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VAGUENESS: A FIFTH COLUMN APPROACH

I

The Vagueness Trilemma

Anyone must agree that vagueness pervades the lexicon of natural languages: almost everything we say is expressed in vague vocabulary. It is a little more controversial, but presumably true, that this is unavoidable: that a language stripped of vague expressions would suffer not merely in point of usefulness—often, a vague judgement is exactly what we need—but in its very expressive power. (We need concepts, for instance, of rough impressions, of casual appearances, and of circumstances in which a precise predication—say, "is more than six feet tall"—may justifiably be made on the basis of rough-and-ready observation; and we need to be able to express these concepts.) This makes vagueness a topic of central philosophical significance in at least two ways. Both the philosophy of language—in so far as it is concerned with what it is, at the most general level, to have mastery of a natural language—and the metaphysics of the relationship between natural languages and the world they serve to represent must demand an understanding of the nature of vagueness.

While some of the problems raised by vagueness were formulated in antiquity, it received only occasional and unsystematic attention from analytic philosophy until the mid 1970s. Since then there has been an explosion of attention and publication.<sup>1</sup> The tendency of the magnified effort, however, is not to inspire a sense that things are moving interestingly in concert towards an enhanced understanding. Rather, it has been towards fragmentation. The contemporary context is one in which, for each of the principal views proposed—indeed, as it can seem, for each of the possible views—a significant constituency of philosophers in the field are opposed to or sceptical about it, and are so for powerful and fundamental-seeming

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<sup>1</sup> The 1975 Synthese special number on the topic was a crucial spur.

reasons. We would like to understand what is the nature (or natures) of vagueness and why so much of natural language is vague. And we would like to understand why there is not really—as presumably there is not—any genuine paradox at the heart of vagueness. But we seem to be light years from understanding these matters.

The problematic character of vagueness surfaces immediately in the difficulty in saying what the basic phenomenon—the occurrence of 'borderline-cases'—consists in. Vagueness manifests itself, of course, in our hesitancy or unwillingness to make judgements in such cases, and in conflicts among (hesitantly made) judgements—either those of several thinkers, or of a single thinker at different times. But these manifestations are hardly distinctive; they may be present with precise judgements as well. We also express our recognition of vagueness in the clumsy intuitive rhetoric of "No fact of the matter", "It is and it isn't", and "It neither is nor isn't", etc. But this rhetoric is of dubious coherence: the latter two locutions, besides being inconsistent with each other, are also internally inconsistent, while there being "no fact of the matter", if that is ever a fact, would seem sufficient to ensure that a targeted judgement is not true—and hence that it should be acceptable to deny it. So there is a very basic problem even in giving a characterisation of the phenomenon to be explained.

The lack of such a characterisation has not, however, discouraged philosophers from taking sides among what seem to be the only possible kinds of view. Each of the three following contrasting conceptions stands out in the recent concentration of work:

Perhaps the most intuitive approach is that vagueness is a semantic phenomenon—something which originates in shortfalls, as it were, in the meanings we have assigned to expressions. On this type of view, a vague statement is one whose meaning is akin to a partial function and somehow fails in certain cases, even in conjunction with the relevant facts, to determine whether it should count as true or as false. The rules for the use of "tall" prescribe, for instance, that a man who stands 6' 2" is tall, and that one who stands 5' 6" is not, but fail to prescribe for a man of 5' 10". The actually relevant facts—that the man stands 5'10"—do admit of perfectly precise description. There is no vagueness in the matter to be described. The

vagueness consists in the failure of the semantic rules for “tall” to cater for certain kinds of precisely describable situations.

This contrasts with the view that vagueness originates in rebus, in objective indeterminacies in the items which we use language to describe. “Morocco extends more than 150 miles east of Agadir”, is *prima facie* indeterminate in truth value, but here the source of the indeterminacy, it may be claimed, lies not with the language but with what is being described. The predicate, “... extends more than 150 miles east of Agadir”, is precise enough, nor is it indeterminate what “Morocco” refers to—it refers to the sovereign territory of Morocco. Rather, the indeterminacy is in the real extent of that territory. Morocco itself—that very territory—lacks sharp boundaries (rather like a shadow that is blurred on one side.)

These two views agree that certain kinds of meaningful expression, featuring in some quite definitely true statements and some quite definitely false ones, may also occur in meaningful statements which are borderline—statements which they see as challenging the principle of Bivalence, that every statement is determinately true or false. The third player in the contemporary debates is the view that vagueness, properly understood, actually presents no challenge to the principle of Bivalence, whether semantic or worldly in origin. Rather those aspects of our linguistic practice which we take to reflect indeterminacy are better seen as flowing from our own (unavoidable) ignorance of what are in fact sharp thresholds to the correct application of our expressions. On this—Epistemicist—proposal, vague statements should be conceived as perfectly determinate in truth value, though what truth values they possess we do not know. This seemingly fantastic suggestion has been worked out in depth by Tim Williamson and others, and is supported by a developed account of the putative barriers to knowledge in borderline cases.

These proposals are not, to be sure, inconsistent with each other except in so far as they aspire to be comprehensive. One might in principle be eclectic, reserving the semantic approach for some examples, for instance, while taking an epistemic view of others, though it is not obvious how such an eclectic stance might be motivated. What can seem hard to see is

how there could be any other—fourth—type of view. For presumably—so one might reason—borderline cases either present genuine indeterminacies or they do not. The Epistemicist thought, for its part, is that they do not. But if they do, then presumably the indeterminacy is sourced either in the semantics of the statements in question or in their subject matter. So it can easily seem as if we must, in the end, go for one of these three types of position. The topic is all the more perplexing, accordingly, for the fact that each of the three seems problematical and unhappy in serious ways.

A crux for any conception of vagueness is how it copes with the Sorites paradox. A sound conception of vagueness must not merely block the paradox but—so I should contend—block it in a way that acknowledges it as a reductio of the major premise and accordingly incorporates a diagnosis both of that premise's plausibility and of the error that it nevertheless contains. Of the three proposals canvassed, only Epistemicism resolves the paradox directly. It simply denies the relevant major premises, insisting that there are sharp but unidentifiable thresholds to, e.g., colours, heaps and to the territory of Morocco. What, though, is Epistemicism's story about the plausibility of those premisses? Why, according to the epistemic conception, are we tempted to suppose that e.g. if a man with merely  $n$  hairs of normal thickness, etc., is bald, so is one with  $n+1$ ? Well, since that supposition would not be tempting in the least if we knew that "bald" actually presented a sharply demarcated property, part of the explanation, the Epistemicist may say, is our ignorance about the real semantic nature of vague expressions. But that (alleged) ignorance doesn't explain enough. If we were merely receptive to the possibility that vague expressions present sharply demarcated properties, the temptation would already be gone. So the Epistemicist's explanation has to account for (what it must view as) our prejudice against that possibility—it has to explain our succumbing to (what it must view as) the illusion that vague expressions do not have the kind of semantic depth that e.g. expressions for natural kinds, as commonly construed, possess: the illusion that the nature of the property ascribed by a vague predicate is often fully available to a

thinker just in virtue of understanding that predicate. I am not aware that Epistemicists have addressed this need in any very convincing way.

The other two, indeterminist types of view need some supplementary proposal about how/why Sorites reasoning breaks down. Among philosophers favouring a semantic view, the most widely received such proposal is that the truth-conditions and logical powers of vague statements are subject to a broadly supervaluational analysis. A vague statement is true, on this proposal, just if it would be true if all the expressions in it were made perfectly precise, but in a fashion which respected the range of cases where, vague as they are, they nevertheless definitely do or don't apply. Thus "Jones is tall" is true just in case it would be true under every such admissible way of making "tall" perfectly precise—every way consistent with respecting the cases where it is already definitely correct to describe someone as "tall" or as "not tall". Since, were language to be made totally precise, there would be the sharp thresholds which the Epistemicism believes there already actually are, the semantic-cum-supervaluational proposal can similarly resolve Sorites paradoxes by simple denial of their major premisses.

Supervaluations, however, need not be the exclusive property of the semantic view. A supporter of vagueness in rebus may adapt the proposal by fashioning a suitable notion of what it is for an entity—object, or property—to be a precise counterpart of a vague one. For instance, a precise counterpart of Morocco may be taken to be any sharply bounded land-mass whose being completely contained within Morocco is a vague matter. And now "Morocco is larger than Senegal" may be reckoned true just in case every precise counterpart of Morocco is larger than Senegal.

The wide reception of supervaluational semantics for vague discourse is no doubt owing to its promise to conserve classical logic in territory that looks inhospitable to it. The downside, of course, rightly emphasised by Williamson and others, is the implicit surrender of the T-scheme.<sup>2</sup> In my own view, that is already too high a cost. And there are additional concerns about the ability of supervaluational proposals to track our intuitions concerning the

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<sup>2</sup> Cf. Williamson [1994] p. 162.

extension of "true" among statements involving vague vocabulary: "No-one can knowledgeably identify a precise boundary between those who are tall and those who are not" is plausibly a true claim which is not true under any admissible way of making "tall" precise. But in any case the proposal that truth and valid inference among vague statements operate supervalueationally comes—at least in the context of a background indeterminism about vagueness— completely out of the blue. The conception of indeterminacy shared by the semantic and in rebus approaches is one of a situation in which, whether for reason of shortfall in meaning or lack of definition in the world, a statement fails either to represent or to misrepresent reality. Yet supervalueationism insists that truth and valid inference among vague statements operate as if there was no such indeterminacy, as if we had to deal only with fully precise concepts and definite situations. Such an approach is open to the complaint that it changes the subject, rather than helps to account for it. At the very least, it should be no less legitimate on any indeterminist view to seek a semantics and proof-theory for vague claims which treats the challenge they pose to Bivalence as a challenge to classical logic too—there seems to be nothing to be said in favour of the idea that supervalueations get the logic of vagueness right. But in that case there is nothing to be said in favour of the idea that the solution they let the indeterminist provide to the Sorites paradox is anything but adventitious.

Actually, the very idea of semantic indeterminacy as an account of the constitution of vagueness in general<sup>3</sup> is much more difficult to make sense of than philosophers have generally acknowledged. The basic idea—of the existence of a range of cases which we, as it were, lack any instruction how to describe—is intelligible enough. But—to indicate just one difficulty—it is a generally accepted datum of the problem that, in a wide class of examples, the distinction between the borderline cases and those which we have a mandate to describe as, e.g., "heaps" is not a sharp one. This is the phenomenon of "higher-order" vagueness: in the gradual transition from heaps to agglomerations of sand too small to count as heaps, there does not seem to be a sharp threshold between the heaps and the indeterminate cases, nor between

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<sup>3</sup> As opposed to some special cases.

the latter and the non-heaps; rather the region of indeterminacy has its own (pair of) fuzzy borderlines. So now consider an agglomeration X in the borderline between the heaps and the initial range of indeterminate cases. The latter are conceived as being such that there is no mandate to describe them as heaps and no mandate to describe them as non-heaps. So on the simple semantic view of indeterminacy—that it is a matter of lack of any semantic mandate—X should be such that there is no mandate to describe it as heap, no mandate to describe it as a non-heap (since it is less of a non-heap than things—the initial range of indeterminate cases—there is already no mandate to describe as non-heaps) but also no mandate to describe it as borderline. Which is it say: no mandate to describe it as we just did—as being such that there is no mandate to describe it as a heap and no mandate to describe it as a non-heap. That result—that X fits a certain description which there is no mandate to describe it as fitting—commits the semantic theorist to a version of Moore's paradox, and raises a serious question whether any coherent characterisation of vagueness, as conceived by the semantic view, is possible at all. This point has not been widely grasped.

As for the idea of vagueness as an indeterminacy situated in rebus, this—even if locally arguable for items such as Morocco and Mount Everest—is manifestly unintuitive for the general case. Nothing in the imagery of blurred shadows helps us understand the vagueness of quantifiers, like "many" or "about twenty", and it strains credulity to suppose that in our use not merely of basic vague predicates like "tall", but also of vague compounds like "very tall", "unusually tall", "quite unusually tall", and so on, we merely respond to objectively vague properties put up by the world. But there is a more basic—and again, neglected—difficulty, arising with the conception of indeterminacy as a worldly situation in the first place. To try to conceive of the indeterminacy in truth value of a statement of a type which, in different circumstances, could be true as originating in the character of the relevant prevailing states of affairs must commit one, it seems, to thinking of those states of affairs as different in kind from and incompatible with the obtaining of the kind of state of affairs which would make the statement true. But then we seem to have, not a situation of indeterminacy, but one in which

the world is inconsistent with the truth of the statement—so one in which it is determinately untrue. (This, of course, is a generalisation of the thought which inspired Gareth Evans' much-discussed argument for the impossibility of vague identity in re.) It is a major question whether it is possible to have, even for quite local instances, a genuinely in rebus conception of vagueness which does not, in effect, lose hold of the idea of indeterminacy and degenerate into the thought that there are more ways for statements of certain kinds to be untrue than are catered for by standard grounds for denying them.

Epistemicism, finally, for all its theoretical simplicity, is—at least in the present state of our understanding—open to the charge that it makes an utter mystery of the semantics of vague expressions. We have no conception of what would constitute the relationships between vague expressions and the particular sharply demarcated entities—objects, properties, functions—which, according to Epistemicism, are somehow established, beyond our ken, as their semantic values; nor do we have the slightest independent reason—independent, that is, of the problems encountered by the opposed views—to believe that such associations exist. There are important subsidiary issues concerning just how effective the explanations offered by Epistemicists are for our putative (ineluctable) ignorance of these matters. But the major concern for any proponent of Epistemicism must be whether there is any real likelihood that it will ever be possible satisfactorily to redeem the hostages the view holds out to the theory of meaning and reference.

Each of the three broad, collectively seemingly exhaustive conceptions of vagueness is thus open to misgivings radical and immediate enough to provide in effect for another paradox. We might call it the Vagueness Trilemma: none of the three possible views seems to bear serious scrutiny. Maybe some of the objections that beset the three alternatives can, with resource, be assuaged. But the solution I shall here pursue is to make a case that the three alternatives are not exhaustive.



## II

What are Borderline-cases?

Let's begin by scrutinising a little further the notion of a borderline case. There is no reason to deny that one kind of borderline case does more or less fit the semantic indeterminist model. Such examples are borderline cases of the application of a concept associated with sufficient conditions, with necessary conditions, but for which no condition is explicitly acknowledged as both necessary and sufficient. John Foster<sup>4</sup> used to work with the example of 'pearl'. It suffices for something to be a pearl that it be an approximately spherical object of a certain distinctive appearance and constitution, naturally produced within an oyster in a certain kind of way. It is a necessary condition for something to be a pearl that it be an approximately spherical object of that distinctive appearance and constitution. But the ordinary understanding—or let's so suppose—leaves it open whether natural occurrence within an oyster is necessary for pearlhood. In that case it is objectively indeterminate—the rules for the use of 'pearl' leave it open—whether a pearl-like object meeting the first condition but synthesised in a vat of chemicals is a pearl or not.<sup>5</sup>

Of course what's salient about such cases is that the distinction between the determinate instances and non-instances and the indeterminates is itself determinate; so the problem I canvassed earlier does not arise. Our interest, though, is in the types of vagueness associated with susceptibility to a Sorites series—vagueness associated with gradual change in a relevant parameter of degree (one associated with a significant comparative, 'is more/less than') and where the distinction between the definite cases and the borderline cases is itself, at least prima facie, vague. How should we conceive of the borderline cases in this—the intended and crucial—range of examples?

For ease of exposition, let's restrict our attention to the case of vague (monadic) predicates, and focus not on the objects that are borderline for such a predicate, F, but on the

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<sup>4</sup> In graduate classes in Oxford long ago.

<sup>5</sup> Cf. Williamson [1990, p. 107] on 'dommal'.

associated propositions that such an object is/is not F. Let a verdict be a judgement that such a proposition is true or that it is false. What is the correct account of the status of the propositions which these verdicts concern?

Third Possibility is the generic view that such propositions have some kind of third status, inconsistent with each of the poles (truth and falsity.) Examples of Third Possibility are the claims that propositions in question lack a truth value, that they have some unique third truth value, and that they have one among a number of values intermediate between the two polar values (or, in a more sophisticated version, the two vaguely bounded clusters of polar values.) If any form of Third Possibility is correct, then the verdicts associated with the propositions in question are determinately incorrect—indeed, there seems no reason to deny that they are false.

Third Possibility entails but is not entailed by Verdict Exclusion. Verdict Exclusion says that no verdict about such a proposition is knowledgeable<sup>6</sup>—that the correct stance about borderline propositions is one of agnosticism. According to Verdict Exclusion, one ought, all things considered, to offer no verdict about a borderline case and to have no opinion which could be expressed in such a verdict. (Notice that Williamson’s version of Epistemicism would enforce Verdict Exclusion—if the arguments from margins of error to the impossibility of knowledge about the F-ness of borderline cases are accepted—but, in view of the endorsement of Bivalence, would reject Third Possibility.)

Although a great deal of work in the field has been informed by an acceptance of Third Possibility or, more modestly, of Verdict Exclusion, I think these views—or more specifically, the notion that we are warranted in holding either of these views—is very difficult to sustain. The manifestation of vagueness, in the kinds of case we are concerned with, is not a consensus on certain cases as borderline—not if that is to be a status which undercuts both polar verdicts. Rather, the impression of a case as borderline goes along with a readiness to tolerate others’ taking a positive or negative view—provided, at least, that their view is suitably hesitant and

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<sup>6</sup> Or if that is different, that no such verdict is warrantable.

qualified and marked by a respect for one's unwillingness to advance a verdict. I do not deny that psychological laboratory experimentation might actually disclose that large numbers of otherwise competent subjects would converge on regarding certain colour chips, for example, as borderline between red and orange and on certain photographs of balding men as borderline between bald and not-bald. What I am saying is that the existence of such a convergence is empirical and its occurrence, if it occurs, is left entirely open, as far as vagueness of the relevant concepts is concerned. What the vagueness of those concepts does not leave open is, first, that there should be no (stable) convergence among competent subjects about a threshold and, second, that each competent subject should offer progressively less confident verdicts, eventually entering a range where any verdict is uncomfortable, and then later a range where confidence is gradually restored. Those points are consistent with there proving empirically to be no cases for which there is a convergence on unwillingness to issue any verdict. The central manifestation of borderline cases is not a convergence on such unwillingness, but—always among competent judges—in weakness of confidence in such verdicts as are offered, in their instability, and in the unwillingness of some to endorse any verdict. One would also expect this same pattern— a mix of tentative and perhaps conflicting verdicts and unwillingness to return one—to be replicated within the judgements of a single competent subject about a single case made on a number of separate occasions.

These reflections are, to stress, strictly inconsistent neither with Third Possibility nor, therefore, with Verdict Exclusion. What they are inconsistent with is our knowing that either of those proposals correctly characterises borderline cases—or better, if someone insists that either is a correct characterisation, with there being any definite (known) borderline cases in the sense of that characterisation. Since we should take it that, however borderline cases should be characterised, it is a datum that vague concepts give rise to them, we should conclude that both Third Possibility and Verdict Exclusion are misdirected accounts. When, in a Sorites series, I reach a range of cases about which I am reluctant to give a verdict, it does not convict you of incompetence if you are not so reluctant provided your willingness to take a

view is appropriately qualified and it is wholly understandable to you that others may not share it. To regard a case as borderline is not to regard it as having a status inconsistent with either polar verdict, but to feel that one cannot knowledgeably endorse a polar verdict. And that much is consistent with recognising that other, competent judges may, tentatively, feel able to do so. My impression that a case is borderline is not defeated if they do so. But it is sustained by others' recognition that we are within a region where divergences of this kind among competent judges are to be expected. Just for that reason, my impression that the case is borderline is not an impression that the case has a status inconsistent with the correctness of a verdict. Nor is my having that impression a commitment to regarding any verdict as non-knowledgeable. If it were, then in regarding the case as borderline, I'd be committed to regarding anyone who advanced a verdict, however qualified, as strictly out of order—as making an ungrounded claim and performing less than competently. But that they are doing anything of that sort is just what I don't know.

Against Third Possibility and Verdict Exclusion as characteristic of borderline cases, I therefore wish to set the following contrary thesis of Permissibility: with the kind of vague concepts with which we are concerned, a verdict about a borderline case is always permissible; it's always alright to have a (suitably qualified) opinion. And this permissibility is not a matter, merely, of its being excusable to have a (mistaken, or unwarranted) view, as it would have to be if Third Possibility, or Verdict Exclusion, were respectively correct. Rather it is a matter of its being consistent with everything one knows, when one competently takes a case to be borderline, that a verdict about that case is correct and that one who advances it does so warrantably. Permissibility is meant to encapsulate the idea that regarding a case as borderline is reaching a point where one's springs of opinion have so weakened that one is unable to reach one or, at best, any opinion one reaches is weak and unstable; and if the thinker is a competent judge, then it will go with this predicament that it is understandable and consistent with her competence that she be in it. But that it is understandable and expectable that she and others get into such a predicament is not something which empowers her to reject the veracity of a

verdict, or the competence of those whose verdict it is. Both Third Possibility and Verdict Exclusion have it that the recognition of a borderline case is the recognition of a case of a certain kind of respectively ontological, or epistemic status. Against that, Permissibility maintains that to regard X as a borderline case of F is neither to recognise that there is no correct polar verdict about ‘X is F’, nor that no such verdict can be knowledgeable. Rather it is, first and foremost, a failure to come to a view. And failure to come to a view, it goes without saying, is in general quite consistent with there being a true view; and with someone who holds it doing so knowledgeably.

I am under no impression that these sketchy remarks can stand without further refinement and elaboration. But I do contend that they take us in the right direction. A correct account of the kind of vagueness in which we are interested must start not from the idea of our recognition of some sort of third status or epistemic impasse but rather from the idea of a failure of judgement—an inability of (significant numbers of) competent judges to come to a view in what we conceive as the best, or anyway good enough background circumstances for the formation of the type of view in question. And however the account proceeds to elaborate that starting point, it will therefore be inconsistent with both the semantic and the in rebus types of indeterminist view, each of which goes with the idea that borderline cases have a status incompatible with truthful, let alone knowledgeable verdicts about them.

### III

#### Re-configuring the Range of Options

According to the Epistemic conception of vagueness as ordinarily understood, a borderline case of a vague predicate is one where we remain ignorant whether or not the predicate applies even when background conditions obtain which suffice for knowledge in clear cases. No indeterminist need contest that—indeed nobody should contest it. What is controversial is what more should be said. The indeterminism of both the semantic and in rebus views involves adding Third Possibility, and so rejecting Bivalence while accepting Verdict

Exclusion. Epistemicism, by contrast, at least in the hands of its principal proponents hitherto, insists on Bivalence but rejects Third Possibility while accepting Verdict Exclusion. The considerations of the preceding section, if sound, suggest that we should not accept either Third Possibility or Verdict Exclusion. So what should we think?

Third Possibility and Bivalence are inconsistent with each other; and Third Possibility entails Verdict Exclusion. So there are actually five prima facie coherent options:

	I Indeterminism	II Exclusive Epistemicism	III Pessimism	IV Non-Exclusive Epistemicism	V Agnosticism (Intuitionism)
<i>Third Possibility</i>	ACCEPT	NOT ACCEPT	NOT ACCEPT	NOT ACCEPT	NOT ACCEPT
<i>Verdict Exclusion</i>	ACCEPT	ACCEPT	ACCEPT	NOT ACCEPT	NOT ACCEPT
<i>Bivalence</i>	NOT ACCEPT	ACCEPT	NOT ACCEPT	ACCEPT	NOT ACCEPT

Note that non-acceptance is here to be construed as a stance consistent with agnosticism about the principle in question—it is implied by, but need not involve rejection of that principle in the sense involved in a willingness to contradict it. The Epistemicist options seem worth dividing into two—columns II and IV—because as a number of commentators have remarked, it is by no means obvious that, pace Williamson, Epistemicism must accept it as a datum, calling for explanation, that the determinate truth-values imposed on borderline cases by Bivalence are beyond all possibility of knowledge. The most salient aspect of the table, however, is the point, obvious enough, that in rejecting Indeterminism, we have not—or not yet—committed ourselves to Epistemicism as ordinarily understood. There remains the Agnostic option, and its Pessimistic variation: the positions marked by non-acceptance—columns III and V—both of Third Possibility and Bivalence. If either of these positions can be supplied with a coherent philosophical motivation, we may have a way out of the overarching trilemma and an improved perspective on the entire set of issues.

It is the non-pessimistic version of the view that looks to have the better prospects. The reason is that a wide class of vague expressions seem to be compliant with an intuitive version

of Evidential Constraint: if someone is tall, or bald, or thin, that they are so should be verifiable in normal epistemic circumstances. Likewise if they are not bald, not tall, or not thin. But any predicate  $F$  which, under feasible cognitive circumstances  $C$ , satisfies the following pair of conditionals:

(i)  $C \rightarrow (Fa \rightarrow \text{it is feasible to know } [Fa])$

(ii)  $C \rightarrow (\neg Fa \rightarrow \text{it is feasible to know } [\neg Fa])$

will be such as to give rise to contradiction, modulo the realisation of circumstances  $C$ , if Verdict Exclusion is accepted. The view I suggest we consider is accordingly the view that concerning borderline cases, we should accept none of Third Possibility, Verdict Exclusion, and Bivalence.

This is a pretty thoroughgoing agnosticism. The preceding section explored motives for circumspection about Third Possibility and Verdict Exclusion. What we now require, accordingly, are motives sufficient to refuse Bivalence consistent with that circumspection. Of course that combination, marked by their acceptance of the double-negation of the Law of Exclude Middle but refusal of the law itself, is exactly the Mathematical Intuitionist trademark.<sup>7</sup> But what motivation is there for it in the present setting? In the concluding section I'll outline three possible lines. But before that, let's review how the column V position may address at least two of the challenges that confront any satisfactory treatment of vagueness.

#### IV

##### The Misconceived Conditional and the Sorites

Any satisfactory treatment of vagueness must, at a minimum, (i) say what is wrong with the following conditional

$(\forall x)(Fx \ \& \ \neg Fx') \rightarrow F \text{ is not vague}$                       (the misconceived conditional<sup>8</sup>)

<sup>7</sup> The possible utility of intuitionistic distinctions in a philosophical treatment of vagueness was first proposed by Putnam [1983]. I myself was among the original critics of his proposal [Read and Wright 1885]. It was only much later that I realised how the principal objections of that note might be answered.

<sup>8</sup> Prominent in Timothy Chambers' [1998] objections to Putnam.

and (ii) solve the Sorites paradox. The tasks are of course interrelated. The classic formulation of the Sorites presents an inconsistent triad

$$\{F_0, \neg F_n, (\forall x)(F_x \rightarrow F_{x'})\}$$

over a suitably ordered finite series. Naturally this is only a paradox because all the premises seem well-motivated. But there is a tendency for the motivations for the major premise

$$(\forall x)(F_x \rightarrow F_{x'})$$

—what I once called the Tolerance Principle for F—to be local to the choice of F, and not obviously owing to its vagueness. If one is running a Sorites for  $F = \text{"looks red"}$ , for example, the thought can seem compelling that if  $x$  and  $x'$  look absolutely similar—as they may do even when one matches something which the other does not—then if either looks red, both will. But while predicates of phenomenal colour are certainly vague, this argument to motivate the major premise of the Sorites has more to do with phenomenality (and, of course, presumably involves a misunderstanding of it) than with vagueness. A similar thought would extend to any predicate justifiably applied on the basis of causal observation. If  $x$  and  $x'$  are sufficiently similar, then casual observation will detect no difference between them. But then the case for saying that either is F will be perfectly matched by the case for saying the other is. These are good paradoxes and certainly need a solution. But a Sorites paradox of vagueness, properly so regarded, must appeal to the very vagueness of the targeted expression in the motivation for the major premise. And how that may be done is exactly what the misconceived conditional brings out. Surely, the thought is, if there is a sharp cut-off point in the series in question—a last F case immediately followed by a first non-F one—then F is after all precise—at least in that series—rather than vague, just as the conditional says. So now, contraposing, there is no sharp cut-off if F is vague. The sting—the No Sharp Boundaries paradox—is then this entailment:

$$\{F_0, \neg F_n, \neg(\forall x)(F_x \& \neg F_{x'})\}$$



—that the inconsistency remains even after the major premise is taken in a form which seems just to be a description of F's vagueness. So now we have a paradox of vagueness as such. And to resolve it must involve finding something amiss with the misconceived conditional.<sup>9</sup>

Both standard Epistemicism and its column IV relaxation are in no difficulty in doing so. The misconceived conditional will fail because vagueness is not, epistemically conceived, a matter of lack of sharp boundaries. Bivalence will enforce its antecedent for precise and vague expressions alike, whereas the consequent will of course fail for the latter.

Indeterminism will likewise have no difficulty if allied to supervaluations: the antecedent of the misconceived conditional will be (super)true even when F is vague.<sup>10</sup> But what can the column V theorist say?

The column V theorist cannot object to the conditional in the fashion of Epistemicism, on the ground of true antecedent but false consequent, since her position precludes her taking the antecedent to be true. For suppose the theorist has somehow motivated an agnostic stance with respect to Bivalence as applied to simple predications of a vague F over the objects featuring in a Sorites series for F. We do not, she has persuaded us, know of any sufficient reason for the view that each such predication results in a proposition such that either it or its negation is true. Then we must also take it that we have no sufficient reason for accepting the antecedent of the misconceived conditional. For if we had, then—since F-ness monotonically decreases, as it were, in the series in question, we should know that it consisted in an initial segment of F cases followed immediately by a remainder of non-F ones—and then we'd know Bivalence held over the series of propositions in question, contrary to hypothesis.

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<sup>9</sup> Or at least with its contrapositive

<sup>10</sup> Matters are less straightforward for non-supervaluationist indeterminism. One thought would be that the misconceived conditional will be harmless in that framework since classical reductio—needed in the derivation of the paradox from  $\neg(\exists x)(Fx \ \& \ \neg Fx)$  will have to be qualified to allow for Third Possibility. However we are, presumably at liberty to introduce a wide negation whose application to any statement produces a truth just in case that statement has some value other than truth. This negation should sustain classical reductio. The impression that the kind of vagueness we are concerned with precludes any sharp thresholds in the kind of series in question between truth and any other kind of status will then—apparently—suffice for the misconceived conditional with negation so construed.

How then is the column V theorist to fault the misconceived conditional? Well, what she can observe is simply that we certainly also have no sufficient reason for affirming the negation of the antecedent of the misconceived conditional—the paradox itself rules that out. So we should be agnostic—open-minded—about the antecedent. But the consequent—that F is not vague—is false by hypothesis. Since no thinker can rationally accept a conditional with a consequent she knows is false but an antecedent about which she ought to keep an open mind, the misconceived conditional is unacceptable in any case, since it is epistemically open that it is false. So the column V theorist may rationally refuse to accept it.

What, more generally, of the Sorites paradox? What exactly is the solution the column V theorist may propose? Well, simply that there is no obstacle to treating the Sorites reasoning as just what it appears to be, a demonstration that the major premise is false. That is an unsatisfactory proposal only if there is strong independent motivation to regard that premise as true. But that motivation was the thought that the very vagueness of F should suffice for the truth of the major premise, taken in the form:  $\neg(\exists x)(Fx \ \& \ \neg Fx')$ . And that thought, with the misconceived conditional, is now rejected.

For the column V theorist, and any agnostic about Bivalence for the relevant range of statements, recognition of the vagueness of F has to be consistent with agnosticism about the existence of a sharp cut-off in the series in question; that is, consistent with open-mindedness about the truth of  $(\exists x)(Fx \ \& \ \neg Fx')$ . The Sorites reasoning itself enforces the denial of the major premise—that is really only common-sense, shared by virtually all responses to the problem. A solution has to consist in explaining why that premise is under-motivated by the phenomenon, why F's vagueness does not enforce it. And the explanation offered by the broadly epistemic conception of vagueness which I have been advocating—and which may, so far as I can see, be quite comfortably accepted by the more orthodox Epistemicism of columns II and IV—is that the recognition of borderline cases is the recognition of a range of phenomena—the drying up of the 'springs of opinion' for a significant class of competent judges, the occurrence of gentle disagreement among tentative views on the part of others,

etc.—which broadly are about us and which entail nothing about the actual distribution of instances and counter-instances of F within the relevant range of cases, a fortiori do not entail that there is no case which is F whose immediate successor is not. What is true is that, in the presence of the phenomena noted, we have no clear conception of how a threshold, should there be one, might be identified. But lack of a clear conception of how something might be known is not a sufficient reason for saying it cannot be known, (even if we are disposed to grant that it would follow from the latter that it couldn't be true.)

For these reasons, theorists of each of columns II-V—an unholy alliance, no doubt—may unite in agreeing that and why the major premise for the No Sharp Boundaries paradox is poorly motivated by the phenomenon, and that the paradox may be taken as a simple reductio of that premise. There remains the discomfort—for all but those inclined to Epistemicism proper—of the apparent implication of a sharp threshold in all Sorites series. That implication may be avoided if broadly intuitionistic restrictions allow us to refuse the transition from

$$\neg\neg(\exists x)(Fx \ \& \ \neg Fx')$$

—established by the reductio—to

$$(\exists x)(Fx \ \& \ \neg Fx')$$

Such restrictions will be well motivated, as we have seen, if there is indeed a strong case for agnosticism about Bivalence over the relevant range of predications of F, for — again —  $(\exists x)(Fx \ \& \ \neg Fx')$ , taken as the statement of the existence of a sharp cut-off,<sup>11</sup> cannot be regarded as known to hold in the series in question unless Bivalence is.

What is that case?

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<sup>11</sup> — rather than, e.g., read supervaluationally.

Motivations for Agnosticism about Bivalence concerning Vague Predications

*First motivation :*

Suppose we are working in a discourse which we regard as subject to the principle of Evidential Constraint :

(EC)  $P \rightarrow$  it is feasible to know that P<sup>12</sup>

And suppose that we think we know that Bivalence holds over the discourse. Then we ought to think that we know, for each proposition expressible in the discourse in question, that the disjunction

It is feasible to know P or it is feasible to know not P

holds. But maybe we are uncomfortable about that—suppose, for instance, the discourse is number theory and P is Goldbach's Conjecture. Do we have any sufficient reason to think that a proof is available one way or the other? If we think not, and agree with the Mathematical Intuitionists, for whatever reasons, that truth in number theory is to be explicated in terms of provability—and hence that EC holds locally—we should be uncomfortable about accepting Bivalence. For we do not seem to have warrant for certain claims which, if Bivalence was warranted, we would have warrant for.

Goldbach's conjecture is—for us, in our present state of information—an example of a kind of statement I have elsewhere called a Quandary.<sup>13</sup> A statement P presents a quandary for a thinker T just when the following conditions are met:

(i) T does not know whether or not P

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<sup>12</sup> The modality involved in feasible knowledge is to be understood, of course, as constrained by the distribution of truth values in the actual world. Feasible knowledge is factive: the range of what, in the intended sense, it is feasible for us to know goes no further than what is actually the case.

<sup>13</sup> See my [2001]

- (ii) T does not know any way of knowing whether or not P
- (iii) T does not know that there is any way of knowing whether or not P
- (iv) T does not know that it is (metaphysically) possible to know whether or not P

The suggestion, then, is that, if P is a quandary for T, then the claim that

It is feasible to know P or it is feasible to know not P

is unwarranted for T. So if P belongs to a range which we regard as subject to EC, Bivalence is unwarranted as applied to P and other statements in the same case.

Note that the clauses for Quandary did not include undecidability:

- (v) T knows that it is impossible to know whether or not P

Goldbach is not in that situation. And, on pain of contradiction, no statements which are subject to EC can be.

Let F be a vague atomic predicate and consider a range of predications, Fa, ¬Fb,....., etc., made under the best possible circumstances for assessing their truth-values. In a very wide class of cases—at least, this holds of all the standard examples of Sorites-prone predicates—it is plausible that such predications are subject to EC. The conditions of being red, not being red, looking red, not looking red, being bald, not being bald, being tall, not being tall, etc.,..., are all such that, under the best circumstances, they show. But even under the best circumstances, such concepts may present borderline cases. The key ingredient in the first line of motivation is then that borderline cases are a sub-class of quandary. Borderline cases are cases where, for some significant number of competent judges, operating under good enough conditions, the springs of opinion run dry. If, as is plausible, we may legitimately add to the characterisation of the epistemic impasse in which they find themselves, a failure to know even whether a knowledgeable opinion about such a case is metaphysically possible, then both ingredients—quandary and evidential constraint—necessary to transpose to vague statements the intuitionistic reservation about Bivalence for number-theory, are in place.

*Second motivation:*

It is interesting that a related line of thought can proceed without actual endorsement of Evidential Constraint, just on the basis of a sympathetic agnosticism about it—one which reserves the possibility that it might emerge as correct. The argument would be this.

Suppose we are so far open-minded—unpersuaded, for instance, that any considerations so far advanced in favour of regarding simple colour predications on available, visible objects as subject to EC are compelling, but sufficiently moved to doubt that we know that their truth is in general subject to no form of evidential constraint. Suppose we are also satisfied that their vagueness deprives us of any grounds for thinking that we can in principle decide any such statement. The key question is then this: are we in a position where it is rational to leave epistemic space for our coming to be rationally persuaded of EC for these statements by considerations which would not improve our abilities to verify or falsify them? If the possibility of such considerations is epistemically open, then it must be that our (presumably a priori) grounds for Bivalence are already less than compelling—for what is open is precisely that we advance to a state of information in which EC is justified and yet in which borderline cases continue to present quandaries. And then the first line of motivation will kick in. But in that case we should recognise that Bivalence already lacks the kind of support that a fundamental metaphysical principle, and especially one which is supposed to ground a fundamental logical principle, should have—for that should be support which would be robust in any envisageable future state of information.

*Third motivation*

Neither of the foregoing lines of thought, however, is available to a theorist who holds that mere quandaryhood under-characterises borderline cases—that at least in (as it were, central) borderline cases, we know there is no knowing P and no knowing  $\neg$ P. This is clause (v) above—in effect, the Verdict Exclusion view of (some) borderline cases. Verdict Exclusion is, to stress, inconsistent with Evidential Constraint. If we think we know now that Verdict

Exclusion holds, we should reject not merely arguments which assume EC but arguments which assume agnosticism about it. (We have therefore so far seen no motivation for the Pessimism of column III.)

The most basic reasons, however, for incredulity about Bivalence in this context are quite independent of EC. Critics of standard Epistemicism<sup>14</sup> have generally fastened onto its perceived hostages to semantic theory. If there really are the sharp boundaries to the application of vague expressions in which the Epistemicist believes, then each vague predicate, e.g., is associated (in any given context of use) with a property as its semantic value whose extension is absolutely definite. But where is the theory that tells us what constitutes these associations? What makes it the case, for example, that my use of "tall" as a predicate of human males denotes the property it does—say: being more than 5' 10.327" tall—and can any such alleged association be reconciled with the supervenience of meaning on use? (How, for instance, would my use of "tall" have differed if its association had been with being more than 5' 10.326" tall instead?)

These are searching questions. In response to them, Williamson, for one, has tended to reply (uncharacteristically weakly, it seems to me) that reference is a notion of which we lack an adequate philosophical account in any case—that his view "has not been shown to be inconsistent with anything taught by the theory of reference."<sup>15</sup> That is like defending the claim that the life-span of the human person is standardly about one day—that we cease to exist in sleep, to be replaced by another centre of consciousness with the same range of seeming-memories, etc., on waking—by appeal to the unclear and vexed nature of the concept of personal identity. Sure, reference—and personal identity—are philosophically perplexing notions. But that is not to say that they are in such bad shape that no (consistent) view involving them can reasonably be discounted. If someone wanted seriously to maintain the sleep-replacement hypothesis, they would first owe an explanation of how the notion of

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<sup>14</sup> For instance Wright [1995] and Schiffer [1999].

<sup>15</sup> Williamson [1996] p. 43.

personal identity allows it as a genuine possibility—it is insufficient to say that, in the present state of unclarity of that concept, we cannot rule the hypothesis out. It is no different with Epistemicism and reference. In particular the one reasonably clear model (or type of model) we have of how the property presented by a predicate may not be transparent to those who fully understand that predicate—the model of lay natural kind terms like 'water' and 'heat' owing to Kripke and Putnam—seems to have no relevant bearing on vague expressions in general.

I myself see no reason to expect that we shall ever have a generally satisfactory theory of reference—especially predicate reference—which discharges Epistemicism's debts. To the contrary, I believe we never shall. But let that opinion pass. The question is: can anyone at all justifiably take themselves to know that Bivalence is good for vague sentences? If it is, each vague expression is associated with a sharply bounded semantic value of the kind appropriate to it, a sharply bounded property, relation, function, or whatever. Grant that our so-far articulated philosophical understanding of the determination of semantic value does not put us in position to rule that out (even if we regard it as outlandish.) The question is; can anyone, even the most rampant Epistemicist, put her hand on her heart and say that she knows that such is indeed the situation—that the required semantic associations really are in place? Williamson's defensive point was: well, you cannot rule it out. But we can grant that and still quite rightly be agnostic about the matter. And if we are, we should be agnostic about Bivalence too.

### Conclusion

Let me close, then, by insisting on something once regarded as obvious: that no-one, in our present state of understanding of these matters, can reasonably take anything but an agnostic view of Bivalence as applied to vague statements. If what I have been saying is right, the consequences of this claim are interesting and liberating. At the least, we need not worry about the Sorites, for it is disarmed in any case. Crucial remaining issues include: to refine the characterisation of the kind of broadly epistemic conception of borderline cases that I have suggested, and to address the need for an account of how—if not by mysterious associations



with sharp semantic values—the extension of vague expressions should be conceived as determined. It is here that I think there may be a role for notions of response-dependence. But that is for another occasion.

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