

IS VAGUENESS SUI GENERIS?¹

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On the dominant view of vagueness, if it is vague whether Harry is bald, then it is unsettled, not merely epistemically, but metaphysically, whether Harry is bald. In other words, vagueness is a type of indeterminacy. On the standard alternative, vagueness is a type of ignorance: if it is vague whether Harry is bald, then even though it is metaphysically settled whether Harry is bald, we cannot know whether Harry is bald. On my view, vagueness is neither a type of indeterminacy nor a type of ignorance. Rather, it is *sui generis*.

Where exactly does your chin meet your cheek?

On first consideration, you are likely to conclude that there is no answer to the question. It is vague where your chin meets your cheek, and many find it initially intuitive that vague questions lack answers.

This intuition motivates a familiar view of vagueness. According to *vagueness-as-indeterminacy*, a question is vague only if it is unsettled, not merely epistemically, but metaphysically. On this view, if it is vague how many clouds exist, then for no number n is it metaphysically settled that there are n clouds; the distribution of water droplets in the sky might settle that there are some clouds, but not how many. 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 the distribution of water

¹ For helpful comments and discussion, I am grateful to Yuval Avnur, Hartry Field, Kit Fine, Chris Heathwood, Stephen Schiffer and, in a special measure, Adam Pautz. Thanks also to two referees for this journal.

droplets fails to settle how many clouds there are is that our linguistic practices fail, in the first place, to settle which question is the question of how many clouds there are.

The standard alternative to vagueness-as-indeterminacy is *vagueness-as-ignorance*, according to which a question is vague only if it is epistemically, but not metaphysically, unsettled. On this view, if it is vague how many clouds exist, then even though it is metaphysically settled, of some number n , that there are n clouds, we do not know what that number is. This view is motivated not by intuition but by problems with the first view. If vague questions are metaphysically settled, and if we do not know their answers, then contrary to intuition we are *ignorant* of their answers.

On my own view, vagueness is neither a species of indeterminacy nor an epistemic phenomenon. What is it then? We can only say in terms of closely related concepts, which in turn can only be explained in terms of one another. That is, 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 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.

While I cannot in this paper show decisively that vagueness is *sui generis*, I hope to establish that the view is a credible alternative to its reductionist rivals. Reductionism faces well-known challenges (§1). Vagueness-as-*sui-generis* is the intuitive view (§2). Moreover, it can play the central theoretical

roles played by its reductionist rivals: it provides for a solution to the Sorites Paradox, and it accounts for the source of vagueness (§3).²

1. Reductionism faces well-known challenges

There are two sorts of established doubts about vagueness-as-indeterminacy. First there are doubts about its capacity to explain certain vagueness-related phenomena, such as higher-order vagueness [Williamson 1994: Chapters 4 and 5; Eklund 2005]. Second there are doubts about the very possibility of indeterminacy.

Doubts of the second sort appear more serious to me. It appears remarkably easy, expanding on arguments by Paul Horwich [1990] and Timothy Williamson [1994], to reduce an arbitrary ascription of indeterminacy to absurdity. Suppose, for reductio, that it is indeterminate—that is, metaphysically unsettled—whether Harry is bald. Because it is metaphysically unsettled whether Harry is bald only if it is not metaphysically settled that Harry is bald and not metaphysically settled that Harry is not bald, it is not metaphysically settled that Harry is bald and not metaphysically settled that Harry is not bald. Because it is true that Harry is bald only if it is metaphysically settled that he is bald, and because it is true that Harry is not bald only if it is metaphysically settled that he is not bald, it is not true that Harry is bald and not true that Harry is not bald. Because Harry is bald only if it is true that he is bald, and because Harry is not bald only if it is true that he is not bald, Harry is not bald and Harry is not not bald. This is a

² How does the recent debate over what distinguishes vague words from non-vague words [Greenough 2003; Eklund 2005; Smith 2005; Weatherson unpublished ms] relate to the debate among vagueness-as-sui-generis and its reductionist rivals over what vagueness *in general* consists in? The debate over the vagueness of words could be settled without settling the debate over the general nature of vagueness. We might settle which words are vague, and why they are vague, without settling which *questions* formulated in terms of those words are vague. For instance, we might settle that ‘bald’ is vague because, say, competency with ‘bald’ requires being disposed to find the premises, but not the conclusion, of a relevant Sorites argument initially appealing (Eklund [2005] suggests something along these lines). And yet we might still lack an answer to the question of what it is for it to be vague whether a given person is bald. To answer this question, we need to know, not just that ‘bald’ is vague, but what its range of vagueness is, that is, under what conditions there is vagueness as to whether ‘bald’ applies. To be sure, specific moves in the debate over the vagueness of words do bear on the present debate; I will consider some in the course of our discussion.

contradiction. Hence, our supposition is false. Moreover, because the question of whether Harry is bald was chosen arbitrarily, the argument generalizes: indeterminacy is impossible.³

Motivated in part by anti-indeterminacy arguments like this one, some reject vagueness-as-indeterminacy in favour of vagueness-as-ignorance [Sorensen 1988, 2001; Williamson 1994]. They maintain that, even though vague questions are metaphysically settled, nobody knows their answers. These theorists need to explain (i) why vagueness does not seem to be an epistemic phenomenon; (ii) why ordinary concepts, such as that of being bald, seem shallow and transparent, not rich and elusive; (iii) how the semantic facts are determined by our use of language (where use may include relations to the environment); and (iv) what prevents us from knowing the answers to vague questions.⁴

Doubtful of the prospects of achieving these tasks, many prefer to reject anti-indeterminacy arguments rather than to give up on the idea that vagueness is a type of indeterminacy. One reason vagueness receives so much attention is that rejecting anti-indeterminacy arguments appears to require rejecting one or more platitudes about indeterminacy, truth, or logic. To reject my variant of Williamson's argument, for instance, one must reject one or more of (a) – (c):

- (a) It is true that *S* only if it is metaphysically settled that *S*.

³ My argument has a slight advantage over Horwich's and Williamson's. Horwich [1990: 76] and Williamson [1994: 187-95] argue for bivalence. But, as Williamson acknowledges, the proponent of indeterminacy can accept bivalence by identifying a natural non-epistemic interpretation of 'determinately' according to which, possibly, some utterance is true or false but not determinately true or determinately false. Unable to find such an interpretation, Williamson concludes that indeterminacy is impossible. But Cargile [1969], Campbell [1974], Burgess [1990], Horwich [1990], McGee and McLaughlin [1995], and Field [2000] all at least implicitly suggest such an interpretation: *x* is *determinately* F iff_{df} it is metaphysically settled that *x* is F. Burgess, who attributes his view to Campbell, endorses bivalence but maintains that "...the uncertainty we feel in attempting to locate the point of division is not mere epistemic uncertainty but semantic uncertainty. The point *cannot be thought of as supernaturally determined*, for then [the predicate] would have to be admitted to be precise" [1990: 423; italics are mine]. Horwich endorses bivalence but claims that indeterminacy nonetheless arises due to gaps in the rules governing the use of language: the rules fail to *settle* whether the expressions apply in certain conditions. McGee and McLaughlin endorse bivalence but claim for instance that "the total history of the world, past, present, and future, does not [settle] the question 'Who was the wealthiest poor person in the world on June 15, 1994?'" [1995: 19]. Field endorses bivalence but, in arguing for instance that it is indeterminate to which relation the pre-Newtonian expression 'heavier than' referred, claims, "... there is little in the pre-Newtonian use of the term that could have *settled* the matter" [2000: 1; italics are mine]. This interpretation of 'determinately' allows proponents of indeterminacy to escape Williamson's argument. The argument I offer in the text is designed to block this escape.

⁴ Williamson [1994] and Sorensen [2001] offer distinct accounts of what allegedly separates vague questions from other sorts of factual but unknowable questions. Sorensen [2001] addresses the further burden of explaining why vague questions *seem* so different from most factual questions whose answers are admittedly unknowable. For discussion of the burden, see Field [2000].

- (b) S only if it is true that S .
- (c) Modus ponens, conditional contraposition, and reductio ad absurdum are valid rules of inference.

Which of (a) – (c) the proponent of indeterminacy rejects will likely depend on her stance regarding the Law of Excluded Middle (LEM), even though the argument itself never employs the law. If she accepts LEM and Bivalence, she is likely to reject (a) [Cargile 1969; Campbell 1974; Burgess 1990; Horwich 1990; McGee and McLaughlin 1995; Field 2000]. If she accepts LEM but rejects Bivalence, she is likely to reject (b) [Mehlberg 1958; Przelecki 1969; Lewis 1970; Kamp 1975; Fine 1975; Pelletier and Stainton 2003; Horwich 2005]. If she rejects LEM by admitting counterinstances, she is likely to reject (c).⁵ And if she rejects LEM but admits no counterinstances, she is likely to reject either (a) or (b), possibly in combination with (c) [Halldén 1949; Körner 1960; Zadeh 1965; Putnam 1983; Tye 1994; Wright 2001; Field 2003, forthcoming (a); Smith 2005]. However the proponent of indeterminacy responds, one or more platitudes about indeterminacy, truth, or logic will inevitably be abandoned.⁶

These are some of the well-known challenges that face reductionism.

2. Vagueness-as-sui-generis is the intuitive view

In this section I give some intuitive considerations for preferring vagueness-as-sui-generis to reductionism. In the next section I try to show that vagueness-as-sui-generis can play the central theoretical roles of its reductionist rivals. My overall aim is not to decisively overthrow reductionism, but only to give some initial considerations for preferring vagueness-as-sui-generis.

⁵ The proponent of this view can allow that counterinstances to LEM lead to contradiction, but appeal to a paraconsistent logic [Priest 1998] to block the inference from a contradiction to every proposition and, on this basis, to invalidate reductio ad absurdum. Or she can deny that counterinstances to LEM lead to contradiction, by rejecting the rule by which an instance of “ $\sim S$ and $\sim\sim S$ ” is derived from an instance of “ $\sim(S$ or $\sim S)$.” Going this latter route would not however block the anti-indeterminacy argument in the text, for it never invokes the rule.

⁶ Schiffer [2000] argues that it is indeterminate whether LEM and Bivalence hold and thus indeterminate which of the candidate platitudes must be rejected. Eklund [2005] defends LEM but remains neutral on Bivalence.

To show that vagueness-as-sui-generis is more intuitive than its reductionist rivals—vagueness-as-indeterminacy (§2.1) and vagueness-as-ignorance (§2.2)—I aim (i) to undermine one type of intuitive motivation for reductionism; (ii) to show that reductionism leads to counterintuitive characterizations of cases of vagueness; and (iii) to show that vagueness-as-sui-generis leads to more intuitive characterizations.

2.1 Vagueness-as-sui-generis is more intuitive than vagueness-as-indeterminacy

One motivation for vagueness-as-indeterminacy derives from a family of initial intuitions about particular instances of vagueness. Supposing for example that it is vague whether Harry is bald, many have the following three initial intuitions: first, that Harry is neither bald nor not bald (professional philosophers tend immediately to resist this intuition, for it constitutes a contradiction); second, that it is neither true nor false that Harry is bald; and third, that it is neither metaphysically settled that Harry is bald nor metaphysically settled that Harry is not bald.

To see that each of these three intuitions entails that it is indeterminate whether Harry is bald, suppose that it is not indeterminate whether Harry is bald. Then it is metaphysically settled whether Harry is bald. Because it is metaphysically settled whether Harry is bald only if it is metaphysically settled either that Harry is bald or that Harry is not bald, the third intuition is false. Because it is metaphysically settled either that Harry is bald or that Harry is not bald only if it is either true or false that Harry is bald, the second intuition is false. And because it is true or false that Harry is bald only if Harry is either bald or not bald, the first intuition is false. Hence, if one of the three intuitions is true, it is indeterminate whether Harry is bald.

There appears to be a link between the three intuitions, on the one hand, and the historical progression of attempts to formulate an acceptable version of vagueness-as-indeterminacy, on the other. Early attempts to formulate the view can be seen as motivated by a respect for all three intuitions. Some degree of respect for the first intuition led to the weak rejection of LEM (we should not assert that Harry is bald or not bald); full respect for the second intuition led to the strong rejection of Bivalence (it is

neither true nor false that Harry is bald); and full respect for the third intuition led to the defining thesis of vagueness-as-indeterminacy: that vague questions are metaphysically unsettled (it is not settled that Harry is bald and not settled that he is not bald) [Halldén 1949; Körner 1960]. Then, in light of problems with rejecting LEM, many proponents of vagueness-as-indeterminacy completely gave up on respecting the first intuition; they came to accept LEM, while continuing to reject Bivalence and hold that vague questions are metaphysically unsettled [Mehlberg 1958; Przelecki 1969; Lewis 1970; Kamp 1975; Fine 1975]. More recently, problems both with rejecting LEM and with rejecting Bivalence have motivated some proponents of vagueness-as-indeterminacy to give up on respecting either of the first two intuitions: they accept both LEM and Bivalence, yet they continue to reject “Determination”—the principle that every meaningful question is metaphysically settled [Cargile 1969; Campbell 1974; Burgess 1990; Horwich 1990; McGee and McLaughlin 1995; Field 2000]. On this view, even though it is metaphysically settled neither that Harry is bald nor that he is not bald, Harry is either bald or not bald, and it is either true or false that he is bald. Proponents of vagueness-as-indeterminacy have been pushed to the edge. They cannot retreat any further, for to deny that vagueness threatens Determination would be to give up on the defining thesis of the view. Yet, as we saw in the opening anti-indeterminacy argument, rejecting Determination leads to serious problems of its own.

My aim in this subsection is this threefold. First, I aim to undermine one type of intuitive motivation for vagueness-as-indeterminacy, by showing how all three of the preceding intuitions might be based on a tempting, and—I suspect—pervasive, fallacy. There may of course be other intuitive motivations for vagueness-as-indeterminacy that are untouched by my considerations. I focus on this particular motivation because the fallacy that underlies it might be preventing theorists from seeing that vagueness-as-sui-generis is a live option in the first place. Second, I aim to show that each of the corresponding three routes to vagueness-as-indeterminacy—rejecting LEM, rejecting Bivalence, and rejecting Determination—leads to counterintuitive characterizations of cases of vagueness, and thus that all versions of vagueness-as-indeterminacy have counterintuitive results. Third, for each of the three

routes, I aim to show that vagueness-as-sui-generis provides a more intuitive characterization of cases of vagueness.

To prevent theory from influencing my discussion, I will use ‘clearly’ in the following neutral way: x is *clearly* F iff (a) x is F and (b) it is not vague whether x is F. Thus, to say that Harry is clearly bald is just to say that he is bald and it is not vague whether he is bald.

2.1.1 The first route to vagueness-as-indeterminacy: rejecting LEM

The first of the three intuitions—that Harry is neither bald nor not bald—entails the strong rejection of LEM, for it entails the following counterinstance: it is not the case that Harry is bald or not bald. It also constitutes a contradiction. Still it merits discussion: first, because by diagnosing the fallacy that is plausibly responsible for it, we will position ourselves to identify further instances of the fallacy; and second, because it motivates many to *weakly* reject LEM. As noted, I aim to show (i) that the intuition behind the rejection of LEM plausibly rests on a certain fallacy; (ii) that rejecting LEM leads to a counterintuitive characterization of cases of vagueness; and (iii) that vagueness-as-sui-generis leads to a more intuitive characterization.

To see the fallacy, consider a plausible source of the intuition. Upon supposing that it is vague whether Harry is bald, we make the valid inference that, as sincere speakers, we should not say that Harry is bald and we should not say that Harry is not bald. 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 Harry is either bald or not bald, we cannot know which he is; and, as sincere speakers, we aim to satisfy the following rule:

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

The metaphysical explanation is that Harry is neither bald nor not bald; and, as sincere speakers, we aim to satisfy the following rule:

(2) 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 Harry is neither bald nor not bald.

Where is the fallacy? (2) 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 not- p . But the explanation does not require that we *deny* the right-hand side of (2)—that is, that we deny p . Attributing vagueness to the question of whether p is—*without any further analysis*—sufficient to explain why we should not assert p and we should not assert not- p . As sincere speakers, we aim to *clearly* satisfy (2). In other words, we prefer a scenario in which (2) is clearly satisfied to one in which either (2) is clearly not satisfied or there is vagueness as to whether (2) is satisfied. Now, suppose that it is vague whether p . Then one who *clearly* asserts p has not *clearly* satisfied (2) (for, given a clear assertion of p , (2) is clearly satisfied only if p is clearly the case). So one should not clearly assert p . 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 behaviour 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—*without any further analysis*—sufficient to explain why we should not assert p . And the same reasoning explains why we should not assert not- p .⁷

So, applied to our example, because Harry is neither clearly bald nor clearly not bald, the only appropriate way to clearly satisfy (2) is to clearly refrain from asserting that Harry is bald and to clearly refrain from asserting that Harry is not bald. Thus, without denying that Harry is bald or that Harry is not

⁷ Dorr [2003] defines vagueness as to whether S in terms of the inappropriateness of asserting that S or that not- S . He takes vagueness to be a species of indeterminacy, and he defines indeterminacy as follows: a sentence is indeterminate iff the conventions of language either forbid asserting it and forbid asserting its negation, under the circumstances, or permit asserting either. By my lights, Dorr has it backwards: the fact that we should assert neither that S nor that not- S does not explain vagueness; rather, vagueness explains this fact.

bald, we have explained why we should not assert either proposition. To deny the propositions would, at the very least, be to complicate an already satisfactory explanation.

The fallacy here is an instance of what I suspect is a pervasive fallacy in reasoning about vague questions. I call it the *Clear Fallacy* because it involves a failure to distinguish the notion of *being clearly F* from that of *being F*. Whenever we take some question to be vague, there is a class of related propositions such that, as sincere speakers, we should not assert them. Let p be one of these propositions. The fallacy lies in taking the best explanation of the fact that we should not assert p to be that it is not the case that p , when in fact the best explanation is that it is not *clearly* the case that p . Below I show how the Clear Fallacy might underlie the entire trio of intuitions that help to motivate vagueness-as-indeterminacy, as well as some intuitions that help to motivate vagueness-as-ignorance.

This concludes my treatment of the intuition that Harry is neither bald nor not bald. I hope to have undermined its status as a motivation for vagueness-as-indeterminacy, by showing how it might plausibly rest on the Clear Fallacy. Next I want to show that rejecting LEM leads to a counterintuitive characterization of cases of vagueness, and that vagueness-as-sui-generis leads to a more intuitive characterization.

First consider the strong rejection of LEM. On this view, if it is vague whether Harry is bald, then Harry is not bald and Harry is not not bald. Suppose this view is *clearly* correct. Then, if it is *clearly* vague whether Harry is bald, Harry is *clearly* not bald and Harry is *clearly* not not bald. (For a defence of this inference, see note.⁸) Contradiction aside, this is counterintuitive. For it entails that it is not vague whether Harry is not bald. And if it is clearly vague whether Harry is bald, then, intuitively, it is clearly vague whether Harry is not bald. The strong rejection of LEM leads, then, to a counterintuitive characterization of cases of vagueness.

On vagueness-as-sui-generis, a characterization of cases of vagueness requires the language of vagueness: if it is vague whether Harry is bald, then Harry is neither clearly bald nor clearly not bald.

⁸ Suppose that, clearly, if p , then q . In other words, suppose that, clearly, p is a sufficient condition for q . Now suppose that it is clearly the case that p . Then what is clearly a sufficient condition for q clearly obtains. Hence, it is clearly the case that q .

This provides for an intuitive characterization of cases of vagueness. Suppose again that it is *clearly* vague whether Harry is bald. On vagueness-as-sui-generis, all that follows is the trivial: Harry is clearly neither clearly bald nor clearly not bald. Perhaps due to the Clear Fallacy, it is easy to misreport the sound intuition that Harry is neither clearly bald nor clearly not bald as the unsound intuition that Harry is neither bald nor not bald. But vagueness as to whether Harry is bald provides no reason to deny either that Harry is bald or that Harry is not bald. Indeed, as we saw in the preceding paragraph, it provides reason *not* to deny either proposition.⁹

So vagueness does not require strongly rejecting LEM. Might it require *weakly* rejecting LEM—that is, refusing to assert relevant instances? Here is a line of thought that it does. It is not clearly the case that Harry is bald, and it is not clearly the case that Harry is not bald. A disjunction is clearly the case only if one of its disjuncts is. Thus, it is not clearly the case that Harry is bald or not bald. Thus, as sincere speakers we should not clearly assert that Harry is bald or not bald. The only appropriate option is to clearly refrain from asserting it.

This line of thought is dubious. For the principle that a disjunction clearly holds only if one of its disjuncts clearly holds is dubious. A number of plausible counterexamples have been proposed [Fine 1975; McGee and McLaughlin 1995; Edgington 1996]. Here is another: As a result of an unfortunate accident, Ning is now on an operating table having one of her legs reattached to her body. At the present stage of the procedure, it is vague whether the leg qualifies as *attached* to the body. The surgeon asks an attending student, “What is the patient’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 natural response, “Clearly, the patient weighs something. The only two candidates are 100 and

⁹ Wright argues that *indeterminacy* as to whether p provides reason not to deny p or not- p . He says, “If it has not been settled whether or not x is F , that cannot amount to x ’s having a status inconsistent both with being F and with being not- F ; if it were, then matters would have been settled after all— x would be neither.” [1995: 139] But, intuitively, if it is not settled (metaphysically) that x is F , then it is not the case that x is F ; and if it is not settled (metaphysically) that x is not F , then it is not the case that x is not F . So, intuitively, *indeterminacy* as to whether p *does* provide reason to deny both p and not- p . This intuition helps drive our opening anti-indeterminacy argument. Perhaps Wright should have written, “If the notion of indeterminacy is not incoherent, as it initially appears to be, *then* indeterminacy as to whether p cannot amount to a status inconsistent both with p and with not- p .”

120 pounds. Hence, clearly she weighs either 100 or 120 pounds, even though it is vague which.” It is vague whether Ning weighs 100 pounds; it is vague whether she weighs 120 pounds; yet, intuitively, she clearly weighs either 100 or 120 pounds, for there clearly are no other options. Hence, we have a plausible counterexample to the principle that a disjunction is clearly the case only if one of its disjuncts is.

Moreover, we have at hand an even more convincing counterexample to the logically equivalent principle that an existential generalization is clearly the case only if one of its substitution instances is. Intuitively, Ning clearly weighs *something*. But there is no weight such that she clearly weighs *it*, for there is vagueness as to what she weighs. Thus, it is natural to deny the principle that an existential generalization is clearly the case only if one of its substitution instances is.

It is natural, then, to assert instances of LEM even where there is vagueness. The natural thing to say about Ning is that she either does or does not weigh 100 pounds, even though it is vague *which*. And the natural thing to say about Harry is that he either is or is not bald—those, after all, are the only two options—even though it is vague *which*.

It is at most a mild embarrassment to the proponent of weakly rejecting LEM that she cannot assert certain disjunctions, such as that Ning either weighs 100 or 120 pounds. Perhaps more embarrassing is that she cannot assert certain existential generalizations, such as that Ning weighs something. And perhaps more than a mere embarrassment is that she cannot assert certain obvious truths about the cutoffs of vague concepts, such as that it is vague where the cutoff for being rich is. She cannot assert this because the use of the definite description ‘the cutoff’ presupposes the existence of a unique cutoff. And she cannot even assert that there is a cutoff.

In defense of weakly rejecting LEM, Field [2003, forthcoming (b)] argues that once the existence of a cutoff and the relevant instances of LEM are admitted, it is impossible to explain why it seems misguided to *speculate* or to *hope* that the cutoff lies in some exact place.¹⁰ But perhaps vagueness in the

¹⁰ In a similar vein, Smith [2005] suggests that it would be misguided to *guess* where the cutoff lies.

location of the cutoff is—without further analysis—sufficient to explain why these attitudes seem misguided. To see what I have in mind, consider the following exchange:

- A: Where is the cutoff for being rich?
- B: It's *vague* where the cutoff is.
- A: You mean there's no cutoff?
- B: No. I mean that it's vague *where* the cutoff is. If there were no cutoff, it wouldn't be vague *where* the cutoff was.
- A: Are you suggesting that there's an amount of money such that being worth that amount fails to suffice for being rich, whereas being worth any greater amount suffices for being rich?
- B: Yes.
- A: That's crazy! You're suggesting that there is a sharp cutoff for being rich!
- B: Nope. That's not what I'm suggesting. The idea of a *sharp* cutoff is crazy. There is a cutoff, but it is not *sharp*: there is a tremendous amount of vagueness as to *where* the cutoff lies. Metaphorically, we say that boundary between what suffices and what fails to suffice for being rich is *blurry*: it has no *clear* location.
- A: You say that there is a cutoff. But wouldn't it be misguided to *speculate* or to *hope* that the cutoff is, say, \$1,045,009.01? And wouldn't it likewise be misguided to *bet* on where the cutoff is?
- B: Typically, it would be misguided. For at best there would be vagueness as to whether such speculation was accurate, whether such a hope was realized, and whether one has won the bet. Typically, when we speculate, hope, and bet, we aim for more than mere vagueness as to whether we succeed: we aim for *clear* success. Of course, if you're in a philosophical mood, and you're willing to settle for vagueness as to whether you've succeeded, then knock yourself out: speculate, hope, and bet away!

On vagueness-as-sui-generis, vagueness belongs to a category of its own. Thus, it has nothing essentially to do with determinacy. It is therefore not a threat to determinacy or the corresponding principles of logic and semantics. By employing only the language of vagueness, vagueness-as-sui-generis leads to an intuitive characterization of cases of vagueness, one that comports with LEM: if it is vague whether p , then either p or *not- p* , even though it is vague which.

This concludes my discussion of the first route to vagueness-as-indeterminacy: rejecting LEM. I have tried (i) to undermine an initial intuition in favour of this route, by showing how it plausibly rests on the Clear Fallacy; (ii) to show that rejecting LEM leads to a counterintuitive characterization of cases of vagueness; and (iii) to show that vagueness-as-sui-generis leads to a more intuitive characterization.

2.1.2 The second route to vagueness-as-indeterminacy: rejecting Bivalence

One who accepts LEM might be motivated by the second of the three intuitions—that it is neither true nor false that Harry is bald—to reject Bivalence and thus to accept vagueness-as-indeterminacy [Mehlberg 1958; Przelecki 1969; Lewis 1970; Kamp 1975; Fine 1975]. I aim to show (i) that this intuition plausibly rests on the Clear Fallacy; (ii) that rejecting Bivalence leads to a counterintuitive characterization of cases of vagueness; and (iii) that vagueness-as-sui-generis leads to a more intuitive characterization.

First I want to show how the intuition might rest on the Clear Fallacy. Upon supposing that it is vague whether Harry is bald, we make the valid inference that, as sincere speakers, we should not assert (3) or (4):

- (3) that it is true that Harry is bald
- (4) that it is false that Harry is bald.

We take the best explanation to centre on (2) (assert p only if p) and commit the Clear Fallacy by denying (3) and (4). The best explanation does centre on (2). But it does not require denying (3) or (4). It only requires attributing *vagueness* to (3) and (4). Because we aim to clearly satisfy (2), vagueness in (3) and (4) explains why we should not assert (3) or (4). And there is independent reason to think that (3) and (4) are vague, namely, the intuitive appeal of the relevant instances of Tarski's schema:

- (T) It is true that S iff S .

The following biconditional seems clearly true: it is true that Harry is bald iff Harry is bald. Given the clear truth of this instance of (T), vagueness as to whether Harry is bald entails vagueness as to whether it

is true that Harry is bald. So we have independent reason to think that (3) is vague. Given the corresponding schema about falsity, we have independent reason to think that (4) is vague. With the initial intuition that Harry is neither bald nor not bald defunct, there is no independent reason to *deny* (3) or (4). Thus, to explain why we should not assert (3) or (4), it is better to attribute vagueness to the two propositions than to deny them.

This concludes my treatment of the intuition that it is neither true nor false that Harry is bald. I hope to have undermined its status as a motivation for vagueness-as-indeterminacy, by showing how it might plausibly rest on the Clear Fallacy. Next I want to show that rejecting Bivalence leads to a counterintuitive characterization of cases of vagueness, and that vagueness-as-sui-generis leads to a more intuitive characterization.

First consider the strong rejection of Bivalence. Suppose that this view is *clearly* true. Then, if it is *clearly* vague whether Harry is bald, it is *clearly not true* that Harry is bald. This is counterintuitive. For what more could it take to make it true that Harry is bald than for him to be bald? If it is clearly vague whether he is bald, then the intuitive thing to say is that it is clearly vague whether it is *true* that he is bald. Likewise, what more could it take to make it false that Harry is bald than for him not to be bald? If it is clearly vague whether Harry is not bald, then the intuitive thing to say is that it is clearly vague whether it is *false* that he is bald.

So there is reason to doubt that vagueness strongly threatens Bivalence, by entailing counterexamples to it. Might it nevertheless weakly threaten it, by preventing us from justifiably asserting relevant instances? No. Once we see that vagueness does not even weakly threaten LEM, it is natural to deny that it weakly threatens Bivalence. For suppose that it is vague whether Harry is bald. By LEM, Harry is either bald or not bald, even though it is vague which. Intuitively, the truth of the claim that Harry is bald requires nothing more than for Harry to be bald, and its falsity requires nothing more than for Harry not to be bald. Thus, the intuitive thing to say is that it is either true or false that Harry is bald, even though it is vague which. So, intuitively, vagueness does not even weakly threaten Bivalence.

On vagueness-as-sui-generis, vagueness does not threaten determinacy or the corresponding principles of logic and semantics. By employing only the language of vagueness, vagueness-as-sui-generis leads to an intuitive characterization of cases of vagueness which comports with LEM, Tarski's schema, and Bivalence: if it is vague whether p , then either p or not- p , even though it is vague which; and it is either true or false that p , even though it is vague which.

This concludes my discussion of the second route to vagueness-as-indeterminacy: rejecting Bivalence. I have tried (i) to undermine an initial intuition in favour of this route, by showing how it plausibly rests on the Clear Fallacy; (ii) to show that rejecting Bivalence leads to a counterintuitive characterization of cases of vagueness; and (iii) to show that vagueness-as-sui-generis leads to a more intuitive characterization.

2.1.3 The third route to vagueness-as-indeterminacy: rejecting Determination

One who accepts LEM and Bivalence might nevertheless be motivated by the third intuition—that it is neither metaphysically settled that Harry is bald nor metaphysically settled that Harry is not bald—to reject Determination and thus accept vagueness-as-indeterminacy [Cargile 1969; Campbell 1974; Burgess 1990; Horwich 1990; McGee and McLaughlin 1995; Field 2000]. I aim to show (i) that the intuition plausibly rests on the Clear Fallacy; (ii) that rejecting Determination leads to a counterintuitive characterization of cases of vagueness; and (iii) that vagueness-as-sui-generis leads to a more natural characterization.

Upon supposing that it is vague whether Harry is bald, we make the valid inference that, as sincere speakers, we should not assert (5) or (6):

- (5) that it is metaphysically settled that Harry is bald
- (6) that it is metaphysically settled that Harry is not bald.

We take the best explanation to centre on (2) (assert p only if p) and commit the Clear Fallacy by denying (5) and (6). But the explanation does not require denying (5) or (6). It only requires attributing *vagueness*

to them. And there is independent reason to think that (5) and (6) are vague, namely, the intuitive appeal of the relevant instances of (MS):

(MS) It is metaphysically settled that S iff S .

The following biconditional seems clearly true: it is metaphysically settled that Harry is bald iff Harry is bald. Given the clear truth of this instance of (MS), vagueness as to whether Harry is bald entails vagueness as to whether it is metaphysically settled that Harry is bald; given the clear truth of the corresponding instance for (6), vagueness as to whether Harry is not bald entails vagueness as to whether it is metaphysically settled that Harry is not bald. So we have independent reason to think that (5) and (6) are vague. With the initial intuition that Harry is neither bald nor not bald defunct, there is no independent reason to *deny* (5) or (6). Thus, to explain why we should not assert (5) or (6), it is better to attribute vagueness to the two propositions than to deny them.

By showing that the intuition that it is metaphysically settled neither that Harry is bald nor that Harry is not bald plausibly rests on the Clear Fallacy, I hope to have undermined its status as a motivation for accepting vagueness-as-indeterminacy. Next I want to show that rejecting Determination leads to a counterintuitive characterization of cases of vagueness, and that vagueness-as-sui-generis leads to a more natural characterization.

Suppose that vagueness *clearly* threatens Determination. Then, if it is *clearly* vague whether Harry is bald, all the specific facts about the distribution of hair on Harry's head, together with all the facts about Harry's comparison class, together with all the facts about our community-wide use of the word 'bald', *clearly do not* settle that Harry is bald. This seems wrong. Do the more basic facts on which the application of the concept of baldness supervenes suffice to make it the case that Harry is bald? This is just what is *vague*: it is vague whether these more basic facts *settle* that Harry is bald. And it is vague whether they *settle* that he is not bald. After all, what more could it take to metaphysically settle that Harry is bald than for him to be bald, and what more could it take to metaphysically settle that Harry is not bald than for him not to be bald? If it is clearly vague whether he is bald and clearly vague whether he

is not bald, then the intuitive thing to say is that it is clearly vague whether it is *metaphysically settled* that he is bald and clearly vague whether it is *metaphysically settled* that he is not bald.

This point bears directly on a common argument for vagueness-as-indeterminacy:

Premise 1 Only our use of vague words (where ‘use’ is construed broadly, to include relations to the environment) could settle where their cutoffs are.

Premise 2 Our use of vague words does not settle where their cutoffs are.

Conclusion It is unsettled (metaphysically) where the cutoffs for our vague words are.

To see that Premise 2 leads to a counterintuitive characterization of cases of vagueness, suppose that it is clearly true. Then our use of ‘bald’ *clearly* does not settle that ‘bald’ applies to people with Harry’s hair condition. But this seems wrong. Naturally we want to say that it is *vague* whether our use of ‘bald’ settles that ‘bald’ applies to people with Harry’s hair condition. To be sure, something very close to Premise 2 is clearly true: our use of vague words does not *clearly* settle where their cutoffs are. But this variant of Premise 2 does not support vagueness-as-indeterminacy. And once it is seen that this variant of Premise 2 is an available surrogate for Premise 2, the initial appeal of Premise 2 is diminished.

Moreover, Premise 2 is plausibly motivated in the first place by an instance of the Clear Fallacy. Upon supposing that it is vague whether Harry is bald, we make the valid inference that, as sincere speakers, we should not assert (7) or (8):

(7) that our use of ‘bald’ settles that ‘bald’ applies to people with Harry’s hair condition.

(8) that our use of ‘bald’ settles that ‘bald’ does not apply to people with Harry’s hair condition.

We take the best explanation to centre on (2) (assert *p* only if *p*) and commit the Clear Fallacy by denying (7) and (8). But the explanation does not require denying (7) or (8). It only requires attributing *vagueness* to them.

Returning to the general view that vague questions are metaphysically unsettled, I now want to show that it leads to a counterintuitive characterization of the *phenomenology* of vagueness. Suppose that

the view is *clearly* correct. Then, if it is clearly vague whether Harry is bald, the more basic facts *clearly* do not settle that Harry is bald and *clearly* do not settle that Harry is not bald. How, on this view, should we expect things to *seem* to us regarding the question of whether Harry is bald?

For an answer to this question, let us consider how things seem to us regarding a non-vagueness-related case of apparent indeterminacy. Following Fine (1975), let us introduce the predicate ‘nice*’ by uttering only two sentences:

(9) n is nice* if $n > 15$;

(10) n is not nice* if $n < 15$ (for natural numbers n).¹¹

At least initially, it seems clear that it is not metaphysically settled that 15 is nice* and that it is not metaphysically settled that 15 is not nice*. At the same time, there is a *clear absence* of two corresponding intuitions: it clearly does not seem that 15 is nice*, and it clearly does not seem that 15 is not nice*. This is because, as competent users of ‘nice*’, we hold that our stipulated use of ‘nice*’ *clearly does not* settle that ‘nice*’ applies to 15 and *clearly does not* settle that ‘nice*’ does not apply to 15. More generally, we should expect clear cases of indeterminacy to present as clear absences of intuitions.

So, if our natural use of ‘bald’, together with the more basic facts about Harry’s hair distribution, were to *clearly* fail to settle that Harry is bald and *clearly* fail to settle that Harry is not bald, then competent users of ‘bald’ with complete knowledge of Harry’s hair distribution should be expected to *clearly lack* the intuition that Harry was bald and *clearly lack* the intuition that Harry was not bald. In other words, if vagueness were a type of indeterminacy, then the phenomenology of vagueness would be the same as that of indeterminacy: vagueness would present as an *absence* of intuition. But vagueness does not present as an absence of intuition. Competent users of ‘bald’ do not clearly lack either intuition.

¹¹ Greenough [2003] and Eklund [2005] use this example to show that some instances of indeterminacy are not instances of vagueness and thus that proponents of vagueness-as-indeterminacy must take vagueness to be a *species* of indeterminacy, and not identical to indeterminacy. I will be using the example to make a very different point, namely, that the phenomenology of indeterminacy is different from that of vagueness, and so vagueness cannot even be treated as species of indeterminacy. (For discussion of whether the example genuinely gives rise to indeterminacy, see my [forthcoming].)

To a competent user of ‘bald’, it *sort of seems* that Harry is bald and it *sort of seems* that Harry is not bald. That is to say, it is *vague* whether it seems that Harry is bald and *vague* whether it seems that Harry is not bald.

For emphasis, consider a borderline case of ‘seems bald’. Suppose that it *sort of seems* to you that Harry is bald. Now I ask: does it seem to you that it seems to you that Harry is bald? Your candidate answers are as follows:

- (i) clearly so
- (ii) clearly not
- (iii) sort of.

(iii) is the obvious answer. Unlike indeterminacy, vagueness presents as *vagueness* in intuition, not as an *absence* of intuition.

Indeed, on the not implausible supposition that meanings of predicates like ‘bald’ depend on community-wide dispositions to have intuitions about candidate application-conditions, if it is vague whether such a condition suffices for the application of the predicate, it is reasonable to expect vagueness as to whether, upon consideration, the condition would *seem* to us to suffice for the application of the predicate. Thus, the view that vague questions are metaphysically unsettled leads to a counterintuitive characterization of the phenomenology of vagueness: the view predicts that vagueness should present as an *absence* of intuition, but intuitively vagueness presents as *vagueness* in intuition.

On vagueness-as-sui-generis, vagueness does not threaten determinacy or the corresponding principles of logic and semantics. By employing only the language of vagueness, vagueness-as-sui-generis leads to an intuitive characterization of cases of vagueness, one that comports with LEM, Tarski’s schema, Bivalence, the MS-schema, and *Determination*: if it is vague whether p , then either p or not- p , even though it is vague which; it is either true or false that p , even though it is vague which; and it is metaphysically settled either that p or that not- p , even though it is vague which. On vagueness-as-sui-generis, vagueness pervades the basic structure of our descriptive practices *without* threatening it.

2.2 Vagueness-as-sui-generis is more intuitive than vagueness-as-ignorance

Initially vagueness does not seem to be an epistemic phenomenon. Vagueness as to whether Harry is bald does not seem to depend on anyone's ability to determine whether Harry is bald, but only on more basic facts about Harry's hair distribution, together with facts about the concept of baldness. Likewise, vagueness in the basic application conditions of the concept of baldness seems to have nothing to do with anyone's ability to discover these conditions and everything to do with the nature of the concept. When it comes to a concept as mundane as baldness, nothing seems hidden; what you see, it would seem, is what you get.

Is there, then, any intuitive motivation for vagueness-as-ignorance? Yes, but only in light of the rejection of vagueness-as-indeterminacy. Supposing that it is metaphysically settled, and thus true, either that Harry is bald or that he is not bald, even though it is vague which, there seems to be a hidden fact of the matter whether Harry is bald, for we have the following initial intuition:

Excluded Knowledge that we cannot know that Harry is bald and we cannot know that Harry is not bald.

I aim (i) to undermine the intuition behind *Excluded Knowledge*, by showing that it rests on the Clear Fallacy; (ii) to show that *Excluded Knowledge* leads, anyway, to a counterintuitive characterization of cases of vagueness; and (iii) to show that vagueness-as-sui-generis leads to a more natural characterization.¹² (Note that the proponent of vagueness-as-indeterminacy is also likely to endorse *Excluded Knowledge*. How, after all, could we know the answer to a question that is metaphysically unsettled? So, at least initially, reasons to doubt *Excluded Knowledge* are reasons to doubt both vagueness-as-ignorance and vagueness-as-indeterminacy.)

¹² I first challenged *Excluded Knowledge* with an alleged counterexample during a talk at NYU in 2001; I develop this challenge further in, "Does Vagueness Exclude Knowledge?" [unpublished ms]. For independent challenges to the principle, see Wright 2001 and Dorr 2003, both of which include defenses of vagueness-as-indeterminacy without *Excluded Knowledge*. Wright refuses to accept *Excluded Knowledge*; Dorr positively rejects it.

On the supposition that it is vague whether Harry is bald, we make the valid inference that, as sincere speakers, we should not assert (11) or (12):

- (11) that we can know that Harry is bald
- (12) that we can know that Harry is not bald.

We take the best explanation of this fact to centre on (2) (assert p only if p). We then commit the Clear Fallacy by denying (11) and (12). But the explanation does not require denying (11) or (12). It only requires attributing *vagueness* to them.

Moreover, rejecting (11) and (12)—that is, accepting *Excluded Knowledge*—has counterintuitive consequences, whereas attributing vagueness to them does not. Suppose that *Excluded Knowledge* is *clearly* sound. Then if it is *clearly* vague whether Harry is bald, we *clearly* cannot know that Harry is bald and we *clearly* cannot know that Harry is not bald. Three counterintuitive results follow.

First, to clearly know that Harry is bald, Harry needs to be more than just bald, and more than just clearly bald: he needs to be *clearly clearly* bald! More generally, clearly knowing p requires not just that p be clearly true, but that it be *clearly clearly* true. This seems wrong. Intuitively, knowledge requires truth; clear knowledge requires clear truth; and so on. Intuitively, vagueness pervades the connection between knowledge and truth *without* interrupting it.

Second, supposing that we clearly cannot know either that Harry is bald or that he is not bald, we clearly lack sufficient reason to believe either proposition and/or a reliable method by which to determine which proposition is true. Granted that we clearly lack such a sufficient reason and/or a reliable method, it would clearly be irrational for us to believe either proposition.

This seems wrong too. Imagine someone who is confident that it is clearly vague whether Harry is bald. Such a person might naturally report, “I am ambivalent about whether Harry is bald. He sort of seems to be bald, and he sort of seems not to be bald. I sort of think that he is bald, and I sort of think that he is not bald.” In other words, it is vague whether the speaker thinks that Harry is bald, and it is vague whether the speaker thinks that Harry is not bald. Yet, given the clear truth of *Excluded Knowledge*,

rationality *clearly* forbids thinking that Harry is bald and *clearly* forbids thinking that Harry is not bald. Or imagine that a friend has arranged a date for you. You ask, “Is my date cute?” Your friend replies, “I sort of think so, and I sort of think not. I’d say your date is a clear borderline case of cuteness.” Again, *Excluded Knowledge* has a counterintuitive result: to clearly satisfy the dictates of rationality, your friend cannot think that your date is a clear borderline case of cuteness without *clearly* refraining from thinking that your date is cute and *clearly* refraining from thinking that your date is not cute.

Of course, we ought to clearly refrain from taking stances on questions that appear either to be *indeterminate* or to have *hidden* answers. Field (2000, 2003) has argued that, on the supposition that it is indeterminate whether p , one ought rationally to have zero degree of confidence in p and zero degree of confidence in $\text{not-}p$.¹³ This seems right. For instance, on the supposition that it is indeterminate whether 15 is nice*, one should have absolutely no confidence that 15 is nice* and absolutely no confidence that 15 is not nice*. Likewise for the supposition that it is indeterminate whether Harry is bald: one should have absolutely no confidence that Harry is bald and absolutely no confidence that Harry is not bald. After all, on the supposition that it is indeterminate whether p , one should be absolutely certain that it is not metaphysically settled that p and not metaphysically settled that $\text{not-}p$. And, intuitively, if one is certain of this, one should have zero confidence in p and zero confidence in $\text{not-}p$. Thus, we ought to clearly refrain from taking stances on questions that appear to be *indeterminate*. Field’s mistake, then, is not in his account of the rational attitude to have toward apparently indeterminate questions, but rather in his claim that vagueness is a type of indeterminacy.

In a similar vein, we ought to clearly refrain from taking stances on questions whose answers appear to be *hidden*. This is not to say that we must divide our degrees of confidence equally among the candidate answers, for some answers might be more likely than others. It is only to say that we should not take an “all-or-nothing” stance on such questions. For instance, we ought to clearly refrain from taking a

¹³ Field [2000, 2003] and Schiffer [2000] offer psychological characterizations of vagueness. Field holds that vagueness is a type of indeterminacy, and he characterizes indeterminacy as follows: “for an agent to *treat A as potentially indeterminate* is for him to have degrees of belief in it and its negation that add to less than 1” [2000: 8]. Schiffer holds that it is indeterminate whether vagueness is a type of indeterminacy; he characterizes vagueness in terms of a new propositional attitude (for doubts about this approach, see [Barnett 2000]).

stance on whether this fair coin will land heads. And our actual attitudes reflect this fact. We do not feel *ambivalent* about whether the coin will land heads: we do not *sort of* think it will, and *sort of* think it will not, land heads. Rather, we are clearly agnostic on the matter.

By contrast, as others have acknowledged [Sainsbury 1986; Schiffer 2000], we *do* feel ambivalent about apparently vague questions: we *do* sort of think that Harry is bald, and we *do* sort of think that he is not bald. This ambivalence seems, moreover, to fall clearly within the bounds of rationality. But not according to *Excluded Knowledge*.

Third, given the clear truth of *Excluded Knowledge*, we should not clearly trust that our intuitions reveal the full truth about whether Harry is bald. For although it *sort of* seems that Harry is bald and *sort of* seems that he is not bald, we *clearly* should not believe either proposition. So, even under good conditions, we should not aim to *clearly* satisfy the following principle:

(13) if it seems that p , believe that p .

In other words, we should not clearly trust our intuitions on the matter.

This seems wrong. For there seems to be nothing more to the nature of the concept of baldness than would be reflected, under good conditions, by our intuitions about the basic application-conditions of the concept. Indeed, it seems that our dispositions to have such intuitions determine *which* concept we are working with in the first place; had our entire speech community been disposed to have different intuitions, we would have been working with a different concept. So, under good conditions, there is reason to clearly trust our intuitions, that is, to aim to clearly satisfy (13). Now suppose, of the relevant instance of the antecedent of (13), that it is vague: it is vague whether it seems to us that Harry is bald. Given that we should aim to clearly satisfy (13), it is vague whether, on the basis of intuition, we should believe the corresponding instance of the consequent of (13): it is vague whether, on the basis of intuition, we should believe that Harry is bald. Thus, if it is vague whether it seems to us that Harry is bald, it is not irrational for us to *sort of* believe that Harry is bald. But not according to *Excluded Knowledge*.

It is worth pausing to note how, by an instance of the Clear Fallacy, one might be led to the unsound view that vagueness presents, not as vagueness in intuition, but as *absence* of intuition, and then from this view to reductionism.

Imagine that Harry appears to be a borderline case of baldness. Then, as sincere speakers, we should not assert (14) or (15):

(14) that it seems to us that Harry is bald

(15) that it seems to us that Harry is not bald.

A plausible explanation of this fact centres on (2) (assert p only if p). From here, one might commit the Clear Fallacy by denying (14) and (15) or, more generally, by endorsing the view that vagueness presents as an absence of intuition. (The best explanation does centre on (2). But it does not require denying (14) or (15). It only requires attributing *vagueness* to (14) and (15), which better comports with the actual phenomenology.)

Now consider how the denial of (14) and (15) leads first to vagueness-as-indeterminacy and then, in light of difficulties with this view, to vagueness-as-ignorance.

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 it is indeterminate whether Harry is bald and that the concept of being bald—like that of being nice*—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 it is metaphysically unsettled whether they apply. We can thus see how the unsound view that vagueness presents as an absence of intuition leads naturally to vagueness-as-indeterminacy.

Now suppose that we reject vagueness-as-indeterminacy but maintain that vagueness presents as an absence of 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, vagueness-as-indeterminacy.

But once it is recognized that vagueness does *not* present as an absence of intuition, the connection between the natures of vague concepts and our intuitions regarding their basic application-conditions can be upheld without committing to vagueness-as-indeterminacy or vagueness-as-ignorance. Vague concepts need not be incomplete or elusive.

Returning to the main line of thought, I conclude that *Excluded Knowledge* should not motivate us to accept vagueness-as-ignorance (or vagueness-as-indeterminacy). For, plausibly, it is based on the Clear Fallacy, and it entails a counterintuitive characterization of cases of vagueness.

Vagueness-as-sui-generis provides for a more intuitive characterization. On this view, vagueness has nothing essentially to do with epistemology. Just as it has no impact on core logical and semantic principles, it has no impact on core epistemic principles. It pervades the core connection between knowledge and truth without interrupting it: knowledge requires truth; clear knowledge requires clear truth; and so on.

Vagueness-as-sui-generis allows us to preserve the intuition that vagueness is not an epistemic phenomenon, even in light of the rejection of vagueness-as-indeterminacy. Suppose that you are convinced that vagueness does not threaten bivalence. You say, "It's true or false that Harry is bald, but vague which." Someone asks, "Which is it, true or false?" A very counterintuitive response would be: "Like the flip of a coin, I have no clue." More naturally, you might respond: "I sort of think it's true, and I sort of think it's false." In other words, it is vague whether you believe that it is true and vague whether you believe that it is false. While you are in no position to assert either that it is true or that it is false, your

state of mind is consistent with the absence of a hidden fact of the matter, for it is consistent with the clear truth of the following biconditionals:

(16) you know that Harry is bald iff Harry is bald.

(17) you know that Harry is not bald iff Harry is not bald.

If (16) and (17) are clearly true, then vagueness in their right-hand sides entails vagueness in their left-hand sides. So, you need not be *ignorant* of what is going on. You simply do not *clearly* know what is going on, in the sense that you do not clearly know that it is true that Harry is bald and you do not clearly know that it is false that Harry is bald. This is no surprise, for nothing *is* clearly going on: there is no clear fact of the matter. Vagueness as to whether Harry is bald is, without any further analysis, sufficient to explain why you cannot clearly know either proposition: vagueness as to whether p entails vagueness as to whether a certain necessary condition on knowing p obtains, namely, p 's truth.

2.3 Summary: vagueness-as-sui-generis provides for a more intuitive characterization of cases of vagueness than reductionism

Possibly motivated by instances of the Clear Fallacy, vagueness-as-ignorance and vagueness-as-indeterminacy lead to counterintuitive characterizations of cases of vagueness by forcing us to abandon core logical, semantic, and epistemic principles. By allowing vagueness to pervade—but not threaten—these principles, vagueness-as-sui-generis leads to a more intuitive characterization. For a final illustration of the point, consider the following initially plausible principle:

(18) S
iff
it is true that S
iff
it is metaphysically settled that S

iff

our use of the words in ‘*S*’ determines that ‘*S*’ is true given the present condition of the world

iff

under good conditions, after careful consideration, with full knowledge of all of the more basic facts on which the question of whether *S* depends, those who fully understand the question of whether *S* would find it intuitive that *S*

iff

under good conditions, after careful consideration, with full knowledge of all of the more basic facts on which the question of whether *S* depends, those who fully understand the question could, on the basis of intuition, know that *S*.

Vagueness-as-sui-generis is neutral on (18). There may be good reasons to doubt (18), but vagueness is not one of them. By allowing for its clear truth, vagueness-as-sui-generis allows vagueness to pervade (18) without threatening it: vagueness as to whether *p* entails (i) vagueness as to whether *p* is true; (ii) vagueness as to whether it is metaphysically settled that *p*; (iii) vagueness as to whether our use of the words in ‘*S*’ determines that ‘*S*’ is true given the present condition of the world; and so on. This, I have suggested, is the intuitive result.

3. Vagueness-as-sui-generis can play the central theoretical roles played by its reductionist rivals

Arguably, the most central theoretical roles of a theory of vagueness are to solve the Sorites Paradox (§3.1) and to identify the source of vagueness (§3.2). Vagueness-as-sui-generis can play these roles.

3.1 Vagueness-as-sui-generis can solve the Sorites Paradox

Pretend that whether one is bald depends only on the number of hairs on one’s head. Now consider the following instance of the Sorites Paradox:

P1 A person with 30,000 hairs on his head is not bald.

- P2 For any n , if a person with n hairs on his head is not bald, then a person with $n-1$ hairs on his head is not bald.
- C A person with zero hairs on his head is not bald.

Behind P2, Wright [1975] suggests, is a general principle about vague predicates:

Tolerance For every vague predicate ‘ F ’, small enough differences in ‘ F ’s parameter of application make no difference to whether ‘ F ’ applies.

A common strategy for solving the paradox is to (i) reject *Tolerance*; (ii) offer a surrogate that captures the initial appeal of *Tolerance* but renders the argument invalid; and (iii) claim that we find *Tolerance* initially appealing because we confuse it with the surrogate. This will be my strategy. Before I propose my surrogate, however, I want to consider a few rival proposals.

Proponents of vagueness-as-indeterminacy might propose the following surrogate:

No Determinate Difference For every vague predicate ‘ F ’, small enough differences in ‘ F ’s parameter of application make no *determinate* difference to whether ‘ F ’ applies. (Where there is a *determinate* difference iff it is metaphysically settled that there is a difference.)

McGee and McLaughlin [1995] for instance strongly reject *Tolerance* and accept *No Determinate Difference* instead. They accept that there is a cutoff for ‘bald’—a one-hair difference that *does* make a difference to whether ‘bald’ applies—but they reject that there is a *determinate* cutoff for ‘bald’—a one-hair difference that is determined “by the thoughts and practices of the speakers of our language” [1995: 162] to make a difference to whether ‘bald’ applies. This is an instance of a version of vagueness-as-indeterminacy discussed in §2.1; it involves accepting LEM but rejecting Determination. Proponents of vagueness-as-indeterminacy who favour the method of supervaluations typically hold a view of this sort. I will not rehearse my objections to it here. Suffice it to say that it is implausible that ‘bald’ could have a cutoff that is not determined by the thoughts and practices of those who use it. How did ‘bald’ get a cutoff, if not by virtue of the way we use it? McGee and McLaughlin’s answer is that it did not get its

cutoff *by virtue* of anything, for it is metaphysically unsettled what its cutoff is. Still, it has a cutoff; so P2 is false, and we find it appealing because we confuse *Tolerance* with *No Determinate Difference*.

Proponents of vagueness-as-indeterminacy who endorse a degree-theoretic treatment of vagueness might propose the following surrogate:

<i>No Absolute Difference</i>	For every vague predicate ‘ <i>F</i> ’, small enough differences in ‘ <i>F</i> ’s parameter of application make no <i>absolute</i> difference to whether ‘ <i>F</i> ’ applies (where a difference to whether ‘ <i>F</i> ’ applies is <i>absolute</i> iff it is a difference between ‘ <i>F</i> ’ applying to degree 1 and ‘ <i>F</i> ’ applying to degree 0).
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Smith [2005] for instance proposes a close relative of *No Absolute Difference*, both as his definition of vagueness and as his surrogate for *Tolerance*. Accepting *No Absolute Difference* without *Tolerance* entails a degree-theoretic treatment of vagueness, which apparently requires weakly rejecting LEM. In §2.1, I gave some reasons to avoid weakly rejecting LEM. Others have given reasons to avoid the degree-theoretic route in particular [Williamson 1994: Chapter 4]. Still, there are proponents of this route, and they might suggest that we find P2 appealing because we confuse *Tolerance* with *No Absolute Difference*.

Proponents of vagueness-as-ignorance might propose the following surrogate:

<i>No Known Difference</i>	For every vague predicate ‘ <i>F</i> ’, small enough differences in ‘ <i>F</i> ’s parameter of application make no <i>known</i> difference to whether ‘ <i>F</i> ’ applies.
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Greenough [2003] proposes *No Known Difference* as a “minimal definition” of vagueness—one that all members of the debate over vagueness can accept, whether or not they accept *Tolerance*. Evidently, Greenough thinks that *Excluded Knowledge*, too, is part of the very definition of vagueness, for *No Known Difference* appears to rest on *Excluded Knowledge*. But Dorr [2003] and I reject *Excluded Knowledge*; Wright [2001] refuses to accept it; and we are members of the debate over vagueness. More importantly, in section §2.2 I gave reasons to reject *Excluded Knowledge*, and thus to reject *No Known Difference*. So I doubt that *No Known Difference* is a correct definition of vagueness, minimal or not.

Still, proponents of vagueness-as-ignorance—all of whom strongly reject *Tolerance*—might suggest that we find P2 appealing because we confuse *Tolerance* with *No Known Difference*.

Here is my proposed surrogate:

<i>No Clear Difference</i>	For every vague predicate ‘ <i>F</i> ’, small enough differences in ‘ <i>F</i> ’s parameter of application make no <i>clear</i> difference to whether ‘ <i>F</i> ’ applies (where there is a <i>clear</i> difference iff there is no vagueness as to whether there is a difference).
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Vagueness as to where the cutoff is for being bald is, without any further analysis, sufficient to solve the paradox. We find *Tolerance* initially appealing because we confuse it with *No Clear Difference*.

The more specific confusion surrounding P2 lies in a corresponding instance of the Clear Fallacy.

We know that, for no n should we, as sincere speakers, assert:

(19) that a person with n hairs on his head is not bald, and a person with $n-1$ hairs on his head is bald.

We take the best explanation of this fact to centre on (2) (assert p only if p). We then commit the Clear Fallacy by denying that there exists an n for which (19) holds—that is, by denying that there is a cutoff and accepting P2. The best explanation of why we should not assert (19) does centre on (2). But it does not require denying a cutoff. It only requires attributing vagueness to the cutoff. If it is vague where the cutoff is, then no number n is such that n is clearly the cutoff. In other words, no number n is such that, clearly, a person with n hairs on his head is not bald and a person with $n-1$ hairs on his head is bald.

Because we aim to clearly satisfy (2), vagueness as to what the cutoff is explains why for no n should we assert (19). More generally, *No Clear Difference* explains why, for any vague predicate ‘*F*’, and for any two things a and b which differ in minimal degrees in ‘*F*’s parameter of application, we should not assert that a is *F* and that b is not *F*. To further deny that there is a cutoff for being bald would be a mistake.

First, it would complicate an already satisfactory explanation. Second, the clear truth of this denial is incompatible with vagueness in the cutoff: if there *clearly* is no n such that n is the cutoff, then for every

n , clearly, n is not the cutoff; hence, for no n is it vague whether n is the cutoff; hence, it is not vague what the cutoff is.

Should we, then, *strongly* reject *Tolerance* and positively accept that there is a cutoff? Yes. As we saw in §2, the clear truth of an existential generalization does not require the clear truth of any of its substitution instances. Clearly, Surgery Ning weighs *something*, even though there is no weight such that she *clearly* weighs *it*. Clearly, there is *some* cutoff, even though no number n is such that *it* is *clearly* the cutoff. P2 is clearly false.

Using only the language of vagueness, we have identified the false premise of the Sorites Paradox and explained away its initial appeal. We have thereby solved the paradox.

3.2 Vagueness-as-sui-generis can account for the source of vagueness

Most vague questions are *derivatively vague*: they are vague because other questions on which they turn are vague. It is vague how many bachelors there are because it is vague whether Al is a bachelor; it is vague whether Al is a bachelor because it is vague whether he is married; it is vague whether he is married because it is vague whether his ceremony qualified as a marriage; and so on. Some questions however are vague in themselves—or, as we shall say, *ur-vague*. Their vagueness does not derive from that of others. A candidate for being ur-vague is the question of whether, regarding the basic features of Al's ceremony, having them suffices for being a marriage.

It would seem that any adequate theory of vagueness must provide an account of the source of ur-vague questions.¹⁴ Timothy Williamson's version of vagueness-as-ignorance [1994] and David Lewis's version of vagueness-as-indeterminacy [1970] both address this challenge.

¹⁴ Ascriptions of vagueness to things other than questions—to predicates, clouds, rules, names, propositions, concepts, and so on—can always be understood in terms of ascriptions of vagueness to relevant *questions* about those things. A cloud is said to be vague if there is vagueness as to *where its boundaries lie*, *which molecules are parts of it*, or *what its mass is*. A rule is said to be vague if there is vagueness as to *which actions conform to it* or *when it goes into effect*. A name is said to be vague if there is vagueness as to *whom or what it denotes*; a predicate, if there is vagueness as to *what it means*, *what its extension is*, or *what its extension would be under certain conditions*; a proposition, if there is vagueness as to *what its basic truth conditions are*; and a concept, if there is vagueness as to *what its basic application-conditions are*. A question might even be said to be vague in this

According to Williamson, the source of ur-vague questions is our inability to discriminate among similar concepts. We cannot for instance reliably distinguish the concept of a marriage from a number of barely different concepts. Inability of this sort of gives rise to margins for error: ranges of conditions under which our correct application of a given concept could only result from luck; for, had we been operating with a slightly different concept, as we easily could have been, we would have *incorrectly* applied *it*. Because knowledge never results from luck, these conditions give rise to *ignorance*. This ignorance, according to Williamson, constitutes vagueness. For example, our relevant ignorance of the basic application-conditions of the concept of a marriage constitutes vagueness “for us” as to what the basic applications-conditions of the concept are. On this version of vagueness-as-ignorance, the source of ur-vague questions—and thus the source of all vagueness—is our inability to discriminate among similar concepts.

On David Lewis’s version of vagueness-as-indeterminacy, the source of ur-vague questions is *semantic indecision*—failure to decide what, specifically, is meant by certain expressions of our language. We have failed for instance to decide what specifically is meant by ‘marriage’. In the presence of such indecision, a given expression succeeds in meaning *something*, though there is nothing in particular such that the expression means *it*; hence, there is *indeterminacy* as to what the expression means. For a given sentence ‘*S*’ this indeterminacy gives rise to indeterminacy as to *which* question is the question of whether *S*. Whenever this indeterminacy *matters*—whenever resolving the indeterminacy in each of the various ways compatible with our prior linguistic decisions would give rise to more than one outcome—it is indeterminate whether *S*. This indeterminacy, according to Lewis, constitutes vagueness. For instance, this sort of indeterminacy in the meaning of the word ‘marriage’ constitutes vagueness as to what the basic application-conditions of the concept of a marriage are. On this version of vagueness-as-

secondary sense if some other question regarding it is vague in the primary sense. Consider for instance the question as to whether Bill Gates is rich. This question is not vague in the first instance: there is no vagueness as to what its outcome is. Nevertheless, it is vague in a secondary sense: there is vagueness as to what its outcome *would have been* had the world been different in certain ways—for example, had Gates been worth only \$990,000.

indeterminacy, then, the source of ur-vague questions—and thus the source of all vagueness—is semantic indecision.

The proponent of vagueness-as-sui-generis could simply reject the call for a source of vagueness. But I think he can do better. I propose that the source of ur-vague questions is an irreducible logical operation, which—in the spirit of vagueness-as-sui-generis—can only be characterized in terms of the language of vagueness. Let me explain.

Begin with the platitude that there are vague concepts. Baldness, for instance, is a vague concept. Some are inclined to reinterpret this platitude as a platitude, not about concepts themselves, but about *our expression of concepts*: to say that baldness is a vague concept is to say that there is vagueness as to *which* precise concept is expressed by the predicate ‘is bald’. On this view, there really are no such things as vague concepts. There is vagueness as to the identity of the concept of baldness, but whichever concept is the concept of baldness, *it* is not vague, insofar as there is no vagueness as to the identity of *its* basic application-conditions.

Suppose however that we take the platitude at face value: there are such things as vague concepts—concepts such that, necessarily, there is vagueness as to what their basic application-conditions are. Baldness is such a concept. This is not to deny that there might be an additional layer of vagueness concerning the identity of the concept of baldness—vagueness, that is, as to which concept is expressed by the predicate ‘is bald’—but only to say that, whichever concept is the concept of baldness, *it* is by nature vague.¹⁵

Now, it is plausible that all ur-vague questions concern the basic application-conditions of certain concepts. Which concepts? Vagueness in the basic application-conditions of some concepts derives entirely from vagueness in the basic application-conditions of others. Being tall and bald, for instance, derives its vagueness both from being tall and from being bald; consequently, a question as to whether having certain basic properties suffices for being tall and bald might be vague by virtue of turning on the

¹⁵ We remain neutral on the ontological status of concepts, and in particular whether there is a meaningful concept/property distinction.

vague question of whether having them suffices for being tall. To isolate the ultimate source of vagueness, we need an account of those concepts whose vagueness does not derive entirely from that of others—an account, we shall say, of *ur-vague concepts*.

Ur-vague concepts cannot be values of any of the standard concept-building operations—those representable in standard first-order logic. For these operations produce vague values only when given vague arguments. For example, *being F and G* is vague only if either *being F* or *being G* is vague. Ur-vague concepts are therefore either unanalyzable or values of some *nonstandard* concept-building operation(s).

One might conjecture that they are all values of a single, nonstandard, concept-building operation. To identify such an operation would be to identify the source of vagueness. I propose to do this using only the language of vagueness.

There is a proper usage of ‘roughly’ according to which an utterance of ‘*a* is roughly *F*’ is true just in case *a* has some property that is, to at least a contextually specified degree, similar to *F* in terms of application conditions (for a valuable discussion of ‘roughly’, ‘sort of’, and other “hedgies,” see [George Lakoff 1973]). This is not intended as an analysis but only as a loose characterization of one usage of ‘roughly’. The usage is exemplified by Cate’s utterance of ‘Peyton weighs roughly 50 kg’. This utterance is true just in case Peyton’s weight is, to at least a contextually determined degree, similar in magnitude to 50 kg. We can think of the proposition expressed by Cate’s utterance as the value of the predication-operation applied to Peyton (or an individual concept of her) and the concept of *weighing roughly 50 kg*. And we can think of the concept of *weighing roughly 50 kg* as the value of the roughly-operation applied to the concept of *weighing 50 kg* and a degree d_0 . The roughly-operation takes a concept *F* and a “degree of roughness” d and returns the concept of *being roughly^d F*—the result of “roughing up” *F* to degree d .¹⁶ Weighing roughly 50 kg is relatively general, in that it has a wider range of application conditions than does weighing 50 kg. How general a value of the roughly-operation is, relative to the conceptual part of

¹⁶ I introduce the roughly-operation as an operation on a concept and a *degree* only for heuristic purposes. Talk of degrees could be replaced by talk of relative positions in an ordering.

the corresponding argument, depends on d . For small d , the application conditions of the value extend only slightly beyond those of the argument; for larger d , their extent is greater in proportion.

Rough concepts are vague concepts: it is vague what their basic application-conditions are. And vague concepts are rough concepts: they bear only rough relations to more basic concepts. The vague concept of weighing roughly 50 kg is explicitly rough. Most vague concepts are implicitly rough. Take for instance the concept of being bald. It bears only a rough relation to more basic hair distribution concepts. To be bald is to have less than roughly one third of one's scalp covered in hair. Just as weighing roughly 50 kg can be analyzed as a value of the roughly-operation applied to the more basic concept of weighing 50 kg, being bald can be analyzed as a value of the roughly-operation applied to the more basic concept of having less than one third of one's scalp covered in hair.

There is an obvious difference. With the concept of weighing roughly 50 kg, there is no vagueness as to the identity of the conceptual part of the argument of the roughly-operation: clearly, it is *weighing 50 kg*. With the concept of being bald, however, vagueness plagues the identity of the conceptual part: there is a range of more basic concepts—including the concepts of *having less than one third of one's scalp covered in hair* and *having less than three eighths of one's scalp covered in hair*—each such that it is vague whether the concept of being bald is the result of applying the roughly-operation to *it*.

So, with the concept of being bald, there are two layers of vagueness: first, there is vagueness as to the identity of the concept; second, whichever concept is the concept of being bald, *it* is vague in the sense that there is vagueness as to what its basic application-conditions are. The first layer of vagueness is straightforwardly linguistic: our community-wide use of the predicate 'is bald' is such that there is vagueness as to which vague concept is expressed by the predicate. The second is conceptual: whichever concept is expressed by 'is bald', it is—by its very nature as a value of the roughly-operation¹⁷—a vague concept.

¹⁷ Two qualifications are needed here, for not all values of the roughly-operation are vague. The first qualification excludes cases in which the value of the roughly-operation is necessarily equivalent to the conceptual part of the

The proposal, then, is that all ur-vague concepts can be analyzed as values of the roughly-operation, which is therefore the source of all vagueness.

This proposal is consistent with the existence of a plurality of vagueness-producing logical operations. There might for instance be an approximately-operation, which serves as the semantic correlate of the contextually sensitive modifier ‘approximately’. Such an operation would be capable of giving vague values for precise arguments. It would not, however, be a serious threat to the proposal, for it would admit of a fairly straightforward reduction partly in terms of the roughly-operation. Indeed, any vagueness-producing operation should be analyzable in terms of the standard operations together with the roughly-operation. For a vagueness-producing operation is simply a tool for “roughing-up” and/or combining any number of concepts in any number of ways. One such operation might rough-up the logical product of its arguments; another might rough-up the first argument and disjoin the result with the conjunction of the second and third arguments; and so on.^{18, 19, 20}

The roughly-operation can, then, be taken as irreducible. For there is plausibly no other more basic vagueness-producing operation, and no combination of non-vagueness-producing operations could result in a vagueness-producing operation.

On the present version of vagueness-as-sui-generis, the source of all vagueness is a non-standard, irreducible, concept-building operation: the roughly-operation. This operation can only be characterized

corresponding argument; cases, that is, in which the roughly-operation does no real work. The concept of being roughly both tall and not tall, which is necessarily equivalent to that of being tall and not tall, is for instance not ur-vague. The second qualification excludes cases in which the value of the roughly-operation has universal application; cases, that is, in which the roughly-operation does *too much* work, effectively extending the boundaries of the conceptual part of the argument to the point of their elimination.

¹⁸ How might vague observational concepts be analyzed in terms of the roughly-operation? Consider a fully specific phenomenal shade, say, red #242. Suppose that red #242 can be grasped directly in experience, thus qualifying as a concept. Its highly specific nature prevents it from being of much use in ordinary thought and communication. More useful would be a suitably roughed-up version of it. Indeed, ordinary color concepts, such as that of magenta, might well be roughed-up versions of fully specific phenomenal shades. It might for instance be that x is a shade of *magenta* iff_{df} x is a shade roughly like red #242. This would explain how it is that ordinary color concepts are vague even though the specific phenomenal shades are not.

¹⁹ If it turns out that not all vagueness-producing operations can be analyzed in terms of the roughly-operation, then we can simply adjust the proposal: all ur-vague concepts can be analyzed as values of *one of a family of vagueness-producing operations*.

²⁰ On the proposed view, basic concepts cannot be vague. This is a consequence I am happy to accept. See note 18 for discussion of how, for instance, truly basic color concepts need not be vague.

in terms of the language of vagueness: It takes as arguments a concept F and a degree d , and it returns as a value the concept of *being roughly^d F*. The concept of *being roughly^d F* bears only a *rough* relation to the more basic concept of *being F*. The concept of *being roughly^d F* is therefore *vague*.²¹ It has a set of basic application-conditions, but there is *vagueness* as to the identity of this set. Thus, certain conditions give rise to *borderline cases* of *being roughly^d F*: cases that *sort of* qualify as *being roughly^d F* and *sort of* fail to qualify as *being roughly^d F*.

Thus, consistent with the spirit of vagueness-as-sui-generis, we have at hand the beginning of an account of the source of vagueness.

4. Conclusion

On vagueness-as-sui-generis, vagueness can only be characterized in terms of a close-knit family of concepts, which in turn can only be explained in terms of one another. On this view, vagueness pervades core logical, semantic, and epistemic principles, without threatening them. Cases of vagueness can be characterized, the Sorites Paradox can be solved, and the source of vagueness can be given, but only by employing the language of vagueness.

The standard reductionist rivals—vagueness-as-indeterminacy and vagueness-as-ignorance—face well-known challenges: vagueness-as-indeterminacy leads to contradiction, given an instance of vagueness together with a few platitudes about truth, logic, and indeterminacy; and vagueness-as-ignorance entails that apparently transparent concepts, like baldness, are in fact deeply elusive. Still, one might think that there are countervailing reasons for accepting one of these forms of reductionism: first, one might think that there are countervailing *intuitive* considerations; second, one might think that there are countervailing *theoretical* considerations. Regarding the intuitive considerations, I have tried (i) to undermine one sort of intuition as a motivation for reductionism, by showing that such intuitions rest on the Clear Fallacy; (ii) to show that reductionism leads to counterintuitive characterizations of cases of vagueness; and (iii) to show that vagueness-as-sui-generis leads to more intuitive characterizations.

²¹ Not all values of the roughly-operation are vague; see note 17.

Regarding the theoretical considerations, I have tried to show that vagueness-as-sui-generis can play the central theoretical roles of reductionism.

It could not at this point be shown decisively that vagueness is sui generis. Still, I hope to have shown that the view deserves serious attention.

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