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Motivating (Underdetermination) Scepticism

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Abstract
The aim of this paper is to analyse and develop how scepticism becomes an intelligible question starting from requirements that epistemologists themselves aim to endorse. We argue for and defend the idea that the root of scepticism is the underdetermination principle by articulating its specificity as a respectable epistemic principle and by defending it against objections in current literature. This engagement offers a novel understanding of underdetermination-based scepticism. While most anti-sceptical approaches challenge scepticism by understanding it as postulating uneliminated scenarios of mass deception, or as endorsing unnatural epistemic requirements, we argue here that both contentions are mistaken. Underdetermination-based scepticism targets our beliefs by issuing a genuine question about the rational support they enjoy. If we cannot establish that the sources of our beliefs provide them the required epistemic merit and authority, they lack non-arbitrary grounds. This has a sizable impact on what constitutes a satisfactory anti-sceptical strategy. Strategies that merely focus on the scenario-based aspect of scepticism, or on the truth-functional evaluation of our beliefs, are shown to miss the mark of the sceptical threat. The proposed analysis ultimately provides a shift in perspective concerning the character and reach of philosophical doubt.

Keywords Scepticism · Underdetermination · Evidence · Reasons · Justification · Ignorance

1 Introduction

Addressing scepticism is considered one of the main tasks pertaining to epistemological theories. This endeavour can assume the form of a full-blown refutation or of a therapeutic dissolution of the problem. However, a necessary

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condition on non-dismissive answers is to explain how scepticism possesses an intuitive grip. This involves identifying the source of the sceptical threat against everyday knowledge. This paper engages with this goal. We do not aim to provide an anti-sceptical strategy. Instead, we purport to analyse, develop, and defend the consistency of scepticism by understanding it as a problem of underdetermination of evidential and rational support.

It is common to view scepticism merely as the result of mistaken epistemological theorising or as instituting unreasonable or implausible requirements on knowledge, for example, by requiring the elimination of all error possibilities that are incompatible with our beliefs. We argue here that underdetermination-based scepticism escapes these conceptualizations and we intend to show how it arises out of distinctively philosophical requirements that are neither implausible nor inconsistent. While contemporary epistemology has acknowledged the role of underdetermination in motivating scepticism, it has not been treated any differently than ordinary Cartesian, scenario-based doubt. We aim to argue that underdetermination raises a problem about the possibility of establishing in a non-arbitrary way how our beliefs enjoy the required rational support to amount to knowledge.

The paper is structured as follows: the next section overviews various sources of scepticism, such as subjective indistinguishability and closure. The underdetermination principle is presented as providing fundamental support to the minor premise of the standard closure-based sceptical argument. Section 3 introduces two main objections to underdetermination scepticism raised in recent literature: its endorsing either a form of infallibilism or the contentious KK-thesis. Section 4 provides an understanding of the underdetermination threat that resists these objections, by embodying an ignorance problem about the rational, normative authority and epistemic merit enjoyed by our beliefs. In Section 5, this conception is applied to the rehearsed objections. Section 6 assesses the impact of this result on specific anti-sceptical strategies to diagnose their deficiencies.

2 The Sources of Scepticism

The need to identify the sources of scepticism relies on the fact that its strength and threat against ordinary knowledge crucially depend on them. If scepticism arises automatically from principles and ideas we would habitually accept, then it would be revealed as something more than a stubborn, obstinate opponent. It would instead mirror our own epistemological needs and demands. We would meet the enemy, and they are us.

Cartesian doubt as presented in the *Meditations* is a reasonable starting point for this goal. Mere possibility of error in judgment and belief is not enough to engender radical scepticism. It simply reflects our fallibility. However, there can be situations where the very possibility of identifying and correcting such mistakes is undermined. These are exemplified by the typical Cartesian scenarios, such as dreaming, or the evil demon (or Brain-in-a-Vat) hypothesis. The idea behind such cases is that mere sensory experience does not provide us with the capacity to discriminate between ordinary and radically knowledge-defeating circumstances. In sceptical scenarios, the validity of our cognitive criteria and the

trust in the general reliability of our senses lapse. More worryingly, it appears we have no resources to claim that we are not in such a situation right now and that the grounds of our beliefs are epistemically meritorious as presumed. Even if we had some purported evidence, reason, or general ground supporting our beliefs, why couldn't sceptical considerations apply again to such bases? Each attempt to ground our knowledge claims will require such grounding itself, generating an evidential and rational regress.

The reasoning above can be resisted. The three main points presented, the indistinguishability of experiences, the need for defending the validity of one's epistemic grounds, and the spectre of regress can all be contested. Many philosophers—such as J. L. Austin, or G. E. Moore—argued that we can appeal to our criteria and ordinary experiences to rule out the corresponding sceptical scenarios. Why should we agree with the sceptic that we are not entitled to rely on what we ordinarily take to be good evidence, or that we need some prior, independent justification of our epistemic methods and faculties? Why should we think that every ground for belief is in need of further justification? The sceptic cannot present such theses as trivial, and it is difficult for her to adequately defend them. The sceptic has a hard time endorsing substantial theses on the character of evidential and rational support without her ceasing to be a radical sceptic. But without a defence of such claims, it is unclear why we should heed them.

A better strategy for the sceptic is to identify some widely endorsed epistemic principle as her starting point. If a consistent sceptical argument can be construed from accepted epistemic principles, rejecting them would amount to endorsing a revisionary stance, constituting an essentially concessive answer to scepticism: under its threat, we'd come to recognise that accepted criteria for knowledge and justification are indeed mistaken.[1]

The main principle that lends itself to sceptical use is the closure principle for deductive inference:

> **CP**: If S knows p, and knows that p entails q, and S competently deduces q from p while retaining her knowledge of p, S (can come to) know that q.[2]

Closure expresses how we deductively expand our ordinary knowledge and is therefore a principle we would generally want to endorse.

The sceptic exploits the closure principle in the following argument:

1. If I know here's a hand [KH], then I know I'm not dreaming/a brain-in-a-vat/etc. [K ~ SK]
2. But I don't know I'm not a brain-in-a-vat [~ K ~ SK]
3. I do not know that here is a hand [1, 2, mt]

[1] This is Michael Williams' famous *Epistemologist's Dilemma* (1996, 22). A refutation of scepticism must not recommend a radical revision of our ordinary epistemic practices and principles, as this would merely prove that the sceptic was right to a significant degree.

[2] This formulation of CP can be found in Brueckner 1985, 89; Hawthorne 2005, 43; Pritchard 2005a, 27; 2015, 13.

The closure principle turns against us. If one lacks knowledge of the denial of the sceptical hypothesis, then she lacks knowledge of ordinary propositions. As long as we are ignorant as to whether the sceptical hypothesis does not obtain, we can't have knowledge. This expression is also called the argument from ignorance (Pritchard, 2005a, 37; DeRose, 1995, 1; Leite, 2010, 40; 2004a, 336).

Given its role in formulating a general sceptical argument, the denial of the closure principle has been a live option in epistemology since the 1970s.[3] However, it is doubtful that doing so delivers a satisfactory anti-sceptical strategy. If KH does not entail K ~ SK, it is difficult to envision what possibly could. It is also puzzling to picture how knowledge of ordinary propositions can be compatible with ignorance concerning the denial of radical scepticism.[4]

A better reply is available to the epistemologist. Why should we believe that we do not know the denial of the sceptical hypothesis? The sceptical modus tollens is simply the epistemologist's modus ponens. What blocks us from claiming KH? Accordingly, the closure principle would be restored to its deductive function, allowing knowledge of the denial of scepticism. Motivating the modus tollens route is no easy task for the sceptic. Appealing to matters of indistinguishability returns us to the issues we just raised. Appealing to principles of evidential priority leaves unexplained why we should trust the sceptic that evidential relations obey that particular structure.[5]

The sceptic needs a different principle to motivate the modus tollens route. The main insight in this regard appeals to the *underdetermination* principle:

> **UP**: If S's evidence that p does not favour p over some incompatible alternative q, then S lacks justification for believing p (Brueckner, 1994, 830; Pritchard, 2005b,39; 2015, 30).[6]

Its positive formulation states that if S knows, or has a justified belief that p, and p and q are incompatible alternatives, then S's evidence must favour p over q (Brueckner, 2005, 388; 2011, 76).[7]

Underdetermination captures the intuition that if one has a justified belief that p, there must be something capable of granting it some rational support over alternatives that entail its denial (Pritchard, 2005a, 108; 2015, 31). Without this rational or evidential support, our beliefs lack the kind of positive epistemic status epistemology seeks.

[3] The relevant alternative conception of knowledge that was borne out of it seems additionally to provide a reasonable resolution to the problem of fallible knowledge, cf. Pritchard 2005a, 38–41.

[4] This is the problem of endorsing *abominable conjunctions* (DeRose 1995, 28), for the general idea that denying closure entails agreement with scepticism, cf. Brueckner 1984.

[5] For arguments along these lines in the literature, see Sosa (1988, 154) and Klein (1995, 214).

[6] See McCain (2013, 291) for a variety which specifies propositional justification and Vahid (2005, 124) for the corresponding knowledge formulation. Walker (2015, 225) compares various different formulations of the principle in the contemporary literature.

[7] The principle uses the term favouring, which can be understood as that evidential or rational relation which makes a belief p something reasonable to be believed (cf. Brueckner 1994, 834; 2005, 389; Briesen 2010, 224).

Underdetermination expresses an idea we should ordinarily agree with: when we form a belief, if it has no reason or evidence in favour of it or supporting it, why should we consider it epistemically meritorious?[8] The sceptic exploits underdetermination to motivate the minor premise of the closure-based sceptical argument. If one's evidence or reasons do not favour the denial of the sceptical hypothesis over its being true, then one does not know the denial of the sceptical hypothesis.[9] The sceptic's point concerns the required quality of what grounds our beliefs.[10] Our ignorance concerning ~SK is not merely assumed as a philosophical 'primitive'.[11] It is motivated via a principle that we ourselves would want to respect.

We can better motivate this understanding of underdetermination by turning to G.E. Moore's proof of an external world. Roughly stated, the proof relies on the idea that 'S knows here is a hand, hence S knows ~SK'. Wright has argued (1985, 2002)[12] that the proof is unconvincing because it instantiates the following template of *transmission failure*:

IH: The experience of seeing a hand [H]
IIH: The justified belief that 'here is a hand' [JH]
IIIH: The justified belief that this is a material object in the external world [J ~ SK]

Wright argues that in order for rational support[13] to be transmitted from IH to IIH, antecedent justified belief in IIIH is required. Without it, the experience of seeing a hand fails to adequately support the belief 'here is a hand'. However, Mooreans can reply that Wright's template unwarrantedly assumes an architecture of epistemic priority skewing our judgments in favour of scepticism.

An appeal to the underdetermination principle offers better support to Wright's reasoning. The belief 'here is a hand' is underdetermined by the evidence that 'here is a hand' because, unless proved otherwise, the plain experience of seeing a hand fails to provide justificatory support to the belief 'here is a hand' over the sceptical alternative.[14] In general, underdetermination establishes the threat of a lack of suitable entailment between evidence and belief. This means some anti-sceptical work needs to be done to establish this, otherwise merely assumed, connection (cf. Huemer, 2000, 406–7; Williams, 2001, 75–6).

[8] Unless one endorses the idea that knowledge is mere true belief.

[9] While this formulation might seem to advert to an internalist bias, the last part of Section 5 addresses this possible concern.

[10] These considerations about the epistemic *quality* or the *credentials* of purported evidence can be found in Brueckner (1994, 830), Boult (2013, 1129), and Dodd (2012, 342).

[11] For the point that it is a mistake to understand scepticism as simply assuming ~K ~ SK, see DeRose (1995, 16), Boult (2013, 1127), and Brueckner (2011, 75–6).

[12] Cf. Wedgwood (1990, 52–3) for a similar understanding of the problem which draws from Wright (1985).

[13] For Wright, this is the property of 'epistemic warrant'. For our purposes here, it is functionally equivalent to the favouring evidential relation. At times, it is used as a homonym for justification.

[14] At this point, the reader could contest that underdetermination assumes two theses. The first is that knowledge requires justification, and the second that underdetermination requires reason evidentialism understood along internalist tenets. On the former, we agree, but it does seem a reasonable and non-revisionary constraint we ought to endorse. The latter is more controversial. More on this in Section 5.1.

Notice how the sceptical position has improved consistently. By being motivated via underdetermination, scepticism exploits a crucial epistemic principle. Scepticism is also revealed as *parasitic* on epistemological theorising (Janvid, 2006, 65). No thesis independent of what we ordinarily endorse appears required for scepticism to make its case. If the architecture of evidential relations is capable of defeating scepticism, this must be in some way shown and not simply assumed. What scepticism needs in order to succeed is the absence of cogent reasoning or proof that could defeat the agnosticism it professes. Scepticism needs only a tie to win (Wright, 1991, 89).[15]

However, something remains to be established. Must scepticism necessarily be motivated via this route? If scepticism can arise from different sources or principles, this might open up different or uncharted approaches. It would also mean that we would not be refuting scepticism tout court by addressing underdetermination. This position is at times endorsed. For example, Cohen (1998) provided a lengthy objection to Brueckner's (1994) argument that underdetermination is the fundamental sceptical principle, maintaining instead that the main sceptical problem requires closure alone. This objection and the associated debate are too fine-grained to be analysed here.[16] However, we can provide a defence of the idea that closure arguments require an appeal to underdetermination.

Firstly, it is not clear whether closure alone is actually capable of establishing a sceptical problem. In itself it is a principle that governs the *expansion* of our knowledge. For it to work on its own in a sceptical way, the sceptic would need to assume a priori that we do not know ~ SK, but this amounts to assuming scepticism from the start.[17] In fact, a significant clue concerning the fundamentality of underdetermination for closure-based arguments lies in the minor premise being essentially a sceptical conclusion in itself (Greco, 2008, 111; Bergmann, 2021, 19). We do not know ~ SK. This conclusion is what underdetermination ought to support.

Perhaps it could be possible to establish the minor premise via another principle or epistemic condition. The main alternative to this extent in the literature is Nozick's sensitivity requirement on knowledge. If we were brains in a vat, we would still believe not to be BIVs. Therefore, due to sensitivity holding that there cannot be knowledge of any p if p were false and yet we would still believe p (1981, 167), we do not know ~ SK as K ~ SK does not respect sensitivity.

[15] In this sense, underdetermination embodies a fundamental Pyrrhonian insight: if equipollence is established between incompatible alternatives, or if one's reasons and evidence cannot favour our belief over the possibility of its being false, then the rational attitude to endorse is suspending judgment (Vahid 2005, 130, Yalcin 1992, 12). On underdetermination and Pyrrhonism, cf. Yalcin (1992, 8, 14), Walker (2015, 220), Tana (2023, 95–6), and Pritchard (2005a, 107; 2005b, 39). On underdetermination and equipollence, cf. Tana (2023, 90–3).

[16] The technicality of the two arguments deserves a separate treatment, and their discussion here would add little to our arguments. See McCain (2013), Boult (2013), and Pritchard (2005b), for defences of Brueckner's claim of underdetermination being fundamental. In Tana (2023) I provided arguments that show how underdetermination is fundamental and logically equal to closure as a source of scepticism. Wang (2014) and Dodd (2012) side with Cohen. For the idea that underdetermination expresses the weaker principle, hence, it is better suited at motivating scepticism, see Pritchard (2005b, 43; 2015, 47). Against this, see Dodd (2012, 342–3).

[17] Cf. Leite (2004a); Atkins and Nance (2014). Hetherington (2004, 2009) argues that this reveals how scepticism requires to know p in order to know that p, which is obviously not a meaningful epistemic constraint.

The problems with this suggestion are twofold: firstly, sensitivity implies closure denial. Knowledge of 'here is a hand' obeys sensitivity because in the assumed modal neighbourhood, if S did not have a hand in front of her, she would not believe it. Given that K ~ SK does not obey sensitivity, this means that KH does not imply K ~ SK (ibid, 201). The closure-based sceptical argument would see its major premise vanish, and it is unclear what could replace it.[18] Secondly, it is difficult to understand sensitivity as offering support to the sceptical premise independently of underdetermination-related considerations. If we were BIVs and we would ordinarily believe that we are not BIVs, this appears to be so because our evidence underdetermines the alternative between BIV and ~ BIV.[19]

A possible alternative route is the idea that there is no a priori nor a posteriori method of knowing the denial of the sceptical hypothesis. Firstly, *by design*, no empirical evidence can provide us with justification of ~ SK (Briesen, 2010, 227). Secondly, a priori evidence is non-empirical, and knowledge of ~ SK appears to be an empirical, contingent achievement. As in the case with sensitivity, it would be advisable for the sceptic not to follow this route. The idea that no a priori reasoning could ever establish the denial of SK is contentious; it would, for example, dismiss without much of an argument the whole of Descartes' own anti-sceptical path in the *Meditations*, or transcendental arguments. However, much worse for the sceptic would be to endorse the thesis that no empirical evidence could *ever* support ~ SK. While this might be an intuitive thought, it would again amount to a simple assumption of the sceptical conclusion.

On the other hand, one could appeal to *explanationist* criteria to motivate ~ K ~ SK. This is Cohen's proposal (1998, 146–7). The fact that, if true, the sceptical possibility would explain the character of our experience and at the same time not justify ~ SK could be enough to warrant the minor premise of the argument independently of underdetermination. However, making explanationist considerations bear on the sceptical problem is a double-edged sword. While it is true that a sceptical scenario might explain our current experience, it is also true that anti-sceptical strategies too can be established by marshalling explanationist considerations, for example, as in Jonathan Vogel's abductivist strategy (1990, 2005). Do explanationist considerations provide more rational support for K ~ SK or ~ K ~ SK? In order to endorse one of these alternatives, there ought to be some favouring evidential support for either over its competitor. However, this simply means that we need to contend with underdetermination again.[20] This result should not be surprising. If a sceptical scenario accounts just as well for the grounds of our beliefs as

[18] Cf. Brueckner (1994, 828; 2005, 388). See Briesen (2010, 226–7) for an objection to this reasoning.

[19] A third argument would be to show that one can imagine a sceptical scenario where belief in its negation is sensitive (Brueckner 1994, 829–30; Boult 2013, 1128).

[20] See Reynolds (2013, 266) for some arguments against the anti-sceptical abductivist strategy. For similar considerations against Cohen's strategy, cf. Dodd (2012, 346–8) and Boult (2013, 1130–31). Section 6 here will address Vogel's anti-sceptical strategy in independence from questions pertaining to which principle motivates scepticism.

the real-world hypothesis does, isn't this simply a reformulation of the idea that our beliefs enjoy no more support than their negation, i.e., that our beliefs are evidentially or rationally *underdetermined*?[21]

3 Two Objections Against Underdetermination

In the previous sections, we made a prima facie case for underdetermination as the primary sceptical engine. We also defended it against the possibility that scepticism might be alternatively motivated. However, our analysis does not shelter underdetermination from the possibility that the principle itself might have unwanted or unliveable consequences, or establish implausible conditions on knowledge. This section focuses on the two main objections on this score. These are that underdetermination scepticism entails infallibilism and that it endorses the KK-thesis. We analyse these objections because they constitute the main oppositions against underdetermination in current literature and could effectively undermine the cogency of sceptical arguments if left unaddressed.

3.1 Infallibilism

Does underdetermination entail infallibilism? The sceptical case would be undermined if its motivating insight was functionally equivalent to a knowledge requirement we foreseeably have no chance to fulfil. It would be an instance of *scepticism on the cheap* (Brueckner, 2011, 86). Starting with infallibilism straight-away simply makes one wonder why should we engage with the sceptic by playing a game we cannot win.

Anthony Brueckner provided the main accusation of infallibilism against underdetermination. His argument is mostly in evidentialist terms.[22] Brueckner defines infallibilism as constituted by this principle .

> **INF**: 'If S is justified in believing p based on E, then the proposition 'S has evidence E' entails p' (2005, 384; 2011, 85).

Underdetermination suggests that our evidence for p fails to entail that this is a world where p is true instead of a world where SK is true and p is false. When our evidence does not favour p over SK, this is because our evidence *does not entail* p, hence, we have no justification for p (1994, 835). Brueckner argues that this is a profession of infallibilism: no justification can be had if E fails to entail p.

Brueckner's argument considers the possible sceptical reply that scepticism does not endorse underdetermination directly from infallibilist requirements but instead by appealing to the sameness of evidence lemma:

> **SEL:** One has exactly the same evidence in both the good and bad case (2005, 389; 2011, 82).

[21] To see how the problem of underdetermination cannot be detached from explanationist proposals, one needs to look no further than Mark Walker's idea of *radical underdetermination* (2015, 223–230).

[22] Brueckner also (2005, 387) gives a formulation in non-evidentialist terms.

Brueckner, however, argues that even under this conception, the underdetermination-sceptic cannot escape infallibilism:

> In espousing [SEL], the sceptic is calling attention to the (alleged) fact that it is possible that my putative [justifier] for ~ SK should be present when SK is true. In other words, the proposition that I have the putative [justifier] for ~ SK is consistent with SK and, concomitantly, with the denial of ~ SK. In other words, the proposition that I have the putative [justifier] for ~ SK fails to entail ~ SK. Sounds familiar? (2005, 390)

We will say more about the sameness of evidence lemma in Section 6. For now, what is important to us is whether underdetermination possesses its sceptical character entirely due to our evidential justifiers failing to entail what they are supposed to be justifiers of.

Some epistemologists have argued that, contra Brueckner, underdetermination does not entail infallibilism. Jochen Briesen proposes that UP need not be motivated via SEL. However, Briesen's strategy appears troublesome. Before delving into its details, we should advert to a general issue with appealing to further principles in order to motivate underdetermination. Doing so only pushes back the issue of what motivates scepticism in general. It would now be *this principle* the ultimate engine of scepticism. However, the risk for the sceptic would then be to end up endorsing a less intuitive principle than UP.

More to the point, Briesen's proposed principle seems unsuitable for the sceptic's purposes. This is:

> **ENT:** For all S, p, q, if q entails the proposition that S has evidence E, whereas the incompatible alternative p does not entail the proposition that S has evidence E, then E cannot favour p over q (2010, 231).

This should be taken to imply that E *does* favour q over p. For Briesen, ENT motivates underdetermination in the following manner:

1. If SK entails the proposition that S has evidence E, whereas p does not entail the proposition that S has evidence E, then E cannot favour p over SK [ENT].
2. SK entails the proposition that S has evidence E, while p does not entail it.
3. Therefore, S's evidence cannot favour p over SK (ibid, 232).

Given that S does not favour p over SK and the two are incompatible, one does not have justificatory support for—hence no knowledge of—p.

This formulation does avoid SEL. The problem is that this conclusion achieves too much. The second conclusion that can be inferred from this argument is that S's evidence *does favour* SK over p. So we have something no reputable sceptic, if she wanted to remain a sceptic, would ever argue for, i.e. knowledge or justified belief in SK. It is an open question what kind of evidence, if any, could ever provide the basis for justifying belief in ~ SK. It would even be more bizarre to postulate evidence that justifies belief in SK. Surely it would have to come under sceptical scrutiny itself.

The second strategy severing the link between UP and infallibilism is by Dylan Dodd. Dodd argues that a plausible principle motivating Underdetermination is:

> **REL:** Let S's evidence E be *that source of information Σ reports that p is the case*. If E doesn't entail p (or if E is non-propositional, S's having E is consistent with not-p), then E only favours p over not-p insofar as S has independent justification for believing that Σ is a reliable source of information (2012, 350).

This strategy too retains the same methodological flaw Briesen's suffered from: it pushes back the motivation of scepticism from UP to REL. Additionally, while Briesen's principle was at least intuitively plausible with regard to ordinary epistemic practice, REL seems more dubious on this score. Notice how Dodd retains the idea that one has a problem of underdetermination on their hands if one's evidence fails to entail the corresponding belief. What he adds is that if this is the case, one needs independent justification for believing the evidential or justificatory source to be reliable. This means that, if one's evidence is not factive, one needs antecedent justification for the source of the belief for it to be epistemically valid. But this is a contentious epistemic priority requirement. It is the same problem the sceptic would incur in if she motivated scepticism via simple appeal to Wright's transmission failure template. Why should we assume or accept that antecedent justification is required vis-à-vis the Moorean arguing for the opposite stance?

Furthermore, it is not clear whether this proposal really escapes the infallibilist objection. It amounts to something like this: 'if your evidence or justifiers do not entail the corresponding belief, then you cannot have knowledge unless independent justification for the source of the belief is provided'. The problem is that this clause can be recursively applied to the needed independent justification. If this independent justification is itself due to non-infallible grounds, then one will need further independent grounds to adjudicate its epistemic status. Dodd's proposal generates a dilemma between infallibilism and a justificatory regress. The problem is that neither option is adequate for a valid motivation of scepticism. Both of these ideas are often connected with the sceptical problem, but they cannot be an effective *motivation* of it. At most, they can be conclusions one reaches after accepting the cogency of the sceptical argument. Ultimately, neither outcomes of Dodd's proposal manage to provide an intuitive motivation for scepticism that is in line with ordinary epistemic standards and that explains the intuitive strength of the sceptical threat. The infallibilism-based objection withstands a first scrutiny and requires a non-trivial reply.

3.2 The KK-Thesis

The second objection against underdetermination is more straightforward. To address underdetermination, we must ascertain possession of evidence favouring p over SK. However, this appears to imply the idea that to know p, one must know that she knows p. This is the dreaded KK (or JJ for justification) thesis.

The KK-thesis is one of the objections of choice against internalist theories of knowledge and justification. Tying human knowledge to possible or actual reflection by the subject on what justifies their belief enjoys some philosophical plausibility. To properly possess knowledge, it is not enough that one's belief is merely true. Some

degree of evaluation on what supports the belief appears necessary to avoid epistemic luck. If a student were to ballpoint answers on a multiple-choice test, those answers she got right would hardly be attributed to her as knowledge. However, imagine she got some of those answers right because in some cases, she had some *hunches*, maybe even reliable ones, that certain choices are correct. Would we say that she knows those answers? Externalists might say that this is so, but internalists might find it more appropriate to respond that she did not really know what the answer was and she was just lucky. This is a case of reflective luck; the correct answers she selected based on hunches could have easily been wrong from her own perspective. Intuitions on this will differ precisely along internalist/externalist divides, but the idea that knowledge requires some kind of higher-order evaluation does not come out of left field.

However, what makes the objection pressing is that while the above intuition might support the internalist idea to a certain degree, we must also acknowledge that in countless ordinary instances we do not display this kind of reflective access in support of our beliefs. We just form the particular belief, and if it is true, we attribute knowledge possession to ourselves and others without further hesitation. The KK-thesis over-intellectualizes knowledge and justification in a way that detaches it from our everyday practice.[23] If underdetermination requires that to know that p, the belief that p must enjoy rational support over the alternatives, then it seems that to properly claim knowledge, one must also know or be justified in believing that her beliefs do enjoy such rational support. This is to simply state the KK-thesis in terms of evidential or rational support.[24]

Some defences of the KK-thesis have been attempted by arguing that it is not an unreasonable requirement or is an integral part of epistemological reflection.[25] Notwithstanding whether such defences are plausible, it is relatively straightforward to recognise that if underdetermination were functionally equivalent to an endorsement of the KK-thesis, this would come to the detriment of its being an effective sceptical threat. The most effective route to avoid scepticism entirely would be to reject this strongly internalist demand opting for an externalist position concerning knowledge and justification. Such a situation would reinforce the externalist case as the best epistemological stance available: far from missing the point against scepticism, it would instead address underdetermination via a rejection of the KK-demand embedded in it. For this reason, it is in the sceptic's interest to show how

[23] Even recent internalist proposals try to answer scepticism by rejecting higher-order demands, rejecting conflation of *being justified* with the *activity* of showing oneself to be justified (cf. Pryor 2000, 521, 535). Against this idea, see Reynolds (2013, 268). Many contemporary epistemologists endorse Williamson's anti-luminosity argument against KK (2000, 96–8).

[24] This objection can be found in Murphy (2013, 277) and Brueckner (2012, 297). Vogel (2004, 436) and Vahid (2013, 244) read the KK-thesis as a consequence of the infallibilist requirement. Kraft (2015, 283) follows their line of reasoning but defends the KK-thesis. Most of these objections are raised against those formulations of scepticism (ignorance or debasing) that we will argue in the next section express the underdetermination insight.

[25] See Kraft (2015, 284–8) and Greco (2014) for defences of KK. Stroud (1984, 27–9) and Marušić (2013, 1978–9; 2016, 1084–5) read it as an unsurprising consequence of Cartesian doubt.

underdetermination cannot be entirely reduced to a KK-condition.[26] Additionally, a higher-order demand for support understood along these lines would arguably harbour in itself a demand for epistemic certainty which would again undermine the sceptical point. If underdetermination expresses a simple "but how do you know that you know" question, the risk is that its motivation might ultimately boil down again to a requirement of infallible truth-guaranteeing grounds.

4 Scepticism about Rational Belief

Underdetermination scepticism must address the two objections analysed above. Our strategy to solve them is to provide an account of underdetermination that pre-empties them. Underdetermination will be understood as a problem concerning the rational and epistemic authority that the grounds of our beliefs enjoy, *independently of the possibility of mere error-scenarios*.

The first step in our strategy is to address this sometimes under-investigated aspect of scepticism. Scepticism is often presented as an issue of uneliminated possibilities of error. Many insights investigated so far—indistinguishability, infallibilism, and the KK-thesis—appear to display this characteristic. We presented underdetermination ourselves as an issue revolving around competing and incompatible alternatives. The question is whether this is the only possible way of understanding it.

Some sceptical insights that we mentioned already in Section 2 do not rest strictly on uneliminated possibilities of error. Questions such as the validity of our epistemic methods, or the requirement for establishing rational support for our beliefs in general, do not necessarily postulate scenarios of deception or massive error. They constitute genuine epistemic problems even if considered apart from such possibilities. The question of whether our beliefs enjoy the rational support required for them to be justified or amount to knowledge appear reasonably acceptable per se in the epistemological domain. The possibility we are confronted with is that they might not enjoy such support. This requires no deceiving sceptical scenario, nor general deviant cases. Mere error scenarios might be helpful to make some of these points *vivid*, to establish ways in which such rational support might be absent while we believe otherwise.[27] However, the question of whether they do enjoy such support does not hinge entirely on them.

There is a clear advantage for the persuasiveness of scepticism in getting rid of the idea that it necessarily requires uneliminated scenarios of error. Firstly, it accounts for the fact that the mere truth of a belief p has no direct bearing on whether scepticism is false.

[26] Something different would be to endorse the idea that *to refute* the underdetermination problem, some kind of higher-order access or evaluation is required. Stances that reject such constraints would be then powerless to reply to scepticism, and the difficulty of fulfilling this requirement in general would then add to the strength of the sceptical argument. On this, see, for example, the sceptical declination of Williamson's anti-luminosity argument, taken at times to be either a variety of Sorites' argument (Wong 2008) or Hume's *checking* argument (Meeker & Poston 2010, 227–9). Our goal in the next section is to argue that the kind of evaluative demand expressed by underdetermination is not a simple assertion of a KK-principle, but we suspend judgment on whether something like a KK-principle is required to *refute* the underdetermination-based argument.

[27] See, for example, Fogelin (1994, 94), Wedgwood (1990, 51–2), and Winters (1981, 33–4).

One can be, for example, envatted with her whole body, so when in the vat, she has the belief 'I have hands', the belief is strictly speaking true. However, this belief arguably cannot be considered knowledge: the empirical evidence grounding it is 'envatted' evidence, unsuitable for knowledge without further qualifications. Conversely, if we were to step ourselves into the vat, this would not automatically disqualify the beliefs we already have on the external world as false (Murphy, 2013, 274).[28] This means that motivating scepticism on questions concerning whether our beliefs are true or false misses at least partly the sceptical mark.[29] Secondly, by abandoning the idea that scepticism relies necessarily on alternative scenarios, the sceptic avoids the need to appeal to contentious or perhaps even incoherent possibilities of generalized mass deception.[30] Logical or metaphysical possibility of a belief being false is not even necessary for scepticism about that particular belief to be intelligible (Beebe, 2010, 453). Anti-sceptical perspectives attacking it due to its perceived impossibility or implausibility are thereby undercut.[31]

However, defending this idea demands that we explain what constitutes the underdetermination-based threat when scenarios are understood as inessential. We must present the underdetermination problem while avoiding overt appeal to alternative mere error scenarios as we have done thus far. A first attempt for our purposes is available in the literature, even though it still frames the issue classically:

> **UPV**: If q is a competitor to p, then one can know p only if one can non-arbitrarily reject q, i.e., only if it has more epistemic merit than q (Vogel, 2004, 427; 2005, 108).

This formulation is relevant for two reasons. It highlights that the problem concerns the epistemic *merit* of our beliefs and, secondly, that the issue revolves around the possibility of our belief enjoying such merit non-arbitrarily. Can these ideas be used to eschew error-based talk altogether? Here, we are helped by another insight from the current literature on the matter, the *Rational Ground Principle*:

> **RGP**: If S has a rationally grounded belief that p, then S lacks a rational basis for believing not-p (Pritchard, 2015, 49).

A rationally grounded belief can be minimally understood as a subject's belief that is valid and not arbitrarily so, even if the subject is not necessarily aware of this. When S possesses adequate support for her belief, this ought to imply the negation of what is incompatible with that belief (ibid, 50). In cases where such rational support is lacking, it would be arbitrary to hold the belief as instantiating knowledge. RGP re-states the idea expressed by underdetermination while not referring to competitors.[32]

[28] The idea that dreaming p does not exclude p being true is one of the reasons for Descartes' move to the omnipotent deceiver hypothesis (cf. Stroud 1984, 25–7). See Kraft (2015, 271) for a brief review of the appreciation of this point in contemporary epistemology.

[29] It could also be argued that the scenarios themselves ensure that some beliefs must necessarily be true for it to be possible (Kraft 2013, 64–5; 2015, 271–2, Murphy 2013, 276).

[30] Cf. Kraft (2013, 60). It is doubtful whether postulating such occurrences of mass deception would explain or enlighten anything at all concerning our epistemic predicament, cf. Reynolds (2013, 264–5).

[31] For such arguments, cf. Cargile (2000) and Huemer (2016).

[32] Pritchard himself understands RGP as a simplification of the underdetermination insight (2015, 52–3). This should address the possible objection that we are being guilty of the same accusation we levied against Briesen and Dodd in Section 3.1.

We can understand better the relevance of RGP for our purposes via an example that initially appeals to alternative competitors but can also be shown as valid without them in place. Imagine Jeanne goes to the LHC in Geneva and sees some plates reporting particle collisions. She knows that photons and gluons are fundamental particles carrying distinct forces when energies are below a specific high level. On these plates, Jeanne is bound to see lines representing photons because they are the most common particles produced in such collisions. However, when Jeanne sees a plate, she could have a rationally grounded belief that 'those are photons' only if she lacked a rational basis to believe that the traces might be those left by gluons. Lacking the required expertise to tell them apart, even if Jeanne's belief is intuitive and may very well be true, it lacks the required epistemic merit. The evidence on the plates cannot function as epistemically valid evidence for her belief. If she nevertheless asserted the belief, that would be nothing less than a stab in the dark, even if correct. Most importantly, the belief would lack rational authority for Jeanne herself; why should she consider her belief as epistemically meritorious despite the lack of rational support in its favour?

Notice how this issue crosses over the internalist/externalist divide. Both camps ought to find the belief epistemically impermissible. The internalist's reason to find knowledge attribution impermissible is based on the lack of a reflective rational ground for Jeanne's belief. However, externalists too ought to register that Jeanne lacks a rational ground for her belief. From a reliabilist perspective, Jeanne's lacking a rational ground for believing that what she sees are photons is because she lacks the means to reliably discriminate photons from gluons. Those plates cannot function as epistemic evidence for *her* belief.[33]

This latter verdict should also provide the way out of the scenario-based conception of scepticism, because it squarely targets that the main issue at hand concerns the epistemic merit of a belief based on a purported piece of evidence. While the above example still postulated a comparison between two competitors, the main issue is independent of this aspect. If Jeanne goes to the LHC knowing only what a photon is but lacking the required expertise to reliably identify them on plates, her belief 'those are photons' still lacks the required epistemic merit for it to amount of knowledge. Framing the example in these terms shows how underdetermination does not simply issue a problem of choosing between alternatives. The question it raises is a much more general one: it is the question of what constitutes adequate rational support for our beliefs *überhaupt* if they are to be instances of knowledge. For a belief to amount to knowledge, it must have enough rational support for it not to be a merely arbitrary guess.

This invites a question: is the underdetermination-based problem construed in the above way still a genuine sceptical problem? The above issue appears to be a bona fide epistemological issue concerning the demand of providing adequate rational

[33] In this sense, raising the objection that this problem treads on strictly internalist constraints will not work. The problem is one of rational support for our beliefs in general, not one of concurrent reflective access. This requirement holds for externalist theories too, unless these are so revisionary that they do away entirely with the idea of epistemic evaluation.

support for our beliefs about the world to have any meaningful epistemic weight. How can this amount to a sceptical problem? It would be mistaken to assert that it is simply because such rational support is unavailable. This would just be the sceptical conclusion. A less misguided answer is to say that if it is a genuinely philosophical question, this spares scepticism from having to defend its cogency. Given that addressing underdetermination is something that epistemological theories ought to do, this avoids having to independently motivate why they need to refute scepticism in general. However, while this reasoning is apt for explaining scepticism's intuitive pull, it also concurrently robs it of its being a *threat* to human knowledge. The task of providing an account of the rational support and epistemic authority our beliefs enjoy does not trivially develop into a sceptical threat against ordinary knowledge.

To answer this question, we must expand upon the intuition already suggested in this section, that scepticism does not ultimately thread on mere error-scenarios. We said underdetermination concerns establishing the bona fide epistemic authority our beliefs purportedly possess. We now show how this problem issues a sceptical threat by understanding its constituting an *ignorance problem*.[34]

4.1 Underdetermination as Ignorance

We mentioned that the closure problem might be formulated as expressing an argument from ignorance. We have not analysed in detail what this means beyond its appearing as a reformulation of the classic sceptical argument. The idea behind it was that if one does not know the denial of the sceptical hypothesis, then she does not know everyday propositions, but this appears again to endorse a contentious structure of evidential priority. Given that ignorance of ~SK is the minor premise motivated by underdetermination, we need to show how this kind of ignorance does not assume such a contestable conception of evidential priority and how it institutes a genuine sceptical problem.

Firstly, we can briefly say something about what ignorance is, given that its nature and character have been object of quite sustained debates in contemporary epistemology.[35] For our purposes, we focus on the dual alternative between *standard* and *new* views of ignorance.[36] The standard view postulates that ignorance is

[34] The ignorance-based understanding of scepticism is defended in Winters (1981), Murphy (2013), and Kraft (2013, 2015). Beebe (2010, 2011) and Schaffer (2010) defend an a priori variety. Notice that we are not here endorsing their readings tout court. This is because many still employ a scenario-based understanding of scepticism (Kraft 2015, 281, 291; Beebe 2010, 452) or conceive underdetermination as error-based (Murphy 2013, 273; Kraft 2013, 67; 2015, 282). The connection between ignorance and underdetermination has been made explicit thus far only in Janvid (2006, 67) and Tana (2023, 79).

[35] We thank an anonymous reviewer for pressing us to clarify what we meant by employing the concept of ignorance here. It must be made clear that our usage of this concept does not aim at offering a comprehensive definition. Our aim is rather to explain what it means for underdetermination to express a ignorance problem about the epistemic and rational credentials of our beliefs.

[36] These two options should not be taken to exhaust all other possible understandings of ignorance in contemporary epistemology. Ignorance can also be understood as the active uptake of false outlooks and as a substantive epistemic practice. For an overview of these conceptions and their connections, see El Kassar (2018).

the absence or lack of knowledge; i.e. they are mutually exclusive and exhaustive (Le Morvan, 2011, 335–6). The new view holds instead that what defines ignorance is lack of true belief simpliciter and not of knowledge (Goldman & Olsson, 2009; Peels, 2010). For the former position, S is ignorant of p even if S believes p but has no justification for it. For the new view, such a case of justificationless belief that p would not classify as ignorance.

The debate itself, brought forward chiefly by Le Morvan (2011, 2012, 2013) and Peels (2010, 2011, 2012), is not something we can address here, both due to space constraints and also because the arguments employed in the debate fall beyond the concerns of this paper. However, we can observe how the new view of ignorance is trivially ill-suited for our purposes. We argued that scepticism does not hinge on mere matters of error or true belief. In fact, a subject can be under sceptical spell and have a true belief nevertheless. Therefore, if the sceptical threat that underdetermination establishes is characterised as a problem about ignorance, this threat resists the subject actually having a (luckily) true belief about the external world. However, the standard view states that being ignorant that p is simply lack of knowledge (or justification) that p, and this understanding appears also insufficient for our purposes. If the kind of ignorance of ~SK that underdetermination expresses is simply our lack of justification for ~SK, it seems that by tying underdetermination to ignorance we have not really reached a new understanding of underdetermination-based scepticism. It would simply re-state something we already acknowledged.

If we step back a moment again to the scenario-based view, the traditional insight is that if one were dreaming or a BIV, then the kind of evidence that would support any belief they would be having in the vat or in the dream would fail to provide justificatory rational support. For example, if S were dreaming that p and then woke up and found that p is actually true, S would not say she knew that p because she dreamt it. This is the main engine behind the sceptical problem. The belief in the dream possesses no rational or epistemic support because it is based on epistemically worthless evidence.[37] Sceptical scenarios are cases where epistemic merit for our beliefs is absent. By understanding underdetermination as establishing this kind of problem, it should become clearer in what sense it is a sceptical problem of ignorance. When confronting scepticism, we are confronted with our ignorance as to whether our beliefs have the rational support that they ought to have for them to be justified. Scepticism presses us with answering the question as to what establishes, in a non-circular or arbitrary way, the epistemic *merit* possessed by our beliefs. Trivially, this implies that as long as we do not have a good answer to this question, then we lack knowledge (or justified belief) that ~SK, as the standard view recommends. However, there is more than merely absence of knowledge to sceptical ignorance. By not providing a non-question begging answer as to what constitutes the epistemic merit of our belief that ~SK, if the subject continued to endorse that belief, she would be engaged in an intellectual failure of inquiry. This idea that ignorance does not merely comprises lack of knowledge but also displays a failure of intellectual inquiry is the main insight expressed by the normative account of ignorance

[37] For arguments in the literature supporting this point, see Winters (1981, 35), Murphy (2013, 272), and Kraft (2015, 271).

(Meylan, 2022; Pritchard, 2021, 2022). Underdetermination scepticism raises a normative sceptical problem concerning what makes our beliefs about the world epistemically meritorious. Lack of justification is due to our improperly addressing this question (or not at all). As long as we do not redeem this status of normative ignorance, the only rational conclusion is that we are not justified in believing ~SK and, consequently, we lack justification for ordinary beliefs.

This issue holds independently of any specific sceptical scenario. Let us go back to Jeanne's case: if she were to believe that she sees photons at the LHC, it seems reasonable to ask what makes her capable of reliably recognising them. Without an answer to this question, she will not know, as her belief will not be perceptually justified (cf. Reynolds, 2013, 267–8), because she would be normatively ignorant concerning the epistemic merit of her belief. That perception ought to provide no normative support to her belief, and if she forms that belief, she engages in an epistemically improper conduct. Whether evidence or rational support is available to provide the required epistemic validity to a belief is not merely a matter of how things are. It is a measure of whether the evidential and rational basis upon which a belief is grounded upon functions as an adequate epistemic basis for it to be justified. As long as this is not established, as long as the question concerning the epistemic merit enjoyed by our belief is left unanswered,[38] endorsing that belief as knowledge will be epistemically arbitrary, thereby showcasing an egregious failing of intellectual inquiry. Even if correct, the belief itself possesses no rational epistemic authority. To form a belief on an evidential or rational basis concerning whose epistemic worth we are normatively ignorant about simply means that that belief is epistemically arbitrary.

Underdetermination scepticism raises therefore the spectre that our beliefs might be generally *debased*, severed not from their being true but from receiving any rational support from the purported evidence they are grounded upon (Schaffer, 2010, 231–2).[39] Everyday knowledge is undercut by our normative ignorance concerning the epistemic validity of our reasons, methods, and evidence because we lack a satisfactory—non-circular, non-arbitrary—answer to this question. The epistemic merit of our purported reasons and evidence is then revealed *insular* and *neutral*.[40] This is the sceptical impact and consequence of the underdetermination problem. It is a standing problem undermining the epistemic merit possessed by our beliefs. Even though the belief itself is true, having it on an improper basis is a mistake in our conduct as rational epistemic agents that defeats our knowledge claims.[41] Scepticism

[38] This does not imply that justification for a belief cannot be immediate, or the result of mere exercise of reliable cognitive faculties. However, there must be something in virtue of which she has formed the relevant belief.

[39] This is Schaffer's idea of a *debasing demon*. This demon allows us to get our true beliefs in a haphazard way, but then makes us believe that our beliefs are properly based. Similar examples can be found in Beebe (2010, 456–7, 2011, 589–90) and Murphy (2013, 275). The question of what makes the basis of a belief *proper* is intelligible without any necessary recourse to deceiving demons. Having no answer to this question undercuts our knowledge claims.

[40] These definitions of the underdetermination problem are respectively from Pritchard (2015, 55) and Williams (1996, 74–5). See MacPherson (2018, 187) on the connection between these two terms.

[41] This should not be taken to imply that truth-related considerations are jettisoned entirely. The point is that the actual falsity of the belief is not necessary for the sceptical question to be intelligible.

does not express a worry about a *quid facti* matter but a *quid iuris*. It targets what makes our beliefs normatively authoritative and warranted, not whether they are true. If we could establish or discern the availability of suitably valid evidence or reasons supporting the belief that p, then it would be epistemically 'all right' for a subject to believe that p. It would defeat at least prima facie the minor premise of the sceptical argument. Without such an answer, knowledge of ordinary propositions is halted in its tracks because the rational ground needed to settle the matter in their favour is missing.

This does not imply that answering this demand must necessarily be done independently of the reasons, methods, and evidence we already possess. However, the idea that this might be so is an intuitive one, perhaps because only something independent of our methods could provide us with the required authority to evaluate our beliefs based on them as *valid*. This explains why it is common in traditional epistemology to endorse some kind of epistemic priority requirement. Without some prior check or verification, we deem the rational support offered by the sources of the belief as lacking rational authority. This intuition is behind many widespread verdicts in long-standing epistemological problems. One relevant example is perceptual bootstrapping. Forming a belief about the reliability of one's perceptual faculties on the basis of the deliverances of those very same faculties is bound to strike many as epistemically unsound reasoning. This is because the epistemic merit of those individual perceptual beliefs is left as merely assumed and then employed to deliver a verdict of epistemic validity on what delivered those beliefs in the first place. A source confirming itself in such a way seems to side step precisely the question of what constitutes its status as a source of epistemically meritorious and authoritative beliefs. In the absence of an independent, positive answer to this normative question, then it is legitimate to doubt whether that source is any good in the first place, because we are revealed as normatively ignorant concerning the epistemic merit of that source. To continue holding a belief in the faculty's reliability in spite of this would make the resulting belief arbitrary. It is worth noticing that this independency requirement is not what establishes the sceptical problem. It appears rather to be one of its consequences, thereby explaining the difficulty of delivering a solution to the sceptical problem that does not assume what it purports to prove nor simply dismisses scepticism from the start.

5 Answering the Objections

In this section, we will apply the ignorance-based understanding of underdetermination we developed to the objections raised in Section 3.

The way underdetermination manages to avoid the charge of infallibilism hinges on the realisation that the scepticism it institutes concerns the relationship between belief and evidence or rational grounds, not between belief and truth. Underdetermination is therefore compatible with various forms of logical and epistemic fallibilism because what matters is not whether the belief can possibly be false based on a certain piece of evidence. What matters now is whether the belief enjoys the required rational support for it to be justified and whether this support is epistemically authoritative, something the subject ought to base her belief upon. This is

compatible with the possibility—even if remote—that the belief might be ultimately false.[42] The question has ceased to be 'does this evidence entail the truth of belief?' and is now 'is this adequate evidence for the belief to obtain justificatory support from it?'. None of this is strictly a profession of infallibilism. There is no requirement that evidence must entail what it is supposed to be evidence of in the sense of the belief being necessarily true on its basis. What it requires is a defence of the presumption that our reasons and evidence are non-insular and non-neutral. Of course, what constitutes a belief as epistemically meritorious does require a suitable connection to truth, but this conception accommodates the fallibilist intuition that a belief can have epistemic merit even if ultimately, by chance or luck, false. The following passage from Vogel nicely captures the essence of the underdetermination argument: 'The problem isn't that the reasons we have … fail to give us certainty – it isn't that our reasons for belief are good but somehow not good enough. The sceptic's claim is rather that we have, at bottom, no reasons for our choice at all' (Vogel, 2004, 439).[43] Saying that we have no reasons for our believing something at all does not mean that such reasons must be *necessarily* absent. What it does mean is that unless this situation of normative ignorance about evidential support is remedied, rational epistemic support is unavailable for the subject's beliefs.

The answer to the KK-objection is less straightforward. It can be contested that our reading cannot offer any way to avoid this outcome. After all, the problem the objection raises might appear to uphold an implausibly over-intellectualized picture of human knowledge and justification. By rendering the sceptical issue one of providing a defence of the intuitive, rational support and epistemic authority enjoyed by everyday beliefs, it does seem that underdetermination is endorsing the KK-thesis.

What is objectionable in the KK-predicament is that it is plainly implausible to maintain that every time we have a belief, we must concurrently express or exercise a sophisticated conceptual arsenal in its support for the belief to be valid. We agree with this assessment. We simply form beliefs; we do not form beliefs *only* on the condition that some elaborate reasoning in its support has been mustered together *with* the particular belief. It is furthermore a tall order to maintain that we can have a required luminous access in every occasion to the internal states that could provide the sought epistemic support.

However, this is not a problem underdetermination-based scepticism faces because such issues pertain to the belief token, the individual occurrence of belief formation. Underdetermination instead asks a question about the rational authority possessed by the *type* of belief. It requires providing a defence of the validity of the belief not in its individual instance but as a general type of belief that purportedly amounts to knowledge. In this sense, scepticism is ultimately a meta-epistemological matter. It requires a defence of that which epistemically supports our beliefs.

[42] For brevity and in order to agree with the current debate on underdetermination, we will hold positions that defend a factive conception of evidence are firmly in the infallibilist camp. Surely an accusation of infallibilism against scepticism from such stands would be ineffective.

[43] See Pritchard (2005a, 113) for a similar point: 'the epistemic support that agents have for their beliefs does not even approximate to the epistemic standards in question since, strictly speaking, they have no evidential support for their beliefs at all'.

We can make this point clearer with an example. If you were to ask a friend whether she knows that a red table is in front of her, she would arguably reply affirmatively. When you ask her, 'but do you know that you know that?', you will probably elicit little more than puzzlement. The question appears meaningless and she could very well answer: 'Are you stupid? Of course I know that.' However, if you were to explain that you are asking if she is able to provide some reasons for why she ought to have that belief, then the question would cease to be puzzling. In *ordinary* contexts, she might simply reply, 'Well, I see it' or 'That it's how it looks to me'. This exchange is perfectly intelligible. Your friend is reporting to you why she has that belief, individuating what constitutes her reasons and discharging her commitments to something you would both agree is a valid and sufficient reason for that belief (Leite, 2004b, 226).[44] If she could not appeal to any reason, point to no evidence or support as to why she believes that there is a red table there, it would be counterintuitive to argue that she knows nevertheless that a table is there. We would be inclined to think that her belief is arbitrary, for herself and us, and possesses no epistemic authority. We would not trust nor deem her as a reliable epistemic agent if she uttered nothing.

However, this does not mean that she needs to have any prior access or fulfil higher-order requirements to properly have her belief. The question concerning the rational support enjoyed by her belief can be discharged implicitly, or via an answer following an explicit challenge. This indicates that the schema instantiated by underdetermination scepticism is not something like $Kp \rightarrow KKp$. It is something different: if knowledge or justified belief that p is possible, then there must be some rational ground that gives epistemic merit to the belief that p. Knowing that p is connected to an expectation of reasons supporting this claim being available. This ought to be the hallmark of being a competent epistemic agent.[45] To envision this demand as establishing a KK-principle means conflating a request for objective normative reasons with its "first-person shadow" (Leite, 2013, 95).

This reason requirement does not appear to be too exotic nor implausibly demanding. Justification and knowledge are crucially normative endeavours, and the epistemological context is one of self-critical and rational evaluation and scrutiny of our knowledge as human knowledge. Within this context, scepticism arises as a problem because in doing epistemology we are engaged in a 'reflective reassessment of our unreflectively accepted beliefs' (Marušić, 2016, 1083). By taking up this task of epistemological assessment, claiming knowledge while at the same time leaving unanswered the question as to how or why we know would be a contradictoriness of sort. Lacking a satisfactory answer on this score, the rational attitude to endorse is one of suspending judgment on whether something is the case because we cannot defend our beliefs as we ought to. Not doing so would be nothing short of arbitrary and would show the resulting beliefs as lacking epistemic authority (Leite, 2004b, 234; Marušić, 2013, 1986–7).

[44] See Marušić (2013, 1995) for further considerations concerning how this question is perfectly reasonable in ordinary contexts.

[45] A possible different formulation is in terms of what Marušić has called the *Self-Knowledge Rule* (2013, 1980) 'Necessarily, one should believe p only if one knows that one knows p'. As Marušić makes clear, this should not be taken as a constitutive element of knowledge, something that scepticism has no business providing. It must be understood instead as a *normative* dimension of knowledge, one that concerns rational evaluation, something scepticism is a genuine participant in.

5.1 Does Underdetermination Beg the Question Against Externalism?

At this point and especially concerning the proposed resolution to the KK-objection, it could be contested that our perspective on scepticism begs spectacularly the question against externalist standpoints on knowledge and justification. It seems that by framing the issue as an evaluative problem, one of critical assessment of what constitutes the merit of our beliefs, we are again treading internalist waters, unwarrantedly assuming a conception of knowledge which ignores the externalist alternatives. Maybe, the externalist would ultimately welcome this development. It could show that scepticism can be avoided by being externalists.

The issue with this answer is that it is far from settled that a defining character of externalism is the rejection of *every* evaluative standpoint on rational and evidential support. In fact, many contemporary externalists have highlighted a distinctive responsiveness to the issue of what constitutes the rational support enjoyed by our beliefs. One can envision the demands that underdetermination establishes as being akin to Sellars' idea that an instance of knowledge, a report or an attribution, can only be so if placed 'in the logical space of reasons, of justifying and being able to justify what one says' (Sellars 1956, 76). This is the kind of requirement that underdetermination endorses, the possibility of providing adequate reasons to justify what one says (Leite, 2005a, 510). The reason why this Sellarsian normative requirement is usually considered to be an internalist demand can be found in the way Sellars expresses what it means to fulfil it. For Sellars, the sought authority of the knowledge report 'must in some sense be recognised by the person whose report it is', and observational reports can express knowledge only if it can be said that the subject 'knows the appropriate fact of the form X is a reliable symptom of Y' (Sellars 1956, 74–5). It is quite clear how such statements can be read in an internalist way, but it is a mistake to simply conflate a reason requirement with some kind of *access* or introspective requirement internalistically conceived. A reason requirement holds that in order to have a justified belief, one needs to possess good, epistemically valid, and authoritative grounds to believe in the way she believes. The internalist requirement that the subject also believes that she has those reasons does not follow automatically from the reason requirement (cf. Leite, 2005a, 2005b, 520; Sosa, 1994, 273).

Additionally, even Sellars' admittedly internalist declination of the requirement can be accepted and integrated within an externalist framework. For example, Greco (2023) holds that Sellars' argument is aimed at showing that if such reasons do not belong in some way to the subject, then it is not possible to account for the 'normative standing' of our knowledge. However, Greco argues that this standing can itself be externalistically conceived, without placing any strongly internalist constraints on it, respecting the Sellarsian reason requirement.[46] If externalism can be responsive to and compatible with this problematic, there is no good reason to think that underdetermination concerns are incompatible with externalist perspectives.

We can also strengthen the point that a reason requirement does not necessarily entail a rejection of externalist viewpoints by looking at how externalism has

[46] Greco's own preference is to integrate the reason requirement as *procedural knowledge*.

generally answered clairvoyance cases. Clairvoyance cases exemplify instances of unjustified beliefs because of a lack of adequate reasons in their support. They are held to strike a point against forms of externalism that do away entirely with reason requirements. Their effectiveness has been acknowledged by many externalists, and few are willing to bite the bullet on this score.[47] The fact that even externalist positions are sensitive to a reason requirement can be seen by the fact that many such stances are willing to address the internalist insight that some degree of rational support is required for the belief to be justified. Most importantly, they argue that in such cases, evidence or reasons are indeed available to the subject.[48] In any case, it should be clear that simply postulating a reason requirement for knowledge and justified belief should not place the underdetermination problem outside the purview of externalist positions. Positions that are insensitive to this requirement might in fact lack a critical feature needed to institute a successful anti-sceptical strategy.

6 Anti-sceptical Consequences

In this final section, we assess the impact our defence and development of underdetermination scepticism have on some contemporary anti-sceptical strategies. The goal is not to show that the surveyed approaches must necessarily fail to defeat scepticism. What we attempt to offer is a diagnosis of what they miss of the sceptical problem. By achieving a better understanding of the sceptical threat, anti-sceptical strategies can be amended to possess stronger anti-sceptical effect.

The first variety of anti-sceptical strategies we want to analyse is a general approach that finds more than a single application. This is the attempt to argue that once one is confronted with a sceptical problem or question, one is simply rationally entitled to reject scepticism a priori. This approach has been called *dismissive*. It does not hold that scepticism can be met with an argument demonstrating our actual possession of knowledge, nor that scepticism fails because of internal issues. The dismissive strategy holds that 'we have reason to reject sceptical hypotheses as such' (Vogel, 1993, 236).

An example of such a strategy is found in the idea that scepticism fails because it simply cannot rob us of something we already possess, i.e. valid evidence or reasons in support for our beliefs. This means simply rejecting the minor premise of the sceptical argument because it is untrue that we do not know or we have no justified belief for ~SK. Leite argues that this is so because the sceptical argument cannot rule out by itself the availability of 'considerations about the world at this juncture' (2010, 41).[49] Leite concedes that he is assuming or presupposing the truth

[47] On this general concession, see Alston (2001, 4–5), Goldman (1993, 277) and Littlejohn (2011, 29).

[48] For an overview of such attempts, see Littlejohn (2011, 54–60). Ghijsen (2015 (99–100)) is a recent attempt at arguing that the subject does possess reasons/evidence in such cases. Beebe (2004) argues that the subject needs to go through some process of training and/or habituation for the faculty to deliver justified beliefs. In all of these externalist stances, the idea that there must be some evidence or reason supporting the belief for it to be justified is accepted.

[49] A similar argument is provided by Reynolds (2013, 276).

of what the sceptic denies (ibid, 42), and yet, in everyday parlance, we are indeed allowed to appeal to worldly considerations. Why should we be denied to employ them against the sceptic?

Leite initially does not consider underdetermination as the source of the minor premise of the closure argument. He considers instead sensitivity and some kind of indistinguishability of evidence as sources of the minor premise. We already mentioned how such approaches are ill-suited for sceptical purposes. However, Leite's second attempt investigates something worth considering from the underdetermination perspective. He holds that the reason requirement, when employed by the sceptic, translates into a requirement for 'an explicit, conscious course of reasoning from adequate independent grounds' (ibid, 51). This, he holds, simply provides the wrong verdict in everyday cases. Take the hypothesis that G. W. Bush is a woman successfully engaged in a massive deception. We do not have grounds from outside the everyday domain—i.e. no independent grounds—to reject this hypothesis, and yet we are ordinarily entitled to dismiss it.

We can easily spot some assumptions Leite makes on behalf of the sceptic that we straightforwardly rejected in making a case for scepticism. We rejected the idea that it is a sceptical requirement to provide independent antecedent grounds for our beliefs to obtain rational support. We furthermore rejected the idea that the problem is one of scenarios of massive deception. Instead, the sceptical question hinges on a reason requirement that Leite himself finds acceptable.

However, while Leite assumes that the Bush and sceptical cases are symmetrical, on grounds of their being scenarios of massive deception, we can show how the two cases are actually asymmetrical concerning what we can rationally entitle ourselves to. What makes us entitled to reject the Bush hypothesis out of hand? The fact that, in ordinary endeavours, the background of evidence, reasons, and inferences we can rely on is already in place as valid. The existence of the 'Bush-is-a-woman' possibility does not neutralise the epistemic merit of that background *we can appeal to*. Even if we lack independent grounds from outside the domain of our epistemic practices confirming us that Bush is not a woman deceiving us, the employment of ordinary epistemic criteria ensures us that it would have been unlikely for a double-mandate US president to keep up this façade without some evidence of it slipping out.

But then, why the appeal to our worldly considerations, our mundane epistemic background, is suspect vis-à-vis scepticism, and it seems to establish precisely what scepticism contests? This is so because the *radical* character of scepticism resides in its underdetermining the background of mundane and ordinary epistemic reasons, evidence, and practices too. If our background reasons and evidence are already established as possessing epistemic merit, then the game is over; radical scepticism has lost already. We would be entitled to appeal to them to reject the underdetermination-based argument that motivates our ignorance of ~SK. But how did we get to our background reasons and evidence having such substantial epistemic merit? If we endorse the underdetermination principle as we have argued here we should and acknowledge its normative threat, why should this evidential background be spared from the reason requirement that underdetermination establishes?

Notice that in saying so, we are not at the same time arguing that *there must be a domain-independent reason* in order to solve the underdetermination problem, nor that this

vindication is *impossible*. In fact, scepticism as a valid argument must be compatible with the possibility of valid reasons being brought up from within the ordinary epistemic domain itself *refuting it*. This must be so, otherwise scepticism becomes mere negative dogmatism, the thesis that *no* valid reason can do such work. The difficulty lies in making a case for the validity of ordinary reasons without committing some viciously circular or arbitrary moves, such as arbitrarily privileging or assuming a certain ground or a certain source of knowledge.

This requirement, especially when considered from the perspective of epistemic theorising, is much less contentious than requiring domain-independent reasons or evidence. What underdetermination requires us to show is how our reasons can be more than insular, and this, at least when doing epistemology, clearly applies to ordinary cases as well. If it does not, an argument must be provided as to why our ordinary practices and their epistemic backgrounds are spared from underdetermination. Motivating scepticism as a consistent epistemological question must be compatible with the possibility of offering this kind of answer, or with offering some other strategy that weakens the generality of the sceptical threat. However, this must be argued for, not merely assumed.[50]

This outcome has an impact on further anti-sceptical strategies that explicitly consider the sceptical argument from underdetermination. For example, Vogel's abductivism argues against underdetermination by maintaining that the scenario according to which we are experiencing the real world enjoys explanatory advantages over the sceptical alternative. A sceptical scenario would rely on pseudo-objects, pseudo-shapes, and pseudo-locations. The real-world hypothesis is explanatorily simpler; hence, it has *more merit* than the sceptical competitor.

Ignoring the fact that Vogel employs a scenario-based conception, the problem with this answer is that the reasons that allow the real-world hypothesis to obtain epistemic merit and validity over and above scepticism are implicitly assumed as valid from the start. Vogel holds that the real-world hypothesis is simpler than scepticism because it makes reference to *genuine* shapes and locations over pseudo-shapes and locations (2005, 112). However, that which makes it the simpler choice is established as meritorious on the assumption that the shapes and locations we have experience of are in fact the genuine ones. Why should not this source of epistemic merit come under the threat of underdetermination as well?[51] Why should this source of validity be spared from replying to underdetermination?

The same verdict can be applied to another anti-sceptical strategy, more in line with externalist thinking, that has been recently proposed by Bergmann in direct reference to underdetermination. For Bergmann, the evidence we possess for our

[50] A possible example is the rejection of the universal evaluation of epistemic reasons on Wittgensteinian grounds. This must be carefully argued for and not simply assumed. Leite's own account in fact argues at length for epistemic *localism* in his 2004 and 2005b. A recent attempt at Wittgensteinian localism is in Pritchard (2015).

[51] Vogel's argument in order to function cannot be reduced to the trivial idea that a real world is 'simpler' than a simulated world, in the mere sense that the former involves less abstraction and less entities. This platitude tells us nothing concerning the validity of our epistemic evidence and reasons. In fact, this idea seems to suffer the same kind of issues Putnam's semantic externalist answer against scepticism has been held to suffer from.

everyday beliefs is at heart a matter of *rational intuition*, and underdetermination seeks to exploit the gap between these intuitions and our beliefs to show that our beliefs based on them are not justified (2021, 220). Bergmann's *particularist* objection is instead to hold as *obvious* that our ordinary beliefs are rational, reliable formed, hence justified (ibid, 221). This is itself a rational intuition we have and given that rational intuitions provide rational support for our beliefs, we should hold on to it even despite underdetermination arguments.

We will here ignore the fact that this seems a plainly circular move, because Bergmann has an account of circularity that allows for the existence of benign circularity.[52] Bergmann's answer taken at face value has an obvious problem: what he yields as *obvious* against scepticism might not be that obvious at all when dealing with scepticism. Reliance on rational intuition left unqualified appears an ad hoc epistemological position, the postulation of an all-capable property providing us with the rational evidence we seek, allowing us to ignore challenges to it, a true epistemological holy grail. Earlier in his book, Bergmann holds that the reason we can safely disregard underdetermination arguments is due to our placing 'greater weight on the very strong epistemic intuitions that the particular beliefs in which we are *most* confident … are justified' (2021, 159) instead than on the cogency of underdetermination worries.[53]

What could be the thought upholding Bergmann's reasoning? The most charitable way of interpreting it is to read it as expressing the insight that how things seem us to be provides us with rational support for our beliefs (cf. 2021, 161). However, in virtue of what do we hold as intuitively rational to believe 'here's a red table' when we see one? The fact that when we see a red table, we usually believe there to be a red table, unless some defeating condition obtains or is presumed to obtain depending on context and the environment. This means that the rational intuition we have that our belief 'here is a red table' can resist underdetermination worries relies on a background of valid, meritorious, and generally accepted epistemic practices, whose epistemic merit is not itself underdetermined.[54] We have our rational intuition in favour of the belief because we are already partaking in the epistemic practice where such a belief is generally judged as the correct response to that experience.

[52] The fact that circularity is only malign when we are required to convince someone who antecedently doubts the possibility of non-inferentially justified beliefs (Bergmann 2004, 717) does not seem to trouble him that this might be a case of malign circularity according to Bergmann's own criterion.

[53] Bergmann finds underdetermination implausible by formulating in a way that does not follow any formulation in the extant literature (2021, 29), and that makes the sceptic endorse substantial theses about what is required for justified belief. We will leave outside its discussion because it endorses various theses we already rejected here.

[54] The alternative would be to hold that the source of rational justification is the experience itself, but this seems to go against Bergmann's own contention that what provides support *is the rational intuition*. Additionally, such a move would commit his position to either be a form of disjunctivism, which he rejects because he endorses the new evil demon intuition (2021, 24), or to a form of the myth of the given, in the sense of an atomic source of epistemic authority (Sellars 1956, 75). Williams (1996, 57; 2001, 198) has defended the idea that the epistemic priority relations embedded in the myth of the given and its associated foundationalism are *presupposed* by the sceptic in order to make her case. For a convincing argument against Williams precisely from the stands of underdetermination, cf. Janvid (2006, 71–2).

We would find anyone who does not have that same belief when looking at a red table either an irrational or an incompetent epistemic agent. However, if this belief can come under the threat of underdetermination, how can the background evidence, beliefs, and reasoning that provide us with the rational intuition in its favour be spared from it? In both this and Vogel's strategy, this exemption must be at least argued for and not simply assumed that this is how things must go. Not arguing for it would make the position epistemically arbitrary.

A final strategy we can address here focuses on something we already touched upon when we first presented the infallibilist objection. Contemporary disjunctivist answers, such as those defended by McDowell (1983) and Williamson (2000), hold that scepticism rests ultimately on the sameness of evidence lemma, the thesis that in both the good and the bad cases, what the subject has at its disposal is necessarily the same evidence. Given that in both cases the available evidence—whether internalistically or externalistically construed—is held to be the same, the epistemic merit of the evidence in both cases is neutralised. Disjunctivism objects that the two situations are evidentially asymmetrical. In the bad case, that evidence is simply unavailable and there is valid evidence in the good case. Scepticism fails because it cannot use the bad case to underdetermine the epistemic merit of evidence in the good case anymore.

We will leave aside the aspect that such stances generally endorse a factive view of justification, hence endorsing infallibilism. The issue with this strategy is that scepticism does not need to rely on something as the sameness of evidence lemma, and indeed, it should not do so. To hold that in both the good and the bad case evidence must necessarily be the same is not something the sceptic would be entitled to endorse, and in fact, it would come to the detriment of the intuitive pull of her argument. If evidence or reasons are established once and for all as neutral, it would be impossible to break the tie between the cases, and scepticism would have won from the start. For the sceptical argument to be sound, to be an argument that we can epistemically engage with, there must be the possibility for our evidence and reasons to be vindicated.[55] In fact, by rejecting the sameness of evidence lemma, scepticism remains compatible with the fallibilist intuition that one's beliefs could be justified and enjoy rational support even if ultimately false.

What underdetermination motivates is a request to establish the validity of our reasons and evidence without presuming that they already are. As long as this is not established, our evidence is normatively neutral because of not currently telling in favour of our beliefs. However, this neutrality is not established as necessary. This neutrality can suffice for the sceptical argument to work even as a mere provisional, agnostic pronouncement. To show that our evidence is not epistemically inert is the task of a sound anti-sceptical strategy. Rejecting the sameness of evidence lemma avoids only a very implausible form of sceptical argument, no matter how intuitive it might seem at first. This realisation does not mean that disjunctivist positions cannot meet head-on and

[55] See Leite (2013, 101–2) for an argument that the lemma also unduly restricts the possible sources of rational and epistemic support.

refute the sceptical challenge. What this diagnosis instead shows is that the rejection of the sameness of evidence lemma cannot be the beginning and end of an anti-sceptical strategy.[56]

7 Conclusion

In this analysis, our goal was to establish a consistent motivation of the sceptical argument via its appeal to the underdetermination principle. We showed how the classic closure-based argument relies on it for its minor premise, and we presented intuitive motivation for its adoption vis-à-vis possible alternative routes. We argued that by doing so, scepticism needs not rely on more contentious principles such as necessary introspective indistinguishability or epistemic priority requirements. We then defended the principle against objections that would place it beyond the pale of epistemic acceptability. To achieve this aim, we presented a more developed conception of underdetermination-based scepticism than those available in the contemporary literature. More specifically, underdetermination-based scepticism must be understood as a problem of normative ignorance concerning the epistemic credentials, the rational merit and validity, enjoyed by our beliefs. An important consequence of this approach is that we have shown how to conceive scepticism without requiring an overt reliance on scenarios of massive, uneliminated deception. What motivates scepticism is not captured merely by the possibility of being mistaken about how things are. Underdetermination scepticism requires us to defend the epistemic merit of our beliefs independently of the plausibility or feasibility of error-based cases. In doing so, we have argued for a less contentious conception of sceptical arguments, one where there is no endorsement of problematic theses beyond the reason requirement. Finally, we then argued how a number of contemporary anti-sceptical strategies do not, in their current state, manage to engage with the core of the underdetermination problem. Showing what they miss should not be understood as a definitive verdict that such stances are ill-suited to refute or dissolve scepticism. Our analysis has instead suggested on which terms the sceptical threat must be met and hopefully won.

[56] Both disjunctivist perspectives in fact offer more than a simple rejection of the supposed asymmetry between cases. McDowell (1994) provides a conceptualist stance that makes a *semantic* rather than merely epistemic point. Williamson's position is more complex and the engagement with knowledge-first stances would require a separate treatment. Here, it will suffice to say that in knowledge-first epistemology the E = K thesis is what does the heavy lifting. Given that our evidence is what we know, we know that we are not in a sceptical scenario because that scenario is incompatible with our evidence (2000, 208). The problem is that this again seems not to be a vindication that our beliefs possess evidential merit, but simply the assumption that they do. Additionally, E = K entails infallibilism, and some knowledge-firsters have recognised that once this is accepted, it is difficult to rule out that our beliefs are not underdetermined (see, for example, Littlejohn 2008, 684).

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