Which is notoriously problematic.

Slater himself describes naturalism as a "vague, ambiguous, and overworked word" (Slater, 2014, 2), and gives it a negative definition[2] as "the view that nothing of a supernatural kind exists: supernatural beings such as God, supernatural realities or places such as heaven, supernatural entities or properties of entities such as souls, and so on" (Slater, 2014, 2; cf. Plantinga, 2002, 1). This is a thesis of *ontological* naturalism, and Slater himself admits that when it comes to *methodological* naturalism, it gets less obvious whether Peirce and James held such a view (see Slater, 2014, 2). Notably, the relationship between these two kinds of naturalism is a knotty one, and because there is no space to analyze it here in detail, I will only touch upon this issue in the next section.

Nevertheless, as long as we stick to ontological naturalism defined in this way, we can unambiguously say that both Peirce and James were anti-naturalists. In the case of the former, it is enough to mention his famous *A Neglected Argument for the Reality of God* (see CP, 6.452-491[3]). With the latter, we may refer to his remarkable devotion to defending the rationality of belief in supernatural entities (see James, 1979, 1985) and his conception of so-called "finite theism" (see

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James' philosophy in the conceptual space of the varieties of naturalism, and argues that it should be treated as a version of "liberal naturalism" (see Bunzl, 2019, 80).

2 Similarly to, e.g., Plantinga (2002), who in his influential evolutionary argument against naturalism defines it in the following manner: "Take *philosophical naturalism* to be the belief that there aren't any supernatural beings – no such person as God, for example, but also no other supernatural entities, and nothing at all like God" (Plantinga, 2002, 1). An attempt to define naturalism positively can be found in Kim (2003), who presents metaphysical naturalism as maintaining that: "The spacetime world is the whole world. The entities, properties, events, and facts in spacetime are all the entities, properties, etc. of the world" (Kim, 2003, 90).

3 When referring to the works of Peirce in the *Collected Papers of Charles Sanders Peirce* (published 1931-1958), I will use the following standard convention: the abbreviation CP, followed by the volume number and the relevant paragraph(s).

Weidenbaum, 2012). On the other hand, it might be the case that under this definition of naturalism, e.g. Dewey should be regarded as an anti-naturalist as well.[4] However, as I already indicated it all boils down to what we mean by "naturalism," and, ultimately, "nature." Especially when we observe that Slater says precisely that naturalism denies the existence of *supernatural* beings – beings that by definition lie *beyond nature*. Dewey's strategy to overcome certain philosophical dualisms may be regarded as "broadening the notion of nature" (Gutowski, 2021, 226). Then, with his broadened view he would be ready to accept certain entities, which, for more radical naturalists, count as supernatural. In the next section, I will clarify the notion of nature employed in this paper.

Another noteworthy feature of Peircean and Jamesian philosophies challenges naturalism – not necessarily on purely theoretical grounds, but rather as a result of their distinct pragmatic approaches. Both philosophers are generally open to accepting the reality of different kinds of entities. Peirce was famous for his arguments against nominalism and for what he called "scholastic realism" (see e.g. CP, 5.93-101; cf. Moore, 1952), acknowledging the reality of all sorts of universals and potentialities, including physical laws, habits, numbers, and continuous space. Similarly, James stood out with his resolutely pluralistic views. This general approach aligns with the kind of empiricism typical of their versions of pragmatism. Their empiricism was *inclusive* in its spirit. According to both, we must be open to how reality presents itself to us. At the same time, this basic experience needs a critical, meticulous examination, and this is what we expect philosophy and science to carry out. Conversely, naturalism is always in some way *exclusive*: *only* what can be examined by the scientific method exists, and *only* natural sciences provide us with knowledge. This is also why I believe Slater gets it right with his negative definition of naturalism as excluding supernatural entities.

4 I am grateful to both anonymous reviewers for drawing my attention to it.

3. NATURALISM AND THE SCIENTIFIC METHOD

Another author I will take into account in this paper is Jaegwon Kim. In his article *The American Origins of Philosophical Naturalism* (2003), he analyzes certain essential features of naturalism in the context of its rise in mid-twentieth-century American philosophy. Needless to say, the philosophers he considers (John Dewey, Roy Wood Sellars, John Herman Randall, Sydney Hook, and Ernest Nagel) are closely related to this article's protagonists. It is appropriate, then, to settle the further challenges posed by James and Peirce in this intellectual context, which was often dominated by naturalistic tendencies.

One of Kim's main concerns is the relationship between epistemological (methodological) and metaphysical (ontological) naturalisms (see Kim, 2003, 85-86). From his point of view, they are inherently intertwined, and what plays the mediatory role between them is the scientific method. Explicitly, he associates the latter with the thesis of epistemological naturalism: "all knowledge that we can acquire is acquirable only through the application of scientific method" (Kim, 2003, 88). However, in the final section of the paper, titled *Epistemic Constraints on Naturalistic Metaphysics*, he describes two essential features of the scientific method, which also condition naturalists' ontological commitments. The first is the objectivity (intersubjectivity) of science: "scientific properties must be cognitively invariant across different perceivers and cognizers" (Kim, 2003, 95). The second is the nomological (nomothetic) character of science: "scientific properties must be nomic/causal powers" (Kim, 2003, 95). According to Kim, "In each case of a non-natural property or entity – that is, things not acceptable to the naturalist – we can see, I think, an explanation in terms of one or the other of our two conditions on scientific properties" (Kim, 2003, 95).

Further, he provides a series of examples of supernatural entities excluded from a naturalistic ontology on the basis of these two features of the scientific method: experience of deities, normative/

moral properties, minds and mental properties. For instance, mystical experience violates both conditions: it is subjective, and it cannot be described by the general laws employed by science (see Kim 2003, 95-96). Let us note that in his exclusion of non-natural entities, Kim focuses on the features of the *methods* of inquiry, which then limit naturalistic *ontology*. Because mystical experience (as an alleged source of knowledge) violates both conditions of the validity of the scientific method, the entities it supposedly discovers are claimed to be non-natural and therefore non-existing (from the perspective of a naturalist).

Now, combining Slater's and Kim's considerations, I want to propose the term *radical naturalism*, which will serve as a point of reference for further discussion in this paper. It is a position of ontological naturalism described by Slater, which excludes non-natural entities on the basis of the naturalistic strategy presented by Kim. It is then a kind of naturalism that excludes from its ontology all the entities whose existence is supported by methods of inquiry that violate the conditions of the scientific method: objectivity, and/or its nomological character.

At this point, the following question is worth addressing: Isn't this definition of radical naturalism too narrow to be philosophically relevant?[5] Even though it might be hard to find an example of a full-blooded radical naturalist, I believe showing how this sharply defined form of naturalism refutes itself will have significant philosophical value. My aim in this paper is to show how – when we stretch naturalistic tendencies to their logical ends – radical nominalism undermines its own grounding principles. As a result, it will be possible to determine the acceptable limits within which other variants of naturalism should settle themselves.

5 Again, I am indebted to both reviewers for bringing this to my attention.

4. JAMES: NATURALISM AS AN "OVERBELIEF"

To discuss James's challenge to naturalism, let us begin by quoting a longer passage from Slater's book, which very well accords with the purposes of this paper. "From a Jamesean pragmatist perspective, naturalism is an 'overbelief,' a metaphysical view that variously informs or constitutes a person's 'vision' or basic view of the world, but for which there is insufficient evidence to determine its truth (in a neutral, non-question-begging sort of way). Overbeliefs, in turn, have their basis not in something impersonal[6] such as objective evidence or universal reason but rather in human temperaments, of which they are expressions" (Slater, 2014, 172-173).

In other words, according to James, the most fundamental philosophical positions are in a sense *chosen*, rather than *concluded* a priori or *discovered* a posteriori. In a way, then, they can be called dogmatic. One of such dogmatic beliefs is the naturalistic worldview. Overbeliefs express a certain attitude toward life and the world – they are the established perspectives in which the subjects situate themselves.

It might be useful to think about this in terms of the famous Wittgensteinian metaphor of the eye not belonging to the visual field (see TLP, 5.631[7]). In his *Tractatus*, we can read: "The subject does not belong to the world: rather, it is a limit of the world" (TLP, 5.632); and "The world of the happy man is a different one from that of the unhappy man" (TLP, 6.43). Paraphrasing Wittgenstein,

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6 It is worth noting that emphasizing the "not impersonal" character of naturalism (as an overbelief) can provide a basis for a naturalistic critique similar to the one Kim formulated in the case of mystical experience. If one accepts James's claim, then naturalism itself, as something subjective, would violate one of the conditions of the proper scientific method and would thereby render naturalism, in a sense, non-natural. A similar strategy will be employed in the next section, with respect to the second, i.e. nomological condition for a valid scientific explanation.

7 When referring to Wittgenstein's *Tractatus Logico-Philosophicus* (TLP), I provide the number of the relevant thesis rather than the page number of the cited edition.

we could say that the world of the naturalist is different from that of the anti-naturalist, although such a difference is not a matter of facts (examined by science) but of different philosophical stances.

Additionally, Slater identifies another crucial point in the Jamesian approach to naturalism (which accords with the exclusiveness of naturalism pointed out earlier): "what is problematic about naturalism is not its basic assumption that the natural world is the only world there is (which is a perfectly acceptable view to hold) but rather the assumption of most naturalists that naturalism is the only credible ontological view" (Slater, 2014, 174). What many naturalists seem not to acknowledge is that their position is only one of many philosophical stances, and that their sole insistence on the use of the scientific method by itself does not make naturalism a more "scientific" or "objective" option. As with other philosophical claims, it requires a *philosophical*, not a scientific justification (especially, as I will argue below, when we accept that there simply cannot be a satisfying scientific justification for it).

Kim's considerations, in some respects, align with the Jamesian perspective. First of all, Kim speaks of naturalism as a "philosophical ideology" (Kim, 2003, 83) in contemporary analytic philosophy. By doing so, he wants to illuminate the tacitly persuasive character of naturalism, which "is often invoked as a motivating ground for many philosophical projects, and 'naturalisation' programs abound everywhere, in theory of knowledge, philosophy of mind, theory of meaning, metaphysics, and ethics" (Kim, 2003, 83). Again, from the Jamesian perspective what is problematic here is the fact that many naturalists do not want to admit this feature of their ontological position and often claim that they are "neutral" and "objective" in a way similar to the scientific approach.

5. PEIRCEAN CONJECTURAL ABDUCTION

In this section, my goal is to show how Kim's description of the naturalistic strategy to exclude non-natural entities can be coupled with Peirce's account of scientific inquiry, and that together they prove radical naturalism self-refuting. The gist of the argument is that abduction – an essential stage of scientific inquiry, as Peirce emphasized – is inherently conjectural and cannot be adequately captured by general laws. By naturalistic standards, it should therefore be excluded from the doctrine of naturalism. Yet we cannot exclude abduction from scientific inquiry; therefore, naturalism ultimately undermines its own foundation.

I will now proceed with a much simplified, schematic reconstruction of Peirce's theory of scientific inquiry based mostly on its mature formulation in his *A Neglected Argument for the Reality of God* (see CP, 6.452-491). The founding father of pragmatism starts by stating that every inquiry begins with a perceived fact (an anomaly that in some way attracts one's attention, it is surprising, curious, baffling) and then he divides the proceeding inquiry – aimed at explaining the fact – into three successive stages: abduction (retroduction[8]), deduction, and induction (see CP, 6.469-473).

The first stage (which I will present in more detail below) consists of finding a hypothesis that would explain[9] the anomalous fact. This involves the specific skill of guessing, ultimately not guided by any rules. Therefore, it must be tested. Next, to verify the hypothesis, one needs to clarify ("explicate") the hypothesis and derive its possible consequences. This is the task of deduction. The third stage of inquiry

8 I am referring to Peirce's use of the term "retroduction" (see, e.g., CP, 6.569), I have chosen to retain the term "abduction," which is more prevalent in the contemporary literature.

9 Peircean abduction was later elaborated under the label 'inference to the *best explanation*,' a term that became widely recognized through the work of Gilbert H. Harman (1965).

is then focused on testing whether (and to what extent) the hypothesis accords with experience. This is the task of induction.

I will not go into the details of the whole Peircean account and will focus only on the first stage of inquiry, which is the most puzzling as well as the most innovative and influential part of his theory. In this respect, Jaakko Hintikka (1999) claims that the question of what abduction is constitutes one of the most fundamental problems of contemporary epistemology. He identifies two central components of Peirce's notion of abduction: its *ampliative* and *conjectural* character (see Hintikka, 1999, 522). The former stands for abduction being the only type of reasoning – contrary to and independently of both deduction and induction – that enables us to form genuinely new hypotheses and in that way to amplify our knowledge.

What is problematic, however, is the latter element. Peirce himself ubiquitously describes abduction as simply "guessing" (see e.g. CP, 6.476, 6.491). Consequently, as Hintikka points out, "The conjectural element in Peirce's notion of abduction is precisely the kind of reason that has led other philosophers of science to embrace a hypothetico-deductive model of science" (Hintikka, 1999, 505-506). If science were to rely on guessing, why should we rely on science? How is this method supposed to provide us with knowledge and certainty?

On the other hand, a simple intuition can show that if science were ever to progress, we should expect a conjectural element in the scientific method somewhere. For any genuinely new piece of knowledge cannot be determined by the knowledge already acquired. In every scientific revolution, in every paradigm shift, there must be an element of guessing that, from the perspective of the existing paradigm, appears to be inexplicable.

Of course, we must keep in mind that this is only the first stage of inquiry, and that what is crucial for the scientific method is the critical examination of hypotheses, not the unforeseeable character of the process of generating new explanations. Moreover, Hintikka tries to improve Peirce's original conception and proposes to grant

abduction's reliability in adopting certain "strategies" (see Hintikka, 1999, 515-517; cf. Harman, 1965). This, to some extent, would bound abduction by certain rules. Nevertheless, Hintikka admits that an element of guessing would still remain. Altogether, abduction is an indispensable stage of scientific inquiry, and it also contains an indispensable conjectural element.

Now, let us come back to Kim's strategy to show what, from the perspective of a naturalist, should be excluded from the naturalistic worldview. If we accept that there is an irreducibly conjectural element in abduction, there cannot be any general rule of how one should conduct it. Then, following Kim's contention that one of the essential constraints of the scientific method is its nomological character, we should conclude that abduction itself cannot be examined by the scientific method. Hence, from the perspective of a radical naturalist the very faculty that gives rise to scientific theories is of a non-natural character. In other words, this means that there can be no satisfying naturalistic explanation for the process of arriving at new scientific hypotheses.[10] From the perspective of the radical naturalist, abduction is non-scientific in the sense that it does not consist in applying a certain established scientific theory (comprised of general rules). Since it cannot be excluded from the scientific enterprise, it follows that radical naturalism undermines its own foundation.

6. CONCLUSION

Radical naturalism cannot justify itself and it is also self-refuting:[11] by its own standards, radical naturalism should count itself as a non-scientific position. This, again, is well illustrated by the Jamesian notion

10 Peirce himself pointed that out in his discussion of the success of abduction in his *Neglected Argument* (see CP, 6.476).

11 This conclusion closely parallels Plantinga's evolutionary argument against naturalism, according to which the conjunction of naturalism and contemporary evolutionary theory is self-refuting (see Plantinga, 2002). By contrast, the radical naturalism discussed here

of overbelief. The question whether naturalism is a tenable position cannot be answered by science alone; naturalism assumes science rather than providing a scientific justification for it.

As indicated before, the fact that this *radical* – and arguably too far-fetched – form of naturalism is self-refuting might be a lesson for other, more restrained positions. It sets the limits of the extent to which the scientific method can justify our philosophical convictions, and where we must look for grounds beyond the purely scientific.

This conclusion also aligns with another challenge to naturalism posed by Kim, namely the threat of explanatory regress: "It is generally thought that some laws can be explained by other, more basic laws and that, given the assumed asymmetry of the explanatory relation, there will always be laws that are not further explainable, in any given theoretical context, or perhaps unexplainable *tout court* – because we have indeed hit the bottom and there are no deeper or more fundamental regularities" (Kim, 2003, 93-94).

The principles of the scientific method allow us to explain increasingly fundamental laws that govern the natural world. But what explains these very principles, and the success of science itself? What explains the indispensable conjectural element of the scientific inquiry? What justifies the naturalistic worldview? Following James and Peirce, we may argue that all this calls for an explanation from outside science itself – by means other than the scientific method alone. Moreover, if naturalism in general, like its radical version discussed in this paper, restricts all valid justification to the scientific method, it thereby renders itself non-scientific – and, in a sense, non-natural. Hence, it must be regarded as self-refuting.

– a stronger position than Plantinga's notion of naturalism – proves to be self-refuting on its own, without conjunction with any further claims.

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This article expands upon a presentation of the same title delivered at the 3rd International Christian Philosophy Conference "Christian Philosophy Facing Naturalism," September 24-25, 2024, Ignatianum University in Cracow, Poland.

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DOI 10.21697/spch.2025.61.A.12

Received: 23/07/2025. Reviewed: 25/08/2025. Accepted: 9/10/2025.