The Ignorance Norm & Paradoxical Assertions*

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Abstract

Can agents rationally inquire into things that they know? On my view, the answer is yes. Call this view the *Compatibility Thesis*. One challenge to this thesis is to explain why assertions like "I know that p, but I'm wondering whether p" sound odd, if not Moore-Paradoxical. In response to this challenge, I argue that we can reject one or both premises that give rise to it. First, we can deny that inquiry requires interrogative attitudes. Second, we can deny the ignorance norm, on which agents are not permitted to both know and have interrogative attitudes, such as wondering. I argue that there are compelling reasons to deny the former and reasons to question the latter. Both options pave the way for further work on further inquiry.

Introduction

Can agents rationally inquire into what they already know? Many philosophers have argued against this possibility. Instead, they endorse what I'll call the *Incompatibility Thesis*, according to which one cannot know simultaneously that p and rationally inquire into p. To defend this thesis, proponents have deployed a challenge from linguistic data that seems to decisively eliminate a rival *Compatibility Thesis*, on which inquiry is compatible with knowing. The challenge is to explain why it sounds odd to assert, "I know that p, but I'm wondering whether p." Such assertions represent an agent as both knowing and inquiring, and the infelicity of such assertions suggests that this combination is normatively problematic. Hence, defenders of the Compatibility Thesis face the burden of explaining away this linguistic data. Here, I will discharge this burden by offering an alternative, pragmatic interpretation. But first, I will consider linguistic counterdata that seems

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to independently put pressure on the Incompatibility Thesis. This suggests that the initial linguistic data in fact does not in fact speak decisively in favor of the Incompatibility Thesis. Additionally, I will undercut a key premise which gives rise to the challenge in the first place. The Compatibility Thesis cannot be so easily dismissed, and indeed, there are independent reasons for taking it seriously. I begin by establishing the plausibility of this thesis.

1 The Compatibility Thesis

According to the Compatibility Thesis, agents can inquire into what they already know. More precisely, it is sometimes rationally permissible to know that p and inquire into p at the same time. There are at least two compelling motivations for the Compatibility Thesis: one based on a common kind of inquiry, another based on prominent commitments in epistemology. Although these considerations alone do not establish the Compatibility Thesis, they render it plausible and worthy of consideration.

The first motivation for the Compatibility Thesis stems from reflection on ordinary examples of inquiry, particularly those involving further inquiry. That is, there seem to be a wide range of cases where agents rationally inquire into things that they already know. For example, scientists often corroborate results that they already know hold, mathematicians double-check proofs that they know work, and students double-check their exam answers. For example, consider a student who knows that Beryllium is an Alkaline Earth Metal. Still, during an open-book exam, this student might double-check his answer, just to be absolutely sure. Alternatively, consider a lab that sequences the genome for COVID-19; they double-check that the genome is what they found by corroborating their results with another lab. These are paradigmatic examples of rational inquiry. Only an overly skeptical theory would deny that scientists can know results that they later corroborate, or that students can know their answers when they double-check them during an open-note exam. ²

¹See Beddor (ms) for further discussion of this type of case and how it challenges the Knowledge Aim of Inquiry.

²See Woodard (ms) for more detailed cases and discussion. Another example comes from Jes-

Second, the Compatibility Thesis follows from the ideas that knowledge is sub-maximal and that a central role of inquiry is to improve one's epistemic position. By inquiring, we often stand to epistemically improve, including in ways that go beyond knowledge. For example, by double-checking answers, a studious test-taker who double-checks his answers may leave the exam more *confident*, the scientist may increase the *sensitivity* of their beliefs to different sources of error, and we may rest easy being *certain* that we set our alarms. This is only a sampling of ways in which inquiry can help us epistemically improve beyond knowledge. In addition, we may seek higher-order epistemic states—such as knowing that we know—or we may try to increase the resilience or stability of our knowledge. Alternatively, we might want to increase our degree of justification or confidence. Still further, we might inquire about something we already know in order to *understand why* it's true.³

Few epistemologists would deny that there are further epistemic goods beyond first-order knowledge. First, most epistemologists endorse Anti-Skepticism, according to which knowledge is not a maximally strong epistemic state. That is, knowledge does not require certainty, higher-order knowledge, maximal resilience, and the like. If it did, then knowledge would be scarcely attainable. Second, even philosophers who endorse the knowledge-first program should accept that one can seek further epistemic goods beyond first-order knowledge. Williamson—the most prominent defender of the knowledge-first program—agrees that one can know that p without knowing that one knows that p (Williamson 2005, 234). Thus, a central motivation for my view arises from Anti-Skepticism, an assumption that many epistemologists share.

In addition, it is natural to think that a central role of inquiry is to improve one's epistemic standing, a position that my opponents do not necessarily deny.

sica Brown (2008)'s surgeon case: she considers a surgeon who knows that it's the left kidney that needs to be operated on, but who double-checks to be sure.

³Indeed, such cases sometimes occur in proof-checking in mathematics. For example, the great mathematician Michael Atiyah once reported having proven a theorem—thus *knowing that* it held—while simultaneously seeking to *understand why* it held. See Minio (1984). For discussion, see Tappenden (2005).

⁴Williamson goes even further and suggests that in high stakes cases, one can be obligated to not just know that p but know that you know that p (and even know that you know that you know that p) in order to be justified in acting on p (Williamson 2005).

However, some of them take an overly restrictive view of what constitutes an epistemic improvement. For example, Jane Friedman, a proponent of the Incompatibility Thesis, claims that "the point or purpose or aim of opening [a question] is... to improve our epistemic standing on some matter—to settle a question and to come to know" (Friedman 2017, 322). The point I am making is that coming to epistemically improve is not exhausted by coming to know. As the previous paragraphs illustrate, we can epistemically improve beyond knowledge.

Of course, there are other ways for opponents to push back against the considerations offered here. In response to my examples, they might deny that such agents are genuinely inquiring. Prima facie, this option seems unattractive: many cases I have considered are paradigmatic examples of inquiry. Claiming otherwise requires artificially narrowing the scope of inquiry, rendering it less philosophically interesting.⁵ A more plausible strategy for my opponent is to concede that the agents in my examples are inquiring, but deny that they are inquiring into p. On this view, agents who apparently double-check what they know are in fact starting a new inquiry. There is much to say in response, but here I'll briefly flag two points. First, a proponent of this strategy owes us a plausible account of what other question or subject matter the agent is inquiring into. Moreover, the question they identify must not be one that the agent already knows the answer to, or that gives way to a question whose answer they already know. This is a more difficult constraint to satisfy than at first glance. Second, this approach is inherently piecemeal and risks being ad hoc, attributing to inquirers questions that they are not clearly inquiring into. For the Compatibility Thesis to hold, there

⁵Of course, the nature of inquiry is partly what's at issue. This paper is part of a larger project about further inquiry. My aim here is simply to rebut one powerful argument against the Compatibility Thesis, and hence motivate the claim that there is nothing *normatively* problematic about knowing while inquiring.

[°]For example, perhaps the scientists above are inquiring into whether they got the COVID-19 genome sequence right. The problem is this: that they got it right simply follows from the fact that they know that the sequence is X. Indeed, it seems incoherent to state, "I know that the sequence is X, I know that I said that it is X, but I don't know whether I got it right." Hence, barring a manifest failure of logical closure, they also know that they got it right. Alternatively, suppose they are inquiring into whether they know that p. Oftentimes, inquiries into whether we know that p give way to the question whether p. After all, if we learn that $\neg p$, we learn that we don't know that p. Of course, there may be other propositions in the vicinity, but they risk facing the second difficulty noted in the text.

only needs to be one type of case where we cannot realistically identify an alternative proposition that the inquirer is investigating. Although much more could be said to defend the Compatibility Thesis, the arguments above readily demonstrate that this thesis captures compelling intuitions about ordinary cases of inquiry and about knowledge.

2 The Challenge from Paradoxical Assertions

Despite the intuitive plausibility of the Compatibility Thesis, there is a powerful argument that challenges it. The challenge is to explain why assertions like the following seem infelicitous, if not Moore-Paradoxical:

- (1) #I know that the door is locked, but I wonder whether the door is locked.
- (2) #The stove is off, though I'm wondering whether the stove is off.
- (3) #The stove is off, but I'm curious: is the stove off?

The Compatibility Thesis appears to lack the resources for explaining why (1)–(3) are infelicitous. In each case, an agent represents herself as both knowing that p and inquiring into p at the same time. If, as the proponent of the Compatibility Thesis claims, this represents a permissible—sometimes even praiseworthy—state of affairs, then how can we explain the appearance of paradox? Indeed, the Compatibility Thesis appears not only ill-situated to *explain* the infelicity of (1)–(3) but, even worse, seems to *license* these assertions.

By contrast, views that posit an incompatibility between knowledge and rational inquiry seem well-equipped to explain the infelicity of (1)–(3). For example, Jane Friedman uses data like (1)–(3) to motivate an *ignorance norm*, on which agents ought not have an interrogative attitude about whether p if they know that p Next, Friedman argues that interrogative attitudes are *necessary* for inquiry. It follows that one ought not know that p while inquiring into whether p (Friedman 2017). In this way, we see how Friedman arrives at the Incompatibility Thesis.

⁷Sapir and van Elswyk (forthcoming) also defend this conclusion and argue that it is exhaustive: that is, knowledge is the weakest attitude inconsistent with inquiry. Dennis Whitcomb defends a related ignorance norm, on which "inquire only into what you don't know" is a *constitutive* norm

More carefully, Friedman's argument for the Incompatibility Thesis proceeds in two steps. Step one involves positing an *Ignorance Norm*, which is intended to explain the data:

Ignorance Norm (IGN): If S knows that p at some time t, then S ought not have an interrogative (i.e. question-directed) attitude toward whether p at t (Friedman 2017, 311).

According to IGN, it is *possible* to know that p and wonder whether p, but this combination is normatively problematic. Knowing and having an interrogative attitude are normatively incompatible. On this view, (1)–(3) describe "unfortunate states of affairs and confused states of mind" (Friedman 2017, 310).

Step two of Friedman's argument aims to show that knowing and *inquiring* are normatively incompatible. To show this, we need a second assumption, on which interrogative attitudes are necessary for inquiring:

Inquiry Requires Interrogative Attitudes (IRIA): S is inquiring into p only if S has an interrogative attitude toward whether p.

Why endorse this claim? There are at least three motivations. First, inquiry seems question-directed: we inquire into whether we locked the door, or whether we turned off the stove. We don't inquire that we did. In this respect, inquiring seems to pattern with other interrogative attitudes, such as wondering, investigating, and being curious, which embed with questions, not propositions. Second, inquiry seems compatible with 'radical ignorance:' one can inquire into some question, Q, without even knowing the range of possible answers to Q (Friedman 2013, 163). The view that inquiry requires interrogative attitudes captures this better than views on which inquiry requires propositional attitudes. If the content of inquiring attitudes were possible answers (expressed as propositions), rather than questions, then we would have to already know the range of possible answers of our inquiry; thus, we could not easily account for radical ignorance (Friedman 2013, 159–164). Third, genuine inquiry seems to require openness about whether

of at least one kind of question-asking (Whitcomb 2017). Here Whitcomb is focused on a certain type of speech act and only indirectly on the nature of inquiry itself.

p: you cannot inquire into p if you are completely closed off to the possibility that not-p! Interrogative attitudes seem to best represent this openness: to inquire into p, it must be an open or live question for you whether p.

From these two assumptions, the Incompatibility Thesis naturally follows:9

Incompatibility Thesis: If one knows that p at t, then one ought not inquire into whether p at t.¹⁰

The Incompatibility Thesis, as stated, is normative: it claims that there is something normatively problematic about inquiring while knowing.

Perhaps unsurprisingly, the Incompatibility Thesis goes hand-in-hand with endorsing a normative version of the view that knowledge is the aim of inquiry:

Knowledge Aim of Inquiry (K-Aim): The aim of inquiry is knowledge.

According to the normative version of this thesis, inquiries go awry if they are closed short of knowledge, or if they continue after having attained knowledge. Predictably, data like (1)–(3) are also used to motivate this thesis. As Whitcomb writes, "The view that knowledge is the unique satisfier of curiosity [...] explains why utterances like 'I know that p, but I'm curious: is p the case?' go awry" (Whitcomb 2010, 674). In leveraging this challenge, Whitcomb shares Friedman's assumption that inquiry is question-directed and thus requires interrogative attitudes.

Thus, the Challenge from Paradoxical Assertions represents arguably the most formidable challenge to the Compatibility Thesis. The remainder of the paper

⁸For other defenders of the view that inquiry is question-directed, see Carruthers (2018) and Whitcomb (2010).

 $^{^{9}}$ There is an implicit premise, namely that if one ought not have an interrogative attitude toward p, then one ought not inquire into whether p. I see no plausible reason why the proponents of IRIA and IGN would deny this. For this premise to be false, an agent would have to be permitted to inquire but not permitted to have an interrogative attitude. Yet, IRIA states that inquiring requires having an interrogative attitude, which is something that ex hypothesi this agent ought not have.

¹⁰This is sometimes referred to as an ignorance norm as well (Sapir and van Elswyk forthcoming). However, for my argument, it is important to distinguish Friedman's original statement of the Ignorance Norm from what I'm calling the Incompatibility Thesis.

seeks to respond to this challenge, and thus rebut one argument against the Compatibility Thesis. Fortunately, the proponent of the Compatibility Thesis has options. The first is to deny that inquiry requires interrogative attitudes. The second is to deny the Ignorance Norm. I'll argue that we have compelling reasons to deny the former, and I'll offer some reasons to doubt the latter. In addition, I'll propose an alternative explanation for the initial, problematic data.

3 Option 1: Deny That Inquiry Requires Interrogative Attitudes

The first option is to deny that inquiry requires interrogative attitudes (IRIA). Perhaps *some* inquiries require interrogative attitudes. However, as the phenomenon of further inquiry makes clear, this is not always the case. In such cases, agents often adopt propositional attitudes, i.e. attitudes that embed propositions rather than questions. In Indeed, the language of further inquiry can embed propositions: we double-check *that* p, verify *that* p, corroborate *that* p, confirm *that* p, make sure *that*, and so on. Few would deny that these ways of investigating further can count as inquiries.

As this proposal predicts, the following assertions seem felicitous, especially when the agent makes explicit that she is seeking further epistemic goods:¹³

- (4) I know that I bought all of the ingredients, but I'm double-checking that I did, just to be sure.
- (5) Although he knows that he turned the stove off, he's double-checking just to be certain.¹⁴

¹¹Falbo (forthcoming) makes this suggestion as well. She motivates it using different linguistic data, namely biased questions. I owe the term 'propositional inquiring attitudes' to Falbo. See also Millson (2021) for discussion of biased questions. Here, I offer novel linguistic counter-data. Additionally, below I provide reasons for thinking that further inquiry lies outside the scope of the theoretical motivations for IRIA.

¹²Indeed, Friedman (2019) explicitly accepts that double-checking is a form of inquiry.

¹³Here is one explanation why adding a justification—such as "just to be sure"—helps. Most inquirers aim low, at either true belief or knowledge. Thus, there's something surprising about agents going beyond this. However, once they specify that they are seeking an epistemic good beyond knowledge, the tension dissolves.

¹⁴The 'although p, q' construction is supposed to control for a mid-sentence change of mind or

(6) Although we know that the vaccine is 90% effective, we're corroborating that it is to increase our sensitivity to error.

By contrast, if IRIA is correct, then (4)–(6) should be either infelicitous or systematically false. For recall that IRIA itself is a descriptive claim: it holds that if one does not have an interrogative attitude toward p, then one is not inquiring into p. Thus, IRIA faces an explanatory burden: it must explain away our sense that (4)–(6) are true in some contexts. In addition, (4)–(6) constitutes counter-data: they show that linguistic data does not unequivocally favor the Incompatibility Thesis. That data is inconsistent and, hence, inconclusive.

Moreover, when we focus on further inquiry, many of the initial motivations for tying inquiry to interrogative attitudes dissipate. First, verbs like 'double-check' and 'verify' do embed well with propositions. Second, when one inquires further, one is *ex hypothesi* not radically ignorant, for one only *counts* as double-checking if one already has a view on the matter. Finally, as I argue elsewhere (Woodard ms), one can display the openness requisite for inquiry without thinking it's a fully open question whether *p*; the agent just needs to believe that she's fallible—a belief many of us share.

Taking this option has a number of virtues. First, it circumvents the Challenge from Paradoxical Assertions by denying a premise that gives rise to it. Second, it would allow us to accept the Ignorance Norm as the best explanation of the initial data. Finally, it is ecumenical in the following respect: it is compatible with a weaker version of IRIA, namely that *some* inquiries require interrogative attitudes. Perhaps when we inquire into matters we've never formed beliefs about we ought to have interrogative attitudes toward them. My point is that by reflecting on cases of *further inquiry*, we see that IRIA fails to hold in full generality.

If forced to choose between denying IRIA and denying IGN, I would choose the former. However, we may not be forced to choose: there may be reasons to doubt the Ignorance Norm as well. I turn to these now.

context-shift. Thanks to Guillermo Del Pinal for bringing this to my attention.

¹⁵Cf. Friedman (2019): "a check can only count as a re-check if you're trying to confirm an answer you already think is right" (Friedman 2019, 3).

4 Option 2: Reject the Ignorance Norm

Recall that the Ignorance Norm (IGN) claims that one ought not know that p while having an interrogative attitude towards p. As we saw, one motivation for IGN is that it offers a plausible explanation of the data. Here I want to suggest an alternative explanation and argue that it has key advantages over IGN.

The proposal is this: when one asserts that p or that one knows that p, one proposes to treat p as settled. There is then something odd about subsequently raising the question whether p, after having introduced p to the common ground. The problem with (1)–(3) is that the speaker simultaneously proposes to treat p as settled and to treat p as unsettled by questioning it. At best, such assertions are self-undermining. Importantly, these are points about the norms governing conversational moves, not attitudes.

This proposal is plausible, independently of its upshots for the Ignorance Norm. For example, it falls out of a broadly Stalnakerian understanding of assertion. According to Stalnaker, "To make an assertion is to reduce the context set in a particular way, provided that there are no objections from the other participants in the conversation" (Stalnaker 1999, 86). When we assert that p, we propose to eliminate possible situations incompatible with p.¹⁶ Imagine a speaker, A, who asserts that p, and thereby proposes to add p to the common ground. Another speaker, B, can reject this addition by verbally questioning or wondering whether p. B would thereby reject A's attempt to add p to the common ground. There is nothing odd or infelicitous about this type of exchange. By contrast, there would be something odd about a single speaker asserting that "p, but I'm wondering whether p." Such a speaker simultaneously proposes to treat p as settled and unsettled. This undermines the point of assertion and hence is infelicitous. Ceteris paribus, it is unacceptable for a speaker to non-rhetorically ask, "Is it the case that p?" when p is already part of the common ground (Kirk-Giannini 2018). Moreover, this conversational principle is plausible

¹⁶Indeed, a common assumption in dynamic semantics is that proposals to update the common ground must be informative, and hence eliminate some worlds, without collapsing the common ground. In addition to Stalnaker, see Heim (1992) and Schlenker (2009). Thanks to Guillermo Del Pinal for discussion.

independently of its upshots for debates about the Compatibility Thesis.¹⁷

My opponent might object on the following grounds: to know that p just is to treat p as settled. I disagree. They can come apart in both directions. First, one might know that p but fail to realize that she knows that p, and thus fail to propose to treat p as settled. I will describe a case like this shortly. Second, one might propose to treat p as settled for the purpose of conversation without knowing that p, and indeed, even while being self-conscious of this fact. For example, one might want to discuss what follows from the supposition that p.

Finally, note that my proposal is compatible with different norms regarding combinations of *attitudes*, so long as those norms do not entail the Ignorance Norm. For example, we might claim that it is impermissible to both be *certain* that p and to have an interrogative attitude about whether p. Importantly, certainty is a stronger epistemic state than knowledge: it requires ruling out a wider range of possible errors.¹⁸

Why prefer my proposal? One reason is that it easily avoids plausible attempts to counterexample the Ignorance Norm and its normative verdicts. Two types of cases pose a *prima facie* challenge to the Ignorance Norm. The first concerns cases where an agent wonders whether *p* because she does not realize that she knows it. Consider an agent who wonders whether her door is locked because she doesn't realize that she knows that her door is locked; it is unclear that such agents violate a norm. The second comprises cases where an agent wonders whether *p* because, despite knowing the answer, it is not 'cognitively available' to her. Such cases differ from the first insofar as the agent may recognize that she knows the answer even though she cannot currently retrieve it.¹⁹ Consider an agent who knows what year *On the Plurality of Worlds* was published but is having trouble recalling it at this moment. They may permissibly wonder whether it was published in 1986. Indeed, wondering may help them retrieve this knowledge (Archer 2018).

In response to these apparent counterexamples, the proponent of the Igno-

¹⁷Kirk-Giannini (2018) formalizes and defends such a principle, which he calls "Correspondence." For related discussion, see Roberts (2012).

¹⁸For a helpful recent discussion of certainty, see Beddor (2020).

¹⁹Some people may want to deny that such agents do know the answer. However, Friedman (2017) introduces such cases as possible, although as Archer (2018) argues, they seem to pose a *prima facie* challenge to her view.

rance Norm may claim that such agents *do* violate the norm but are nonetheless excused because they fail to realize it applies to them (Sapir and van Elswyk forthcoming). It is beyond the scope of this paper to assess the viability of this type of response.²⁰ The point here is that such cases problematize the Ignorance Norm and so need to be explained away. By contrast, my proposal faces no such burden.

Finally, I want to end by noting that there are reasons to question how probative linguistic data like (1)–(3) are for our normative epistemological theorizing. In addition to the counterdata we saw in §3, intuitions about the felicity of variants of (1)–(3) are not always clear. For example, people may plausibly disagree about how infelicitous it is to assert: "She's wondering whether the stove is off, though she knows that it is."²¹ Similarly, it seems to me less problematic to combine attributions of *knowledge* with interrogative attitudes like *investigating*. More importantly, the Challenge from Paradoxical Assertions echoes a familiar type of problem in epistemology—one that does not uniquely afflict my position. For example, consider the following:

- (7) I know that p, but I don't know that p for sure.
- (8) I know that p, but it's possible on my evidence that $\neg p$.

Although some have used (8) to raise doubts about *fallibilism*—the view that one can know that p without one's evidence guaranteeing p—fallibilism remains the dominant position. Few would infer from (7) that knowledge without certainty is impossible! Of course, exactly why these sentences seem infelicitous deserves explanation. My point is that we should not immediately infer that the best explanation is going to be epistemic, as opposed to linguistic. While linguistic data should inform our epistemological theorizing, we ought not regard it with undue deference when we have independent reason to think it may lead us astray. This is, I've argued, precisely the situation we find ourselves in.

²⁰For some worries about this 'excuse maneuver' more generally, see Brown (2018), Greco (forthcoming), and Schechter (2017).

²¹In conversation, some people have denied that these third-personal variants are infelicitous—especially when we flip the conjuncts. Interestingly, my proposal predicts that flipping the conjuncts would render such assertions less infelicitous.

²²See Brown (2018) for this definition and a recent defense of fallibilism. (8) is known as the problem of concessive knowledge attributions. See Dougherty and Rysiew (2009) for discussion.

5 Conclusion

Rational agents can and do inquire further into their beliefs. Although this claim is intuitive, it faces a seemingly powerful challenge. We can respond to that challenge by rejecting either of the two premises that gave rise to it. First, we can reject the claim that inquiry requires interrogative attitudes. Second, we can reject the claim that knowledge does not permit interrogative attitudes. We have independent reasons to reject the former, and there are reasons to doubt the explanatory power of the latter. Even if we were to know that these responses to my opponent work, we can fruitfully inquire further: first into the nature of propositional inquiring attitudes and second into the pragmatics of interrogative attitude attributions.

Works Cited

Archer, A. (2018). Wondering about what you know, Analysis 78(4): 596--604.

Beddor, B. (2020). New work for certainty, Philosophers' Imprint 20(8).

Beddor, R. (ms). Fallibilism and the aim of inquiry.

Brown, J. (2008). Subject-sensitive invariantism and the knowledge norm for practical reasoning, *Noûs* **42**(2): 167–189.

Brown, J. (2018). Fallibilism: Evidence and Knowledge, Oxford University Press.

Carruthers, P. (2018). Basic questions, Mind and Language 33(2): 130-147.

Dougherty, T. and Rysiew, P. (2009). Fallibilism, epistemic possibility, and concessive knowledge attributions, *Philosophy and Phenomenological Research* 78(1): 123–132.

Falbo, A. (forthcoming). Inquiry and confirmation, Analysis.

Friedman, J. (2013). Question-directed attitudes, *Philosophical Perspectives* 27(1): 145–174.

Friedman, J. (2017). Why suspend judging?, *Noûs* 51(2): 302-326.

Friedman, J. (2019). Checking again, Philosophical Issues 29(1): 84-96.

Greco, D. (forthcoming). Justifications and excuses in epistemology, Noûs.

Heim, I. (1992). Presupposition projection and the semantics of attitude verbs, *Journal of Semantics* 9(3): 183–221.

URL: https://doi.org/10.1093/jos/9.3.183

Kirk-Giannini, C. D. (2018). Uniformity motivated, *Linguistics and Philosophy* 41(6): 665-684.

Millson, J. A. (2021). Seeking confirmation: A puzzle for norms of inquiry, *Analysis* **80**(4): 683–693.

Minio, R. (1984). An interview with Michael Atiyah, *The Mathematical Intelligencer* **6**(1): 9–19.

Roberts, C. (2012). Information structure in discourse: Towards an integrated formal theory of pragmatics, *Semantics and Pragmatics* 5.

URL: https://doi.org/10.3765/sp.5.6

- Sapir, Y. and van Elswyk, P. (forthcoming). Hedging and the ignorance norm on inquiry, *Synthese* .
- Schechter, J. (2017). No need for excuses: Against knowledge-first epistemology and the knowledge norm of assertion, *in* J. A. Carter, E. Gordon and B. Jarvis (eds), *Knowledge-First: Approaches in Epistemology and Mind*, Oxford University Press, pp. 132–159.
- Schlenker, P. (2009). Local contexts, Semantics and Pragmatics 2. URL: https://doi.org/10.3765/sp.2.3
- Stalnaker, R. C. (1999). Assertion, *Context and Content: Essays on Intentionality in Speech and Thought*, Oxford University Press, pp. 78–95.
- Tappenden, J. (2005). Proof style and understanding in mathematics I: Visualization, unification and axiom choice, *Visualization, explanation and reasoning styles in mathematics*, Springer, pp. 147–214.
- Whitcomb, D. (2010). Curiosity was framed, *Philosophy and Phenomenological Research* 81(3): 664-687.
- Whitcomb, D. (2017). One kind of asking, Philosophical Quarterly 67(266).
- Williamson, T. (2005). Contextualism, subject-sensitive invariantism, and knowledge of knowledge, *Philosophical Quarterly* **55**(219): 213–235.
- Woodard, E. (ms). Why double-check?