An Argument for the Many
Penultimate Draft.*

by J.R.G. Williams

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Abstract

If one believes that vagueness is an exclusively representational phenomenon, one faces the problem of the many. In the vicinity of Kilimanjaro, there are many many 'mountain candidates' all, apparently, with more-or-less equal claim to *be* mountains. David Lewis has defended a radical claim: that all the billions of mountain candidates are mountains. This paper argues that the supervaluationist about vagueness should adopt Lewis' proposal, on pain of losing their best explanation of the seductiveness of the sorites.

Before me, there is a mountain. But is there, in front of me, something which is definitely a mountain? A popular approach to the philosophy of vagueness is in danger of implying that the answer is 'no'. But we can independently argue that the answer should be 'yes'. There is a reconciliation in view: but it says strange things about the number of mountains I'm about to climb.

I

Many philosophers want to construe vagueness as a product of linguistic or representational indeterminacy. My focus here is on the most popular way of cashing this out: the 'standard' form of supervaluationism that is developed in Fine (1975) and recently defended by Keefe (2000).

A standard supervaluationist approach to vague language envisages a range of ways of making our vague language precise. A sentence will count as true *simpliciter* (or

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'supertrue') if it is true on every such precisification. (The metalinguistic notion of supertruth is reflected, in the object-language, by a 'Definitely' operator. We can characterize this, initially, in the following way: 'Definitely S' is true at a precisification p if and only if 'S' is true on all precisifications.)[1] One of the main selling points of the standard form of supervaluationism is that we can retain the simple, familiar and powerful classical logic in the context of vagueness. We need not worry that the tautologies that we learn in first year logic courses will be rendered invalid when we move to consider a vague language.[2] But just this commitment to classical logic is the source of a range of objections to supervaluationism.

We can illustrate the problems by running through a version of the notorious *sorites* reasoning. Suppose we are contemplating a range of emanations: mounds, hills, mountains, and the like. Suppose this range of emanations includes some which are clearly mountains (Kilimanjaro), and also contains emanations of intermediate heights, decreasing at small intervals, until ultimately we reach something which is clearly not a mountain (say, Glastonbury Tor). We shall suppose that, for any emanation in the series, there is a smaller one whose height is within 10 metres of it. For the sake of exposition, we imagine we are in a possible world where these emanations are arranged in order of decreasing height.

Now restrict the domain of quantification to this (finite) range, and let x' be a way of referring to the tallest emanation that is shorter than x, i.e. the next emanation in the range. Under relatively uncontroversial assumptions, classical logic will deliver:

(1) $\exists x(x$ is a mountain $\wedge \neg x'$ is a mountain$)$

This, however, sounds like we are asserting the existence of a sharp cut-off between those emanations that are mountains and those which are not mountains. But surely there is no sharp cut-off between mountains and non-mountains: a difference in height of only 10 metres cannot make the difference between mountainhood and non-mountainhood.[3]

Since the supervaluationist buys into classical logic, she is committed to endorsing (1). This leads to the following puzzle: why do our intuitions repel us from (1), given that (according to the supervaluationist) it is both supertrue and a clear consequence of the uncontroversial premises such as 'Glastonbury Tor is not a mountain' and 'Kilimanjaro is a mountain'? What explains the *repugnance* of the existential claim (1)? Correlatively, what explains the *seductiveness* of the negation of (1), assent to which will generate the *sorites paradox*?

Here is how one supervaluationist responds:

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[1]The definition can be generalized to allow 'definitely' to be applied to an open sentence. This is discussed below.

[2]The situation is actually more subtle than this might make it seem. See Williamson (1994, ch.5.).

[3]Perhaps government agencies might impose some precise conditions on what height of emananation should count as a mountain. But I suppose such facts to be incidental to the point at issue here—we can easily imagine a situation where no such stipulative definitions have been put forward.

> Our belief that there is no true instance of the quantification gets confused with a belief that the quantified statement is not true. The more theoretical description of the lack of a true instance needs to be expressed using either the [Definitely] operator or the truth predicate...

> (Keefe, 2000, p.185)

The *confusion hypothesis* which Keefe here endorses contends that our intuitions against statements such as (1) are rooted in a confusion between two related claims (here stated in the material mode):

(2) Definitely$[\exists x(x$ is a mountain $\wedge x'$ is not mountain$)]$

(3) $\exists x($Definitely$[x$ is mountain $\wedge x'$ is not mountain$])$

Keefe continues:

> The confusion ... is a confusion of scope, according to whether the truth predicate [or 'Definitely'-operator] appears inside or outside the existential quantifier. It is thus like a confusion between saying that it is true that someone ought to do X and saying that it is true of someone that they ought to do X: that latter may be false while the former is true.

> (*ibid*)

The suggestion is that, generally, we are apt to confuse an utterance of "There is something which is F" with "There is something which is definitely F": our intuitions about the former track the truth-values of the latter. But the two can come apart in truth-value, as is the case in the crucial sorites premiss. Accordingly, Keefe's suggestion is that an assertion of "there is a mountain next to a non-mountain" is heard as committing one to (3), rather than (2). If so, no wonder that we reject it out of hand.

Proposals of this kind can be presented in a theory-neutral way, and can be motivated independently of the point at issue. The need to explain the seductiveness of the sorites is incumbent on all non-logically revisionary treatments of vague language; and the confusion hypothesis requires only that one's favoured treatment allows the construction of the notion 'Definitely'. So, for example, Greenough (2003) defends an epistemic version of the confusion hypothesis;[4] and Edgington (1997) appeals to the same moves in the context of a degree theoretic account. So when supervaluationists such as Fine (1975) and Keefe (2000) postulate confusion to explain the sorites, it is

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[4]Indeed, the term 'confusion hypothesis' is due to Greenough.

no idiosyncratic idea. As regards independent motivation, one would hope that the alleged confusion involved in the case of sorites can be accounted for within systematic pragmatics for vague language. Weatherson (2002) argues persuasively that such an extension gives a range of powerful, surprising and accurate predications of intuitions about the acceptability of statements involving vague vocabulary.

I do not claim that appealing to confusion hypotheses of this kind is the only possible way for a supervaluationist to account for the seductiveness of the sorites. But it is something that prominent supervaluationists *do* endorse, and I am happy to think that of the extant options, it is the one they *should* endorse.

II

Mountains, we think, do not have precise boundaries—there isn't any convention over where precisely the base of Kilimanjaro finishes and the surrounding plains begin; or over which clods of earth at its base are part of the mountain.

For one who thinks that vagueness is an exclusively linguistic phenomenon, there are no 'vague objects' in the vicinity of Kilimanjaro, and no vagueness in what parts a given object has. Rather, what exists is an array of mountainy agglomorations of land and rock: the 'Kilimanjaro candidates'. There is Kilimanjaro-generously-construed, which includes all the pieces of land that one might count as part of Kilimanjaro under the most generous interpretation; there is Kilimanjaro-meanly-construed, where the only stretches of land counted as parts of Kilimanjaro are those that are clearly part of the main body of the peak itself. Two questions present themselves, either of which might deserve the name 'the problem of the many'.[5] The first asks which of the mountain candidates is Kilimanjaro: which is the referent of 'Kilimanjaro'? The second asks which mountain candidates (if any) are mountains: which fall under the predicate 'is a mountain'? We here focus on the second question.

There are two salient ways that a supervaluationist might handle this 'problem of the many', if they want to remain true to the idea of vagueness as an exclusively linguistic phenomena.[6] The first, sane, option, is to hold that on every way of making the language precise, exactly one of the mountain-candidates will count as a mountain—different candidates on different precisifications. Overall, then, it will be supertrue that there is a mountain; but it will be indeterminate which object is a mountain. The second,

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[5]See Unger (1980) for an early presentation of this problem. Weatherson (2004) surveys various approaches.

[6]I count among the 'ontological' options being discounted here, the view that there is a 'mountain' existing over and above the various mountain-candidates, in the manner that the statue is said to be a distinct object, though co-located with, the clay. The reason for this is that it looks like the relation of *constitution* supposedly holding between the mountain candidates and the floating mountain will be a vague one. Appeal to this solution therefore seems unavailable to one who believes that vagueness is an exclusively linguistic matter. Thanks to Carrie Jenkins for pressing me on this point.

insane, option, is to hold that on every way of making the language precise, all of the mountain-candidates will count as mountains. Overall, then, it will be supertrue that there is a mountain standing in front of me; further, strictly speaking it will be supertrue that there are *many* mountains in front of me, even when (as we would usually describe it) there is only Kilimanjaro around. For on this proposal each one of the mountain candidates will be a numerically distinct mountain.

The 'insane' option is commended by Lewis (1993) in "Many, but almost one". He does much there to rehabilitate the option, to show how it can give an account of why we say the things that we do. For example, to the objection that his theory amounts to a massive error theory of ordinary practice of counting and discriminating between mountains, Lewis replies by distinguishing 'almost identity' from identity proper. Objects x and y are almost-identical if they share almost all their parts. So, though the many mountain candidates are not identical in the strictest sense, they are 'almost identical'. Suppose we say that there are just two mountains in a range. We can take this to express the following: there are x and y which are mountains, and every mountain in the range is such that it is almost-identical to either x or to y. If 'identity' as used by English speakers, typically expresses *almost-identity*, then truisms such as "there are less than a million mountains in Scotland" will come out true, where on the strict reading of they come out false. By systematically reinterpreting the apparatus of individuation for natural languages in this way, Lewis makes tenable the initially incredible thesis that strictly speaking, there are billions of mountains in Scotland.[7]

III

Whether or not we continue to regard the 'many' thesis endorsed by Lewis as insane, if we want to maintain the confusion hypothesis discussed above, we need to buy into it. For on the rival view, on each precisification, only one of the Kilimanjaro candidates falls within the predicate "is a mountain". Hence there is no object in the relevant range which falls under the predicate "is a mountain" on *every* precisification. But, on the natural treatment of 'Definitely', this means that the following will be false:[8]

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[7]Note that the *semantic* hypothesis about the meanings of English words that Lewis explores does not require any objectionable metaphysical thesis about the nature of *identity* itself. Nor does it mean that we cannot create contexts—such as that of the philosophy classroom—where 'identity' will unambiguously express *strict identity*.

[8]What I refer to as the 'standard' treatment of 'Definitely' takes it that for an object to satisfy 'Definitely φ' is for those objects to satisfy φ on each admissible precisification. This is the natural generalization of 'Definitely' as requiring truth on every precisification, as described, for example, in McGee (1997). If one handles 'Definitely' analogously to a modal operator (with 'precisifications' replacing 'worlds' on the model of Lewis (1970)), then the above is simply the extension of the standard semantic treatment of quantification into modal contexts.

(4) $\exists x$ Definitely[x is a mountain]

This result, if sustained, completely undermines the confusion hypothesis outlined earlier. An immediate problem is that a range of false predictions flowing from the generalized form of the confusion hypothesis: our intuitions about the acceptability of asserting "there are mountains" are supposed to track the truth value of "there are definite mountains". The latter, on this view, is false—but obviously the former is perfectly assertible, contrary to the predictions of the confusion hypothesis.

An even more serious consequence of the 'sane' view is that the ability of the confusion hypothesis to *explain* intuitions about the sorites premiss is undermined. To illustrate this, let us put the explanatory challenge in the following contrastive form. In the original case presented above, where we have a range of emanations from Kilimanjaro to Glastonbury Tor, decreasing in height by millimetres from one to the next, we have strong 'no cut off' intuitions. Consider a new range, consisting only of Kilimanjaro next to Glastonbury Tor. With respect to this scenario, we have strong intuitions that there *is* a cut-off, a mountain standing next to a non-mountain. We have, that is, contrasting intuitions in the two cases. But the status of (3) is the same in the two cases, for its falsity rests on the non-existence of any definite mountains. The problem, of course, is that the status of (3) is now totally insensitive to the heights of the mountains and hills we have in our range, for its falsity is secured purely by the presence of many mountain-candidates, given the 'sane' resolution of the problem of the many.

It remains to be shown that adopting Lewis' 'many mountains' resolution of the problem of the many avoids these problems. Recall that on this view, on every precisification of the language, all the Kilimanjaro candidates will fall under the predicate "mountain". It follows that every Kilimanjaro candidate will be a definite mountain; a fortiori "there is something which is definitely a mountain", will be true; and no false predications about our intuitions concerning "there are mountains" arise. And similarly, whether or not (3) is true or false will depend, as it should, on the height and distribution of the emanations in the range that we are considering. The tension between supervaluationism and the confusion hypothesis can be removed, therefore, by adopting Lewis' proposals.

The confusion hypothesis plays a vital theoretical role within supervaluationism: without it we have no good way to explain the seductiveness of the sorites. So we have a strong reason to look favourably on the 'many mountains' proposal. By contrast, what reason have we for rejecting it? At first glance such a view looks *ontologically* excessive—billions of mountains where ordinary folk say there is just one. But there is no distinguishing the Lewis 'many' resolution and its rival on these grounds. They agree about what there is: billions of mountainy agglomorations of rock. The disagreement is simply about how these entities should be *labelled* in order to explain our language use. The intuitions of ordinary speakers do speak against the Lewisian resolution. But there is a familiar tactic available: explain away such recalcitrant data pragmatically.

The discussion in Lewis (1993), briefly described above, can be taken in this spirit. Given the strong theoretical grounds in favour, and the fragility of the case against, supervaluationists should adopt Lewis' 'many mountains' resolution of the problem of the many. The thing I am climbing is definitely a mountain. So, there are many, many mountains beneath my feet.[9]

School of Philosophy, University of Leeds, Woodhouse Lane, Leeds, UK.

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Arché AHRC Centre for the Philosophy of Logic, Language, Mathematics and Mind.
School of Philosophical and Anthropological Studies.
University of St Andrews.
j.r.g.williams@leeds.ac.uk

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