



# Non-supernaturalism: Linguistic Convention, Metaphysical Claim, or Empirical Matter of Fact?

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## Abstract

This paper examines our pre-theoretic conception of non-supernaturalism; the thesis that all that exists is natural. It is argued that we intuitively take this thesis to be a substantive, non-dogmatic, empirically justified, not merely contingent truth. However, devising an interpretation of non-supernaturalism that captures all aspects of this intuition is difficult. Indeed, it is found that this intuition conflates the strong inferential scope of a metaphysical claim with the modest justificatory requirements of an empirical matter of fact. As such, non-supernaturalism, in its *pre-theoretic* form, contains an internal tension that must be navigated whenever the thesis features in systematic thinking.

**Keywords** Naturalism · Supernaturalism · Ontology · Metaphysics · Intuitions · Methodology

## 1 Introduction

Naturalism has conquered in many parts of philosophy. In the introduction to their anthology *Naturalism in Question*, Mario De Caro and David Macarthur go as far as to proclaim that “[a]n overwhelming majority of contemporary Anglo-American philosophers claim to be ‘naturalists’ or to be offering a ‘naturalistic’ theory of key concepts (say, knowledge) or domain (for example, ethical discourse)” (De Caro and Macarthur 2004, 2). This widespread adherence to naturalism conceals, as one may expect, a whole landscape of naturalist positions (for an overview, see Draper 2005; Jacobs 2019; Papineau 2015; Ritchie 2008). However, despite this diversity, Barry Stroud speculates that there is a common core to naturalism expressed in the view that

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“[n]aturalism on any reading is opposed to supernaturalism” (Stroud 1996, 44) and expands how this “naturalism says that there is nothing, or that nothing is so, except what holds in nature, in the natural world” (Stroud 1996, 44). Phillip Pettit suggests a similar characterization of naturalism when he writes: “Naturalism imposes a constraint on what there can be, stipulating that there are no nonnatural or unnatural, praeternatural or supernatural, entities” (Pettit 1992, 245). Interpreted in this way, naturalism is the thesis: All that exists is natural. I will subsequently refer to this thesis as non-supernaturalism.<sup>1</sup>

Naturalism, however, often involves much more than non-supernaturalism. This is for instance the case for naturalisms that follow Quine (1948, 1969, see Roland 2014) in associating naturalism with the findings of and/or methods of science (e.g. Ladyman and Ross 2007; Mumford and Tugby 2013; Haug 2014). The interest here, however, is not the many good works of naturalistic philosophy that feature a detailed explication of naturalism in one form or another. Rather, the interest here is one aspect of how naturalism operates – both in philosophy and our everyday discursive practices – namely when naturalism merely features as an implicit assumption or in an unspecified form. If we are to believe Hilary Putnam, such instances of unqualified naturalism are numerous:

philosophers – perhaps even the majority of all the philosophers writing about issues in metaphysics, epistemology, philosophy of mind, and philosophy of language – announce in one or another conspicuous place in their essays and books that they are ‘naturalists’ that the view or account being defended is a ‘naturalist’ one [...]. A further very common feature is that, as a rule, ‘naturalism’ is not defined (Putnam 2004, 59).

The view is echoed by De Caro and Macarthur (2004, 2) who write:” Naturalism has become a slogan in the name of which the vast majority of analytic philosophy is pursued, and its pre-eminent status can perhaps be appreciated in how little energy is spend in explicitly defining what is meant by [...] naturalism.” Assuming that Stroud is right that naturalism on any reading involves non-supernaturalism, the many instances where naturalism is alluded to but not specified will (in most cases) involve a role for an intuitive or pre-theoretic type of non-supernaturalism. An exploration of pre-theoretic non-supernaturalism will therefore inform the reception of these unqualified appeals to naturalism, and such an exploration is exactly what will be conducted here.

By pre-theoretic non-supernaturalism is meant our intuitive grasp of the thesis captured by the slogan ‘all that exists is natural’ or similarly vague expositions. Pre-theoretic non-supernaturalism, in other words, designates our intuitive responses when we operate under such a thesis without having a detailed qualification about its interpretation in mind. According to David Papineau (2015), many – myself included – find non-supernaturalism appealing.<sup>2</sup> The view seems to be that supernatural

<sup>1</sup> This thesis is also referred to as ‘metaphysical naturalism’ (Draper 2005; Keil 2008; Rea 2002; Ruse 2013) and ‘ontological naturalism’ (Papineau 2015). However, ‘metaphysical’ and ‘ontological’ are also used to designate naturalisms that Jeffrey Roland (2014) attributes to Willard V. O. Quine. To avoid confusion, I will use the perhaps somewhat convoluted name ‘non-supernaturalism’ to designate the thesis that all that exists is natural.

<sup>2</sup> See the anthology edited by Corradini et al. (2006) for philosophers opposed to non-supernaturalism.

explanations belong to a time of myth, which reason and rationality have finally put in our past. Non-supernaturalism is the slogan by which we fought our way out a dogmatic darkness and the weapon with which we slay all sneaking attempts at a return of such thinking. While this may be a slightly fanciful presentation, I think it highlights some important intuitions about non-supernaturalism in its pre-theoretic form: (a) Non-supernaturalism is the antithesis of dogmatism; (b) non-supernaturalism counters a certain type of illicit explanations that feature supernatural entities. These intuitions relate to two different, but equally important, components of non-supernaturalism: its justification (a) and its inferential role (b). Beginning with the latter (b), section 3 examines, via two examples, the scope of this inferential role of pre-theoretic non-supernaturalism. Section 4 then goes on to explore the sort of evidence (a) we would intuitively take to be relevant in justifying this thesis. These explorations expose a tension in our pre-theoretic conception of non-supernaturalism; the two intuitions (a) and (b) cannot both be preserved. This tension originates in the ambiguity of non-supernaturalism as a thesis that supports several distinct interpretations which are conflated in our intuitive conception of the thesis. More precisely, I argue that in its pre-theoretic form, the inferential scope of non-supernaturalism resembles that of metaphysical claims<sup>3</sup> while it is justified as an empirical matter of fact. This discrepancy signifies an inevitable negotiation between the inferential scope and justificatory requirements for non-supernaturalism that is disregarded or at least unrecognized in our pre-theoretic conception of the thesis. Consequently, circumstances where non-supernaturalism is operative without further qualification of its interpretation is at risk of being incoherent; a circumstance which by Stroud's and Putnam's respective assessments may be rather widespread. And the incoherence obtains in such a way that unspecified naturalism will gain from the conflation of the distinct interpretations of non-supernaturalism. Pre-theoretic non-supernaturalism is associated with both the strong inferential scope of a metaphysical claim and the modest justificatory requirements of an empirical matter of fact. In its pre-theoretic guise, therefore, the thesis is rendered more appealing and as consequence more readily acceptable than it would be if more precise qualifications were given about its interpretation.

In my view, naturalism should conquer, but not with the help of a fortunate, but incoherent conflation of the two interpretations of non-supernaturalism. This account is therefore not meant a criticism of naturalism! Furthermore, I make no contention that pre-theoretic non-supernaturalism is the actual position of any serious naturalist philosopher. Rather, the analysis of pre-theoretic non-supernaturalism is relevant since it exposes a tension in the most naïve conception of naturalism; a tension that as such might contaminate our immediate *reception* of naturalism in the instances where naturalism is not further specified. Emphasizing the interpretational ambiguity of pre-theoretic non-supernaturalism makes us, as readers, aware of the trade-off – inferential scope vs. justificatory requirements – involved in settling on an interpretation of (non-super)naturalism. Similarly, this exploration of pre-theoretic non-supernaturalism may be seen as a warning and a recommendation to writers to always specify what type of

<sup>3</sup> Evidently, this view shares similarities with Phillip Johnson's (1995) characterization of naturalism as a metaphysical claim. I have no sympathies for Johnson's general creationist agenda! However, I do think his characterization has some merits when it comes to the inferential scope of *pre-theoretic* non-supernaturalism. But again, I must insist that this does not (generally) carry to more carefully developed naturalist positions.

naturalism that is endorsed; importantly including some indications of the inferential scope and justificatory requirements of the intended thesis. Once naturalism is properly defined and interpreted, the ambiguities should dissipate, and each type of naturalism can be assessed on its actual merits and not on fortunate confluences in our pre-theoretic conception of such theses.

## 2 All that Exists is Natural

The non-supernaturalist thesis ‘all that exists is natural’ entails that you will not find anything anywhere which exists, but which is not natural. As such, its interpretation seems rather straightforward. Structurally, the thesis is similar to the following propositions that will be instructive in the disambiguation of non-supernaturalism: (1) ‘All bachelors are unmarried’ as uttered by an ordinary English speaker; (2) ‘All that thinks exists’ as uttered by a Cartesian; (3) ‘All renates (creatures with kidneys) are cordates (creatures with hearths)’ as uttered by a biologist. All entail that you will not find anything of the former – renates, thinking things, or bachelors – that are not instances of the latter – cordates, existing, or unmarried. All bachelors are also unmarried people. The extension of ‘bachelor’ is a subset of the extension of ‘unmarried’. According to Descartes’ meditations, all thinking things exist. All entities which have the property ‘thinking’ also exist. Similarly, the extension of ‘renate’ is a subset of the extension of ‘cordate’.

Despite their structural similarity, we conceive very differently of these statements: (1) is a linguistic convention, (2) is a metaphysical claim, and (3) is an empirical matter of fact. As such, they serve as the first suggestion that multiple interpretations of non-supernaturalism are available since these structurally similar sentences can be interpreted as very different types of statements. For the current purposes, it is of particular interest that these all have different inferential scopes and justificatory requirements. In the following, I will explore which of (1)–(3) that resembles our pre-theoretic conception of non-supernaturalism the most – if any of them do – taking a particular interest in the two intuitions mentioned in the introduction: (a) that non-supernaturalism is non-dogmatic which relates to how the thesis is justified and (b) that non-supernaturalism rules out certain elements – those that are deemed supernatural – and explanations in terms of such elements which relates to the inferential scope of the thesis. We will begin by considering the inferential scope and then go on to the justificatory requirements.

## 3 The Inferential Scope of Non-supernaturalism

By the inferential scope of non-supernaturalism is meant the range of inferences that non-supernaturalism is supposed to sanction. Particularly, this scope will depend on the modal implications of the thesis, but rather than beginning with an analysis of non-supernaturalism in possible worlds, we will make some more flat-footed observations that are perhaps closer to our pre-theoretic conception of the thesis. Let us begin by considering an exposition of non-supernaturalism offered De Caro that I suspect – as does De Caro – many will find very agreeable:

If [naturalism] is interpreted as only denying the legitimacy, both in philosophy and science, of the appeal to spiritual entities, Intelligent Designers, immaterial and immortal minds, entelechies and prime movers unmoved, then the thesis is in fact acceptable to the vast majority of contemporary philosophers (De Caro 2010, 367).<sup>4</sup>

In relation to the inferential scope of De Caro's naturalism, it is interesting that it is "denying the legitimacy" of the supernatural entities rather than merely conjecturing their non-existence. Now obviously, if supernatural entities do turn out not to exist, they will never truly feature in explanations and accounts of existing things. However, emphasizing them as illegitimate suggests that such explanations are *prima facie* ruled out. This sits well with the intuition (b) that non-supernaturalism can be used to counter explanations and theories featuring supernatural entities. According to both De Caro and (b), non-supernaturalism rules out supernatural entities.

Keep this in mind when we subsequently explore the inferential scope of our pre-theoretic conception of non-supernaturalism through two examples that are meant to expose our intuitions about the thesis rather than generating philosophical theorizing about it; something that would take us beyond the pre-theoretic and intuitive regime. These examples will then serve as a context for the comparison between non-supernaturalism and the statements (1)–(3). Something that should in turn offer a first disambiguation of the various interpretations of the thesis.

### 3.1 The Ghost Example

The first example employs Steve Clarke's (2009) suggestion that we are undecided on whether ghosts are natural or not.<sup>5</sup> So, let us presume this, and let us further imagine that we one day make the surprising discovery that ghosts exist. This is no mere whim of ours; the discovery has been firmly corroborated by evidence and is not disputed by anyone. Ghosts do indeed exist. So, what to make of this discovery? Particularly, does this discovery make a difference for our judgement whether ghosts are natural or not? I will propose that our intuition is that the existence of ghost is strong – perhaps even deciding – evidence that ghosts are indeed natural. While we, according to Clarke, were in doubt about the naturalness of ghosts prior to the discovery of their existence, this doubt, I propose, (largely) dissipates with this discovery. Our intuitive conception of the relation between existence and the property of being natural, presumably as captured by pre-theoretic non-supernaturalism, is such that it sanctions an inference from existence to naturalness. The discovery that ghosts exist obviates any further investigations into whether ghosts are natural or not and is simply taken as evidence that ghosts are in fact natural.

When reacting in this way, it seems that the existence of ghosts is irrelevant for the belief that all that exists is natural. Why is it that, if we were in doubt about the naturalness of ghosts prior to the discovery, we do not remain so after the discovery? The existence of

<sup>4</sup> Whether all the entities mentioned by De Caro are equally illegitimate is debatable. Nothing in the subsequent discussion hinges on the exact elements in the extension of 'natural' and 'non-natural', respectively. For present purposes, we will therefore leave the extension of 'natural' unqualified and take 'exists' as a simple.

<sup>5</sup> Should you be decided on this question, replace ghosts with your preferred example of an entity where you are undecided on whether it is natural or not.

ghosts could just make it all the more interesting to investigate whether ghosts are natural or not, since the discovery that ghosts exist presents a potential falsification of the thesis ‘all that exists is natural’: If ghosts exist but are super- or non-natural, then non-supernaturalism is false. When we are prone to regard the existence of ghosts as evidence that they are natural, this signifies that our pre-theoretic conception of non-supernaturalism is such that this thesis is not immediately contested by the discovered existence of an entity even though its naturalness has hitherto been unsettled. It seems that non-supernaturalism entitles an a priori inference from existence to naturalness.

A slightly modified version of the example further corroborates this verdict. Suppose that the discovery of the existence of ghosts were accompanied by two explanations of their existence, one natural and the other supernatural. Surely, anyone sympathetic to non-supernaturalism would find the natural explanation more likely. Our interest, however, should rather concern our attitude towards the supernatural explanation. I suspect that the intuitive reaction of most who share the instinctive sympathy for non-supernaturalism will be to immediately discount the supernatural explanation; it will not even be taken seriously. This attitude is perhaps what is implicit when De Caro above suggests that most will find it acceptable to deny the *legitimacy* of non-natural entities. What De Caro seems to propose is that the availability of supernatural explanations is no reason to take them into consideration; instead they can simply be denied as illegitimate. In summary, therefore, I propose that our intuition about non-supernaturalism is such that individual discoveries of entities that can be accounted for both as natural and supernatural entities are not regarded as instances of potential falsification of non-supernaturalism. Instead, pre-theoretic non-supernaturalism serves in our inferences to rule out the supernatural accounts.

A possible real example of this attitude could be the treatment of intelligent design creationism and generally creation science among some of its opponents. As documented by several researchers over the years (e.g. Laudan 1983; Monton 2006; Koperski 2008; Boudry et al. 2010), the criticism of intelligent design has in some cases been prone to inconsistencies, offering principled criticisms (as opposed to empirical) based on various forms of naturalism that did not meet their own naturalist standards. I will propose that some of these problematic criticisms might originate in the operation of pre-theoretic non-supernaturalism and its sanctioning of inferences to the illegitimacy of supernatural entities. In the famous case of the Dover decision of 1995, for instance, Monton demonstrates how the ruling of judge John E. Jones relies on a naturalistic principle by which “hypotheses that invoke the supernatural are ruled out” (Monton 2006, 4).<sup>6</sup> The details of intelligent design – including any possible evidence for or against it – are irrelevant since by this naturalistic principle intelligent design is deemed illegitimate on a priori grounds due to its supernatural explanation of existing things.<sup>7</sup> As such, the operation of this principle in the Dover decision resembles the operation of pre-theoretic non-supernaturalism in the ghost example.<sup>8</sup>

<sup>6</sup> The National Academy of Sciences (1999, ix) similarly promotes this principle when it states that it is a general view among scientists that “the claims of creation science do not refer to natural causes and cannot be subject to meaningful tests, so they do not qualify as scientific hypotheses.”

<sup>7</sup> I strongly support Monton’s (2006, 6) recommendation: “We shouldn’t get caught up debating whether ID [intelligent design] counts as science; the focus should be on the empirical arguments for and against ID.”

<sup>8</sup> Numerous philosophers and scientists (e.g. Pennock 1999) have taken on the task to give a serious refutation of creationism in general and intelligent design in particular.

This resemblance is even clearer considering the frequently debated case of bacteria's flagella, which is a rather complicated mechanism that serves as a sort of motor for bacteria. Flagella exist and we regard them as natural; presumably for independent reasons. In this way, flagella do not immediately serve as a test of our intuitions regarding the sort of inferences sanctioned by non-supernaturalism. However, the naturalness of flagella is exactly what is brought into doubt by intelligent design creationists, who argue that flagella are irreducible complex systems that need a supernatural explanation of their existence (Behe 1996). While this argument has been forcefully dismissed by microbiologists (cf. Pallen and Matzke 2006), the offered natural explanation of flagella as an evolved system is highly complicated and only developed in any detail after the conjecture by intelligent design creationists that no such explanation would be possible qua irreducible complex system. Presumably, someone with naturalist intuitions would even prior to this debate have maintained that flagella are natural, but on what grounds? Since the natural explanation is so complicated, it could not have been intuitively grasped and it therefore seems more likely that the intuitive confidence in the naturalness of flagella originated in their existence and an inference from their existence to their naturalness;<sup>9</sup> the same inference that we are prone to make for ghosts upon the surprising discovery of their existence. Intelligent design is not seen as a possible (though unsuccessful) falsification of non-supernaturalism. In accordance with the stipulated intuition in the ghost example, the inferential scope of pre-theoretic non-supernaturalism is such that intelligent design is simply illegitimate due to its supernatural explanation of existing things. Moreover, this verdict depends only on the supernatural elements of the theory and not on any empirical considerations.

### 3.2 Possible Interpretations of the Ghost Example

One might defend these inferences from existence to naturalness arguing that it is simply incomprehensible what it means for something non-natural to exist. An argument to this effect propels us towards a conception of non-supernaturalism that resembles (1) from above: all bachelors are unmarried. If we discover that somebody is a bachelor, we can immediately infer that he is unmarried. Indeed, people would find it foolish, if we afterwards interrogate whether he is married unless we have reasons to suspect that he is not a bachelor after all. The discovery of a bachelor whose marital status is unknown does not pose a potential falsification of the fact that all bachelors are unmarried. *Pace* Quine,<sup>10</sup> we doubt that any evidence will make us reconsider that all bachelors are unmarried. Our reason for this confidence is that we regard 'all bachelors are unmarried' as a linguistic convention. We may infer that someone is unmarried from the discovery that he is a bachelor, because to be unmarried is part of what it means to be a bachelor. It is a linguistic convention.

<sup>9</sup> Knowledge of the theory of evolution together with awareness of its many successes could be an alternative way to ground the confidence in the naturalness of flagella. This would reduce or maybe even eliminate the role for an inference from existence to naturalness.

<sup>10</sup> As is well known, Quine (1951) argues that the distinction between analytic and synthetic truths is a false dogma of empiricism. Quine argues that paradigmatic examples of analytic truths are simply beliefs deeply entrenched in the web of belief. These are opposed to beliefs found in the periphery of this web, which are more prone to revision. However, no belief is invulnerable to revision come what may. This worry will be bracketed here since we will shortly dismiss as irrelevant the interpretation of non-supernaturalism as an analytic truth.

Similarly, when the surprising discovery of the existence of ghosts is used to infer that ghosts are natural, we could propose that this is because the thesis ‘all that exists is natural’ is a linguistic convention like ‘all bachelors are unmarried’. Obviously, this interpretation of the non-supernaturalist thesis would deflate it significantly. According to this interpretation, anyone using the terms ‘exist’ and ‘natural’ correctly would be committed to non-supernaturalism by convention. If someone did not observe this convention, it would merely signify that she meant something different by ‘exist’ and ‘natural’. Any dispute over non-supernaturalism would in that case be a verbal dispute. I suspect that very few will find that this interpretation of non-supernaturalism agrees with the thesis they find intuitively appealing and consequently, this interpretation does not capture the pre-theoretic conception of non-supernaturalism. Non-supernaturalism is a substantive thesis. Whether all that exists is natural is not a debate about how to speak but concerns what the world is like. Likewise, the statements (2) ‘All that thinks exists’ and (3) ‘All renates are cordates’ are both about the world, and in this respect at least they are therefore more similar to pre-theoretic non-supernaturalism than (1). The question, however, remains which of them that have the inferential scope that most likens that of pre-theoretic non-supernaturalism.

The statements (2) and (3) are exemplars, respectively, of a metaphysical claim and an empirical matter of fact. As possible interpretations of non-supernaturalism, these make the same claim about the actual world: Those entities which we find to exist turn out also to be natural and this is not a consequence of linguistic convention, but rather a feature of the way the actual world is.<sup>11</sup> However, as argued above, our pre-theoretic conception takes non-supernaturalism to entail more than this. Its inferential scope is such that the supernatural is regarded as illegitimate as exemplified by our tendency to infer from the surprising discovery of the existence of ghosts to their naturalness despite being agnostic about the latter at the outset. The metaphysical claim ‘all that thinks exists’ displays a similar inferential scope: According to Descartes, existing is a precondition for thinking. This is what lies at the centre of Descartes’ cogito argument.<sup>12</sup> With a generous interpretation, we may even extend the analogy between the cogito argument and the ghost example a step further, proposing that the existence of the thinker – like the naturalness of ghosts – is at the outset uncertain. Nevertheless, the cogito argument licences an inference from thinking to existence. The discovery of thinking in something whose existence is in question does not constitute a possible falsification of ‘all that thinks exists’ but is instead conclusive evidence that this thinker exists despite our previous doubts. This is analogous to our intuitions upon the surprising discovery of the existence of ghosts that precisely provokes an inference to their naturalness despite the previous uncertainty about this matter.

Compare to the empirical matter of fact: ‘all renates are cordates’. As a well-supported empirical matter of fact, we expect that some recently discovered reneate will prove to be a cordate upon further investigation; after all, this has so far been the case for all such specimens. However, suppose in analogy to the ghost example that we know of a creature for which it has hitherto been undecided whether it has a heart and that we one day make the discovery that it has a kidney. What is the effect of this discovery on the undecided question whether the creature has a heart? If we for a long time regarded it as an open question

<sup>11</sup> Obviously, there might be disagreement over the use of ‘exist’ and ‘natural’, but this could just as well be among those favouring the same interpretation as among those favouring different interpretations.

<sup>12</sup> Arguably, the cogito argument applies only to oneself following the performativity of one’s own thinking. However, we will ignore this complication here, since ‘all that thinks exists’ merely serves as an example of a metaphysical claim.



whether this creature had a heart, I will argue that this attitude is maintained even after discovering that the creature has a kidney. The discovered kidney will not decide the question whether the creature has a heart.<sup>13</sup> Rather, we will regard this creature as a possible falsification of the statement ‘all renates are cordates’. This suggests a dissimilarity between ‘all that exists is natural’ and ‘all renates are cordates’. We expect creatures with kidneys to have hearts, and expect existing entities to be natural, but while existence prompts an inference to naturalness, discovering a kidney does not – in analogous circumstances<sup>14</sup> – licence an inference to the effect that the creature has a heart. Thus, in so far as the inferential scope of empirical matters of fact is captured by the example ‘all renates are cordates’, this differs from that of our pre-theoretic conception of non-supernaturalism. It seems therefore that the inferences we are intuitively prone to make from ‘all that exists is natural’ resembles those of a metaphysical claim more closely than those of an empirical matter of fact.

### 3.3 The Angel Example

A more direct exploration of the modal content of pre-theoretic non-supernaturalism further illustrates its resemblance to a metaphysics claim. Consider an entity that is non-existing and certainly supernatural; I will propose medieval angels, but anyone who finds the supernaturalness of medieval angels to be disputable may replace them with a suitable alternative. Now, the question to be considered is whether there could be such medieval angels. We might rephrase this question in terms of possible worlds asking: Is there a possible world where these supernatural creatures exist? However, I suspect that talk of possible worlds leads our intuitions astray and take us beyond the pre-theoretic context which is our interest here. It will therefore be instructive initially to ask a different question: Is it accidental that there are no medieval angels?

I suspect that the intuition associated with pre-theoretic non-supernaturalism is that the non-existence of medieval angels is not merely accidental. There is something about medieval angels such that their existence is precluded, at least if they retain all their attributes, and in this sense, they cannot exist. One might object that there may be a planet somewhere whose conditions have been such that winged, human-like creatures developed. However, in order for this to be a counterexample, one should make sure that the imagined creatures abide by the initial requirements: (obvious) supernaturalness. Again, I can only allude to intuition, but keeping the supernaturalness of medieval angels – or your preferred alternative non-existing, supernatural entity – in mind, such counterexamples become much less compelling to the effect that the non-existence of medieval angel is not merely accidental.

Returning to our example statements (1)–(3), it would certainly be possible for there to be a creature with a kidney which does not have a heart. Such creatures could exist, but to the best of our knowledge they do not. On the other hand, a Cartesian would probably maintain that it is impossible to have a thinking entity which does not exist. According to a Cartesian, it is not merely accidental that all thinking things exist. A

<sup>13</sup> Of course, the discovery of the kidney will most likely raise our credence somewhat in the belief that the creature has a heart.

<sup>14</sup> It may be contested that to be undecided about the naturalness of ghosts and being undecided whether a creature has a heart are very different instances of undecidedness despite the immediate similarity. We have an operative criterion for having a heart, which we arguably lack for naturalness. Rather than addressing this worry directly, the subsequent section will instead try to independently corroborate the dissimilarity between empirical matters of fact and our intuitive conception of non-supernaturalism.

metaphysical claim – like ‘all that thinks exists’ – is necessary, while empirical matters of fact – like ‘all renates are cordates’ – are contingent. While the interpretation as an empirical matter of fact can to some extent explain our intuitive response to the ghost example, the angel example makes the model implications of pre-theoretic non-supernaturalism more vivid: we are unwilling to accept that the non-existence of supernatural entities is merely accidental. The interpretation as an empirical matter of fact does not capture this intuition that non-supernaturalism is more than merely contingent.

Stipulating that the inferential scope of pre-theoretic non-supernaturalism resembles that of a metaphysical claim also explains why the surprising discovery of ghosts is the end rather than the beginning of inquiry into their naturalness. As previously stated, if we are in doubt about the naturalness of ghosts, then we could take their surprising existence as an occasion to possibly falsify that all that exists is natural. But our intuitive inclination, it was proposed, is rather to infer from the existence of ghost to their naturalness. This inferential pattern, however, can be explained if our pre-theoretic conception of non-supernaturalism is that of a necessary truth: Ghosts must be natural in order to exist, and their existence therefore decides the question of naturalness rather than issuing a challenge to non-supernaturalism.

In summary, assuming the adequacy of the proposed intuitions from the ghost and angel examples, the inferential scope of pre-theoretic non-supernaturalism is closer to the Cartesians’ metaphysical claim than an empirical matter of fact. As an empirical matter of fact, non-supernaturalism does not rule out supernatural entities and explanations. Rather, it hypothesizes that no such explanations are needed in the actual world as there happens to be no supernatural entities. Only interpreting non-supernaturalism as akin to a metaphysical claim explains why non-supernaturalism, as De Caro suggests, outright denies the *legitimacy* of appeals to supernatural entities. In its inferential scope, therefore, our pre-theoretic non-supernaturalism resembles a metaphysical claim.

## 4 The Justification for Non-supernaturalism

At the outset, I proposed that we have two central intuitions associated with non-supernaturalism. One – denoted (b) above – relates to the inferential scope of the thesis and sanctions that we rule out supernatural entities and explanations featuring them as illegitimate; this was the intuition discussed in the previous section. The other central intuition (a) of pre-theoretic non-supernaturalism was proclaimed to be that the thesis is the antithesis of dogmatism. I said that this intuition is related to the way we intuitively conceive non-supernaturalism to be justified. More precisely, this intuition indicates that we believe that there are good reasons to endorse non-supernaturalism. To further probe what we intuitively take these reasons to be, i.e. what we regard as the justificatory requirements of pre-theoretic non-supernaturalism, we shall consider two small stories that hopefully will be telling of our intuitive responses in justifying non-supernaturalism.

### 4.1 Two Stories: Your Inquisitive Friend and the Creationist

We all have this inquisitive friend who questions everything and refuses to take even the most obvious thesis for granted. She – let us call her Alice – does not recognize ideas just because they are widely held by all the people you and she usually associate with. While you have good reasons to believe that you and Alice are like-minded about most topics, she

always insists to be given reasons pretending a kind of routine agnosticism about everything. You meet Alice, one day, after a job interview. Both you and your mutual friend Jones had applied for this job and had taken the bus there together. While paying for the ticket, you saw Jones receive 10 coins back from the bus driver. Regarding Jones as a much better candidate for the job, you jokingly said that the one who gets the job has ten coins in his pocket. In the end, however, you got the job. ‘But this was not the weird part’, you tell Alice and continue: ‘when I got home, I counted the number of coins in my pocket, and there were exactly ten! Sometimes one could just as well believe that there are more things in heaven and earth.’ ‘Maybe there is?’, Alice inquires. ‘There you go again Alice! We can agree that we have only ever seen natural things, right?’ Alice nods. ‘It always turns out that there is a natural explanation in the end,’ you conclude.

Before we draw any conclusions from this little story, let us consider a related circumstance. Imagine that you discover that your friend Jones favours intelligent design. From your previous experience, Jones is a sensible fellow and comes across as someone who can be reasoned with. Specifically, he does not strike you as dogmatic and seems to endorse scientific theories when he finds them convincing. Being a convinced naturalist yourself, you ask him whether he has ever seen anything supernatural. ‘What about bacteria flagella?’, Jones tries. However, you are prepared for this and offers a summary, though superficial, of Pallen and Matzke’s (2006) evolutionary account of bacteria flagella. Jones, not being familiar with their argument, asks you for the reference and promises to continue the discussion at a later time.

## 4.2 Justifying Non-supernaturalism

What I proclaim is that the events of the two stories above are not unlikely. In fact, I think that many naturalists can see themselves reacting in ways similar to the character in second person singular. We can conceive of this person as giving reasons for some pre-theoretic conception of non-supernaturalism. Being ordinary and rather mundane, the events do not call for elaborate theorizing, but rather probe our intuitive responses when it comes to non-supernaturalism. According to the stories, we adopt two different strategies in justifying pre-theoretic non-supernaturalism: an inductive argument and the reference to (numerous) unsuccessful falsifications. The inductive argument is implicit in our response to Alice. We use the many observed individual instances of natural existing entities to respond to Alice’s suggestion that not all that exists is natural. All these instances, we seem to suppose, together establish non-supernaturalism which in turn is utilized to reject the idea that the situation with the coins could be more than a coincidence. Considering the many well-known methodological problems involved in inductive reasoning, one might contend that no educated person would offer such a simple response to Alice. Anyone who shares this intuition – and therefore doubts the pertinence of the story – should, however, be careful to remember that Alice is assumed to be inquisitive, routinely agnostic, but still like-minded; she asks questions because it is in her character. By assumption, then, Alice shares in our practice of giving reasons; even if some of these practices face subtle methodological difficulties. We are entitled to this assumption since we are ultimately interested in the reasons we (implicitly) give *ourselves* when we find non-supernaturalism justified. In other words, keeping in mind that Alice is supposed to

be like-minded, I propose that we would typically cite the many instances of natural existing things when someone like Alice questions non-supernaturalism.

In the other story, Jones is challenged to point to something supernatural. We are inviting him to offer a falsification of non-supernaturalism with the confidence that all such possible falsifications fail; the bacteria flagella being an example. Again, I can only stipulate that this story comes across as likely. However, I will again try to elaborate why this is our intuitive response to someone like Jones. The discussion with Jones is similar to the conversation with Alice in that Jones is assumed to be a reasonable fellow. Jones is not denying science in general, but is only assumed to favour intelligent design. Again, this set-up secures that we can agree with Jones – like we did with Alice – on what is relevant evidence which in turn ensures that the story is indicative of the reasons we (implicitly) give ourselves in favour of non-supernaturalism. Casting Jones like this, however, also importantly entails that something must have swayed Jones towards intelligent design. This is what paves the way for our challenge approach in debate with Jones: We are confident that we have counterarguments to the reasons that Jones found persuasive. What is important for the story, however, is not that we think we can succeed with this challenge approach. Rather, what is interesting is how this challenge is particularized when moving beyond the abstract talk of unspecified reasons: What we ask Jones to do is to point to a supernatural existing entity. This is very telling, not of Jones' view on intelligent design, but of our intuitive conception of non-supernaturalism. The details of our challenge to Jones disclose what kind of reasons *we* find relevant for the question whether to endorse non-supernaturalism or not. In asking Jones to give an example of a supernatural existing thing, we promote individual instances of existing things and whether they are natural or not to be the evidence we find intuitively relevant in deciding for or against non-supernaturalism. This is analogous to the story of Alice, though these individual instances here feature in a challenge whose strategy in defending non-supernaturalism relies on failed falsifications rather than direct induction.

### 4.3 Empirical Matter of Fact or Metaphysical Claim?

In summary, my proposal is the following: The way we intuitively take non-supernaturalism to be justified is by means of the many individual instances of natural existing things as featuring in direct induction or failed falsification. A comparison to Descartes' cogito argument immediately suggests that this shares little resemblance to the way 'all that thinks exists' is established. Rather, it conforms to the (most naïve) picture of how one would go about justifying that all renates are cordates. However, it is relevant to provide a few more details in support of this verdict that we justify pre-theoretic non-supernaturalism as though it is an empirical matter of fact and not as a metaphysical claim.

Suppose that Descartes was a rather different man, and the *Meditations* a rather different book. Having participated in several voyages of exploration in the early seventeenth century, Descartes' alter ego published the meditations as a synthesis of his observations on his trips. Central among his contentions in this book was the claim that all that thinks exists; a view he supported by reporting on the many thinking and possibly thinking things he had encountered, all of which were found to also exist.

Arguably, this travel diary – however systematic and encompassing – would hardly have earned Descartes his place in the philosophical canon. Regardless of the number of individual instances of thinking existing things seen by Descartes on this trip, it would not have established the significance held by the actual cogito argument that grants the thesis ‘all that thinks exists’ its status as a metaphysical claim. Likewise, anyone reluctant of this thesis as it features in the metaphysical literature would hardly be perturbed despite their inability to meet a challenge to mention a thinking thing that did not exist. The reasons for or against the thesis ‘all that thinks exists’ are not based on individual instances of thinking things. This is supported by the literature on the cogito argument: None of them take the form of field work studying thinking things and their existence. Rather, they attack various aspects of the cogito argument that proclaim to establish that all that thinks exists (see Curley (2006) for a survey), an example being the charge that the doubt due to the evil demon might also apply to the cogito argument.

It is with good reason that individual instances are not the primary evidence for or against Descartes’ ‘all that thinks exists’. While it is certainly a necessary condition for this thesis to be true that we have never seen a thinking thing that did not exist, it is not sufficient to establish its status as a profound metaphysical claim. The justificatory requirements for metaphysical claims go beyond that which can be provided by individual instances whose role for metaphysical claims is therefore solely the negative one of providing possible falsifications. The route to establish something as a metaphysical claim goes via a principled argument like the one provided by Descartes’ cogito argument and is independent of however many or few confirming instances that can be provided in favour of the claim. In contrast, individual instances feature as the primary evidence in our intuitive approaches to the justification for non-supernaturalism. As suggested by the two stories, the typical ways in which we support non-supernaturalism in a pre-theoretic context are by means of individual natural existing things as they feature in direct induction and failed falsifications.

The roles for direct induction and failed falsification reveal that the *justificatory requirements* associated with pre-theoretic non-supernaturalism are less like those of a metaphysical claim and more akin to those of an empirical matter of fact. If someone, like Alice, were to question that all renates are cordates, it would be an appropriate reply to cite the many individual instances of renates that are also cordates. Likewise, the absence of any falsifying instances, i.e. the absence of any renates that are not cordates, also serves to support that all renates are cordates.<sup>15</sup> On these grounds, it is reasonable to suspect that when we justify non-supernaturalism, we inattentively interpret it as an empirical matter of fact. We have investigated so many instances of existing entities and found that they were also natural that we find it established or make the generalization ourselves that all that exists is natural. In the same way, a vast number of renates have been examined and it has been found that all of them are cordates. Not every renate has been inspected, nor have we inspected every existing entity; however, based on the number of instances that we have investigated, we make the generalization. Non-supernaturalism is not a dogma, but rather a thesis established on empirical grounds or so, I propose, our intuition would have it.

<sup>15</sup> Arguably, there is more to justifying empirical matters of fact such as providing a story to explain why hearts and kidneys cooccur.

## 5 The Coherence of Non-supernaturalism

Stating non-supernaturalism as the thesis ‘all that exists is natural’, the possibility of a conflation of the thesis has been illustrated by the deviating interpretations of the structurally similar statements: ‘all bachelors are unmarried’ (a linguistic convention), ‘all that thinks exists’ (a metaphysical claim), and ‘all renates are cordates’ (an empirical matter of fact). Despite their structural similarities, these statements were argued to be distinct in important respects as signified by the differences in their inferential scopes and justificatory requirements. This ambiguity elucidates why non-supernaturalism is susceptible to conflation in pre-theoretic contexts or elsewhere where the thesis is not properly explicated.

On grounds of the argument of section 4, I claim that the justificatory requirement we intuitively associate with pre-theoretic non-supernaturalism resembles those of an empirical matter of fact. In contrast, the inferential scope of pre-theoretic non-supernaturalism, it was argued in section 3, is analogous to that of a metaphysical claim. Together, these comprise the intuition that non-supernaturalism is a substantive, non-dogmatic, empirically justified, not merely contingent truth; an intuition that I propose is operative in pre-theoretic contexts or elsewhere where non-supernaturalism is not properly explicated. According to this intuition, non-supernaturalism is not merely a linguistic convention like the structurally similar statement ‘all bachelors are unmarried’. Rather, it is a claim about the way the world is that – in resemblance to an empirical matter of fact of the type ‘all renates are cordates’ – receives its justification from the many individual confirming instances. Still, non-supernaturalism is not merely true by accident and therefore sanctions inferences from the existence of an entity to its naturalness following a pattern similar to the way a Cartesian’s ‘all that thinks exists’ sanctions inferences from thinking to existence.

The problem with the intuition that non-supernaturalism is a substantive, non-dogmatic, empirically justified, not merely contingent truth is that it features an internal tension, if not an outright incoherence. As already claimed in the introduction, non-supernaturalism is taken to be antithesis of dogmatism and as such, it must be believed based on good reasons and not on grounds of faith. Fortunately, good reasons are rather easy to come by in the form of the many individual instances of natural existing entities. These reasons, however, will not immediately suffice to establish non-supernaturalism as more than a contingent truth. This aspect of pre-theoretic non-supernaturalism – by which non-supernaturalism denies the legitimacy of supernatural entities and sanctions inferences from existence to naturalness – calls for additional reasons. This was indicated in section 4 by the contrast in justificatory requirements between a metaphysical claim and an empirical matter of fact. Individual confirming instances play little if not no part in the justification of Cartesians’ ‘all that thinks exists’ which is instead established by means of the cogito argument. All this is to say that pre-theoretic non-supernaturalism, at the very least, calls for a non-trivial argument to connect its justificatory base in empirical evidence with the conception of the thesis as more than a contingent truth as indicated by its intuitive inferential scope. I do not say that such an argument cannot be made; though others, for instance Rea (2002), have argued that non-supernaturalism must be adopted as a research program that cannot ultimately be based on evidence. Rather, I propose that this argument is not part of our intuitive conception of non-supernaturalism. Consequently, there is a tension between

the inferential scope and the justificatory requirements that we *intuitively* associate with non-supernaturalism. This tension, however, often escapes us since the problem is not that we do not have good reasons to believe in non-supernaturalism. Rather, we do not have the right reasons to justify the inferential scope we intuitively associate with the thesis. Whenever non-supernaturalism features in systematic thinking, this tension must therefore be navigated. The easier approach is lessening one or another aspect of our intuitive conception of non-supernaturalism; either by recognizing that the thesis is ultimately a dogma (or more moderately: a research program) or by associating a more modest inferential scope with the thesis. The more challenging approach is to show that non-supernaturalism can be more than a contingent truth despite being justified by empirical evidence alone, but it is in my view hard to imagine that this strategy will succeed without some alteration either of the inferential scope or the justificatory requirements of pre-theoretic non-supernaturalism.

The conflation of the modest justificatory requirement of an empirical matter of fact and the extensive inferential scope of a metaphysical claim renders pre-theoretic non-supernaturalism intuitively appealing. Untangling this ambiguity reveals that no theoretical interpretation can simultaneously preserve all our pre-theoretic intuitions associated with non-supernaturalism. Arguably, it cannot be in anyone's interest that non-supernaturalism – and therefore naturalism in its unqualified form – is endorsed on grounds of a fortunate conflation of several distinct interpretations. The remedy, however, is simple: Non-supernaturalism and naturalism in general should always be properly explicated, especially with regard to the inferential scope and justificatory requirements. Again, this is not meant as a criticism of naturalism. However, if the most naïve conception of naturalism is non-supernaturalism as Stroud suggests, then raising awareness about this tension between inferential scope and justificatory requirements in pre-theoretic non-supernaturalism serves as an important warning against the unqualified invocations of naturalism that De Caro, Macarthur, and Putnam find so numerous in the philosophical literature.

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