

Hedging and the Norm of Belief

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*Forthcoming in *Australasian Journal of Philosophy*. This is a submitted manuscript. Please cite the published version whenever feasible.

Abstract: We argue that knowledge is not the norm of belief given that ‘I believe’ is used to hedge. We explore the consequences of this argument for the normative relationship between belief and assertion.

Keywords: Norm of belief, Hedging, Norm of Assertion, Belief-Assertion Parallel

1. Knowledge norms

The Knowledge Norm of Assertion (KNA) proposes an epistemic rule on assertion:

KNA *S* ought to: Assert that *p* only if *S* knows that *p*.

Some think of KNA as a *constitutive* norm—that is, a norm that makes assertion the thing that it is. Whatever kind of norm it is,¹ reasons abound for holding that KNA or

¹ For more on constitutivity, see Williamson 2000, Simion and Kelp 2020, and Kelp and Simion 2020. Our paper won’t take a stand on the metaphysical status of the norm of assertion, e.g., whether the norm is constitutive, regulative, or evaluative, whether the norm is social, etc, other than to presuppose that the relevant kind of norm at issue is epistemic (and not, for instance, concerned with things like etiquette). For an argument that there is an interesting sense according to which there is a norm of assertion that is epistemic, see Goldberg 2015, especially chapters 1–3. If the norm is regulative or evaluative (as opposed to constitutive), it’s possible that there are *multiple* epistemic norms that bear on assertion or belief (e.g., assertion may

something similar governs assertion.² But our topic is not KNA. Our topic is the Knowledge Norm of Belief (KNB):

KNB *S* ought to: Believe that *p* only if *S* knows that *p*.

Variations of KNB have been explicitly put forward by many.³ As with KNA, our interest is in whether this is a norm like KNB that governs believing regardless of whether such a norm is constitutive.

There's much to like about KNB. After all, it's uncontroversially good for a belief to be knowledgeable, and KNB is one way to explain that. KNB can also help itself to many of the arguments for KNA. For example, advocates of KNB often cite the apparent impropriety of believing Moorean propositions of the form ' *p*, but I don't know that *p* '

require knowledge and therefore also justified belief). But, plausibly, one of these epistemic norms will be the strongest in that it entails the others. If that's the case, when we talk about 'the' norm of assertion, we mean the strongest (true) epistemic norm.

² For example, see Unger 1975, DeRose 2002, Sutton 2005, 2007, Bird 2007, Benton 2011, 2012a, 2012b, 2013, 2016, Sosa 2011, Smithies 2012, Simion 2016, Kelp & Simion 2017, Kelp 2018, Simion 2021a, and van Elswyk and Benton 2023. Sympathetic variants include Turri (2011) and Goldberg (2015).

Neither of us defends *precisely* KNA. Van Elswyk (2021, forthcoming) defends the view that assertions *represent* their speakers as knowing and that there is a general norm requiring speakers to occupy whatever doxastic or epistemic position is represented. Willard-Kyle (2020, 2021) argues that being in a position to know is the norm of assertion and perhaps also of presupposition (forthcoming). Nevertheless, we both think of paradigmatically good assertions as being knowledgeable and locate ourselves, broadly speaking, within the knowledge camp as regards assertion. For dialectical simplicity, we'll put these in-house debates aside and adopt KNA as our shared view in this paper.

³ See work by Williamson (2000), Sutton (2005, 2007), Hindriks (2007), Huemer (2007), Bird (2007, 2019), Bach (2008), Jackson (2012), Smithies (2012), Simion *et al* (2016), and Schulz (2021). Peacocke (1999: 34), Stanley (2008: 51), and Sosa (2011: 48) are sympathetic to views in the ballpark of KNB.

and lottery propositions (Huemer 2007; Bird 2019: 187–88), although judgments that these beliefs are defective are sometimes contested (Whiting 2013; McGlynn 2013).

But perhaps the most influential argument for KNB is that it is a consequence of the conjunction of two popular views.⁴ The first is KNA. The second is that belief and assertion are analogous enough that what goes for the (epistemic) propriety of one equally goes for the (epistemic) propriety of the other. Stated precisely:

PARALLELISM The (epistemic) norm of belief is *N* iff the (epistemic) norm of assertion is *N*.⁵

We’ve already noted that KNA is widely defended, but PARALLELISM is relatively popular too.⁶ The source of the analogy between belief and assertion is explicated in various ways—perhaps assertion is an *expression* of belief, or perhaps belief is inwardly-directed assertion; perhaps asserting and forming a belief are both species of the same general activity, or perhaps one is a species of the other. In any case, the deep connections between the natures of belief and assertion are taken to licence parallelism between the epistemic norms that govern them. We’ll return to the prospects for PARALLELISM later. For now, it’s enough to note that in addition to being defended on its own merits, KNB is sometimes thought to ride for free on the strength of arguments for KNA.

Nevertheless, we will offer an argument that KNB is false even if KNA is true. This argument begins with linguistic observations about how the verb ‘believe’ is used by speakers to hedge, as in ‘The talk was about population ethics, I believe’. From such observations, we draw conclusions about the attitude of belief. These conclusions are incompatible with KNB. We call this the *argument from hedging*. The argument from hedging is not new. That hedging with ‘I believe’ poses a problem for KNB was briefly

⁴ Williamson (2000: 255–56), Sutton (2005: 376/2007: 46), Bird (2007: 95), Sosa (2011: 48), and Smithies (2012: 276) all defend variations of KNB while invoking a form of PARALLELISM.

⁵ This is modelled roughly on Simion’s (unendorsed) formulation (2019a: 260).

⁶ Approximate articulation can be found in work by Dummett (1973: 362), Williamson (2000: 255–56), Adler (2002: 274), Sutton (2005: 376/2007: 46), Douven (2006: 453), Bird (2007: 95), Sosa (2011: 48), and Smithies (2012: 276).

noted by Benton (2012b: 150–153) and Whiting (2013: 189) and anticipated by some of its defenders. What's new here is how the argument is developed and defended.

Since the best explanation of hedging assumes KNA, or so we will argue in §2, our presentation of the argument from hedging in §3 does more than just motivate that KNB can be false while KNA is true. It *leverages* KNA against KNB. In this way, the argument from hedging shows that PARALLELISM is false too. The norm of belief cannot be the same as the norm of assertion given KNA. We elaborate upon this point in §4.

The argument from hedging depends on how 'believe' is interpreted when speakers use it to hedge. To that end, we will motivate our interpretation in §3 and conclude the paper in §5 by considering three linguistic objections: that 'I believe' is ambiguous, that it is loose speech, and that KNB is best understood as invoking a theoretical notion of belief not regularly expressed in natural language.

2. Hedging and KNA

A speaker can hedge by qualifying a declarative sentence with content p with an expression like 'I think' or 'I guess' that indicates the speaker's doxastic stance towards p . Indicating a doxastic stance isn't the only way speakers can hedge—appending a word like 'probably' or 'perhaps' can also hedge, and these terms do not overtly reference the speaker's doxastic stance toward the content of a declarative. Even still, speakers regularly hedge by indicating their doxastic stance toward the relevant content (Kärkkäinen 2010, Hedberg and Elouazizi 2015).

The pragmatic function of hedging is changing how forcefully p is shared rather than changing the content of what is shared. To illustrate, let's consider a series of dialogues. The first consists of a question and the assertion of an answer.

(1) (a) What was the talk about?

(b) The talk was about population ethics.

The second dialogue is nearly identical to the first, but 'I think' is added to the answer that's offered.

(2) (a) What was the talk about?

(b) I think (that) the talk was about population ethics.

Both (1b) and (2b) provide the same answer: that the talk was about population ethics. However, they do so differently. The speaker of (1b) shares what the talk was about more forcefully than the speaker of (2b).

To further bring into focus the hedging use of a phrase like ‘I think’, compare (2b) with (3b). Now the initial question has changed to be explicitly about the respondent’s attitudes.

(3) (a) What do you think the talk was about?

(b) I think (that) the talk was about population ethics.

This matters. In (3b), ‘I think’ does not provide the same answer as (1b) with less force. It does not serve the same pragmatic function as the ‘I think’ in (2b). Instead, ‘I think’ contributes to a different answer being offered. Since the question now invites the participant to report their attitude about the talk, ‘I think’ is used to self-report by contributing to the content of what is shared as opposed to hedging.

Let’s call the linguistic judgement that phrases like ‘I think’ can be used to weaken how p is shared in discourses like (2) the *strength intuition*. Given standard assumptions about scalar implicatures, choosing a declarative like ‘I think p ’ over an unhedged declarative will implicate that the speaker does not possess stronger attitudes. Since ‘know’ is stronger than ‘think’ by being a (semi-)factive verb that presupposes its complement, choosing a declarative like ‘I think p ’ will implicate that the speaker does not know p . This contributes to why the hedged declarative is weak.⁷ But this is not the whole story. It only explains why ‘I think p ’ is weaker than an alternative like ‘I know p ’. It does not account for why hedged declaratives like ‘I think p ’ are weaker than a bare declarative.

What explains that is KNA (Benton and van Elswyk 2020, van Elswyk forthcoming). Sharing p with an unhedged declarative is by default an assertion. Given KNA, an assertion requires knowledge. So sharing p is strong because it commits the speaker to

⁷ We do not take a side on what the epistemic norm of implicature is. See Green 2017 and Haziza 2021 for discussion. But if it at least requires belief, then cooperative cases of hedging will involve the speaker believing that they do not know p .

knowing p . But hedging overrides the default expectation that a speaker is performing a normal assertion by using a declarative (Williamson 2000, Garcia-Carpintero 2004). Instead of committing the speaker to knowing p , hedging only commits the speaker to taking up the doxastic stance indicated by the hedging term. The strength intuition is produced when the epistemic requirements associated with this doxastic stance are less demanding than knowledge. For example, hedging with ‘I guess’ only commits the speaker to guessing that p and, in turn, to satisfying any epistemic demands on guessing. The epistemic demands on properly guessing p are considerably less demanding than knowing p . That is, one can guess that p in an epistemically impeccable way without knowing that p . This explains why hedging with ‘I guess’ produces the strength intuition. Just as one can impeccably guess that p without knowing that p , one can impeccably state p without knowing that p so long as one’s statement is hedged with ‘I guess’.

As we’ve told the story, there are two converging reasons, given KNA, why hedging by signalling doxastic stances that require something weaker than knowledge for success puts information forward with less force than unhedged assertions. The first reason is that a phrase like ‘I think’ implicates that one does not know, whereas (given KNA) asserters are committed to knowing what they assert. The second reason is that those who hedge *only* commit to occupying whatever epistemic position was required by the hedging term, whereas (given KNA) asserters commit to having knowledge.

In typical cases, both dimensions of weakness are interwoven: you implicate you do not know p and commit to less than knowledge of p . But it is worth noting that committing to a weaker position does not somehow require implicating that one does not know. Implicatures can be cancelled. This scalar implicature is no exception. When it is, the speaker is *still* (only) committed to the weaker position.

To see this requires some subtlety. The discourse ‘I think that the talk was about population ethics—In fact, I know it was’ cancels the scalar implicature of ‘think’ with the continuation. But the ‘I know’ in the continuation now commits the speaker to knowing. As such, we need to consider ways of cancelling the implicature that do not *also* further commit the speaker. The example we offer below involves the superlative modifier ‘at least’. Whereas the sentence ‘Seven people were at the talk’ implicates that no more than seven people were at the talk, ‘At least seven people were at the talk’ does

not. The 'at least' cancels the implicature. It allows the speaker to be neutral on whether more than seven people were present. With that in mind, compare the following constructions:

(4) (a) The talk was about population ethics, or so I think.

(b) The talk was about population ethics, or, at least, so I think.

(c) The talk was about population ethics, or so I think, at least.

The 'at least' in (4b) and (4c) plausibly cancels the implicature that the speaker does not know that the talk was about population ethics. It allows them to be neutral on whether they know or not. But we still hear (4b) and (4c) as hedges. The 'I think' still performs the pragmatic function of weakening how the information is shared. That's because the speaker of (4b) or (4c) only commits to appropriately *thinking* that the talk was about population ethics rather than committing to *knowing* as much.

In any case, whether by implicating that they do not know and/or by only committing to less than knowledge of the shared content, hedges work by playing off the default commitment required by KNA for assertions.

That KNA well-explains the strength intuition provides strong evidence for KNA. To date, no explanation of the strength intuition has been developed with another norm.⁸ But there's more. The strength intuition can also be recruited to provide evidence

⁸ Instead, early versions of KNA-style explanations can be found in the literature on the semantics of pragmatics of parenthetical verbs. For example, here is Urmson (1952, 485):

[S]uch verbs as *know*, *believe*, *guess*... is the group which is used to indicate the evidential situation in which the statement is made... and hence to signal what degree of reliability is claimed for, and should be accorded to, the statement to which they are conjoined. Thus 'I guess that this is the right road to take' is a way of saying that this is the right road, while indicating that one is just plumping and has no information, so that the statement will be received with the right amount of caution; 'I know' shows that there is all the evidence one could need, and so on.

Likewise, Hooper (1975, 101) observes that 'a parenthetical qualifies. . . by suspending the implication that the speaker knows the proposition to be true'.

against most rival norms that require less than knowledge for unhedged assertions. Here's the recipe. Take the epistemic position E required by the rival norm and construct a dialogue where a speaker hedges their answer to a question by indicating that they occupy E , or have a doxastic stance that only requires occupying E for (epistemic) success. Compared to a dialogue like (1), where the answer to the question is given by an unqualified declarative, the statement hedged associated with E will be weaker. As a result, the rival E norm will be unable to explain the strength intuition in a way parallel to how KNA explains it. Since what the speaker is committed to with a hedged declarative and unhedged declarative is the same, the rival norm cannot explain the strength intuition by appealing to a difference in what epistemic position the speaker is committed to occupying.

For illustration, consider the *reasonable belief norm* according to which you can assert what you reasonably believe (Hill and Schechter 2007, Kvanvig 2009). Though we have illustrated hedging so far with verbs in parenthetical position, verbs in matrix position can also be used to hedge (Sapir and van Elswyk 2021). Still another way we hedge is with the attitude verb appearing in a disjunct of a construction like ' p or so I E '. The effect of the disjunctive construction is to not commit to p outright since the disjunction can be true merely if the speaker occupies position E towards p . So let's consider these ways of hedging where E is replaced with reasonable belief.

(5) (a) What was the talk about?

(b) The talk was about population ethics, I reasonably believe.

(c) I (reasonably) believe that the talk was about population ethics.

(d) The talk was about population ethics, or so I reasonably believe.

Just like (2b), the qualified answers (5b), (5c), and (5d) are weaker. Had the speaker just said p flat-out to perform an assertion, they would have given an intuitively stronger answer. The reasonable belief norm cannot explain this intuition whereas KNA effortlessly can. What goes for the reasonable belief norm goes for every other norm requiring the speaker to occupy an epistemic position weaker than knowledge.

That the strength intuition can be recruited to argue for KNA over most norms that requires a weaker epistemic position than knowledge is not a point that has yet been

appreciated in the literature on hedging.⁹ We mention it to highlight how importantly KNA is connected to hedging. Some considerations that support KNA can be explained by rival norms too. But the hedging considerations provide data that cannot be. Reflecting on hedging reveals how knowledge is special.

3. Hedging and KNB

3.1 Hedging with ‘I believe’

The problem we pose for KNB begins with the observation that speakers can hedge with the verb ‘believe’.¹⁰ Examples (6b), (6c), and (6d) illustrate.

(6) (a) What was the talk about?

(b) The talk was about population ethics, I believe.

(c) I believe that the talk was about population ethics.

(d) The talk was about population ethics, or so I believe.

⁹ The caveat ‘most’ makes room for an exception pointed out to us by a referee. Consider a truth norm in the style of Weiner 2005. The strength intuition cannot be recruited against such a norm because neither ‘ p , it’s true’ nor ‘It’s true that p ’ are interpreted as discernibly weaker than ‘ p ’. However, we are not sure how probative such data are. The ‘truth’ predicate in natural language is widely thought to be semantically empty (Ramsey 1927, Horwich 1990, Künne 2003, *inter alia*). Additionally, ‘It’s true’ has a pragmatic function in signalling agreement with the previous speaker. This is why, in answer to a question like (4a), the answer ‘It is true that the talk was about population ethics’ is awkward. So the recipe we sketched for recruiting the strength intuition against a rival norm to KNA might not work against the truth norm merely because the truth predicate is a semantically empty one that performs a different pragmatic function from hedging.

¹⁰ We acknowledge that ‘believe’ is not the most statistically common verb used to hedge. Hedberg and Elouazizi (2015) found ‘I believe’ (2.1%) appeared more than ‘I suppose’ (1.7%), but less than ‘I guess’ (28.6%) and ‘I think’ (68%) in a corpus of spoken American English. Kärkkäinen (2010: 208) notes that ‘I believe’ occurs more regularly in British English. Being less common is no problem for our argument. As long as we can hedge with ‘I believe’, KNB and PARALLELISM run into trouble.

In each example above, 'I believe' serves the pragmatic function of weakening how information is shared. As a result, hedging with 'I believe' elicits the strength intuition. Each of (6b), (6c), and (6d) is weaker than (1b) from above.

It's true that (6c) in particular can also be used to *unqualifiedly* state information about one's beliefs rather than to *qualifiedly* communicate information about the topic of the talk. Our earlier example in (3b) of a non-hedging use of 'think' can be replicated with 'believe' by just swapping out the attitude verbs. But notice that the qualified or hedged interpretation is strongly preferred in the context of (6a). The question it responds to is about the topic of the talk, not the answerer's personal belief about the topic like (3a). Each of the responses is most naturally interpreted as a hedge that weakens the strength with which the speaker offers information about the talk's topic.

These examples are artificial ones we created to illustrate a point. But it is helpful to see that 'I believe' hedging occurs in natural conversation as well. Here are some examples of 'I believe' hedging from a parenthetical position from the Corpus of Contemporary American English (COCA) (Davies 2008–present).

(7) (a) I read that Kelly Osbourne wore nailpolish that cost \$250,000 per BOTTLE to the Emmy's. I would say she is perhaps not being taxed ENOUGH if that is reasonable to her.

(b) Kelly Osbourne is British, I believe—but I agree with your point.

(8) Malik is from a very distinguished family. His father, I believe, worked on the Universal Declaration on Human Rights.

And here are two examples from COCA of 'I believe' hedging from the disjunctive construction $\lceil p \text{ or so I } E \rceil$.

(9) This is the sequel to *A Girl Named Zippy*, a book I vaguely remember reading years ago, but not the specifics. I rated it 4 stars, but that was before I started writing reviews. this was a likewise great book, taking her from ages 8 to 13 or so I believe.

(10) Now, the first real test of the post-cold war U.N., which is the first U.N. that's going to have a chance to do what it was intended, is in Bosnia, and we're not doing very well but we're not doing that badly. We know there is a responsibility

which, in previous generations, would not even have been acknowledged, or so I believe.

Altogether, these examples support an important generalisation: asserting p is stronger than sharing p with the hedge 'I believe'. It does not matter where 'I believe' appears syntactically (whether parenthetical position, matrix position, or disjunct) nor what the subject matter of the sentence is (diplomacy, nail polish). When appended to a declarative, 'I believe' can function as a hedge to weaken how the content of the declarative is shared.

3.2 'I Believe' attributes speaker belief in hedging constructions

Even when used to hedge, 'I believe' attributes ordinary belief to the speaker. The sense or kind of belief attributed is the same as when 'I believe' is not used to hedge. Stating as much feels like a platitude to us. But at least one author, Stanley (2008: 51), has denied this, suggesting that hedges involving 'I believe' are not 'cases in which one reports a belief ...at all'. So it's worth arguing for the thesis independently. Later in §5, we will strengthen our case by considering alternative interpretations of 'I believe' and the problems such interpretations have. Seeing how those alternative interpretations falter will facilitate an important, additional argument by elimination. For now, we will offer two brief reasons why 'I believe' does denote (ordinary) speaker belief, even in hedging contexts.

Our first argument begins with the Gricean thesis that we should not multiply meanings without necessity. Hedging is a pragmatic function. A mistaken but tempting assumption is that epistemic terms like 'believe' can perform this function only if doing so is the meaning of the term. This is *one* explanation that might be offered. But if we can explain how hedging with 'I believe' operates without positing an additional meaning for 'believe', we should do so, all things being equal.

Though identifying exactly how syntax, semantics, and pragmatics conspire to enable epistemic terms to hedge is not the aim of this paper, the Gricean approach is worth elaborating a little more. When hedging, speakers refrain from using an unqualified declarative and instead use one appended with a doxastic or epistemic term. In choosing to use a marked declarative, they are attempting to reveal their intention to not be understood as doing what they normally do with a declarative. What is normally

done is asserting, and asserting requires knowledge. So marking with a term that doesn't require knowledge reveals that the speaker is intending not to be understood as knowing what is stated. The primary content of the hedged declarative is the same as it would have been for an unqualified assertion, but the content is put forward without the presumption of knowledge. Instead, they only commit toward having the epistemic position that's required for success by the doxastic or epistemic term appended to the shared content. Explanations related to this Gricean one have been proposed by McCready (2015) and van Elswyk (ms). For none of these approaches, does a term hedge because its meaning is a force modifier. Terms hedge because they help reveal the speaker's intention to share information backed by a weaker epistemic position.

Since various epistemic and doxastic verbs, adverbs, adjectives, and auxiliaries can all be used to hedge (van Elswyk forthcoming), the assumption that terms can hedge only if they have a meaning for hedging requires there to be a *tremendous* amount of ambiguity across multiple syntactic categories in every natural language where such terms can hedge. In the absence of impressive linguistic evidence, then, Gricean approaches are preferable. All else being equal, we shouldn't multiply meaning without necessity. We don't need to multiply the meanings of 'believe' to explain how 'I believe' can perform a hedging function—indeed, there are extant accounts like McCready (2015) and van Elswyk (ms) that already do so. Therefore, all else being equal, we shouldn't posit an additional meaning for 'believe' in hedging constructions. Our starting point should be that 'believe' means what it normally does even when used to hedge. And if 'believe' in hedging constructions denotes ordinary belief, then uttering 'I believe' in hedging constructions is naturally taken to attribute ordinary belief to the speaker.¹¹

¹¹ Although each of the three hedging constructions we have discussed can be used to hedge, we acknowledge that not all these constructions can be used to merely report belief. Parenthetical constructions like 'p, I believe' are arguably almost always interpreted as hedges. But this does not require 'believe' to mean something different when it is in such a construction. That the hedging interpretation for 'believe' is obligatory in a *non-canonical syntactic position* is plausibly owed to the position and not the meanings of the terms in the position. As such, it is noteworthy that recent semantic theories of parenthetical verbs that have attempted to explain the strength intuition such as those provided by van Elswyk (2021) and Koev (2021) do so

A more direct argument can also be given that hedging uses of ‘believe’ attribute ordinary belief by considering how hedged statements are reported. Imagine that Anna tells me ‘The talk was about population ethics, I believe’ in response to the question ‘What was the talk about?’ such as exchange (6) above. On this basis, I can go on to report what Anna believes in other contexts such as the one below with (11). In this other context, ‘believe’ is not being used to weakly say that the talk was about population ethics. Instead, it is contributing to what is stated about the things that Anna believes.

(11) (a) What are some things Anna believes?

(b) Anna believes that the talk was about population ethics.

This report of Anna’s belief is perfectly acceptable. It does not require a qualifier. Importantly, there’s no indication that when I report (11b) that I mean something other than the ordinary, run-of-the-mill belief. This fact that we can readily transfer ‘believe’-talk from contexts where it is used to hedge to contexts where it is not strongly suggests that ‘believes’ is being used univocally in both cases. In any case, what’s essential to our argument is this: it only makes sense to third-personally report Anna’s belief on the basis of her statement hedged with ‘I believe’ if ‘I believe’ (first-personally) attributes ordinary belief to the speaker, even in hedging constructions.¹²

without making ‘believe’ ambiguous. Instead, $\ulcorner p, \text{I believe} \urcorner$ contributes two propositions: p and $\ulcorner \text{I believe that } p \urcorner$. The strength difference is owed to how this secondary proposition interacts with context.

¹² A referee notes that we can also acceptably report Anna’s statement with ‘believe’ even if she initially said, ‘The talk was about population ethics, probably’. We do not disagree with this observation. But it does not make trouble for our argument. That ‘believe’ can be used to report statements hedged with ‘probably’ shows that ‘probably’ and ‘believe’ are importantly connected. It does not bear on whether ‘believe’ has one meaning. Notice that if ‘believe’ had one meaning denoting a weak attitude, one would expect statements hedged with ‘probably’ to be reported with ‘believe’. In this way, the referee’s observation is like Dorst’s (2019) observation that statements such as ‘The dog is probably outside, but I don’t think/believe she

3.3 The problems for KNB

Altogether, these considerations constitute problems for KNB. Consider how to understand the qualification of a declarative with ‘I believe’ on the supposition that KNB is true. Supposing KNB (and given KNA), qualifying one’s statement of p with ‘I believe’ in constructions like ‘I believe that p ’, ‘ p , I believe’ or ‘ p or so I believe’ would not be weaker than a flat-out assertion, even in an attempt to hedge. Here’s why. When one qualifies with ‘I believe’, one commits oneself to believing that p (§3.2). But KNB requires that one knows what one believes. So hedging with a construction that commits the speaker to belief *also* commits them to knowledge via KNB. Accordingly, attempting to hedge with ‘I believe’ would never be weaker if KNB was true: speakers who hedged with ‘I believe’ would still be committed to knowing. But we have seen with a variety of examples that it is possible, indeed commonplace, for ‘I believe’, when appended to a declarative, to weaken assertoric force by hedging (§3.1): speakers who hedge with ‘I believe’ *aren’t* committed to knowing. That’s what enables them to hedge. It follows that KNB is false.¹³

There is a second and related problem that follows from the qualification of a declarative with ‘I believe’ on the supposition that KNB is true. When speakers attempt to hedge with a doxastic or epistemic term that is not weaker, the term is typically either awkward or pragmatically idle in the sense that it performs no clear function. For

is’ are defective. Since we intend our argument to be neutral on the question of whether belief is strong or weak, we do not discuss this data further.

¹³ Our argument is *not* that hedging with ‘believe’ requires a speaker to violate KNB. It is that the strength intuition is incompatible with KNB. Accordingly, it may be that, unbeknownst to the speaker hedging with ‘believe’, they *do* know p . They would then unwittingly be compliant with KNB. Even so, it is worth noting that speakers will often violate KNB in a secondary or derivative way in these situations. An agent violates a norm secondarily if they justifiably believe that they are violating the norm (Williamson 2000, DeRose 2002). As mentioned in §2, hedging generates the scalar implicature that the speaker does not know p . If there is a norm on implicature requiring belief in what’s implicated, as discussed in fn. 7, speakers complying with that norm will believe what they implicate. Such speakers will then violate KNB secondarily by justifiably believing that they believe p without knowing p .

illustration, consider declaratives appended with ‘I know’ in contexts where other doxastic or epistemic terms would hedge. Since speakers already commit themselves to knowing p when asserting p , appending ‘I know’ does not serve the pragmatic function of changing how information is shared (Benton and van Elswyk 2020). Instead, its presence is typically awkward.

(12) (a) What was the talk about?

(b) ? The talk was about population ethics, I know.

(c) I know that the talk was about population ethics.

(d) ? The talk was about population ethics, or so I know.

(12b) illustrates the typical awkwardness of ‘I know’ in a parenthetical position (Benton 2011, van Elswyk 2021), and (12d) demonstrates the awkwardness of ‘know’ in the $\lceil p \text{ or so I } E \rceil$ construction. (12c) shows that ‘I know’ in matrix position is pragmatically idle in the following sense: it neither weakens nor meaningfully strengthens how forcefully the information is shared (cf. Benton and van Elswyk 2020, van Elswyk forthcoming). It’s not that appending ‘I know’ can *never* perform a pragmatic function given a suitable context. In particular, if something salient remains unknown for the speaker, appending ‘I know’ can help to contrast that ignorance with the speaker’s knowledge: for example, ‘I don’t know who will be at the party, but Marty, I know, will not be there’.¹⁴ But even in these cases, appending ‘I know’ does not perform the pragmatic function of hedging.¹⁵

Supposing KNB, qualifying with ‘I believe’ should be like qualifying with ‘I know’. It would not merely fail to be weaker—in cases where it had no obvious non-hedging

¹⁴ We’re grateful to an anonymous reviewer for stressing this point.

¹⁵ Here is another way ‘I know’ can serve a (non-hedging) pragmatic function: sometimes, it can restore default assertoric force. Suppose someone asks: ‘Who will win the race, do you think?’ And the addressee answers: ‘I know it will be Secretariat—indeed, the race has been fixed’. In this case, the questioner has, in a sense, pre-hedged the answer for the addressee by adding ‘do you think?’ to the end of the question. This allows ‘I know’ in the addressee’s response to cancel the hedge and restore the assertoric default.

function to fulfill, it would be awkward or pragmatically idle. But it is not. The ‘I believe’ in examples (6b), (6c), and (6d) does not pattern with ‘I know’ in examples (12b), (12c), and (12d). This contrast brings into sharp focus how ‘I believe’ is distinct in weakening how a speaker shares information.

Here’s another way to make this second point. Supposing KNB, qualifying with ‘I believe’ should be pointless. That’s because the position that would be expected of them in virtue of believing p would be the same as if they had asserted that p without qualification. Given that cooperative speakers keep their contributions brief (Grice 1989), cooperative speakers would therefore rarely if ever choose to communicate p in a prolix construction such as ‘I believe that p ’, ‘ p , I believe’, or ‘ p or so I believe’. But qualifying with ‘I believe’ is not pointless. It enables speakers to hedge. On the assumption that ‘believe’ denotes a stronger doxastic attitude than ‘think’ or ‘guess’, hedging with ‘I believe’ allows the speaker to disclose that their commitment to p may be weaker than knowledge but stronger than other attitudes.¹⁶ As a result, cooperative speakers *do* choose to hedge with ‘I believe’.¹⁷

¹⁶ Denying this assumption does not help either. Suppose ‘think’ and ‘guess’ are near synonyms to ‘believe’ such that all three denote a weak doxastic attitude (Hawthorne, Rothschild, and Spectre 2016; Rothschild 2020; Holguin 2022; Dorst and Mandelkern 2022). Then hedging with ‘I think’ or ‘I guess’ is also hedging by indicating belief or a sufficiently similar attitude. But see Nagel 2021 for scepticism about whether these terms express near synonyms. Note that the argument from hedging is independent of these arguments about the strength of belief. When Hawthorne, Rothschild, and Spectre (2016: 1400) say that belief is weak, for example, they mean that it is weak indeed—as weak as ‘think’ and perhaps not even requiring .5 credence. Our argument against KNB neither assumes nor has the consequence that belief is weak in this sense.

¹⁷ A defender of KNB might insist that speakers who comply with KNB never hedge with ‘I believe’ precisely because doing so would violate KNB and would publicly broadcast that violation to the hearer. But insisting as much has the unpalatable consequence that hedging with ‘I believe’ is *always* improper even when the speaker sincerely believes but does not know p . And it is not.

Summarising, then, the supposition that KNB is true yields two expectations: that qualifying with ‘I believe’ should not weaken how forcefully information is shared and that such qualification should be awkward or pragmatically idle when there’s no non-hedging function for it to play. But qualifying with ‘I believe’ is neither. It needn’t be idle or awkward precisely because it can hedge.

4. On belief-assertion parallelism

The argument does more than make trouble for KNB. It also shows that PARALLELISM is false. Here is the PARALLELISM-based argument for KNB again:

(A) Knowledge is the norm of assertion. (KNA)

(B) The norm of belief is *N* iff the norm of assertion is (also) *N*.

(PARALLELISM)

(C) So, knowledge is the norm of belief. (KNB)

To recap the last few sections, we observed how KNA enables us to explain the strength intuition, the judgment that hedged statements are weaker than unqualified assertions (§2). We argued that ‘I believe’ can be used to hedge (§3.1). This is a problem for KNB. If the norm of belief itself were also knowledge, there’d be no difference in strength between asserting *p* and qualifying one’s statement of *p* with ‘I believe’.

But the argument from hedging doubles as an argument against PARALLELISM. For *whatever* the norm of assertion is, the norm of belief must be weaker if ‘I believe’ is to function as a hedge. Otherwise, there’d be no way to account for the strength intuition.

Though our focus has been on PARALLELISM alongside knowledge-centric approaches to belief and assertion because we favour such approaches, the argument from hedging denies PARALLELISM when paired with other approaches as well. Assume that the norm of assertion is *N*. Regardless of how hedging is explained, the use of a declarative hedging with ‘believe’ will still be weaker than assertion. This is the empirical generalisation underwritten by the strength intuition. But the strength intuition is owed to a strength difference in what epistemic position the speaker commits themselves to when asserting as opposed to hedging. As a result, the norm of belief cannot also be *N*. Otherwise asserting *p* and or hedging with ‘believe’ to share *p* would commit the speaker to occupying the same epistemic position as opposed to different ones that

order in strength. For an example, consider Douven (2007). He starts with a *rational credibility* norm on belief and PARALLELISM to then derive a norm on assertion where it too requires rational credibility. But this derivation cannot work. If rational credibility is the norm of belief and assertion, hedging with ‘believe’ would commit the speaker the same as asserting *p* will. But it does not. PARALLELISM is false.

Indeed, our rejection of PARALLELISM gives us a structurally similar argument *against* KNB:

(A) Knowledge is the norm of assertion. (KNA)

(B) It’s not the case that: *N* is the norm of assertion iff *N* is the norm of belief.
(¬PARALLELISM)

(C) So, knowledge is not the norm of belief. (¬KNB)

Our argument against PARALLELISM lends credence to a series of complaints against the analogical basis of PARALLELISM. Williamson (2000: 255–56) says that beliefs and assertions stand as inner to outer; Sosa (2011: 48) likewise distinguishes between private and public affirmations. But some philosophers have thought it is precisely *this* difference that explains why assertion and belief have different norms. Thus, Goldberg (2015: 167) writes that ‘Assertion is a public act, whereas belief is neither an act nor a public matter, and there are reasons to think that both of these differences bear on the respective standards of each’. Goldberg’s point has been both anticipated and echoed in the literature. Thus, in offering explanations of potential divergences between the norms of belief and assertion, epistemologists have stressed assertion’s ‘public nature’ (Brown 2012: 144), or that assertion is ‘immediately other-regarding in a way that belief is not’ (Willard-Kyle 2020: 346).¹⁸ Our argument against PARALLELISM confirms

¹⁸ One way the public aspect of assertion has been explicated is with the increasingly popular proposal is that KNA is a *social* norm (Kelp 2018; Graham 2020; Simion 2021b; van Elswyk forthcoming). This proposal gives the norm of assertion a starring role in the epistemology of testimony. The basic gist is that forming beliefs in response to testimony is *prima facie* warranted because speakers follow KNA. A socially enforced norm of assertion helps to coordinate how to update our beliefs upon receiving testimony. Social norms regulate social behaviour. But people believing in the privacy of their own head is not social behaviour. If the

these misgivings. It is false because the truth of KNA and the falsity of KNB is the best explanation of how speakers can hedge with ‘I believe’.¹⁹

5. Three objections

The argument from hedging is anticipated by and briefly discussed by a few advocates of KNB. To complete our defence of the argument, we will consider three responses. Each response targets the premise that ‘believe’ is univocal. The responses are that ‘I believe’ is ambiguous, that its hedging use is loose speech that does not entail anything about what the speaker believes, and that KNB is best understood as invoking a theoretical notion of belief not found in natural language. For each response we identify one or more problems. Altogether, the identification of such problems can be regarded as providing a new argument by elimination for the univocality of ‘believe’ that is independent of, but complementary to, the considerations provided in §3.2. When used to hedge, ‘believe’ is univocal, ambiguous, loose speech, or used technically. By ruling out all latter options, we return to ‘believe’ being univocal.

norms of assertion are social but the norms of belief are not, it’s no surprise that they diverge. See also work by Simion (2019a: 260–262; 2019b: 1953–1957) for another argument that belief and assertion belonging to a common act type wouldn’t evince a shared norm.

¹⁹ Bach (2008) and Hindriks (2007) both derive KNA from KNB and the additional assumption that assertion requires belief. This assumption is different from PARALLELISM, which, as stated, does not specify what the norms of belief or assertion are. The derivation is also different from the PARALLELISM-based argument in that KNA is what’s concluded instead of KNB. But the argument from hedging also makes trouble for this derivation. The argument shows that assertion cannot merely be about expressing belief. If it were, there would no intuitive difference in strength between asserting *p* or conveying *p* with a hedged declarative like ‘*p*, I believe’. Both would express belief and thereby be governed by KNB. But there is an intuitive difference. That such derivations of KNA fail further confirms the view that assertion is different.

5.1 'I believe' is ambiguous

Proponents of PARALLELISM have sometimes mentioned the problem of hedging with 'believe'. The problem is usually swept aside by claiming that the attitude denoted by 'I believe' is somehow different. Thus writes Adler (2002: 11):

[F]ull belief and high degrees of partial belief are often confounded, particularly through such assertions as 'I believe that Mary is in Scotland'. To avoid this trap, replace the assertion of the qualifying 'I believe that' by the assertion of the propositional content alone ('Mary is in Scotland'). The latter actually expresses belief. The former is heard as weaker—a hedge, something like 'I'm pretty sure that Mary is in Scotland, but don't swear me to it'.

A related line, found in work by Huemer (2007: 153) and Smithies (2012: 280), is that hedging uses of 'I believe' fail to express *full* or *outright* belief but only high confidence or partial belief. Here is Huemer:

[I]n those contexts where one says something of the form, ...'*I believe* that *p*, but perhaps $\sim p$ ', ...'believe' refer[s] merely to having a high degree of belief, not outright belief. This is why these statements escape Moore-paradoxicalness.

Jackson (2012: 361-362) likewise distinguishes between partial and full beliefs, writing 'it is obvious to one and all' that speakers who hedge 'don't *fully* believe' what they assert. These remarks all facilitate the same basic response: if KNB concerns only full belief and hedging uses of 'I believe' do not denote full belief, then considerations about how we are able to hedge with 'I believe' pose zero problem for KNB. They are about something else entirely.

Let's call this the *ambiguity response*. We give it this name because its advocates are committed to 'believe' having at least two meanings. With the first meaning, 'believe' has its normal meaning where it implies ordinary or full belief. But with its second meaning—deployed whenever it is used to hedge—'believe' means something different like partial or degreed belief. We can appreciate why this response has seemed an attractive hypothesis to many. After all, hedged uses of 'I believe' have a different

pragmatic function than other reports of belief.²⁰ Beliefs can also plausibly vary in strength, so it's not unreasonable for the KNB theorist to hope that 'believe' might denote a kind of weaker belief in hedging cases and a stronger kind in other non-hedging cases.

We have a reply that applies to all versions of the response. But before offering it, it is worth noting what kind of evidence is required to confirm the ambiguity response. To posit ambiguity is to make an empirical claim. Namely, that 'believe' in English and other natural languages has two conventional meanings: one that denotes full belief, and one that does not, denoting either partial belief or mere confidence instead. This empirical claim requires empirical evidence. To be probative, such evidence needs to satisfy two constraints. First, it cannot be *construction specific*. That's because 'I believe' can hedge from a variety of positions in a sentence: in a parenthetical position, a matrix position, or from a disjunct in the construction $\lceil p \text{ or } E p \rceil$. So the ambiguity cannot be chalked up to the semantics and pragmatics of a specific construction like, say, the parenthetical form. The ambiguity must be available wherever 'I believe' can hedge from. Second, the evidence must be *cross-linguistic*. So far, we have only considered hedging in English. But the problem posed by hedging with 'I believe' is general. As Nes (2016: 62) notes,

According to informants, or the cited works, other languages with such a verb include Chiapas Zoque ('kyomoyu' (3rdp)/'nkomoyut' (1stp) (Chiapas Zoque lacks infinitive)), Dutch ('geloven', cf. Vandenberg 1998), Finnish ('uskoa'), French ('croire', cf. Mullan 2010), German ('glauben'), and Mainland Scandinavian ('tro'). Thus, if... ['believe'-guarded affirmations] raise a puzzle for the Same Norm view, it is unlikely to be a puzzle trading on idiosyncratic or merely idiomatic features of English.

The same goes for the Italian 'credo' (Giorgi 2010) and Spanish 'creo' (Schneider 2007): these verbs can appear in all three of the hedging constructions we have considered.

²⁰ But see our earlier argument in §3.2 that this difference in pragmatic function need not entail a difference in meaning.

To our knowledge, nobody advancing the ambiguity response has offered empirical evidence to motivate it, let alone evidence that meets the two basic conditions. That's a problem, since, as we've noted, the ambiguity response makes a substantive, empirical claim that 'I believe' denotes multiple attitudes. We suspect that the ambiguity response has seemed obvious to some because they make the mistake identified in §3.2. They assume that 'I believe' must have a different meaning if it performs a pragmatic function of hedging in some contexts and not others. But this assumption ignores the key insight of pragmatics as a field of study. What we do with words and what words mean are distinct.

Here's our reply to the ambiguity response. Suppose, as suggested, that there are two kinds of belief: belief₁ and belief₂ where belief₁ is the weaker attitude. Then there exist situations wherein a person has belief₁ that *p* while failing to have belief₂ that *p*. On the assumption that 'believe' is ambiguous between belief₁ and belief₂, we should be able to construct discourses that describe such situations only using the verb 'believe' to attribute each attitude. And yet, we cannot. As Sapir and van Elswyk (2021: 5846–5847) observe, it is a contradiction to hedge a claim with 'I believe' and then deny that one believes it is true. Each of the following is decidedly terrible.

(13) #The talk was about population ethics, I believe. But I don't *believe* that.

(14) #I believe that the talk was about population ethics. But I don't *believe* that.

(15) #The talk was about population ethics, or so I believe. But I don't *believe* that.

But the defectiveness of the above discourses is *not* what we would find if 'believe' were ambiguous between two attitudes. In that case, the negation would help *disambiguate* the two meanings as opposed to yielding a contradiction. For contrast, compare the verb 'call'. It has a litany of meanings. One meaning is 'to summon' (as in 'I called a taxi') and another is 'to say/predicate' (as in 'I called him a fool'). We can easily use negation to disambiguate these two meanings. Consider example (16) found below.

(16) I called my friend a taxi. But I didn't *call him* a taxi.

No contradiction results. It is clear that the speaker merely summoned a taxi rather than summoning one and calling their friend a taxi. But this disambiguation isn't what happens with 'I believe'.²¹

5.2 'I believe' as loose speech in hedges

We talk loosely. We say we ate half the pizza when we really ate 55%. We describe a painting as square when really it is a quadrilateral whose sides are just shy of being equal. When we speak loosely, we engage in a variety of non-literal speech. The content or contents communicated by our utterance is different from the content that is identical with or is determined by the meaning of a sentence. Where loose speech differs from other varieties of non-literal speech is its connection to *precision*. The literal content of the utterance is precise whereas the communicated content or contents are not. They admit of slack.

Nes (2016) conjectures that hedging with 'I believe' might be loose talk. When hedging, speakers do not self-attribute belief because 'believe' is not used precisely. Instead, they communicate a different content or contents that is true if the speaker, to use Nes's phrase, 'roughly' or 'approximately' believes. If hedging with 'I believe' were loose talk, we would have a way out of the problem for KNB. Speakers who hedge with 'I believe'

²¹ Another version of the ambiguity response is offered by Sutton (2005: 390) and Fantl and McGrath (2009: 147-149). The gist of their view is that when someone hedges with 'believe' what they indicate is *not* that they believe that p but that they believe that p is probable. Their view doesn't posit two kinds of belief, but it still requires ambiguity given that an instance of 'I believe that p ' can *either* denote that the speaker believes that p *or* that speaker believes that *probably* p . Since meaning is compositional, the natural explanation for why 'I believe that p ' is ambiguous is that the verb 'believe' is ambiguous. With its hedging meaning, 'believe' modifies the content of the *that*-clause by inserting a probability operator.

But this variety of ambiguity fails the same test. If 'I believe that p ' is ambiguous between readings according to which the speaker believes p and according to which the speaker believes *probably* p , then conjoining 'I believe that p ' with 'but I don't believe that p ' should disambiguate. More specifically, it should force the interpretation that the speaker believes *probably* p to avoid contradiction. But as we see in (13)–(15), that's not what happens.

are not speaking literally. So speakers do not commit themselves to believing p . They commit themselves to only approximately or roughly believing p .

Let's call this the *looseness response*. This response is similar to the ambiguity response by appealing to flexibility with 'believe'. While the ambiguity response traces that flexibility back to multiple conventional meanings for 'believe', the looseness response traces that flexibility back to a kind of non-literal way of using 'believe'.

The looseness response only gets KNB out of trouble if *every* instance of hedging with 'I believe' constitutes loose talk. If there are still instances of hedging with 'I believe that p ', 'I believe p ', 'I believe $\neg$ p or so I believe $\neg$ p ' where 'believe' is used precisely, the problem for KNB remains. But it is difficult to see how this universal generalisation could move from a casual conjecture to an empirically serious hypothesis. All expressions of natural language that can be used loosely can be used strictly too. Sometimes we *do* eat only half of the pizza, or the painting *is* exactly a square. Given the multitude of verbs speakers could use with either a doxastic meaning (for example, 'think', 'suppose', 'guess') or an assertive meaning ('conjecture', 'claim', 'say') (Anand and Hacquard 2016), or even other epistemic terms ('probably', 'maybe', 'likely'), we find it implausible that speakers would never hedge strictly with 'I believe'. Hedging with 'I believe' is often a deliberate choice.

Problems for the looseness response multiply upon considering what the response predicts about the semantics and pragmatics of 'I believe'.²² Natural language contains a variety of terms whose dedicated semantic function is to modify how strict or loose an expression is interpreted (Lasnik 1999, Sauerland and Stateva 2011, Carter 2021). These are *slack regulators*. Terms that force a loose interpretation include adverbs such as 'approximately', 'roughly', 'functionally', and 'mostly'. A term is susceptible to being

²² Nes (2016) himself notes a handful of problems for the looseness response. One worth highlighting here is that speaking loosely is typically something speakers are fully aware of doing. But few speakers hedging with 'I believe' take themselves to be self-reporting that they approximately or roughly believe. Try asking 'So you don't literally believe p ?' of someone who just hedged with 'I believe'. You will be met with confusion.

used loosely when it combines with such regulators. But ‘I believe’ sounds awkward alongside them in a sentence.

(17) ? I approximately/roughly/functionally/mostly believe that the talk was about population ethics.

COCA supports this awkwardness: it contains zero instances of the verb ‘believe’ combining directly with ‘approximately’, ‘roughly’, or ‘functionally’. It does contain four instances where it occurs after ‘mostly’, but these are all sentences where ‘mostly’ quantifies over the number of members in a group that believe (for example., ‘scientists mostly believe now that its multiple genes that are involved’.) The failure to combine with slack regulators is a serious problem for the looseness response. By not doing so, ‘I believe’ does not behave as an expression used loosely, even when used to hedge. Instead, it behaves as an expression interpreted literally.²³

A related problem is that slack regulators do not stop certain discourses from ringing as contradictions for ‘I believe’ like they do for other expressions used loosely. Notice that, because a regulator is present, (18) does not crash.

(18) I didn’t eat half of the pizza. I ate approximately/roughly/effectively half.

But it becomes a contradiction once the regulator is removed. The same does not go for ‘I believe’. The presence of the regulator makes no meaningful difference to the felicity of the sentence.

(19) ? I believe that the talk was about population ethics. I didn’t approximately/roughly/effectively believe that.

²³ This data does not motivate that ‘believe’ is *never* used loosely. It motivates only that the phrase ‘I believe’ is not used loosely in cases of hedging to communicate that the speaker has an attitude that approximates belief. It may be that ‘believe’ is used loosely with subjects other than the speaker. A referee offers the example of a car with a seatbelt alarm for the passenger seat that is beeping because a bag of groceries is in the seat instead of a person. In such a case, we might say ‘The car believes someone is in the seat’. This is presumably loose speech. Support for this interpretation is that ‘The car approximately/roughly/functionally believes someone is in the seat’ does *not* sound awkward like it does in (16).

(20) ? I don't believe that the talk was about population ethics. I
approximately/roughly/effectively believe that.

Without the regulator, (19) and (20) are contradictions. With the regulator, they remain defective. Incidentally this problem with the looseness response was first observed by Nes (2016). We elaborate upon it here because we regard these and similar problems as decisive problems for the response.²⁴

5.3 'Belief' as a theoretical posit

Perhaps the best move for a defender of KNB—and one we're not entirely unsympathetic toward—is to say that the relevant kind of belief that is governed by KNB is a theoretical posit rather than an attitude picked out by the verb 'believe' in English and other natural languages. Let's call this the *theoretical response*.

Up until this point, we have been treating advocates of KNB and PARALLELISM as a unified bloc, but we're now in a position to appreciate some diversity around the edges. At least one author explicitly articulates that they are defending a knowledge norm on a theoretically defined notion of 'outright belief' that is not extracted from ordinary discourse. That is Schulz (2021: 8743):

Taking 'outright belief' to be a technical notion opens up a possible defense of the knowledge norm for belief. Although the knowledge norm would not hold for our ordinary notion of belief, it could hold for a technical notion of belief that is shaped by theoretical considerations.

²⁴ This data also makes trouble for Moss's (2019) proposal that talk of belief loosely denotes credences relevantly similar to credence 1. Though Moss notes that 'believe' appears with slack regulators that strengthen such as 'fully' or 'outright', she does not discuss the inability of 'believe' to appear with regulators that weaken such as 'approximately' and 'roughly'. And, to pre-empt a natural thought: no, Moss's proposal is of no use to the looseness response. If all talk of belief is loose, then we have no reason to think that hedging uses of 'I believe' are non-literal in a way that justifies ignoring them.

It's important to note that this move is distinct from the ambiguity response discussed in §5.1. Schulz here explicitly builds on Hawthorne, Rothschild, and Spectre (2016: 1402):

[Outright belief] may be a useful theoretical notion distinct from certainty and sureness, and it may be one for which norms comparable to those for assertion apply. However, ...this notion is not a disambiguation of what we ordinarily mean by 'belief'; rather it seems a theoretical posit.

Some versions of PARALLELISM do not immediately mention the ordinary concept of belief either. Dummet (1973) and Bird (2007) replace 'believe' with 'judgment' and Sosa (2011) with 'inner affirmation'. 'Judgment' and 'inner affirmation' look like technical notions. To boot, it's not immediately clear that we should expect the norms that govern them to be sensitive to norms that govern ordinary belief.

The theoretical response is not representative of the literature as a whole. This is because, as we noted in §5.1, the widely invoked *ambiguity response* to instances of hedging with 'believe' strongly suggests that these authors are thinking of the thing that is governed by a knowledge norm as one of the disambiguated meanings of the term 'believe' in natural language. If 'believe' is a mere theoretical posit, then there's no reason for the ambiguity response. Posits are created or defined, not found in nature.

Our reply to the theoretical response begins with a concession. If the sense of 'believe' that one is using is largely untethered from its use in language, then our argument against KNB based on the practice of hedging is not probative. Nothing in our argument has shown that there cannot be *some* kind of propositional attitude with the same norm as assertion. Our argument has only shown that, if there is such a thing, it is not the thing picked out by the word 'believe'. We leave open that there may be some theory-laden concept—judgement, perhaps, or belief*—such that knowledge is the norm of *that* thing. Call such a view KNB*.²⁵

²⁵ It's possible that the posited concept happens to pick out something already identified in natural language—in this case, the concept denoted by the word 'believe'. But obviously that would be of no help to KNB* since then it'd be equivalent to KNB which we've already argued is

Having been thus concessive, we hasten to add some clarifications. While we don't take ourselves to have a direct argument against all versions of KNB*, we do think that those who hope to develop versions of KNB* should remain sensitive to hedging data.

There are perhaps ways to construct a theoretically useful notion of belief* such that KNB* comes out true while KNB comes out false. *Merely* introducing a theoretical posit, however, does not immediately solve the problem. Whether or not such a move is successful depends on substantive facts about the relationship between the proposed, theorized notion of belief and the notion found in natural language.

In particular, those who posit a technical notion of 'outright belief' must think it bears *some* similarity to belief (else why call it 'outright *belief*'), even if the former is not a disambiguation of the latter. And this, in short, is why advocates of KNB* can't simply *ignore* the argument from hedging. Here is an example. Although Bird (2007) is clearly optimistic about KNB, the narrow principle he defends is KNJ: a knowledge norm on *judgment*. On the face of things, it looks like our argument says nothing about Bird's thesis. But that's not true. For Bird (2007: 96–97) also thinks that there is a close normative relationship between belief and judgment: '[I]t would be odd if one could be justified in judging that *p* but not justified in believing that *p*, or vice versa'. The norms of judgment and belief are equally demanding for Bird. So any argument that knowledge is too strong to be the norm of belief doubles as an argument that knowledge is too strong to be the norm of judgment.

What about Schulz's (2021) posited notion of 'outright belief'? His is, after all, the most explicit version of KNB* on offer. Schulz (2021: 8745, 8748) defines outright belief as 'the strongest belief state implied by knowledge' and as 'a species of ordinary belief' that is strong enough to constitute knowledge if otherwise appropriately situated epistemically. We are sceptical that this will avoid the problem.

Our first reason for scepticism is that we see no reason why 'I believe' could not denote this notion of belief too. Insofar as it is a species of ordinary belief and ordinary belief can be denoted by the verb 'believe', Schulz's conception could be denoted by 'I believe'.

false! The hopeful thought, for KNB*, is that the posited notion of belief differs from the ordinary notion in a significant way.

To avoid the problem posed by hedging, ‘I believe’ would *either* need to never denote Schulz’s technical notion of belief, *or* it never would when used to hedge. But that latter option is just the ambiguity response in disguise. It maintains that ‘I believe’ has a special or different meaning in constructions like ‘I believe that p ’, ‘ p , I believe’ and ‘ p or so I believe’ across various languages. We have seen that the ambiguity response is a non-starter (§5.1). So Schulz’ theoretical notion of belief would need to never be denoted by ‘I believe’ in English or any other similar natural language to avoid the argument from hedging. This invites the worry that this notion of belief is too *dissimilar* from ordinary belief to play its intended theoretical role.

More generally, we also think it’s at least coherent to suppose that ordinary belief *is* (at least as strong as) the strongest belief state implied by knowledge. We’re wary of the suggestion that anyone who believes p (in the ordinary sense) ever fails to know that p merely in virtue of having insufficient strength of doxastic commitment. *If* that’s the case, then Schulz’s version of KNB* collapses into KNB and faces the same challenge presented by hedging with ‘I believe’. We don’t take ourselves to have shown that it *does* so collapse, but we think the possibility of collapse further illustrates the fact that merely positing a theoretical notion of belief doesn’t automatically escape the challenges from hedging that arise for KNB.

We’ve not shut the door on the possibility that some version of KNB* is true. But we have cautioned that merely positing a theoretical notion of belief does not allow one to ignore the data from hedging. It will depend. Finally, we stress that even if some version of KNB* does turn out to be true, it’s clearly of independent significance that KNB is false. Whatever else epistemologists find interesting, surely they find the thing picked out by the English word ‘believe’ to be interesting. Just as we want to know what norms, if any, govern the thing picked out by the practice we label ‘promises’, so we want to know what norms, if any, govern what is picked out by ‘believe’.

Acknowledgements

We thank Tim Kearl, Neri Marsili, Matt McGrath, Yasha Sapir, the editor at *Australasian Journal of Philosophy*, and two referees for helpful feedback on this paper.

Funding Information

This project was funded, in part, by Therme Group.

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