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7

Vagaries about Vagueness

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7.1

There are at least two broad approaches for dealing with certain sorts of vague expressions, those that admit the possibility of borderline cases, including terms like 'heap', 'bald', and 'adult'.¹ One approach, perhaps currently dominant, provides a metaphysically tidy account of the familiar phenomenon of there being *no fact of the matter*. This approach regards the world of facts as complete and fully determinate, and imputes vagueness and indeterminacy to a misfit between language and the objects and attributes (properties or relations) that make up the facts. Where there is 'no fact of the matter' concerning a particular borderline case, this is not due to a paucity of facts. The facts are all there; rather it is entirely because our language fails in its aspiration to capture the facts. Vagueness is a semantic misfiring of a certain sort.

This approach locates vagueness not in the world of objects and their attributes but solely in our means of representing the world. On this *vagueness-in-language* approach, having a property and standing in a relation is always a matter of definite fact, in a particular sense that is difficult to express correctly. For present purposes, I shall formulate the central thesis as follows: for any property *P* and for any (sortally

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¹ There is a third approach. According to *epistemicism*, vagueness is entirely a matter of ignorance. Cf. Sorensen (1986); and Williamson (1994). Here I ignore epistemicism. I think it excessively implausible that removing a single grain from a heap of sand can make for a non-heap, and that plucking a single strand of hair from the head of someone who is not bald can make him bald. Still, I suspect there is considerably more merit to epistemicism than is generally realized. I provide one reason for thinking so in Salmon (1986), at 343–44 of Salmon (1981). Another thing to be said for epistemicism (also discussed in Salmon (1986*a*)) is that even if the doctrine is false and there is no sharp cut-off between those configurations of grains of sand that are heaps and those that are not, and instead there is a range of borderline cases, there may still be a sharp cut-off, although we do not know where it is, between those configurations that are determinately heaps and the borderline cases, and again between the borderline cases and those configurations that are determinately not heaps.

appropriate) object o , it is either true or it is false that o is a P .² It is either true or false, for example (in fact, it is false), that the real number π is an even natural number. Likewise, for any n -ary relation ($n > 1$) R , and any (sortally appropriate) n -tuple of objects, it is either true or it is false that those objects are R (i.e. are R -related one to another). It is either true or false, for example (in fact, it is true), that π is less than 3.1416. Consequently—and this captures the core idea—every (sortally correct) atomic singular proposition is either true or false by virtue of a corresponding fact. For present purposes, we may reformulate this thesis by saying that for any n -ary attribute ($n > 0$) and any (appropriate) n -tuple of objects, those objects either definitely bear that attribute or they definitely bear the attribute's complement.³ In particular, where there is a property (unary attribute) P and an object, there is always a corresponding fact of the matter—either that the object is a P or that it is not (and consequently is a $non-P$). In short, there is *no predication without correspondence*.⁴ The world is just the way it is and there is no vagueness about it itself.

Although every singular proposition is supposed to be truth valued, the vagueness-in-language approach recognizes that sentences involving borderline cases are semantic-truth-value-challenged. This is allegedly because it is not settled which among a range of singular propositions—some true, some false—the sentence expresses.

On the vagueness-in-language approach, slippage occurs in the semantic connection between language and the world. Vague terms are semantically under-defined. The noun 'heap', for example, is one whose semantic content is supposed to be a property of certain material structures, but the word is only partially defined according to a rule that certain specific sorts of configurations (e.g. of grains of sand) qualify as 'heaps' and certain smaller configurations qualify as 'non-heaps,' with nothing being settled concerning configurations in between. These undecided structures are the borderline cases. (It is semantically decided in advance—hence analytic—that any heap-like structure of grains of sand larger than some heap is also a heap, and any heap-like structure smaller than some non-heap is also a non-heap.)

Which property of physical structures is it on the vagueness-in-language approach that the word 'heap' expresses (or designates)? On this approach, there are very many

² An object o is *sortally appropriate* to a property P if o is the right sort of thing to be a candidate for having P even if it does not have P .

³ It is to be understood here that for something of the appropriate sort to bear the complement of a property P is simply for it not to be a P (e.g. not to be an even natural number). For present purposes one might reformulate the thesis instead (albeit somewhat misleadingly) by saying that for any n -ary attribute ($n > 0$) and any (sortally appropriate) n -tuple of objects, those objects either definitely bear that attribute or they definitely lack it—where *lacking* an attribute is equivalent to bearing its complement. The core idea is that every sortally correct singular proposition is either true or false.

⁴ I am using the term 'predication' in a metaphysical rather than linguistic sense, for a pairing of an n -tuple of (appropriate) objects with an n -ary attribute (rather than a verbal subject-predicate ascription or its utterance). Strictly speaking, the vagueness-in-language approach confines the motto of *no predication without correspondence* to those objects and attributes associated with vague terms. It is consistent with this approach that objects fall short of having attributes, or else having their complements, for reasons other than vagueness—for example, sortal incorrectness (category mistakes). Henceforth I ignore potential sources of there being *no fact of the matter* other than borderline cases due to vagueness and semantic truth valuelessness due to failure of designation.

properties P of configurations of grains of sand that coincide with the partial specification of a *heap*, in that any structure that qualifies as a 'heap' according to the partial specification definitely has P and any structure that qualifies as a non-heap definitely has the complementary property, $non-P$. But not *vice versa*; borderline heaps definitely have some of these properties P while definitely having the complements of others. It is semantically settled that 'heap' is a term for one or another of these many properties P , but it is not settled which. The word does duty as a term for one property from the range of candidates, but it is arbitrary which one. David Lewis, champion of a version of the vagueness-in-language approach, called this alleged phenomenon 'semantic indeterminacy' and 'semantic indecision'.⁵

On the vagueness-in-language approach, it is not settled which property is expressed or which object is designated by a vague term precisely because in nearly every case it does not matter. The borderline cases are (supposedly) almost never problematic. If a situation requires resolution of the indeterminacy—as in the case of 'adult' and regulations governing certain activities—we can 'sharpen' or 'precisify' the under-defined term by artificial stipulation. Alternatively, we might use, or introduce, a more fully defined-term ('person 18 or older'). When we sharpen a previously vague word, we decide an issue previously left undecided. Until such time, we can happily live with the semantic under-determination. The task of fixing a particular content for the term is unfinished, but no one in his right mind cares. It ain't broke, so why fix it? Or as Mark Twain said on behalf of procrastinators everywhere, 'Never put off until tomorrow what can be done the day after tomorrow.'

On the vagueness-in-language approach, the world is fact-rich while the language is a work in progress. This is vagueness for fuzzy speakers in an exact world.

The alternative approach locates some indeterminacy in the bearing of attributes, and in this sense, in the world itself and not merely in our means for representing it. Indeterminacy of this sort is sometimes also called 'ontic vagueness'. On this *vagueness-in-the-world* approach, there can be a specific property P (e.g. being a heap) and a specific object o of the right sort for P (e.g. a physical structure consisting entirely of sand), with no problem of settling just which property and object these are, such that the corresponding singular proposition is still neither true nor false, just because o is a borderline case of P and consequently P is undefined for o . The world is seen as factually incomplete, with a host of definite questions left undecided because of a shortage of facts. There are attributes and (appropriate) objects for which a corresponding fact is missing; there is predication without correspondence. Where there is 'no fact of the matter' concerning a particular borderline case, this is because, although there is a *matter* there is no corresponding *fact*. On the vagueness-in-the-world approach, a word like 'heap' is only partially defined, but not in the sense that it is not semantically settled which property it expresses.⁶ It is fixed semantically that the word expresses a particular property—that of being a heap—to the exclusion

⁵ Lewis (1988). See also Lewis (1993), at 169–70 of Lewis (1999); and Thomason (1982).

⁶ The terminology of 'vagueness-in-language' and 'vagueness-in-the-world' is not meant to suggest that the two approaches so designated are the only approaches that locate vagueness in language or in the world, respectively.

of all other properties. But for some configurations of grains of sand there is no fact that the structure in question has the property in question, but neither is there a fact that the structure has the complementary property of being a non-heap (i.e. that it is not a heap). The borderline cases are such that it is indeterminate (neither true nor false, there is no objective fact of the matter) whether they are heaps. Borderline heaps—real and definite objects—neither definitely have the property of being a heap nor definitely have its complement—real and definite properties both. The borderline cases are indeterminate with respect to the property. If the question is raised whether a given borderline heap is a heap—yes or no—it is settled which matter is the issue at hand, but there is no fact to settle the matter itself. On this approach, when we sharpen a previously vague word, we do not decide an issue previously left undecided. Rather, we alter the meaning by assigning a new and different semantic content in place of the old.

On the vagueness-in-the-world approach, language is a finished product while the world is factually impoverished. This is vagueness for exact speakers in a fuzzy world.⁷

On either approach, certain atomic sentences—those predicating a vague term of a borderline case—suffer a lack of truth value, but the approaches differ dramatically in their diagnoses of the source (and possibly also the nature) of the gap: one approach blames the world of objects and their attributes, the other the means of representation. If the world is fuzzy, the language can hardly be blamed for the resulting semantic truth valuelessness. On the contrary, it is to the language's credit. On the other side of the coin, the principal appeal of the vagueness-in-language approach is precisely the hope it holds out for accommodating indeterminacy due to vagueness without countenancing objects and attributes with no corresponding fact—the utopian goal of no predication without correspondence.

Both approaches must face the question of how the truth values of molecular sentences are fixed on the basis of the truth values of the components, when they are and when a component lacks truth value. Whereas either approach may invoke the method of supervaluation,⁸ the vagueness-in-language approach seemingly all but demands it. According to that approach, if the structure of sand before us definitely has all of the candidate properties compatible with the word 'heap', we will interact with it the same way regardless of how the semantic under-determination might be resolved, correctly calling the configuration a 'heap' on each such admissible sharpened variant of the word. If the configuration before us definitely has the complements of all of the candidate properties, again we will interact with it the same way, correctly denying it is a 'heap' regardless of the sharpening.⁹ It is nearly always noted

⁷ I proffer an account following this approach in Salmon (1981), 298–300.

⁸ van Fraassen (1966); Fine (1975).

⁹ Using supervaluation in the metalanguage, the vagueness-in-language theorist will sincerely utter, or assent to, such pronouncements as 'There is a definite property—that of being a heap—expressed by the English word "heap"—even though such constructions in fact express *precisely what the theorist rejects as not corresponding to a fact*. Any such pronouncement by the vagueness-in-language theorist is thus extremely misleading (and will be revealed as such when the theorist spells out the view more thoroughly by adding 'It is under-determined which property from among a multiplicity of properties "heap" semantically expresses'). The language of the present essay

in this connection that one highly significant advantage of supervaluation over, for example, the Kleene strong three-valued truth-tables is that the former accommodates all the classical truths of logic: If I point to a nearby borderline heap and utter 'This is a heap', my sentence suffers a lack of truth value. On the Kleene truth tables, the excluded-middle disjunction 'Either this is a heap or else it is not' suffers the same truth value gap. On the method of supervaluation, the disjunction is true—or else it is *true* in a new, more refined sense, 'super-true': no matter which of the candidate contents the word is taken to express, the disjunction comes out true (in the traditional sense).

7.2

John Hawthorne has argued that the phenomenon of vagueness provides for a short refutation of the theory of direct reference for proper names.¹⁰ One example from Lewis may serve as illustration.¹¹ There are two municipalities in New Jersey both called 'Princeton': Princeton Borough and the surrounding Princeton Township (not counting nearby Princeton Junction, on the rail line between New York and Philadelphia). Residents of either municipality specify their city in their address simply as 'Princeton, New Jersey'. According to Lewis, the appellation 'Princeton, New Jersey' is semantically under-defined in the same way as 'heap'. It is semantically determined that the appellation designates a part of New Jersey, but it is not settled which part. On one admissible resolution of the indeterminacy—on one sharpening or 'precisification'—the appellation designates the borough, on another the fusion of borough and township (not a municipality).¹² The sentence 'Princeton, New Jersey is a borough' is true on some admissible sharpenings, false on others; it is neither super-true nor super-false. But 'Princeton, New Jersey is in New Jersey' is every bit as analytic as 'Either Princeton, New Jersey is a borough or it is not', since in all admissible models it is true on all admissible sharpenings.

Hawthorne argues as follows. Consider someone, Godfrey (Hawthorne chooses God), who knows the fact expressed by 'Princeton Borough is a borough'. The direct-reference theory embraces the following schema, where α is any designating proper name:

DR: Godfrey knows that α is thus-and-so, if and only if α is something Godfrey knows is thus-and-so.

is a metalanguage for vague object languages. It is my metalanguage, and I herewith stipulate that its sentences are not to be supervaluated. Any vagueness-in-language sympathizer who obstinately persists in supervaluating engages in deliberate misinterpretation (which is not nice). Supervaluation will be criticized below.

¹⁰ Hawthorne (2005), 8–9. Hawthorne's objection to direct reference is presented in passing.

¹¹ Lewis (1988), 128.

¹² The resulting 'semantic indecision' with regard to the appellation, 'Princeton, New Jersey', arises even if (perhaps contrary to followers of the vagueness-in-language approach) there is no additional semantic indecision with regard to 'Princeton Borough' or 'Princeton Township' or 'the fusion of Princeton Borough and Princeton Township'.

The left-to-right conditional is relatively uncontroversial but not the right-to-left. Some philosophers (evidently including Hawthorne) hold that Godfrey can know, and hence believe, of Ortcutt (*de re*) that he is a spy without even believing, let alone knowing, that Ortcutt is a spy. Let us assume *DR* for a *reductio ad absurdum*. We are given that the following sentence is true:

(1) Godfrey knows that Princeton Borough is a borough.

From *DR* and (1) we infer

(2) Princeton Borough is something Godfrey knows is a borough.

(Notice that this application of *DR* invokes the uncontroversial left-to-right conditional.) It will be generally agreed that the sentence

S: Princeton, New Jersey is a borough.

is not simply true (i.e. not super-true), since on some admissible sharpenings it is false. What is not true is not known. Hence,

(3) Godfrey does not know that Princeton, New Jersey is a borough.

Applying *DR* to (3) yields

(4) Princeton, New Jersey is not something Godfrey knows is a borough.

It follows from (2) and (4) by a suitably restricted form of Leibniz's Law that

(5) Princeton, New Jersey \neq Princeton Borough.

But (5) is false on one admissible sharpening, and hence not super-true.

Every transition in the derivation seems unobjectionable except one: the move from (3) to (4). This transition invokes precisely the controversial half of *DR*.¹³ Hawthorne concludes, 'it thus seems that considerations of vagueness, as applied to proper names, provide compelling grounds to give up' *DR* (9). Evidently, in particular, we must give up the controversial right-to-left conditional—not because we have uncovered a false instance (although some believe there are such), but rather because we have uncovered an instance that, through relatively uncontroversial considerations of vagueness, is seen to be un-super-true (and un-super-false):

If Princeton, New Jersey is something Godfrey knows is a borough, then Godfrey knows that Princeton, New Jersey is a borough.

Hawthorne is sufficiently wedded to the vagueness-in-language approach that he does not pause to consider whether the alternative vagueness-in-the-world approach calls this objection into question. Before considering whether it does, let us consider (3) on the vagueness-in-language approach more thoroughly.

¹³ Hawthorne uses a significantly more complicated example, also from Lewis, in which the term corresponding to our use of 'borough' is also relevantly vague. Although Hawthorne's derivation is more prolix, I believe the derivation presented here captures his intent. (Hawthorne could have made his argument against *DR* confining his observations simply to the inference from (3) and *DR* to (4).)

As Hawthorne realizes, he cannot legitimately build it into the example *by hypothesis* that Godfrey does not know that Princeton, New Jersey is a borough (for example, because Godfrey does not even believe it). If the appellation 'Princeton, New Jersey' is semantically under-defined, this fact will manifest itself in our evaluation of (3). Hawthorne believes (3) must be true since its complement clause, *S*, is vague in a way that prevents it from being true on all admissible sharpenings, and epistemology tells us that (3) is true if *S* is not. But this manner of argumentation flies in the face of the very method of valuation (i.e. of assigning truth values to complex sentences) that the vagueness-in-language approach employs. With supervaluation what matters are not the truth values of the components *per se*, but the truth value of the whole on all admissible truth valued sharpenings of the components. And on at least one such sharpening specifically mentioned by Lewis, (3) is false given that (1) is true—or at least, so the direct-reference theorist can be expected to argue. Moreover, the supervaluationist may consistently deem both *S* and (3) neither super-true nor super-false while accommodating the epistemological truism,

If Godfrey knows that Princeton, New Jersey is a borough, then Princeton, New Jersey is a borough,

since it is true on all admissible sharpenings.

Hawthorne considers this response (or something evidently nearly identical to it) and dismisses it as excessively weak. He argues for (3) precisely from the vagueness, and consequent non-super-truth, of *S*. Regarding the claim that (3) instead suffers a lack of truth value due to vagueness if *S* does, he says, 'That diagnosis seems less plausible, refusing as it does to acknowledge that vagueness brings a lack of knowledge in its wake' (9).

7.3

It must be granted that one cannot know what is untrue; *a fortiori* one cannot have knowledge of a proposition that is neither true nor false. For example, given that France is not presently a monarchy, one cannot have knowledge that the present king of France is bald, since it is untrue. But which untrue proposition is it that, according to (3), Godfrey does not know? We are here taking seriously Lewis's idea that 'Princeton, New Jersey' is under-defined. If it is, then *S* inherits the appellation's semantic under-determinacy. And if *S* is semantically under-determined, then (3) is as well.

On Lewis's view, it is 'not settled' which proposition *S* semantically expresses as its semantic content from among a set of candidate contents, some of them true, some false. This makes for three possibilities concerning *S*'s semantic content on Lewis's account: (i) *S* is ambiguous among the candidate contents; (ii) *S* does not express any of the candidate contents (and so does not express any proposition at all); and (iii) there is no fact of the matter concerning whether *S* expresses any particular candidate content. I find (i) the most plausible of these as an account of *S*. But on (i) *S* is semantically over-determined, not under-determined. On this possibility, *S* has both truth values, not neither. (It has only one truth value per reading.) Plausible though it may

be as an account of S , (i) is evidently incompatible with the vagueness-in-language approach.¹⁴

Possibility (ii) seems to capture the original idea that the task of assigning a semantic content to 'Princeton, New Jersey' was left unfinished. For if the process was left unfinished, then the task was not performed and nothing was assigned as content. If nothing was assigned as content, then nothing is the content. But recall that the schema DR is restricted to proper names α that designate. All bets are off if α does not designate.¹⁵

Lewis's talk of 'semantic indeterminacy' and 'semantic indecision' strongly suggests that he had in mind (iii) rather than (ii). Possibility (iii) will be discussed further in §V. Here it is sufficient to note that a similar problem arises on both of (ii) and (iii). In either case—whether S expresses none of the candidate contents or there is no fact of the matter—we lack the motivation sketched above for (3). For there is then no fact that the proposition that Princeton, New Jersey is a borough is untrue. There is only a fact that the sentence S suffers a lack of semantic truth value. The gap is due not to the fact that the proposition expressed is untrue—there being no such fact—but to a more radical kind of failure: either no proposition or no fact of the matter which. On the vagueness-in-language approach this provides a much more plausible motivation for the thesis that (3) is neither super-true nor super-false—at least given that Godfrey knows that Princeton Borough is a borough.

It is instructive to consider the transformation of Hawthorne's argument under the replacement of 'Godfrey knows' with 'it is true', where the latter is interpreted as a predicate for metaphysical as opposed to semantic truth, i.e. truth of a proposition as opposed to truth of a sentence. The analogue of DR is the following:

DR' : It is true that α is thus-and-so, if and only if α is something that truly is thus-and-so,

where as before, α is any designating proper name. This principle seems beyond reasonable doubt. It justifies the transition to (2'), 'Princeton Borough is something that truly is a borough'. On the other hand, if Lewis's vagueness-in-language account of 'Princeton, New Jersey' is correct, then nothing can justify

(3') It is not true that Princeton, New Jersey is a borough.

The fact that S is false under some admissible sharpenings directly yields only

(3'') The English sentence S is not super-true.

An additional premise is required to move from this to (3')—perhaps, 'The English sentence S semantically expresses the proposition that Princeton, New Jersey is a borough'. But on Lewis's account of 'Princeton, New Jersey', no such premise could be true. Instead, (3') should be counted neither super-true nor super-false. Similarly for (3).

¹⁴ I find the claim that 'Princeton, New Jersey' simply and unambiguously designates the fusion of borough and township not in the least implausible. This is incompatible with Lewis's account of the appellation.

¹⁵ Cf. Salmon (1998), 305–10.

Closer scrutiny reveals that on the vagueness-in-language approach even the sentence 'Princeton, New Jersey is in New Jersey' suffers a lack of truth value of some sort. For on that approach, either the sentence expresses no proposition at all or there is no fact about which proposition among several it expresses—possibilities (ii) and (iii) above. On the first alternative, the sentence cannot have a truth value. At first blush the second alternative seems to accord better with the idea that the sentence in question is true after all, since each of the candidate contents is true. Still, on this alternative, there is no fact concerning which proposition the sentence expresses. Now the semantic truth value of a sentence is defined to coincide with the metaphysical truth value of the proposition expressed. To say that a sentence is semantically true is to say that the proposition expressed is metaphysically true, and to say that a sentence is semantically false is to say that the proposition expressed is metaphysically false, i.e. that the denial of the proposition is metaphysically true. If the sentence suffers semantic indeterminacy concerning its semantic content, it is difficult to see that there can be a fact nevertheless concerning its semantic truth value, unless that fact is that there is no truth value.

Lewis downplayed this feature of his theory as if it were not a difficulty.¹⁶ He wrote: 'Super-truth, with respect to a language interpreted in an imperfectly decisive way, replaces truth *simpliciter* as the goal of a cooperative speaker attempting to impart information' (ibid., 172). Granted, by uttering 'That is a heap' or 'There is a prestigious university in Princeton, New Jersey' one imparts a great deal of information. It must be noted in response, however, that imparting information is not the same thing as literally expressing the information by uttering a sentence that semantically encodes it.¹⁷ On the vagueness-in-language approach, however useful these sentences may be as instruments for pragmatically imparting information, at best it remains indeterminate what information the sentences semantically encode. Insofar as some sentences are semantically under-determined, the phenomenon of truth under all admissible semantically determinate interpretations is not the same thing as truth. So-called super-truth falls considerably short of genuine truth; it is merely the absence of the potential to be reinterpreted, in a certain manner, as expressing a false proposition. As such, it is fake truth, a pretense more aptly termed 'pseudo-truth'.

To take an analogous albeit more extreme case, suppose a new adjective 'glubulatory' is about to be defined when an unforeseen circumstance aborts the attempt before any stipulative decision can be made (or even begun) except for this: that the new term shall correctly apply to Woody Allen. The yet-to-be interpreted sentence 'Woody Allen is glubulatory' will in the fullness of time, if our intentions are brought to fruition, come to express some truth or other, though it is not yet settled which.

¹⁶ Hawthorne appears unaware of the difficulty. He uses a concept of *definiteness* for propositions, characterized (ibid., 3–4) in such a way that, allegedly, semantic ascent may be avoided by saying of the propositions expressed ('meant') by (particular utterances of) 'Princeton, New Jersey is in New Jersey' and 'Princeton, New Jersey is a borough' that they are, respectively, definite and indefinite—not the sentences themselves but their semantic contents (whatever that means). Which propositions are those? (Although Lewis sometimes also spoke this way, he did not explicitly regard it as a way of avoiding semantic ascent by speaking about propositions instead of expressions.)

¹⁷ Cf. Salmon (1986b), 58–60 and *passim*.

It can hardly be said that the sentence is already true; it does not yet even mean anything. Very well, let us introduce a new honorific term, 'super-duper-deluxe-true', to apply to any sentence that either expresses a truth or is as yet uninterpreted but, if all goes according to plan, will someday come to express something that is true. The sentence 'Woody Allen is glubulatory' is thus super-duper-deluxe-true. This sounds like something very special, but it is in fact of no semantic significance whatsoever, since the sentence is meaningless. Things are no better if there is not even a fact of the matter concerning what a given sentence means. So it is with so-called super-truth. It makes no difference, for example, whether the conclusion of an argument is true under all admissible sharpenings under which the premises are true, if a premise is semantically under-determined to begin with. Such an argument offers no genuine support for its conclusion. A sentence that is semantically under-determined but comes out true under this reinterpretation or under that, or even under *all* admissible semantically determinate interpretations (i.e. is pseudo-true), is—when all is said and done—a sentence that is semantically under-determined. Calling the sentence true-in-a-different-sense conceals, but does nothing to change, the fact that there is either no truth value or no fact concerning truth value. Obfuscation is a blunt philosophical scalpel.

In fact, the vagueness-in-language theorists' reliance on supervaluation suggests that they may have neither possibility (ii) nor possibility (iii) in mind after all but (i).¹⁸ Maybe the vagueness-in-language approach is vague, and there is no fact of the matter concerning which possibility the vagueness-in-language theorist has in mind. (Derridians, who thrive on vagueness, will probably conclude that the vagueness-in-language theorist has all three possibilities in mind and he has none of them in mind.)

Problems for the vagueness-in-language approach do not end there. The excluded-middle disjunction 'Either Princeton, New Jersey is a borough or it is not' should suffer a lack of truth value of the same sort. For on the vagueness-in-language approach, this disjunction too either expresses no proposition at all or else is semantically indeterminate with regard to content. On the first alternative, it clearly has no truth value. On the second, either there is no fact concerning truth value or there is such a fact, which is that there is no truth value.

7.4

There is a closely related flaw in the general method of supervaluation—whether it is applied to compound sentences with components straightforwardly neither true nor false, to ambiguous sentences, to sentences with content-less components, or to semantically under-determined sentences.¹⁹ What is nearly universally cited as a significant advantage of supervaluation is in fact a serious disadvantage. For linguistic intuition dictates that whenever an English disjunction is acknowledged as definitely true (for example, 'Either I worked late last night and that is why I came home late,

¹⁸ Cf. Lewis (1993), 180.

¹⁹ Cf. Tye (1989).

or I got into an accident on the way home'), then it makes perfectly good sense to ask, 'Very well, which is it?'. If the disjunction is definitely genuinely true, the correct answer will be one of: 'the former', 'the latter', or 'both'. (Likewise, whenever an English conjunction is acknowledged as definitely false, then it makes perfectly good sense to ask, 'Very well, which is not the case?', with the same options regarding the correct answer.) Though the correct answer need not always be known, it need always exist if the disjunction is genuinely true. Contrapositively, if none of the three is a correct answer—not 'the former', not 'the latter', and not 'both'—then whatever else the disjunction may be (e.g. pseudo-true), it is not determinately, genuinely, straightforwardly true. This is so as much for an excluded-middle disjunction as for any other (making allowance for the possibility of scope ambiguity). In particular, if Russell's example 'The present king of France is bald' is (contrary to Russell) not false, then the disjunction, 'Either the present king of France is bald or he isn't', is not true—precisely as Frege and Strawson held—contrary to valuation by supervaluation.²⁰ Ordinary linguistic intuition strongly supports the conclusion that excluded-middle disjunctions with non-bivalent disjuncts are not evidence supporting supervaluation, but in fact counterexamples to it.

The claim that a disjunction is true though neither disjunct is, is sufficiently counterintuitive that charity virtually demands reinterpretation. (Likewise the claim that a conjunction is false though neither conjunct is.) I submit that the supervaluationist might typically mean something quite different by disjunction than what disjunction means—something with both weaker truth conditions and weaker falsehood conditions. Specifically, the supervaluationist, in uttering or assenting to a disjunction $\lceil \phi \text{ or } \psi \rceil$, might typically mean or interpret it as an abbreviation for a more complex construction, such as:

Either ϕ or ψ , or else it is logically true that if the propositions that ϕ and that ψ are both truth valued, then either ϕ or ψ ; and furthermore it is not logically true that if the propositions that ϕ and that ψ are both truth valued, then neither ϕ nor ψ .

References to logic might be replaced with references to some more specific theory or body of information (e.g. psychology). Where ϕ and ψ are classical sub-contraries (i.e. where $\lceil \text{Either } \phi \text{ or } \psi \rceil$ is a classical analytic truth) this interpretation is true, even if neither ϕ nor ψ is true and one or both is neither true nor false. (Let ϕ be 'The present king of France is bald' and let ψ be the negation.) And where ϕ and ψ are both classical analytic falsehoods this is false, even if not both ϕ and ψ are false and one or both is neither true nor false. (Let ϕ be any inconsistency and let ψ be a non-bivalent contradiction, perhaps 'The present king of France is bald and the present king of France is not bald'.) The other standard, dyadic, classical-logical

²⁰ Russell agreed that his excluded-middle disjunction is not true on any of the primary-occurrence readings. Contrast this with the following dialogue:

Bert: 'Either the present king of France is bald, or else not.'
 Pete: 'Very well, which is it?'
 Bert: 'Plainly the latter.'

connectives—‘if’, ‘and’, and ‘if and only if’—are then definable for the supervaluationist in the standard way in terms of ‘or’ and ‘not’, with the result that for the supervaluationist none of the classical dyadic connectives is truth-functional.²¹

Other charitable interpretations are possible. There are formidable complications in providing a charitable interpretation of the vagueness-in-language theorist’s use of disjunctions—indeed of the vagueness-in-language theorist’s use of any sentence involving a vague expression.²² The vagueness-in-language theorist would do better simply to mean by ‘or’ Kleene strong disjunction, and to come clean that compound sentences with semantically under-determined components are themselves semantically under-determined. Pseudo-truth and pseudo-falsity, by whatever name, are beside the point.

7.5

Let us consider more carefully possibility (iii): that on the vagueness-in-language approach there is no fact of the matter whether, for example, ‘Princeton, New Jersey’ designates the fusion of Princeton Borough and Princeton Township. It can be shown that on this construal, the vagueness-in-language approach, if thoroughgoing, leads to a curious infinite regress, one that renders the approach devoid of any genuine account of vagueness.²³

Let us ask the vagueness-in-language theorist: What exactly does semantic under-determination come to? Specifically, what does it mean exactly to say that it is semantically indeterminate—that it is not ‘settled’—which object a given designator designates? If the meta-linguistic claim that ‘Princeton, New Jersey’ designates the

²¹ In uttering or assenting to a conjunction $\lceil \phi \text{ and } \psi \rceil$, the supervaluationist might typically mean or interpret it as an abbreviation for: ‘Either both ϕ and ψ or it is logically true that if the propositions that ϕ and that ψ are both truth valued, then both ϕ and ψ ; and furthermore, it is not logically true that if the propositions that ϕ and that ψ are both truth valued, then not both ϕ and ψ ’. Where ϕ and ψ are both classical analytic truths this is true, even if not both of ϕ and ψ are true and one or both is neither true nor false. And where ϕ and ψ are classical contraries (i.e. where $\lceil \text{Not both } \phi \text{ and } \psi \rceil$ is a classical analytic truth) this is false, even if neither ϕ nor ψ is false and one or both is neither true nor false. Similar results obtain for the conditional and the biconditional. (On this proposal, the supervaluationist means by ‘not’ classical, three-valued, truth-functional, choice negation.)

²² The vagueness-in-language theorist, in uttering a sentence ϕ that invokes one or more vague expressions, might be charitably interpreted as meaning thereby the conjunction of all of (what the theorist regards as) the coordinated sharpenings of ϕ —where a sentential sharpening is *coordinated* if it sharpens related sub-sentential vague expressions compatibly with one another. Notice that this conjunction is false if any coordinated sharpening of ϕ is, whereas in uttering the negation $\lceil \sim \phi \rceil$ the vagueness-in-language theorist is interpreted as meaning thereby something that is true if and only if each coordinated sharpening of ϕ is false.

²³ I discovered after writing this chapter a closely related critique of the vagueness-in-language approach by Trenton Merricks (2001). I believe Merricks’ critique may suffer from his failing to distinguish between possibilities (ii) and (iii) and to construe the latter possibility in conformity with the characteristic feature of the vagueness-in-language approach: that there is no shortage of facts whereas the language fails to capture them. As will be obvious to Merricks’ readers, however, I am very much in sympathy with the general spirit of Merricks’ insightful discussion.

municipality-fusion suffers from semantic under-determination, and if vagueness-in-language is thoroughgoing, this semantic under-determination cannot be attributed to some deficiency in the designation relation itself (designation-in-English, for example). To do so would be to locate vagueness in objects and their attributes—in the municipality-fusion and the property of being designated in English by the appellation ‘Princeton, New Jersey’. This would be to renege on a campaign promise: No predication without correspondence. According to the thoroughgoing vagueness-in-language point of view, for any relation R between expressions and objects there is always a fact whether a given expression bears R to a given object or instead bears the complement $\text{non-}R$. To each appropriate pairing of attributes with objects corresponds a fact. It may seem, ironically, as if this tenet in itself in fact precludes possibility (iii), since for every semantic relation and for every pairing of an expression with a potential semantic value, there is always a corresponding fact either that the expression bears the relation to the potential semantic value or that it bears the complement.²⁴ Every purely semantic question then has a correct answer. But to conclude that this requires a fact whether ‘Princeton, New Jersey’ designates the municipality-fusion is evidently to misunderstand how vagueness is supposed to arise according to a thoroughgoing vagueness-in-language approach, assuming possibility (iii). On that approach, there is no fact concerning whether ‘Princeton, New Jersey’ designates the municipality-fusion not because of a missing fact—all the semantic facts are in place—but because of semantic indecision with regard to some expression, or expressions, in predicates like ‘designates the fusion of Princeton Borough and Princeton Township’. In this case the indecision is evidently meta-semantic, located in semantic terms like ‘designate’, ‘refer’, ‘denote’, ‘stands for’, ‘extension’, etc. (See note 12.) Some designation-like relations obtain between ‘Princeton, New Jersey’ and the fusion while the complements of other designation-like relations do so, and it is not settled which candidate designation-like relation ‘designate’ meta-designates, i.e. it is not settled exactly which semantic relation the word designates in the metalanguage.

Now if there is indeterminacy whether ‘designate’ meta-designates a particular designation-like relation R , this also cannot be attributed to a deficiency in the meta-designation relation, else again we lapse into vagueness-in-the-world, a relation and appropriate objects with no corresponding fact. Instead the indeterminacy must be located in the word ‘meta-designate’ (or in the phrase ‘designate in the metalanguage’, etc.). But if there is indeterminacy whether ‘meta-designate’ meta-meta-designates a particular meta-designation-like relation, this cannot be attributed to a deficiency in the meta-meta-designation relation and must instead be located in the word ‘meta-meta-designate’, and so on. Hence, if any object-language expression suffers from semantic under-determination, the entire hierarchy of semantic expressions—‘designate’, ‘meta-designate’, ‘meta-meta-designate’, etc.—is infected with indeterminacy all the way up.

This infinite hierarchy of vagueness may not seem especially problematic, until one recalls our original question: What exactly does semantic under-determination

²⁴ Merricks so concludes (op. cit., 150–1).

amount to? We are told that there is no fact of the matter whether 'Princeton, New Jersey' designates the fusion of Princeton Borough and Princeton Township but that this is due to a deficiency of language (the appellation 'Princeton, New Jersey'), not of the world. When we ask what the semantic under-determination of 'Princeton, New Jersey' amounts to then, we are told it is due to semantic under-determination with regard to the semantic word 'designate'. The attempt to explain semantic under-determination does not reduce the phenomenon to a 'previous case'; instead it 'reduces' it to a *new* case: semantic under-determination of 'designate'. When we ask what the semantic under-determination of 'designate' amounts to then, we are told it is not some deficiency in the putative designation relation, but rather semantic under-determination with regard to 'meta-designates'. When we ask what this last amounts to, we are told it amounts to semantic under-determination with regard to 'meta-meta-designates', and so on. At no stage in our deduction is any account ever offered, only a 'reduction' to a new case. At each stage, the explanation passes the buck to the next stage up. This is analogous to each commander in a chain of command delegating responsibility to a subordinate. Only here there are no buck privates; the buck never stops, the responsibility is never met. In short, assuming possibility (iii) the vagueness-in-language approach, if thoroughgoing, is no approach at all.

7.6

One sort of thing that would count as an explanation of semantic under-determination is this: Contrary to a thoroughgoing vagueness-in-language 'account,' there is a unique designation relation (for English), but for some pairs of expression-and-object—in particular, with regard to the pair, 'Princeton, New Jersey' and the municipality-fusion—there is no fact of the matter whether the first bears the designation relation to the second or instead its complement, non-designation. There is the municipality-fusion and there is the property of being designated by 'Princeton, New Jersey', but there is no fact whether the first has the second or instead has its complement. There is no fact whether the fusion is designated by the appellation.

This reduces vagueness-in-language to a special case of vagueness-in-the-world, the world of objects and linguistic attributes. The issue of whether the appellation designates the fusion is a linguistic matter of which there is no fact. There is predication without correspondence after all. This is what the vagueness-in-language approach eventually comes to, and, I suspect, this is the very position that Lewis and company adopt. Although vagueness ultimately traces to a paucity of facts, the vagueness-in-language theorist will take solace in that the missing facts are always linguistic in nature. (See again note 4.) There is vagueness in the world, it is reluctantly conceded, but only because language is a part of the world (even if philosophers are wont to pretend otherwise).

The metaphysically tidy account of indeterminacy as being due to a misfit between language and the world rather than to a worldly shortage of facts is seriously compromised. It is the fusion of Princeton Borough and Princeton Township—an extra-linguistic object—that now falls short of definitely having a particular property

or instead its complement. This is predication without correspondence. It would be mysterious, in fact it would be downright weird, if the municipality-fusion falls through the cracks with regard to certain linguistic attributes but not with regard to any non-linguistic attributes whatsoever—attributes of shape, pulchritude, climate, and so on. If there is an object, an appellation, and a designation relation but no corresponding fact whether the appellation stands in the designation relation or its complement to the object, one should expect that there can just as easily be a non-linguistic property—being a heap, being bald, being an adult, being pretty, etc.—and no corresponding fact whether a given object definitely has that property or instead its complement. Once vagueness is imputed to the world of objects and their attributes at some level, the masquerade party is over. Vagueness might as well be acknowledged at Level One—the level of extra-linguistic objects and their non-linguistic attributes.²⁵

In fact, once one countenances the prospect of objects and linguistic attributes but no corresponding fact, other things being equal it is best simply to face the reality of such non-linguistic properties as those of being bald and being pretty (and not merely pretend to do so by going through the motions—see note 9). If there is such a property as that of being bald and Godfrey is a borderline case, then there is no fact about whether he is bald but there is a fact about which proposition is expressed by 'Godfrey is bald', and there is also a fact about which truth value it has: *neither*. We know what Hegelians, who love a synthesis, will probably conclude about Godfrey. Those of us less enamored of a synthesis should seriously consider abandoning vagueness-in-language in favor of vagueness-in-the-world.

The most serious problem with the vagueness-in-language approach—and the most powerful consideration favoring the vagueness-in-the-world approach—is that the former approach imputes to any sentence involving a vague expression a failure with regard to semantic content—either no proposition expressed or, at best (even though more radical), no fact of the matter concerning which proposition is expressed. The great bulk of any human language suitable for everyday discourse (as opposed, for example, to the language of pure mathematics) is shot through and through with vague expressions. It is remarkably difficult in fact to provide clear-cut examples of English general terms (common nouns, adjectives, or verbs) that do not admit at least the possibility of a borderline case. It is a consequence of the vagueness-in-language approach that the vast majority of sentences that make up natural language—including those sentences that the approach deems 'super-true' or 'super-false'—suffer the relevant sort of failure of content (either no content or, more likely, no fact of the matter). This consequence of the approach is quite extreme. The continued popularity of the approach despite its strikingly radical commitments is a remarkable phenomenon in itself, one that undoubtedly reveals more about the discipline of philosophy than about the phenomenon of vagueness.

I argued that if vagueness is imputed at Level Two, it should be imputed at Level One. The converse is not so. Once vagueness is imputed at Level One, there is no longer any rationale for imputing vagueness at Level Two, or at least not the same

²⁵ Cf., Merricks, *ibid.*, 156.

rational as before. Borderline cases of heaps are fully accommodated by recognizing the property of being a heap, and recognizing that borderline heaps neither definitely have this very property nor definitely have its complement. To recognize this much does not require us to turn our backs on the many heap-like properties postulated by the vagueness-in-language approach. We may let a thousand flowers bloom. We simply acknowledge the existence of a pivotal, user-friendlier property—being a heap—and the resulting prospect of occasional singular propositions without truth value, occasional predication without corresponding facts. This misfit is not between language and propositions (or between language and the objects and attributes that make up the facts); it is between the propositions and the facts. There simply are not enough facts to adjudicate between every proposition and its anti-twin.

The vagueness-in-the-world approach imputes indeterminacy to the bearing of attributes by objects, not to the objects that are indeterminate with respect to those attributes. In a borderline case of a property there is the property and a definite object but no corresponding fact. Objects are not vague or indeterminate. Of course, some objects—ordinary physical objects, for example—have indeterminate *boundaries*. It might also be indeterminate whether a given object *exists*, e.g. as it is fading away into nonexistence. Both of these phenomena are cases of indeterminacy among an object's properties, not indeterminacy of the object itself. An object itself is just the thing that it is, and as Bishop Butler astutely observed, not another thing. An object is not the bundle of its qualities; it is that which has the qualities. The object is not it-with-such-and-such-properties. It is *the very object itself*, without even the clothes on its back. (Some objects have better appearances than others.) An object's properties are not the object itself, or even a part of the object. The object *has* whatever properties it has, lacks whatever properties it lacks, and is indeterminate with respect to whatever properties it is indeterminate with respect to.

Names for objects either definitely designate or they definitely do not. A name for an object whose boundary is fuzzy designates an object with a fuzzy boundary. A name for an object that does not exist (e.g. 'Socrates') designates a nonexistent object (Socrates).²⁶ A name for an object whose present existence is questionable presently designates an object of questionable ontological status, but the object in question is just what it is, nothing more and nothing less.

In short, objects themselves are not vague and neither are their names. What is indeterminate is whether certain objects bear certain attributes or their complements.²⁷

What, then, of Hawthorne's argument against direct reference? The phrase, 'the New Jersey municipality called "Princeton"', is an improper definite description,

²⁶ Cf. Salmon (1998), 286–7.

²⁷ One attribute that is not subject to indeterminacy of this sort is strict, numerical identity—the equivalence relation that any object bears to nothing other than itself. I provide proof in Salmon (1981), at 241–5 and 338–43. For a very similar but also significantly different argument, see Evans (1978). Both Evans' argument and mine have come under severe criticism, the most developed of which is Parsons (2000). I provide a comparison and adjudication between Evans's argument and my own, as well as a response to Parsons and other critics, in Salmon (2002).

since there are two such municipalities. But it would be draconian to declare the appellation, 'Princeton, New Jersey', therefore non-designative. In any case, if the appellation is non-designative, *DR* is inapplicable. Perhaps the appellation is ambiguous. Certainly a speaker can use it to designate the borough, or the township, or their fusion. If the appellation is ambiguous, then so are sentences that employ it, like *S*. The readings of the appellation on which (3) is true in Hawthorne's example are readings on which (4) and (5) are true as well. Perhaps 'Princeton, New Jersey' officially designates the fusion, end of story. In this case (5) is true, end of story. (This is the option I find most plausible of the three; see note 14.) Whether the appellation is non-designating, ambiguous, or univocal, Hawthorne's *reductio* of direct reference *ad absurdum* fails—although which is the false step depends on a verdict concerning a purely semantic issue.²⁸

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²⁸ The vagueness-in-the-world approach offers a simple, straightforward, and I believe obviously correct diagnosis of sorites arguments: They are perfectly valid but unsound. The inductive premise, i.e. the major premise 'For every n : If $F(n)$, then $F(n \pm 1)$ ' (e.g. 'The result of removing a single grain from a heap of sand is still a heap'), is not false. In fact, the vast majority of its instances are true. But not all are. Specifically, each of the conditionals whose antecedent or consequent is about a borderline case is neither true nor false. The inductive claim itself is also therefore neither true nor false. For more detail, see Salmon (1986a), especially 298–9, 330 of Salmon (1981).

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8

Vagueness, Metaphysics, and Objectivity

Stewart Shapiro

One much-discussed issue concerns the metaphysical nature, or the source or cause, of vagueness. Is vagueness a purely linguistic matter, concerned (merely) with how the world gets represented, via language, or is there a sense in which the world itself is vague? Is the vagueness of, say, baldness or the boundaries of a given mountain, a fact about the world, as it is, in itself, independent of human schemes of representation? Or is the vagueness of baldness and mountains merely a function of how we represent the world?

The purpose of this chapter is to argue against the intelligibility of the question of metaphysical vagueness, at least if it is put in such a straightforward and perhaps naive manner. Reflection on the origins and nature of vagueness in language suggests that the phenomenon is due to *both* the way the world is and the way that we, the users of language, and our faculties of representation are, and that there is no sense to separating those factors and attributing vagueness to one of them exclusively. This depends on some issues concerning metaphysics or, better, meta-metaphysics. So let us begin with those.

8.1 WHITHER METAPHYSICS?

There are a number of competing philosophical traditions that have it that, in one way or another, there is no way to sharply separate the 'human' and the 'world' contributions to our theorizing. The idea goes back at least to the saying attributed to Protagoras: 'man is the measure of all things'. Extreme versions of idealism, not to mention some postmodern perspectives, give the world itself a human character, holding that the universe is somehow shaped by our judgements, observations, etc. A more modest outlook is Kant's doctrine that the *ding an sich* is inaccessible to human inquiry. Against idealism and what would later be postmodern views, Kant agrees that there is a *ding an sich*, but he insists that we humans can only approach the world through our categories, concepts, and intuitions; and it is not possible to get beyond those, to the world as it is, independently of said categories, concepts, and intuitions. In short, there is no way to get at the world independently of how we get at the world.

Among contemporary philosophers, a widely held view, championed by W. V. O. Quine, (some temporal stages of) Hilary Putnam, Donald Davidson,