

Vagueness and Rationality

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ABSTRACT

The two standard theories of vagueness—vagueness-as-ignorance and vagueness-as-indeterminacy—agree on the following principle: if you are certain that it is clearly vague whether p , then you clearly should not believe p and you clearly should not believe not- p . I argue against the principle, and thus against the two standard theories. I offer an explanation of the initial appeal of the principle. And I show how a rival principle helps to better explain a recalcitrant trio of widely accepted data.

You are certain that it is clearly vague whether Harry is bald. How confident should you be that Harry is bald, and how confident should you be that Harry is not bald? More generally, what is the rational stance to take toward an apparently vague issue? Call this *the rationality question*.

On vagueness-as-indeterminacy, if it is vague whether Harry is bald, then *there is no answer* to the question whether Harry is bald.^{1,2} This suggests that you should have absolutely no confidence that Harry is bald, and absolutely no confidence that Harry is not bald. For however confident you are in a candidate answer to a question, you should be at least as confident that the question *has* an answer. To accommodate the possibility of questions without answers, Hartry Field (2000, 2003, 2004) develops a

¹ Some proponents of this view hold that all vagueness-related indeterminacy has its source in semantic indeterminacy. On this version of vagueness-as-indeterminacy, the reason that there is no answer to the question of whether Harry is bald is that our linguistic practices fail, in the first place, to settle which question is the question of whether Harry is bald.

² Proponents of vagueness-as-indeterminacy include Halldén 1949, Mehlberg 1958, Körner 1960, Zadeh 1965, Cargile 1969, Przelecki 1969, Lewis 1970, Campbell 1974, Kamp 1975, Fine 1975, Burgess 1990, Horwich 1990, 2005, Tye 1994, McGee and McLaughlin 1995, Field 2000, 2003, 2004, Schiffer 2000, 2003, Dorr 2003. Eklund 2005 argues that vagueness entails, but is not a type of, indeterminacy. Smith 2005 defends a degree-theoretic account that appears to entail vagueness-as-indeterminacy (though Smith himself suggests that his theory is neutral between vagueness-as-ignorance and vagueness-as-indeterminacy).

non-standard calculus of rational degrees of confidence. By this calculus, one's degrees of confidence in p and in $\text{not-}p$ need not rationally add to 1; however confident one is that there is no answer to the question whether p , one has that much less confidence to distribute between p and $\text{not-}p$.

On vagueness-as-ignorance, if it is vague whether Harry is bald, then although there is an answer to the question whether Harry is bald, you are *ignorant* of it.³ This suggests that your degree of confidence that Harry is bald and your degree of confidence that Harry is not bald should add to 1. It also suggests that neither degree should be significant enough to support a belief; for, if you take yourself to be ignorant of whether Harry is bald, then you should not believe that Harry is bald and you should not believe that Harry is not bald.

So, while vagueness-as-indeterminacy and vagueness-as-ignorance suggest conflicting answers to the question of how you should distribute your confidence between the proposition that Harry is bald and the proposition that Harry is not bald, they agree on the related question of whether you should *believe* either proposition. Each clearly recommends an amount of confidence in each proposition that is clearly insufficient to support a belief. (Here and throughout my paper I use 'clearly' in the following neutral manner, to signify the absence of vagueness: a is *clearly* F iff (i) a is F and (ii) it is not vague whether a is F .) Thus, according to both:

No Belief If you are certain that it is clearly vague whether p , then you clearly should not believe p and you clearly should not believe $\text{not-}p$.

By **No Belief**, if you are certain that it is clearly vague whether Harry is bald, then you clearly should not believe that Harry is bald and you clearly should not believe that Harry is not bald. Initially, this seems right.

But is it right? Imagine that your friends have arranged a blind date for you with Harry. Titillated by the thought that Harry might be bald, you ask your friends about Harry's hair situation. An argument breaks out over whether Harry is bald. You turn to your most trusted friend and ask, "Do *you* think he's

³ Proponents of vagueness-as-ignorance include Sorensen 1988, 2001 and Williamson 1994.

bald?” Your friend replies, “To be honest, I *sort of* think he’s bald, and I *sort of* think he’s not bald. I can’t think of a clearer borderline case of baldness than Harry. Indeed, I’m certain that it’s clearly vague whether he’s bald.” At least initially, there would seem to be nothing irrational about this response, taken at face value. Yet **No Belief** deems it irrational: certainty that it is clearly vague whether Harry is bald rationally requires your friend to *clearly* refrain from believing that Harry is bald and to *clearly* refrain from believing that Harry is not bald. This is an initial reason to be suspicious of **No Belief** and, in turn, any theory that recommends it.

My aim in this paper is to explore a novel answer to the rationality question, on which, unsurprisingly, the dictates of rationality are themselves vague. On this view, **No Belief** is to be rejected in favor of **Vague Belief**:

Vague Belief If you are certain that it is clearly vague whether p , then it is vague whether you should believe p and vague whether you should believe not- p .

Vague Belief fits best with a theory of vagueness that I defend elsewhere (Author #1), on which vagueness is not a matter of ignorance or indeterminacy, but is rather *sui generis*. On this theory, there is a close-knit family of concepts, none of which admits of analysis in terms of concepts outside the family, and at least some of which are essential to an adequate treatment of vagueness-related phenomena. One might hold a similar non-reductionism about intentional, normative, or modal phenomena. For instance, one might hold that the notions of physical necessity, metaphysical necessity, and causation, together with that of a law of nature, admit of analysis only in terms of one another, if at all. To get a feel for the family of vagueness-related notions, suppose again that it is vague whether Harry is bald. Depending on the source of this vagueness, we might characterize Harry as a *borderline case* of baldness. And we might say that Harry is neither *clearly* bald nor *clearly* not bald. We might say that he is *sort of* bald and *sort of* not bald; and that he both *roughly* qualifies and *roughly* fails to qualify as bald. This, we might say, is due in part to the fact that baldness is a *rough* concept; it bears only a *rough* relation to more basic concepts; and

so there is *vagueness* as to what its basic application-conditions are. According to *vagueness-as-sui-generis*, it is impossible to break out of this family of concepts by way of reduction.

If vagueness belongs to a category of its own, then it has nothing essentially to do with logic, truth, or rationality. Theorists have been inclined to think that vagueness threatens classical logic—in particular, the Law of Excluded Middle (p or not- p);⁴ classical truth theory—in particular, Bivalence (p is true or false);⁵ and classical rational-degree-of-belief theory—in particular, the principle that one's degrees of confidence in p and in not- p should sum to one. On *vagueness-as-sui-generis*, there is no reason to expect vagueness to threaten any of these principles.

I give an argument for **Vague Belief** (§1). I offer a diagnosis of the initial appeal of **No Belief** (§2). And I show how **Vague Belief** helps to explain a recalcitrant trio of data (§3).

1. An argument for Vague Belief

Three preliminary points are in order.

The first concerns two ordinary notions that my argument will employ: the notion of *vagueness* and the notion of one thing's *entailing* another. You might be tempted to interpret these notions theoretically. You might for instance be tempted to interpret my use of 'vague' according to *vagueness-as-indeterminacy*, so that when I say that it is *vague* whether p , you interpret me as saying that it is *indeterminate* (for such and such reason) whether p . Likewise, you might interpret my use of 'entails' according to some philosophical theory. This would be a mistake. My argument employs the ordinary notions of *vagueness* and *entailment*. Because these notions may differ from their various theoretical

⁴ Most many-valued approaches to vagueness fall in this category. See e.g. Halldén 1949, Körner 1960, Zadeh 1965, Tye 1994, Smith 2005, and Field forthcoming (b). For discussion, and more references, see Williamson 1994, Chapter 4 and Keefe and Smith 1996, Introduction. An intuitionist treatment of vagueness, which would reject at least (c), falls in this category; see for instance Putnam 1983 and Wright 2001. Field 2003, 2004 and Schiffer 2000, 2003 give psychological treatments of vagueness that fall in this category. (Schiffer claims that, on his view, it is indeterminate whether LEM holds; still, his view requires that we reject LEM in the weak sense that we are not justified in asserting certain instances of it.)

⁵ Those who maintain that truth and falsity are the only truth-values and are to be assigned by the method of supervaluation fall into this category. They include Mehlberg 1958, Przelecki 1969, Lewis 1970, Kamp 1975, and Fine 1975. For discussion, see Williamson 1994, Chapter 5.

interpretations, it is important, when evaluating my argument, that you not interpret either of them theoretically.

The second preliminary point concerns a grammatical construction that my argument will employ: the indicative conditional, or ‘if p , then q ’. You might be tempted to interpret this construction as a material conditional— $\text{not-}p$ or q . This would be a mistake. It would be a mistake, for instance, to think that confidence in q rationally requires confidence *that, if p , q* , as it would on the material conditional interpretation. My confidence that there are no unicorns does not rationally require confidence that, if there are unicorns, there are no unicorns. Because I cannot in this limited space adequately argue against the material conditional theory of indicative conditionals, and because the only role that conditionals will play in my argument is to help express claims about necessary and sufficient conditions, readers may simply take it as stipulation that my use of ‘if p , then q ’ means ‘ p is sufficient for q ’, and my use of ‘ p iff q ’ means ‘ q is necessary and sufficient for p ’. (To see that this stipulation is inconsistent with the material conditional interpretation, note that my confidence that there are no unicorns does not rationally require confidence that the existence of unicorns is sufficient for there being no unicorns.)

The third preliminary point concerns a rule of inference that my argument will employ. I call the rule ‘VTC’, for *Vagueness Through (clearly true) Conditionals*:

(1) Clearly, if p , then q

(2) It is vague whether p

Therefore: (3) Either it is vague whether q , or it is clearly the case that q .

VTC is valid. For (1) tells us that p is clearly a sufficient condition for q , and (2) tells us that it is vague whether this condition obtains. If it is vague, of a condition that is clearly sufficient for q , whether that condition obtains, then it cannot *clearly* not be the case that q . It must either be vague whether q or clearly the case that q .

My argument for **Vague Belief** has four steps. Throughout the argument, I will use the following abbreviations: B = that Harry is bald; $V(B)$ = that it is vague whether Harry is bald; $CV(B)$ = that it is clearly vague whether Harry is bald.

Here is the first step. Does $CV(B)$ entail B ? To help us to see what $CV(B)$ entails, let us make two simplifying assumptions. First, let us assume that we have a specific context of use of ‘bald’ in mind, to avoid the possibility of shifting standards of use. Second, let us assume that whether one is bald depends only on the number of hairs on one’s head. So, to say that baldness is vague is just to say that it is vague what the maximum number of hairs for being bald is. Clearly, that number is greater than four and less than one trillion. But there is a range of numbers such that it is vague, of each number in that range, whether that number is the maximum. Of course, due to higher-order vagueness, the identity of this range is itself vague. In other words, if we call the smallest number in this range ‘Low Vague’ and the largest number ‘High Vague’, then it is vague which number = Low Vague, and which number = High Vague. Of course, it is not *contingent* which number = Low Vague and which number = High Vague, for we have fixed on a specific context of use of ‘bald’. To have a number of hairs on one’s head that clearly falls between Low Vague and High Vague (inclusively) is to be such that it is clearly vague whether one is bald. Our question, then, is whether having such a number of hairs entails being bald. We know that it is vague, of each number between Low Vague and High Vague, whether that number is the maximum for being bald. So:

- (4) It is vague whether High Vague is the maximum.

Of course,

- (5) Clearly, if High Vague is the maximum, then having a number of hairs on one’s head that clearly falls between Low Vague and High Vague entails being bald.

By an application of VTC to (4) and (5),

- (6) It is either vague whether having a number of hairs on one's head that clearly falls between Low Vague and High Vague entails being bald, or it is clearly the case that having such a number of hairs entails being bald.

Obviously, it cannot clearly be the case that having such a number of hairs entails being bald, for that is incompatible with our supposition that it is vague, of each number in the given range, whether it is the maximum for being bald. So the first disjunct of (6) must be true: it is vague whether having such a number of hairs entails being bald. But this is just to say that it is vague whether clear vagueness as to whether one is bald entails being bald. Hence, (L1):

- (L1) It is vague whether $CV(B)$ entails B .⁶

Here is the second step of my argument for **Vague Belief**. Suppose for the remainder of the argument that we are ideally rational thinkers certain of $CV(B)$. Clearly, if something is entailed (a priori) from what we are certain of, then we should believe it. Hence: clearly, if $CV(B)$ entails B , we should believe B . By (L1), it is vague whether $CV(B)$ entails B . By an application of VTC, we arrive at (L2):

- (L2) Either it is vague whether we should believe B or it is clearly the case that we should believe B .

Here is the third step of my argument. Clearly, it is vague whether p iff it is vague whether not- p . So, given that we are certain that it is clearly vague whether B , we should be certain that it is clearly vague whether not- B . By the same reasoning used to establish (L2), we arrive at (L3):

- (L3) Either it is vague whether we should believe not- B or it is clearly the case that we should believe not- B .

⁶ It is not surprising that it can be vague whether one thing entails another. Suppose that it is vague whether Harry is bald. Now consider the conjunction of all the specific facts about the distribution of hair on Harry's head, together with any relevant facts about Harry's comparison class, together with all the facts about our community-wide use of the word 'bald'. Whether Harry is bald depends on these more basic facts. And it is vague whether Harry is bald. So it must be vague whether these more basic facts *entail* that Harry is bald. To be sure, there may be theories of vagueness on which it can never be vague whether one thing entails another. But these theories founder on what evidently is a datum for a theory of vagueness: that it *can* be vague whether one thing entails another.

Here is the fourth step. The first disjuncts of (L2) and (L3) must be true, for the following reason. Consider the second disjunct of (L2): that it is clearly the case that we should believe B . If this disjunct is true, then it is clearly the case that we should *not* believe not- B . But if it is clearly the case that we should not believe not- B , then (L3) is false. Because (L3) is true, the second disjunct of (L2) must be false. Now consider the second disjunct of (L3): that it is clearly the case that we should believe not- B . If this disjunct is true, then it is clearly the case that we should *not* believe B . But if it is clearly the case that we should not believe B , then (L2) is false. Because (L2) is true, the second disjunct of (L3) must be false. Hence, the first disjuncts of (L2) and (L3) must be true: it is vague whether we should believe B , and it is vague whether we should believe not- B . Generalizing, we arrive at our final conclusion:

Vague Belief If you are certain that it is clearly vague whether p , then it is vague whether you should believe p and vague whether you should believe not- p .

Objection. On certain theories of vagueness (typically those that reject the law of excluded middle), we cannot say that it is vague what the maximum number of hairs for being bald is. This is because our use of ‘the maximum number of hairs for being bald’ presupposes that there is a maximum number of hairs for being bald, and on these theories we are not justified in believing in such a thing. Hence, the preceding argument for (L1) is ineffective, for it rests on the claim that it is vague what the maximum number of hairs for being bald is.

Response. The preceding argument for (L1) *does* rest on the claim that it is vague what the maximum number of hairs for being bald is. And some theories of vagueness evidently cannot accommodate this claim. But surely the fact that these theories cannot accommodate the claim is evidence against the theories, and not evidence against the claim. For, at least prior to theorizing, it would seem to be a basic datum that it is vague what the maximum number of hairs for being bald is.

Nevertheless, for those readers who are not persuaded by this response, I now offer a completely different defense of (L1) which does not rest on the claim that it is vague what the maximum number of

hairs for being bald is. While I prefer the initial defense, I think that the following defense is also adequate.

This defense requires two further preliminary points.

The first concerns a rule of inference that I call ‘VTB’, for *Vagueness Through* (clearly true)

Biconditionals:

(7) Clearly, p iff q

(8) It is vague whether q

Therefore: (9) It is vague whether p .

VTB is valid. For (7) tells us that q is clearly a necessary and sufficient condition for p . And if it is vague, of a condition that is clearly both necessary and sufficient for some proposition to hold, whether that condition obtains, then it must be vague whether the proposition holds.

The second preliminary point concerns a method for investigating whether a proposition, p , entails a proposition, q . The method is to (i) set aside our views on contingent matters, (ii) suppose p , and (iii) consider the question of whether q . Clearly, if the answer is q , then p entails q . Clearly, if it is not the case that the answer is q , then it is not the case that p entails q . Thus: clearly, the answer is q iff p entails q . By VTB, if it is vague whether the answer is q , then it is vague whether p entails q .

There is a complication with this method. At least typically (and perhaps without exception), when we suppose p , we *clearly* suppose p . For instance, when we suppose that Harry is bald, we *clearly* suppose that Harry is bald; it is not vague whether we are supposing that Harry is bald. Now, part of what it is to suppose p is to exclude the possibility that not- p . So, clearly supposing p entails *clearly* excluding the possibility that not- p . But clearly excluding the possibility that not- p entails excluding the possibility that it is vague whether p . Thus, in effect, to clearly suppose p is to suppose clearly p . For illustration, suppose that Harry is bald. Now consider whether Harry is bald. Clearly, he is. How did we derive that something is clearly the case merely by supposing that it is the case? Answer: we *clearly* supposed that it is the case; in effect, we supposed that it is clearly the case. Because our acts of supposing p are typically

acts of *clearly* supposing p , and because clearly supposing p is tantamount to supposing *clearly* p , typically when we take ourselves to be employing the preceding method for investigating whether a proposition, p , entails a proposition, q , what we are really doing is investigating whether *clearly* p entails q . For what we are really doing is employing the following method: (i) set aside our views on contingent matters, (ii) *clearly* suppose p , and (iii) consider the question of whether q . Clearly, the answer is q iff *clearly* p entails q . By VTB, if it is vague whether the answer is q , then it is vague whether *clearly* p entails q .

Here, then, is my alternative defense of (L1). Let us employ the preceding method to investigate whether $CV(B)$ entails B . First, we set aside our views on contingent matters and clearly suppose $V(B)$; in effect, we thereby suppose $CV(B)$. Next, we consider the question of whether B . Clearly, the answer is B iff $CV(B)$ entails B . By our supposition, it is vague whether the answer is B . By an application of VTB, we arrive at (L1):

(L1) It is vague whether $CV(B)$ entails B .

This concludes my alternative defense of (L1). Unlike my original defense, this defense does not rest on the claim that it is vague what the maximum number of hairs for being bald is.

I have argued for **Vague Belief**. If my argument is sound, then we must reject **No Belief** and those theories of vagueness that recommend it, including vagueness-as-ignorance and vagueness-as-indeterminacy.

2. A diagnosis of the initial appeal of **No Belief** (and a host of other false principles)

Granted that my argument is sound, **No Belief** is false. The question remains why **No Belief** enjoys so much initial appeal. I will propose an answer. My proposal will be speculative. Still, I think it is worth exploring. For it raises the interesting possibility that a single fallacy has been misleading theorists, not just about the rational stance to take toward an apparently vague question, but about a wide range of issues concerning the nature of vagueness.

Here is the general idea behind the proposal. When confronted with vagueness as to whether p , we correctly hold that we should not (sincerely and literally) *assert* a number of related propositions. For instance, we should not assert p , not- p , that the answer to the question of whether p is p , that answer to the question of whether p is not- p , that p is true, that p is false, that the more basic facts entail p , that the more basic facts entail not- p , that it seems to us that p , that it seems to us that not- p , that it is rational to believe p , or that it is rational to believe not- p . From here, we are tempted by a bit of fallacious reasoning to think that what best explains why we should not assert these things is that they are false—that vagueness *excludes* them. We are thus tempted—at least initially—to endorse the following *exclusionary principles*:

No LEM	If it is vague whether p , then it is neither the case that p nor not- p .
No Answer	If it is vague whether p , then there is no answer to the question of whether p (it is not the case that the answer is p and it is not the case that the answer is not- p).
No Truth Value	If it is vague whether p , then it is neither true nor false that p .
No Entailment	If it is vague whether p , then the more basic facts do not entail p and do not entail not- p .
No Intuition	If it seems vague whether p , then it does not seem that p and it does not seem that not- p .
No Belief	If you are certain that it is (clearly) vague whether p , then you (clearly) should not believe p and you (clearly) should not believe not- p .

Corresponding to each of these exclusionary principles, however, is a rival principle that explains why we should not assert the relevant propositions and is preferable for independent reasons. I call the rival principles *breeding principles* because they manifest the natural idea that vagueness breeds more vagueness:

Vague p	If it is vague whether p , then it is vague whether p and vague whether not- p .
Vague Answer	If it is vague whether p , then it is vague what the answer is to the question of whether p (it is vague whether p is the answer and it is vague whether not- p is the answer).

Vague Truth Value	If it is vague whether p , then it is vague whether p is true and it is vague whether p is false.
Vague Entailment	If it is vague whether p , then it is vague whether the more basic facts entail p and it is vague whether the more basic facts entail not- p .
Vague Intuition	If it seems vague whether p , then it is vague whether it seems that p and it is vague whether it seems that not- p .
Vague Belief	If you are certain that it is (clearly) vague whether p , then it is vague whether you should believe p and vague whether you should believe not- p .

My general proposal, then, will be that a significant source of the initial appeal of the exclusionary principles lies in a single fallacy that tempts us to think that these principles best explain why we should not assert certain propositions, when in fact the corresponding breeding principles equally well explain these facts and are preferable for independent reasons.

For each exclusionary principle, I will show how it might derive some initial appeal from the relevant fallacy. Keep in mind that my ultimate aim here is to explore one possible explanation of the initial appeal of **No Belief**; it is not to definitively overthrow the exclusionary principles in favor of their breeding rivals.

We begin, then, with the first exclusionary principle, **No LEM**. By this principle, vagueness leads to counterinstances to the Law of Excluded Middle, and thus to contradiction. Most philosophers reject **No LEM**, for they reject contradictions. Still, **No LEM** has an undeniable initial appeal, at least among non-philosophers, perhaps as a result of the following bit of fallacious reasoning. Upon supposing that it is vague whether p , we make the valid inference that, as sincere speakers, we should not assert p and we should not assert not- p . We then search (perhaps subconsciously) for the best explanation of this fact. There are two salient candidates: one epistemic, one metaphysical. The epistemic explanation is that even though either p or not- p , we cannot know which; and, as sincere speakers, we aim to satisfy the following rule:

- (E) Assert p only if you know p .

The metaphysical explanation is that neither p nor $\text{not-}p$; and, as sincere speakers, we aim to satisfy the following rule:

(M) Assert p only if p .

As even the proponent of vagueness-as-ignorance will admit, vagueness does not initially appear to be an epistemic phenomenon. Thus, the metaphysical explanation is initially more attractive. And so it initially seems that the best explanation of the fact that we should neither assert p nor assert $\text{not-}p$ is that it is neither the case that p nor the case that $\text{not-}p$.

Where is the fallacy? (M) is indeed at the heart of the explanation of why, given that it is vague whether p , we should not assert p and we should not assert $\text{not-}p$. But the explanation does not require that we *deny* the relevant instances of the right-hand side of (M)—that is, that we deny p and deny $\text{not-}p$. Attributing vagueness to the issue of whether p is—*without further analysis*—sufficient to explain why we should not assert p , and attributing vagueness to the issue of whether $\text{not-}p$ is sufficient to explain why we should not assert $\text{not-}p$. As sincere speakers, we aim to *clearly* satisfy (M). In other words, we prefer a scenario in which (M) is clearly satisfied to one in which either (M) is clearly not satisfied or there is vagueness as to whether (M) is satisfied. Now, suppose that it is vague whether p . Then one who *clearly* asserts p has not *clearly* satisfied (M) (for, given a clear assertion of p , (M) is clearly satisfied only if p is clearly the case). Two options remain: one can clearly refrain from asserting p , or one can try to make it the case that it is vague whether one is asserting p . In any ordinary context, the latter would be inappropriate, for it would require strange behavior that is unlikely to result in successful communication (at least in any community similar to ours). Hence, the former is to be preferred. Of course, clearly refraining from asserting p entails refraining from asserting p . Thus, vagueness as to whether p is sufficient to explain why we should not assert p . Likewise, vagueness as to whether $\text{not-}p$ is sufficient to explain why we should not assert $\text{not-}p$. Hence, **Vague p** is sufficient to explain why, given that it is vague whether p , we should not assert p and we should not assert $\text{not-}p$.

Moreover, **Vague p** is preferable to **No LEM** for independent reasons. One obvious reason is that **No LEM** constitutes a contradiction, whereas **Vague p** does not. But there is second, vagueness-related, reason. Suppose that **No LEM** is clearly correct. Then, from the supposition that it is clearly vague whether p , we may infer that, *clearly*, not- p . This is wrong. For if it is clearly vague whether p , then it is clearly *vague* whether not- p . Hence, it is false that, clearly, not- p . So, contradictions aside, **No LEM** leads to an incorrect characterization of cases of vagueness. By contrast, **Vague p** leads to exactly the right characterization: if it is clearly vague whether p , then it is clearly vague whether not- p .

We see, then, how a certain fallacy might be a source of initial appeal for **No LEM**. The fallacy, to repeat, is to infer that what best explains the fact that we should not assert some proposition p is that not- p , when in fact the best explanation is that it is vague whether p . Hereafter, let us call this fallacy ‘the Clear Fallacy’, for it involves a failure to distinguish an unwarranted rejection of a proposition p from the warranted rejection of the corresponding proposition *that clearly p* .

Perhaps the Clear Fallacy is responsible for some of the initial appeal of all of the exclusionary principles. Consider **No Answer**. Upon supposing that it is vague whether p , we make the valid inference that, as sincere speakers, we should not assert that the answer to the question of whether p is p , and we should not assert that the answer to the question of whether p is not- p . Perhaps we then commit the Clear Fallacy by inferring that what best explains why we should not assert these things is that they are false: **No Answer**. However, a better explanation is **Vague Answer**. Vagueness as to whether the answer is p is sufficient to explain why we should not assert that the answer is p . And vagueness as to whether the answer is not- p is sufficient to explain why we should not assert that the answer is not- p . So **Vague Answer** suffices to explain the facts at hand. To see that it is preferable to **No Answer** for independent reasons, suppose that **No Answer** is clearly correct. Then, if it is clearly vague whether p , p is *clearly* not the answer to the question of whether p . Intuitively, this is wrong. Intuitively, if it is clearly vague whether p , then it is *vague* whether p is the answer to the question of whether p . So **No Answer** leads to a counterintuitive characterization of our case of vagueness. By contrast, **Vague Answer** leads to the

intuitive characterization: if it is clearly vague whether p , then it is clearly vague whether p is the answer to the question of whether p (and clearly vague whether $\text{not-}p$ is the answer to the question of whether p).

Turning next to **No Truth Value**, upon supposing that it is vague whether p , we make the valid inference that, as sincere speakers, we should not assert that p is true, and we should not assert that p is false. Perhaps we then commit the Clear Fallacy by inferring that what best explains why we should not assert these things is that they are false: **No Truth Value**. However, a better explanation is **Vague Truth Value**. Vagueness as to whether p is true/false is sufficient to explain why we should not assert that p is true/false. So **Vague Truth Value** suffices to explain the facts at hand. To see that it is preferable to **No Truth Value** for independent reasons, suppose that **No Truth Value** is clearly correct. Then, if it is clearly vague whether p , p is *clearly* not true. Intuitively, this is wrong. Intuitively, if it is clearly vague whether p , then it is clearly *vague* whether p is true. So **No Truth Value** leads to a counterintuitive characterization of our case of vagueness. By contrast, **Vague Truth Value** leads to the intuitive characterization: if it is clearly vague whether p , then it is clearly vague whether p is true (and clearly vague whether p is false).

Next we turn to **No Entailment**. Upon supposing that it is vague whether p , we make the valid inference that, as sincere speakers, we should not assert that the more basic facts entail p , and we should not assert that the more basic facts entail $\text{not-}p$. Perhaps we then commit the Clear Fallacy by inferring that what best explains why we should not assert these things is that they are false: **No Entailment**. However, a better explanation is **Vague Entailment**. Vagueness as to whether the more basic facts entail $p/\text{not-}p$ is sufficient to explain why we should not assert that the more basic facts entail $p/\text{not-}p$. So **Vague Entailment** suffices to explain the facts at hand. To see that it is preferable to **No Entailment** for independent reasons, suppose that **No Entailment** is clearly correct. Then, if it is clearly vague whether p , the more basic facts *clearly* do not entail p . But this is wrong. Do the more basic facts on which the application of the concept of baldness supervenes entail that Harry is bald? Clearly, they do iff Harry is bald. And it is vague whether Harry is bald. So, by VTB, it is vague whether the more basic facts entail that Harry is bald. So **No Entailment** leads to an incorrect characterization of our case of vagueness. By

contrast, **Vague Entailment** leads to the correct characterization: if it is clearly vague whether p , then it is clearly vague whether the more basic facts entail p (and clearly vague whether they entail not- p).

Next we turn to **No Intuition**. This principle is worth discussing for two reasons. First, its rival, **Vague Intuition**, will play a role in my explanation of the trio of data to be discussed in the following section. Second, **No Intuition** leads naturally to vagueness-as-indeterminacy and then, in light of difficulties with this view, to vagueness-as-ignorance. Let me explain.

Plausibly, there is no more to the nature of an ordinary concept like that of being bald than would be reflected in good epistemic conditions, after careful consideration, by our intuitions regarding the concept's basic conditions of application. If we agree on the basic hair facts about Harry and, upon careful consideration, find it intuitive neither that he is, nor that he is not, bald, then we should conclude that nothing in the nature of the concept of baldness dictates whether it applies to a person who is in all hair respects qualitatively like Harry. From which we should infer both that there is no answer to the question whether Harry is bald and that the concept of being bald has a *gap* in it. Hence, if vagueness really did present as an absence of intuition, the best explanation would seem to be that vague concepts have gaps in them—that they admit of conditions under which there is no answer to the question whether they apply. We can thus see how **No Intuition** leads naturally to vagueness-as-indeterminacy.

Now suppose that we reject vagueness-as-indeterminacy (say, because we have an argument to the effect that questions without answers are impossible) but maintain **No Intuition**. Then we are led to vagueness-as-ignorance. For if vague concepts do not have gaps in their application conditions, then the gaps in our intuitions must be construed as *blind spots* (hence the title of Sorensen 1998). By this line of reasoning, the natures of even our most mundane concepts outrun our intuitions about their conditions of application: even though baldness has complete application conditions, our intuitions concerning it are hopelessly incomplete. Might baldness really have such an elusive nature? Those who hold that it does usually do so only as a last resort: they see problems with, and no alternative to, the view that vagueness is a type of indeterminacy. But if **No Intuition** is rejected in favor of **Vague Intuition**, then perhaps the connection between the natures of vague concepts and our intuitions regarding their conditions of

application can be upheld without committing to vagueness-as-indeterminacy; in other words, perhaps vague concepts are neither elusive nor incomplete. (I pursue this idea in Author #1.)

Returning to the main line of thought, perhaps we find **No Intuition** appealing for the following reason. Whenever it seems vague to us whether p , we make the valid inference that, as sincere speakers, we should not assert that it seems that p , and we should not assert that it seems that not- p . Perhaps we then commit the Clear Fallacy by inferring that what best explains why we should not assert these things is that they are false: **No Intuition**. However, a better explanation is **Vague Intuition**. Vagueness as to whether it seems to us that p /not- p is sufficient to explain why we should not assert that it seems to us that p /not- p . So **Vague Intuition** suffices to explain the facts at hand. To see that it is preferable to **No Intuition** for independent reasons, suppose that **No Intuition** is clearly correct. Now, shift your attention for a moment from the commonplace examples of vague concepts—baldness, richness, and so on—to the vague concept of seeming. And suppose that it is now clearly vague whether it seems to you that Harry is bald. It follows from the clear truth of **No Intuition** that it now *clearly does not* seem to you that it seems to you that Harry is bald. Surely this is wrong. Surely it *sort of* seems to you that it seems to you that Harry is bald. In other words, surely it is *vague* whether it seems to you that it seems to you that Harry is bald. Of course, this is just what **Vague Intuition** predicts.

Finally, we consider **No Belief**. Perhaps the initial appeal of **No Belief** has its source in the Clear Fallacy. Upon supposing that it is vague whether p , we make the valid inference that, as sincere speakers, we should not assert that we should believe p , and we should not assert that we should believe not- p . Perhaps we then commit the Clear Fallacy by inferring that the best explanation of why we should not assert these things is that they are false: it is not the case that we should believe p and it is not the case that we should believe not- p . From here, it is a natural—and, for non-philosophers, automatic—step to **No Belief**. However, a better explanation is **Vague Belief**. Vagueness as to whether we should believe p /not- p is sufficient to explain why we should not assert that we should believe p /not- p . And we already have an independent reason to prefer **Vague Belief** to the proposed explanation: the argument from the preceding section. In the following section I give a second reason: together with **Vague Intuition**, **Vague Belief**

affords an explanation of a recalcitrant trio of widely accepted data. In the following paragraph, I give a third reason.

As I said above, it is plausible that there is no more to the nature of an ordinary concept like baldness than would be reflected in good epistemic conditions, after careful consideration, by our intuitions regarding the concept's basic conditions of application. This is not because intuition has a mysterious capacity for grasping the nature of baldness, but rather because our dispositions to have various intuitions about baldness under ideal conditions determine *which* concept we are operating with in the first place. (This is not to say that these sorts of dispositions are the sole factor in determining the identities of *all* our concepts; some concepts, like that of water, have their identities determined in part by environmental factors.) Were we disposed to have radically different intuitions about the application conditions of the predicate 'is bald', the predicate would not mean what it actually means, and we would therefore not be operating with the concept of *baldness*, but rather with some other concept. Now, given that our dispositions in good epistemic conditions to have intuitions about the application conditions of baldness determine which concept we are operating with in the first place, we have *very* good reason to trust our intuitions about baldness when we know ourselves to be under good epistemic conditions. Suppose that you know yourself to be under such conditions with respect to the question of whether Harry is bald: you know that you fully possess the concept of baldness; you know all the facts about Harry's comparison class; you know that you are not being misled about Harry's hair type and distribution; and so on. Your epistemic conditions are ideal, and you know this. Under these conditions, you should trust your intuitions about whether Harry is bald:

- (10) Clearly, you should believe that Harry is bald iff it seems to you that Harry is bald.
- (11) Clearly, you should believe that Harry is not bald iff it seems to you that Harry is not bald.

Now suppose that, because it seems vague to you whether Harry is bald, you become certain that it is vague whether Harry is bald. Given **Vague Intuition**, the right-hand sides of (10) and (11) are vague. By

an instance of VTB, the left-hand sides of are vague. Of course, this is just what **Vague Belief** dictates. Thus, a constitutive connection between our dispositions to have intuitions about baldness and the identity of the concept provides yet another independent reason to prefer **Vague Belief** to **No Belief**.

By now I hope to have removed at least some of the initial appeal of **No Belief**. My proposal in this section was speculative, and my argument in the preceding section for **Vague Belief** did not rest on it. I gave the proposal partly to explain away the initial appeal of **No Belief**, and partly to raise the possibility that a single fallacy has been misleading theorists about a wide range of issues concerning the nature of vagueness.

3. A recalcitrant trio of data explained

Here is the first datum:

Silence A subject who is certain that it is (clearly) vague whether p cannot rationally, sincerely, literally, and clearly, assert p or assert not- p .

Stephen Schiffer (2000, 2003) suggests two more data:

Confidence A subject who is certain that it is vague whether p might be rationally confident that there is no “gap” between her epistemic situation and the facts of the matter about whether p .

Ambivalence A subject who is certain that it is vague whether p is likely to feel ambivalent about whether p .

Schiffer stipulates that Sally is an ideally rational thinker who is confident that her epistemic situation is ideal and who is certain that it is vague whether p . He says, “...for Sally, there is no gap between her partial belief in p and her evidence for it; she’s *ambivalent*, but she’s not *uncertain* about anything. For her, all the relevant facts are completely available to her; nothing more of relevance could possibly come to light.” (2000, p. 225.) Of course, the proponent of vagueness-as-ignorance will deny that **Confidence** is a datum; but that, according to Schiffer, is a reason to doubt vagueness-as-ignorance, not a reason to

doubt that **Confidence** is a datum. Mark Sainsbury (1986) and Hartry Field (forthcoming (a)) evidently share the view that **Confidence** and **Ambivalence** are data.

For present purposes, I will assume that **Silence**, **Confidence**, and **Ambivalence** are data. My case for **Vague Belief** does not however rest on this assumption. I make the assumption only to show that *if* **Silence**, **Confidence**, and **Ambivalence** are genuine data, *then* **Vague Belief** and **Vague Intuition** can explain the data.

Silence, **Confidence**, and **Ambivalence**, are jointly puzzling. For why would someone who is confident that there is no gap between her epistemic situation and the facts of the matter about whether p feel ambivalent about whether p ? And why, if one knows all there is to know about whether p , would one refuse to assert p and refuse to assert not- p ? The two standard views of vagueness—vagueness-as-ignorance and vagueness-as-indeterminacy—have difficulties explaining this trio of data.

First consider vagueness-as-ignorance. It suggests that if you are certain that it is vague whether p , you should take yourself to be *ignorant* of whether p . This would explain **Silence**. For if you take yourself to be ignorant of whether p , you will not assert p or assert not- p (with sincere and literal intent). It would fail, however, to explain the other two data.

That it would fail to explain **Confidence** is obvious. For if you take yourself to be ignorant of whether p , then you must accept that there *is* a gap between your evidential situation and a fact of the matter about whether p . Of course, the proponent of vagueness-as-ignorance will maintain that this is just the attitude one should have toward an apparently vague question. But, for present purposes, we are assuming that **Confidence** is a datum, and vagueness-as-ignorance cannot accommodate this datum.

Next consider **Ambivalence**. Suppose that Harry appears to you to be a clear borderline case of baldness. You are likely to feel *ambivalent* about whether Harry is bald: you are likely to feel a slight tug in both directions. But not according to vagueness-as-ignorance. For either your stance toward the issue of whether Harry is bald should be just like your stance toward the issue of whether this fair coin will land heads, in which case there is no reason to expect you to feel a tug in either direction. Or your stance should involve some asymmetry in degrees of confidence toward the candidate answers—say, .6 degree

of confidence that Harry is bald and .4 degree of confidence that Harry is not bald—in which case at most you would feel a tug in one direction. Either way, there is no reason to expect you to feel a tug in *both* directions. This is not to say that vagueness-as-ignorance is incompatible with **Ambivalence**, only that it does not by itself explain it.

Now, why would a thinker who is highly confident that she knows all there is to know about a question refuse to pronounce on it? Assuming that she has no desire to withhold information, the best explanation might seem to be that she is committed to the idea that there is no answer to the question, and that she therefore has little or no confidence *both* in the considered proposition *and* in its negation.

This is the explanation that is suggested by vagueness-as-indeterminacy. For, to say that a question is indeterminate is to say that it has no answer, and however confident one is in a candidate answer to a question, one should be at least as confident that the question *has* an answer. So, if one is certain that a question has no answer, one should have absolutely no confidence in any of the candidate answers to the question. To accommodate questions without answers, Hartry Field (2000, 2003, 2004) develops a non-standard calculus of rational degrees of confidence, according to which one's degrees of confidence in p and in $\text{not-}p$ may sum to less than one. What must sum to one are three quantities: one's degree of confidence in p , one's degree of confidence in $\text{not-}p$, and one's degree of confidence that it is indeterminate whether p . However confident one is that a question lacks an answer, one has that much less confidence to distribute among the candidate answers to the question. Field holds that we should treat vague questions as indeterminate, and that to treat a question of whether p as potentially indeterminate is to have degrees of confidence in p and in $\text{not-}p$ that add to less than one.

To get a better feel for the view, consider the following artificial example (which I adapt from Fine 1975). Suppose that we introduce the natural number predicate 'nice*' as follows:

- (a) n is nice* if_{df} $n > 15$;
- (b) n is not nice* if_{df} $n < 15$.

Given that (a) and (b) exhaust the meaning-fixing facts about ‘nice*’, there would seem to be no answer to the question whether 15 is nice*. If one is highly confident that there is no answer, one might naturally have close to zero degree of confidence both in the proposition that 15 is nice* and in the proposition that 15 is not nice*.

On the present proposal, if you are certain that it is vague whether p , you should treat the question of whether p just as you might naturally treat the question of whether 15 is nice*: as a question without an answer. Thus, you should have zero degree of confidence in p and zero degree of confidence in not- p .

This would explain **Silence**. For if you have zero confidence both in p and in not- p , you will not believe either proposition, and you will therefore not sincerely assert either proposition.

It would also explain **Confidence**. A rational thinker who takes both p and not- p to be 0% likely is highly confident that there is no gap between her epistemic situation and the facts of the matter whether p , for she is highly confident that *there is no fact of the matter*.

It would not however explain **Ambivalence**. Our stance toward the question of whether Harry is bald seems rightly distinguished from our stance toward the question of whether a fair coin would land heads. But likening it to our stance toward the question of whether 15 is nice* does not help to explain our typical feelings of ambivalence. We do not feel ambivalent about whether 15 is nice*; we feel no tug in either direction. By contrast, we experience some feelings of attraction toward the view that Harry is bald, and some feelings of attraction toward the view that he is not bald. Perhaps the proposal explains the relevant data for a thinker who is confident that there is no answer to the question whether p , but it seems to come up short in the case of a thinker who is confident that it is *vague* whether p and thus *vague* what the answer is to the question whether p . This is not to say that the proposal is incompatible with **Ambivalence**, only that it does not by itself explain it.⁷

Schiffer (2000, 2003) agrees with Field that (i) for a thinker to treat a question of whether p as potentially indeterminate, her degrees of confidence in p and in not- p must add to less than one; (ii) we should treat vague questions as indeterminate; and (iii) to answer the rationality question is to give a

⁷ Schiffer (2003) makes the same point.

theory of vagueness. However, according to Schiffer, a *complete* answer to the rationality question—and a complete explanation of the trio of data—requires not just adjusting the laws of rational degrees of confidence, but also positing an entirely new “vagueness-related” propositional attitude.⁸ Schiffer claims that a rational thinker who is certain that it is vague whether p bears an intermediate degree of this new attitude—let us call it confidence*—toward both p and not- p . Sainsbury (1986) makes a similar suggestion; he says of degrees of confidence* that they “resemble epistemic degrees of belief in that they are related to strength of tendency to act. But they are unlike epistemic degrees in that they represent no ignorance” (p.99). Schiffer and Sainsbury seem to suggest that the role of confidence* is to explain **Confidence**, **Silence**, and **Ambivalence**. However, as Field (forthcoming (a)) emphasizes, once it is accepted that a thinker who is certain that it is vague whether p should have zero confidence in p and zero confidence in not- p , the only datum that remains in need of explanation is **Ambivalence**, and so the only possible role for confidence* is to explain **Ambivalence**.⁹ Thus, if we can find an equally good explanation of **Ambivalence** that does without the addition of a brand new attitude, then, all other things equal, there is no need to posit confidence*.

I will now propose an explanation of **Silence**, **Confidence**, and **Ambivalence** that (i) does not require positing a wholly new attitude; (ii) does not incur any additional costs; (iii) is consistent with the argument from §1 for **Vague Belief**; and (iv) better explains **Ambivalence** than the Schiffer/Sainsbury proposal.

My answer to the rationality question comprises **Vague Belief** and **Vague Intuition**. On this view, if you are certain that it is clearly vague whether p , then it is vague whether you should believe p and it is vague whether you should believe not- p . Moreover, if it *seems* vague to you whether p , as it typically will if you are certain that it is clearly vague whether p , then it is vague whether it seems to you that p , and it is vague whether it seems to you that not- p . This answer affords an explanation of the trio of data.

⁸ For a helpful comparison of Field’s and Schiffer’s views, see Field, forthcoming (a).

⁹ Field (forthcoming (a)) suggests that **Ambivalence** might be explained by our ignorance of the contextually sensitive issues surrounding each case of apparent vagueness.

First consider **Silence**. In §2 we saw how attributing vagueness to the question of whether p is—without further analysis—sufficient to explain why a subject who is certain that it is vague whether p cannot rationally, sincerely, literally, and clearly assert p or assert not- p .

Next consider **Confidence**. A thinker who is highly confident that there is no gap between her evidential situation and whatever facts there might be about a certain matter cannot rationally have anything but very high or very low confidence in propositions about that matter. Vagueness-as-indeterminacy suggests that one who is certain that it is vague whether p should have very *low* confidence in p and in not- p . **Vague Belief** comports with a different explanation of **Confidence**: one who is certain that it is vague whether p should have very high confidence either in p or in not- p , and very low confidence in the other proposition, but it is *vague* which proposition one should have high confidence in and thus which one should have low confidence in.

The proposal is worth elaborating by analogy. Imagine that Ning is undergoing an operation to reattach one of her legs to her body. At the present stage of the procedure it is vague whether Ning's leg is attached to her body. The surgeon asks an attending student, "What is Ning's current weight?" Well prepared, the student knows that Ning's body weighs precisely 100 pounds without the leg, and that the leg weighs precisely 20 pounds. She offers the intuitive response: "It is vague what Ning weighs. Still, the only live candidates are 100 and 120 pounds. For we can *clearly* rule out all other candidates: clearly, Ning does not weigh 0 pounds, 1 pound, 2 pounds, or any other number of pounds besides 100 and 120. Moreover, although there is no weight such that Ning *clearly* weighs *it*, it is clear that Ning weighs *something*. Like I said, clearly she does not weigh 0 pounds; so clearly she is not weightless. So, Ning must weigh either 100 or 120 pounds, even though it is vague which." The attending student arrives at the natural view that the weight of the patient lies either at one extreme or another, but that it is vague which.

Likewise, on the current proposal, the rational degree of confidence to have toward p , if you are certain that it is vague whether p , lies either at one extreme or another, but it is vague which. Either way, you should be highly confident that there is no gap between your evidential situation and the facts of the matter as to whether p . The proposal thus explains **Confidence**.

As for **Ambivalence**, Schiffer and Sainsbury are right that it cannot be explained if we limit our attention to rational degrees of confidence. We must look to another attitude. But we do not need to posit a brand new attitude, confidence*. We already countenance an attitude that will do the job: intuition. There is a distinction between intuition, or intellectual *seeming*, and propositional confidence. Intuition is a distinctive intellectual episode that has a certain *feel* to it. There is something it is like to have the intuition that the watery stuff on Twin Earth is not water; that the Gettier subject does not have knowledge; and that Surgery Ning weighs something. Propositional confidence, by contrast, does not have a feel to it. To emphasize the distinction, note that it is possible to find a proposition intuitive without having much confidence in it, as in the case of the naïve comprehension axiom of set theory;¹⁰ and it is possible to have a significant degree of confidence in a proposition without finding it intuitive, as in the case of many nontrivial mathematical theorems, such as that there is no largest prime number.

When we are certain that it is vague whether Harry is bald, our typical feelings of ambivalence about whether Harry is bald are constituted by our state of *intuition*. Typically, it will *seem* to us to be vague whether Harry is bald. By **Vague Intuition**, it will *sort of* seem to us that Harry is, and *sort of* seem to us that Harry is not, bald. In other words, we feel a slight tug in each direction; we feel ambivalent about whether Harry is bald.

This explanation of **Ambivalence** comports nicely with our explanation of **Confidence**. Imagine that you are certain that you fully possess the concept of baldness; you are certain of all the facts about Harry's comparison class; you are certain that you are not being misled about Harry's hair type and distribution; and so on. Your epistemic conditions are ideal, and you are certain of this. Under these conditions, you should completely trust your intuitions about whether Harry is bald:

- (12) Clearly, you should be highly confident that Harry is bald iff it seems to you that Harry is bald.
- (13) Clearly, you should be highly confident that Harry is not bald iff it seems to you that Harry is not bald.

¹⁰ I am indebted to George Bealer (1999), who in turn credits George Myro (in conversation) for this example.

Now suppose that it seems vague to you whether Harry is bald. Given **Vague Intuition**, the right-hand sides of (12) and (13) are vague. By an instance of VTB, the left-hand sides of are vague, which is just what our explanation of **Confidence** predicts.

An obvious reason that my explanation of **Ambivalence** is preferable to the Schiffer/Sainsbury explanation is that my explanation does not require positing a new propositional attitude. But there is a more subtle reason. My explanation predicts that it should be possible for a thinker to be certain that it is vague whether p without experiencing feelings of ambivalence. For my explanation is consistent with the possibility of a rational thinker who is certain that it is vague whether p even though the thinker has no intuition that it is vague whether p . By contrast, on the Schiffer/Sainsbury view, one who is certain that it is vague whether p is rationally required to bear an intermediate degree of confidence* toward both p and not- p , and confidence* by nature gives rise to feelings of ambivalence. So, on the Schiffer/Sainsbury view, it is impossible for a rational thinker to be certain that it is vague whether p without experiencing feelings of ambivalence.

But consider the following example. You are a contestant on a game show and the host asks you, Is Julliard sportnick? All that you know about being sportnick (a hypothetical concept) is that it has something to do with the history of a musical institution. Fortunately, you are allowed to consult a friend of your choice, and you have a friend with expertise in the history of musical institutions. You call your friend and ask whether Julliard is sportnick. Your trustworthy friend replies, “It seems to me to be *vague* whether Julliard is sportnick.” Based on this testimony, and only on this testimony, you become highly confident that it is vague whether Julliard is sportnick—even though you have almost no understanding of what it is to be sportnick. In this situation, do you experience feelings of ambivalence? I suspect that you do not: you feel no tug in either direction. And yet you are confident that it is vague whether Julliard is sportnick. Intuitively, then, it is possible to be confident that it is vague whether p without experiencing feelings of ambivalence.

Why do you not feel ambivalent about whether Julliard is sportnick? My proposal has an answer: your poor grasp of the concept of being sportnick prevents you from having *intuitions* on the matter. You

do not *sort of* find it intuitive that Julliard is, and *sort of* find it intuitive that it is not, sportnick. Rather, you clearly lack any intuition on the matter, for you do not possess the concept of being sportnick to a great enough degree to have intuitions on the matter. Your application of the concept is based on testimony, not intuition. The reason that we typically feel ambivalent about apparently vague issues is that we typically exercise our faculty of intuition when judging such issues.

On the Schiffer/Sainsbury proposal, you *would* feel ambivalent about whether Julliard is sportnick. For, by virtue of being confident that it is vague whether Julliard is sportnick, you would be confident* to an intermediate degree both that Julliard is, and that it is not, sportnick. And because intermediate degrees of confidence* by nature give rise to feelings of ambivalence, you would feel ambivalent about whether Julliard is sportnick. But, intuitively, you would not feel any such ambivalence. Hence, we have a second reason to prefer my explanation of **Ambivalence** over the Schiffer/Sainsbury explanation.¹¹

I conclude that an answer to the rationality question comprising **Vague Intuition** and **Vague Belief** provides for a better explanation of **Silence**, **Confidence**, and **Ambivalence** than those currently available to proponents of vagueness-as-ignorance or vagueness-as-indeterminacy.

4. Conclusion

You are certain that it is clearly vague whether Harry is bald. How confident should you be that Harry is bald, and how confident should you be that Harry is not bald? More generally, what is the rational stance to take toward an apparently vague issue? This is the rationality question. The two standard theories of vagueness—vagueness-as-indeterminacy and vagueness-as-ignorance—suggest conflicting answers to the rationality question. They agree, however, that one who is certain that it is clearly vague whether p clearly should not believe p and clearly should not believe not- p . In other words, they agree on **No Belief**. I reject **No Belief** in favor of a rival principle, **Vague Belief**: if you are certain that it is clearly vague whether p , then it is vague whether you should believe p and vague whether you should believe not- p .

¹¹ For further reasons to doubt the existence of confidence*, see Author #2 and Field, forthcoming (a).

In §1 I gave an argument for **Vague Belief**. In §2 I proposed a speculative explanation of the initial appeal of **No Belief** (and a host of related principles). In §3 I showed how, together with **Vague Intuition**, **Vague Belief** explains a recalcitrant trio of data. If my argument for **Vague Belief** is sound, then we need to consider alternatives to vagueness-as-ignorance and vagueness-as-indeterminacy. On the alternative that I propose and defend elsewhere (Author #1), vagueness is *sui generis*.¹²

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