

Methodological Naturalists Need Not Commit to Metaphysical Naturalism

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Abstract. In their paper “Should Methodological Naturalists Commit to Metaphysical Naturalism?” Zargar et al. try to show that the correct answer to the question that the title of their paper poses is positive. They argue that methodological naturalism has a metaphysical presupposition, namely causal closure, and an epistemological consequence, namely evidentialism. Causal closure and evidentialism imply metaphysical naturalism. Thus, they conclude, one who believes in methodological naturalism should also endorse causal closure, evidentialism, and metaphysical naturalism as a result. In this paper, I criticize their argument and argue that it is deficient in (at least) two different ways. First, what they consider to be methodological naturalism is in fact a strawman: that is another – more radical – thesis that may be called methodological anti-supernaturalism. Second, and most importantly, even methodological anti-supernaturalism does not in essence need causal closure for its justification. Then, methodological naturalists are not required to adhere to causal closure or metaphysical naturalism.

Keywords: methodological naturalism, methodological anti-supernaturalism, causal closure, explanatory value, basing relation.

Introduction

In their paper, as the question of its title suggests, Zargar *et al.* (2020) try to make a case for the claim that methodological naturalists have no choice but to commit to metaphysical naturalism, and it is irrational to believe in the former and, at the same time, reject the latter: “there is a conceptual relation between methodological and metaphysical naturalism such that one cannot rationally commit to methodological naturalism and simultaneously deny metaphysical naturalism” (187–188).¹ Their argument briefly goes this way: methodological naturalism has a metaphysical presupposition, causal closure thesis, and an epistemological consequence, evidentialism, which together lead to metaphysical naturalism. Then, one who believes in methodological naturalism should also endorse metaphysical naturalism.

In this paper, I examine their argument and show that it is deficient in at least two different ways. First, I argue that what they take to be methodological naturalism is in fact a strawman: that is another – more radical – thesis that may be called methodological anti-supernaturalism. Second, and most importantly, considering the structure of their argument, I show that even neglecting the first deficiency, causal closure thesis that is claimed to be included in the justification for methodological anti-supernaturalism is too strong to be needed in a justification for that thesis.

1. The Logical Structure of Zargar *et al.*'s Argument

If it is the case that one who believes in the proposition P should also believe in – or commit to – the proposition Q, there usually exists some relation of logical consequence between P and Q – it is the putatively normative role of logic in human reasoning. Two kinds of such a relationship may be at work. The first kind is the case that P – alone or together with some other *acceptable* premises – implies Q, that is, $(P \supset Q)$, or more generally, $((P \ \& \ \Phi) \supset Q)$ in which Φ is an acceptable premise or the conjunc-

¹ All references are to Zargar, Azadegan, and Nabavi 2020, unless otherwise stated.

tion of a set of acceptable premises – Φ may be thought of as a logical tautology when P alone entails Q . In this case, if one believes in P (and also believes in Φ), then it does not seem rational to reject Q (see, e.g., Streumer 2007). (Two other assumptions are also needed for this claim to be made. First, generally speaking, it should be assumed that our belief system is closed under logical entailment or logical consequence. It roughly means that, if one believes in a set of propositions, she also believes (or should believe) in *all* the logical consequences of those propositions unless she is not a rational agent – an assumption similar to the one Salmon (1989) calls *belief closure principle* and the one Steinberger (2019) calls *logical implication principle*. Here, I refer to it as *belief closure principle*. Second, it should also be assumed that, in addition to believing in P and Φ , the person in question believes that the logical entailment $((P \ \& \ \Phi) \supset Q)$ obtains. This latter assumption is not challenging, especially not in the context of this paper that mainly concerns the educated philosophers. However, there is a debate concerning the first assumption, the belief closure principle, and it has gone under several criticisms – two of which are the infinite consequences of a finite set of beliefs and the trivial consequences of one’s beliefs (see, e.g., Salmon 1989, Steinberger 2019, Korczyk 2020). However, I think most of the objections are not serious here, and I assume that the belief closure principle applies.)

There is a second kind of logical relationship between P and Q by which one who believes in P seems to be expected to endorse Q . It is the case that Q is a premise in the very argument for P that an agent appeals to for justifying P – i.e. the argument is her *inferential epistemic basing* or her very *reason* for believing in P – such that P cannot be concluded without assuming Q .² That is to say: $((Q \ \& \ \Psi) \supset P)$ in which Ψ is a premise or the conjunction of a set of premises acceptable for the agent – Ψ may be thought of as a logical tautology when Q alone entails P – provided that $(Q \ \& \ \Psi)$ constitutes the very justification the agent has for believing in P , and Q is needed for concluding P . (In fact, one may believe in P on some other ground than $(Q \ \& \ \Psi)$ and thus consistently reject Q .) Here again it seems not to be rational to endorse P but to reject Q at the same time.

² I should thank Florian Steinberger for reminding me of clarifying the last condition.

This case seems to be vindicated by a criterion of consistency between beliefs, like the one Steinberger (2019, 309) calls *logical consistency principle*: any agent “ought to avoid having logically inconsistent beliefs.” (It should be mentioned that here I do not take any specific theory of epistemic basing – causal, doxastic, etc. – for granted. I only assume that one’s epistemic basing for a belief is the very reason that she *needs/depends on* – or feels herself in need of/dependent on – for that belief to be sustained or justified. For a survey of the debates concerning the theories of epistemic basing, see Korc 2021).

Zargar *et al.*’s approach in their paper is ambiguous between these two cases of logical relationship. For example, when they declare that they want to argue against the “prevailing consensus” that science is ideologically or metaphysically neutral, they write: “[...] methodological naturalism has certain tacit *metaphysical implications* which have been widely ignored by the dominant view” (186 [my italics]). And when discussing Barbara Forrest’s view of the theses of naturalism, they also write: “While we accept Forrest’s claim that metaphysical naturalism is a *consequence* of methodological naturalism, our claim in this paper is stronger than her conclusion that this relation is practical” (187 [my italics]). These passages apparently show that when they talk about the metaphysical commitment of methodological naturalists they mean the first case of logical relation between methodological naturalism and metaphysical naturalism. But, it is not the case.

It seems that the logical relation between methodological naturalism and metaphysical naturalism Zargar *et al.* think of is in fact a combination of both of the above cases: they try to show that methodological naturalism has a metaphysical *presupposition*, namely causal closure, which underpins methodological naturalism, and an epistemological *consequence*, namely evidentialism. And together, causal closure and evidentialism lead to metaphysical naturalism. About the causal closure, they write: “[...] in order to be defensible, methodological naturalism must also include the assumption that the physical world is *causally closed*” (189 [original italics]). And about evidentialism, they write: “Methodological naturalism *implies* evidentialism, which obliges us to base the justification of

our beliefs purely upon empirical evidence” (192 [my italics]). Consequently, when they talk about “metaphysical consequences” of methodological naturalism, it seems that they mean both the metaphysical premise of the claimed argument for methodological naturalism – that is, causal closure – and the metaphysical conclusion causal closure, together with evidentialism, entails – that is, metaphysical naturalism. They thus do not show any consequence methodological naturalism – alone or in conjunction with some other proposition(s) – *directly* implies. Therefore, as said above as to the second case of logical relationship, their argument is logically deficient unless they show that methodological naturalists (actually) appeal to – or need to appeal to – the causal closure to argue for their position: even if there is an argument from causal closure and some other premise(s) to methodological naturalism, it is not obligatory for a methodological naturalist to endorse those premises unless her justification for methodological naturalism draws on them. But, to my knowledge, it does not seem right that the proponents of methodological naturalism appeal to causal closure for justifying their position. More importantly, as I show in the following, they even do not need causal closure to argue for their position. So, Zargar *et al.*’s argument is deficient since it begs the question of what the methodological naturalists’ justification for their view is.

In what follows, I try to show that their argument cannot get off the ground since causal closure is too strong to be needed for justifying methodological naturalism. Before showing this, I examine the definitions Zargar *et al.* give for the theses they are handling, especially their definition of methodological naturalism.

2. Methodological Naturalism, Metaphysical Naturalism, and Causal Closure

Methodological naturalism has usually been considered to be the following thesis (see, e.g., Devitt 1998, Kim 2003, 2011, Audi 2000, De Caro and Macarthur 2004, Campbell 2005, Cañón Loyes 2015, Pérez Marcos 2022):

(MN): Scientific method is the only route to knowledge.

It roughly means that, in every area of knowledge – empirical science, social science, humanities, or even philosophy itself – only those theories that may be justified using scientific method – generally understood – may have a chance to constitute knowledge, and otherwise they are misleading. About this matter, Zargar *et al.* write: “As a methodology of science, methodological naturalism aims at obtaining knowledge about the natural world” (191). In this definition, scientific method is a way – the only one exists – to reach a goal: knowledge of the world.

However, knowledge may be thought of as an ambitious goal, since most of the theories in the history of science that had been justified by scientific method – generally understood – have been shown to be false. A more realistic goal to pursue would thus be succeeding in explaining and predicting the natural phenomena. Then, (MN) may be reformulated as:

(MN’): The only way towards explaining and predicting any phenomenon of the world is through scientific method.

It means that, in every area of knowledge only those theories that may be justified using scientific method – generally understood – may have a chance to contribute in explaining and predicting some natural phenomena, and otherwise they do not have any explanatory or predictive value.

At the outset, Zargar *et al.* define methodological naturalism as “the claim that the method of science is empirical” (185). If by “science” they mean “empirical science” and by “empirical” they mean what is the distinguishing feature of scientific method, then their definition will be a limited version of (MN’), since (MN’) encompasses every area of knowledge including also social science, humanities and philosophy, in addition to empirical science. Hence, when it comes to empirical science, (MN’) is pretty much the same as Zargar *et al.*’s definition of methodological naturalism.

Nevertheless, they quickly jump to another definition of methodological naturalism: that “in scientific explanation only the use of natural entities is permitted” (187 [italics removed]) and that “a scientific theory must refer neither to any supernatural entity nor to any revelational

proposition, and everything should be explained by using natural structures and mechanisms” (187). What is often meant by scientific method seems to methodologically exclude revelation as an improper method of justification (to see why, see Smith 2017). However, it is not clear whether methodological naturalism has in fact any claim about *the kind of entities* a scientific theory may introduce so as to be able to explain and predict natural phenomena. Such a definition of methodological naturalism has appeared in some works. For example, following Paul Kurtz, Forrest defines methodological naturalism in a similar way (see Forrest 2000, 8; see also Ruse 2005, Plantinga 2001). But, it is not the definition that is often referred to in the literature, and it is not a purely methodological precept or “an *epistemology* as well as a procedural protocol” (Forrest 2000, 8 [original italics]). Even some of the other definitions of methodological naturalism Forrest quotes – especially those of the naturalists of the first half of 20th century, like Sidney Hook and Sterling Lamprecht – are much more similar to (MN’) than this latter definition. Then, I formulate that claim separately as:

(MAS): Supernatural entities do not have any explanatory value.

The thesis can be called *methodological anti-supernaturalism*, and has similarities with the way *methodological physicalists* characterize physicalism (see Poland 1994, Field 1972, 1992). (MAS) implies that supernatural entities should not be invoked in scientific explanations, since they have no explanatory value.

Tiddy Smith (2017) suggests that many debates concerning methodological naturalism, especially those between creationists and Darwinists, misconceived the thesis. According to him, “[t]here is a general tendency in the literature to locate the naturalism of science in the metaphysical commitments of its explanations” (Smith 2017, 322). Against this tendency, he argues that: “Methodological naturalism prohibits scientists, not from making appeals to certain kinds of entities, but from making appeals to supernatural *methods* of justification” (Smith 2017, 322 [my italics]). Smith provides some historical cases of the origination of the idea

in the Middle Ages that show that methodological naturalism was then concerned with excluding supernatural *methods* rather than supernatural *entities*. Medieval philosophers, Smith argues, appealed to two principles when doing natural philosophy: the principle of the common course of nature and the principle of empiricism, both of which are epistemological rather than metaphysical. Smith thus concludes: “[...] methodological naturalism demarcated the particular kind of knowledge that was the object of natural philosophy from the very beginning” (Smith 2017, 326), and “[m]ethodological naturalism is largely [...] an epistemological thesis” (Smith 2017, 330).

Although I am not in sympathy with some parts of Smith’s argument – especially that methodological naturalism originated in the Middle Ages – I think, in agreement with him, that after all the historical evidence shows that in different eras of scientific glory there has been a methodological rather than a metaphysical constraint on scientific practicing, and that is exactly what we now call methodological naturalism. Therefore, Zargar *et al.*’s argument targets a strawman rather than the real position of methodological naturalists in science and philosophy. However, it is a general and the less important objection to their argument and in what follows I argue that their argument cannot get off the ground even regarding (MAS) as the definition of methodological naturalism. It will be discussed in the next section.

Metaphysical or ontological naturalism may be regarded as the following thesis (see, e.g., Stroud 1996, Rea 2002, Kim 2011):

(ON): There are only natural entities in the world.

Zargar *et al.* define metaphysical naturalism in the same way as the thesis that “only natural entities exist” in which by “natural entities” they mean the “known and uncontroversial examples of natural entities,” that is, “the agreed examples” of the concept, or alternatively, “everything which inhabits time and space” (186–187). Then, they regard ontological naturalism as *entailing* “the claim that there is no God or any entity like Him” (185). More generally, we may conclude from (ON) that:

(AS): There is not any supernatural entity in the world.

(AS) may be called (metaphysical) *anti-supernaturalism*, which is mostly considered to be a corollary of (ON) (see, e.g., Stroud 1996). For the sake of simplicity, following Zargar *et al.*, I regard (AS) itself as the formulation of metaphysical naturalism.

And we can define causal closure of the natural world as the following thesis (For the parallel alternative definitions of causal closure of *the physical world*, see Gibb 2015, Montero 2003):

(CC): The natural world is causally closed – that is, any natural effect has some natural cause.

What Zargar *et al.* mean by causal closure – the version they think methodological naturalism needs to presuppose – is the thesis that entirely excludes any supernatural entity from having any causal role in any causal chain of the world, neither as an overdetermining cause nor by being an INUS³ of a natural (or physical) effect – a “Stringently Pure Closure” thesis (see 189–190). Then I reformulate (CC) as the following thesis:

(CC’): Supernatural entities do not have any causal role in the world.

(CC’) can be called the *causal isolation of the supernatural* thesis. Although it is evident that (CC’) is stronger than (CC), for the sake of argument, I regard (CC’) as the formulation of causal closure.

And finally, following Zargar *et al.* (191–192), I take evidentialism to be the thesis that:

(E): One should base the justification of her beliefs purely on empirical evidence,

though it is a special and limited definition of the thesis.

³ An INUS is “an *insufficient* but *necessary* part of a condition which is itself *unnecessary* but *sufficient*” (Mackie 1965 [original italics]).

Up to this point, I tried to adhere to Zargar *et al.*'s definitions. Now, we can scrutinize their argument.

3. Causation and Explanatory Value

According to the structure of Zargar *et al.*'s argument and their definitions of the theses they deal with, it can be said that they want to argue for three propositions. First, that:

(C1): Methodological naturalists need causal closure to justify their position – or: to justify (MAS), one needs to presuppose (CC').

Second, that:

(C2): Methodological naturalism implies evidentialism – or: (MAS \supset E).

And third, that:

(C3): Causal closure together with evidentialism entail metaphysical naturalism – or: ((CC' & E) \supset AS).

I do not discuss (C2) and (C3), and my main focus here is (C1) that I try to undermine. If (C1) is undermined, then it is shown that methodological naturalists do not have to subscribe to (CC') – causal closure – or (AS) – metaphysical naturalism.

About (C1), Zargar *et al.* write, for example: “[...] methodological naturalism is based on the presupposition of causal isolation of the natural and the supernatural worlds” (191). To argue for this claim, Zargar *et al.* implicitly try to argue for a proposition concerning the relation between *explanatory value* and causal role: that having causal role is necessary for an entity to have explanatory value. That is:

(EVC): Every entity that has some explanatory value has some causal role in the world.

For example, they say that: “Recognition of causal relations seems *essential* for any genuine explanation” (188 [my italics]) which means that we cannot have any genuine explanation without there being a causal relation, which amounts to (EVC). I do not discuss (EVC) here and only assume that it is an acceptable proposition.

Zargar *et al.*'s argument for (C1) draws on the claim that (CC') together with (EVC) imply (MAS); that is, $((CC' \& EVC) \supset MAS)$. The argument seems to be valid: from (EVC) we may conclude that any entity that does not have any causal role in the world, does not have any explanatory value. And (CC') asserts that supernatural entities do not have any causal role in the world. Then, we may conclude that supernatural entities do not have any explanatory value and should not be invoked in scientific explanations. So, I concede that $((CC' \& EVC) \supset MAS)$ is a valid deduction. However, the implication does not alone support (C1). As said above, this implication is the second case by which believing a proposition – (MAS) – makes one commit to another proposition – (CC') – and in this case, there is the requirement that the latter should be included in the very justification one has for the former. Then, to argue for (C1), it should also be shown that the conjunction (CC' & EVC) constitutes the very justification methodological naturalists have for their position. But, that is not true. As far as I know, most methodological naturalists would not appeal to such an argument to vindicate their position. However, what I do here for rejecting (C1) is to argue that methodological naturalists *do not need* (CC' & EVC) to justify their position. In fact, (CC') is too strong a premise for arguing for (MAS).

To show this, I introduce two alternative theses that I think their conjunction is enough for justifying (MAS). The first one is that:

(ECC): Supernatural entities do not have any causal role in the world *that can be studied by scientific method.*

(ECC) means that the causal efficacy of supernatural entities, if there exists any supernatural entity and it has any causal efficacy, cannot be studied scientifically. (ECC) is a weaker claim than (CC') since the latter

implies the former, but not the vice versa. (In fact, for concluding (ECC) from (CC'), one also needs this trivial proposition that every entity that has some causal role in the world that can be investigated by scientific method, has some causal role in the world *simpliciter*.) (ECC) even cannot be considered to be a version of causal closure anymore. In fact, it is not a metaphysical position. It even does not totally repudiate the causal role of supernatural entities, and only states that such a role could not be studied scientifically. So, to contrast it with (CC'), I call it *epistemological causal closure*.

The second thesis is that:

(EVC'): Every entity that has some explanatory value has some causal role in the world *that can be studied by scientific method*.

(EVC') is stronger than (EVC) since (EVC') entails (EVC), but not the vice versa. (Again, for concluding (EVC) from (EVC'), one also needs the trivial proposition that every entity that has some causal role in the world that can be investigated by scientific method, has some causal role in the world *simpliciter*.) Therefore, I should argue that (EVC') is more plausible than (EVC). I will do it in the following.

(EVC') and (ECC) imply (MAS). Now, if I can argue for these premises without appealing to any version of *metaphysical* causal closure, metaphysical naturalism, or any other metaphysical a priori ground, then (C1) is rejected: one may consistently reject (CC') and, at the same time, endorse (MAS).

(ECC) has historical evidence that I mention in the next section. About (EVC') I only argue that if it is true that having a causal role is a necessary condition for being explanatorily valuable, then we may add the proviso that the causal role should also be able to be studied by scientific method. It can be deduced from (MN'), which is the original definition of methodological naturalism: if the only way towards explaining and predicting any phenomenon of the world is through scientific method, and if having some causal role in the world is a necessary condition of having explanatory value, then only those entities in a theory that their causal role can

be studied by scientific method have explanatory value. Then, we have: $((EVC \ \& \ MN') \supset EVC')$. A key point here is that (MAS) is ultimately justified by (MN') when it is based on (EVC').

4. The Justifications for Epistemological Causal Closure and Methodological Naturalism

As said in the previous section, (ECC) is not a metaphysical thesis and it may be called *epistemological* causal closure. (ECC) can be justified a posteriori by evidence from the history of science: there is no evidence that any putatively supernatural entity has had any causal role in a causal chain of the world, which its causal role could be studied and revealed by scientific method (see, e.g., Papineau 2001). Furthermore, there is much historical evidence of postulating the existence of some supernatural entity by a scientific theory where, after a while, it turned out that it did not in fact contribute to the explanatory power of the theory. History of science shows that appealing to supernatural entities, most notably the God-of-the-gaps, has not improved the explanatory value of scientific theories. Different instances of God-of-the-gaps have been appealed to in many scientific theories – like Newtonian mechanics – but they have been abandoned when it was revealed that they were idle entities and the explanatory power of a theory would remain intact without them (see, e.g., Barbour 1966, passim; see also Forrest 2000, Boudry, Blancke, and Braeckman 2010, Smith 2017). About this matter, Forrest writes: “The threat faced by supernaturalism is not the threat of logical disproof, but the fact of having its explanations supplanted by scientific ones” (Forrest 2000, 23).

Finally, (MN') is justified according to the goals of science. As said above, a reasonable goal of science can be said to be reaching successful explanations and predictions of the natural phenomena. Therefore, according to Laudan's *normative naturalism* (see Laudan 1987, 1990), we can justify the normative proposition (MN') with making use of historical evidence: history of science shows that whenever scientists followed (MN'), they had a better chance to attain the goal of explaining and predicting

some natural phenomena of the world (see, e.g., Kornblith 1994, Moreland 1998). It is not the end of the story, however. There still seem to be some phenomena whose natural explanations are not so compelling now and are yet to be explained, and also have parallel supernatural explanations; most notably consciousness. Such phenomena may be considered to be against (MN') now.⁴ That is true. And at the end of the day, time determines the winner.

Conclusion

I examined Zargar *et al.*'s argument for the claim that methodological naturalists should commit to metaphysical naturalism. I showed that, according to the structure of their argument as well as the definitions they give for the relevant theses, their argument is deficient in at least two ways. First, what they consider to be methodological naturalism is in fact a strawman: another more radical thesis that may be called methodological anti-supernaturalism. Second, as the structure of their argument requires, they have to show that methodological naturalists need to presuppose causal closure thesis for justifying their position. But they do not show this, and I showed that methodological naturalists – or better to say, methodological anti-supernaturalists – need not in effect presuppose causal closure for justifying their position. Then, it may be concluded that methodological naturalists do not have to subscribe to causal closure nor to metaphysical naturalism.

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⁴ I should thank an anonymous referee of *Scientia et Fides* for reminding me of this point.

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