

## AMBIGUITY, DISCRETION, AND THE SORITES

Sooner or later, every paradox is accused of equivocation. Usually sooner. For equivocation is a simple, well understood fallacy. People first try to explain a mystery in terms of what is familiar. If postulating a simple ambiguity fails, more subtle ambiguities will be postulated. Those who persist with this diagnosis (and there are those who contend that this is the only diagnosis for all fallacies (Powers, 1996)) elaborate the charge of equivocation into an esoteric form.

My first goal is to show how the charge of equivocation lies behind apparently unrelated solutions to the sorites. Whole logics have been retro-fitted as artificial life support for diagnosing this paradox of vagueness as a fallacy of ambiguity. After showing the hidden centrality of the charge of equivocation, I shall demonstrate that vagueness is not a species of ambiguity. The clue to the fundamentality of the contrast is the impossibility of higher order ambiguity. I finish by criticizing the weaker suggestion that there is an illuminating analogy between vagueness and ambiguity.

### I. EVOLUTION OF THE "EQUIVOCATION"

The ontogeny of equivocation recapitulates its phylogeny. When I introduce the sorites to students, most suspect that the paradox has an ambiguous inductive predicate:

(A) 1. Base Step: One minute after noon is noonish.

2. Induction Step: If  $n$  minutes after noon is noonish, then  $n + 1$  minutes after is noonish.

3. Conclusion: Six hundred minutes after noon is noonish.

Some say `noonish' means one thing for the purpose of lunch dates, another for rendezvous by separated tourists. Other newcomers say the meaning of `noonish' varies from speaker to speaker.

However, all ordinary disambiguations are themselves susceptible to slippery slope reasoning. Replacing `noonish' with `noonish for a lunch date' yields a new sorites that is no less baffling than the original. Replacing `noonish' with `noonish in my idiolect' leaves me equally at a loss for a counterexample to the induction step.

Where the ordinary fails, the extraordinary may triumph. Accordingly, the charge of equivocation can be rescued by invoking the notion of a complete disambiguation -- one that eliminates all ambiguity. One may feel that relativizing `noonish' to the purpose at hand does constitute a complete disambiguation. However, equivocationists contend that vagueness is hidden hyper-ambiguity; the various ways of drawing the line between the noonish and non-noonish are themselves senses of `noonish'. Thus a complete disambiguation would be a precisification that eliminated every borderline case. Precise words are immune to the sorites. Hence, some suggest that the sorites paradox can be solved by strict obedience to the logical requirement that terms of an argument be uniformly interpreted.

However, none of the alleged senses are listed in any dictionary. Nor do any of the postulated senses of `noonish' pass any of the

ambiguity tests designed by linguists. Moreover, an intention to use 'noonish' in one of these senses has no influence on the meaning of the sentence. Suppose we know Mrs. Malaprop falsely believes 'temerity' is ambiguous between being presumptuous and being timid. When Malaprop says 'Deer have temerity', we know what Malaprop intended to say (her "speaker meaning") but also know Malaprop said something else ("statement meaning"). Compare Malaprop to Mr. Ambiguity who believes 'noonish' is ambiguous between readings of the form 'within n minutes of noon'. Mr. Ambiguity decides to use it as 'within 15 minutes of noon' when he remarks '12:15 is noonish but not 12:16'. Mr. Ambiguity's statement does not mean what he intended. Mr. Ambiguity's speaker meaning could have converged with his statement meaning if he had stipulated a new sense for 'noonish'. But stipulation would be redundant if 'within 15 minutes of noon' was already one of the senses of 'noonish'. The speaker would not need to do anything further to sensitize the statement to his intention.

Moreover, the assimilation of vagueness to ambiguity makes the sorites paradox too easy to solve. If 'noonish' were ambiguous between readings of the form 'within n minutes of noon', then the speaker could exploit the discretion over meaning that is constitutive of ambiguity. By intending 'noonish' to mean 'within 15 minutes of noon' he could tautologously assert '15 minutes after noon is noonish but 16 minutes after noon is not noonish'. Thus he could infallibly deny the induction step of the sorites. Others would have to go along with him because the speaker has authority over what his (ambiguous) words mean.

Can 'noonish' be sensitized to the speaker's meaning by bald stipulation? No, for suppose Mr. Stipulation tries to refute (A) by

stipulating 'noonish' to mean 'within 15 minutes of noon'. The sorites monger would justly insist that the meaning of (A) is already established by the sorites' monger's intention. The best Mr. Stipulation can do is propound an argument that is homonymous with (A). Call this strawman sorites (A'). Perhaps Mr. Stipulation can show (A') equivocates. But inferring that (A) equivocates from the premise that (A') equivocates is itself an equivocation.

One might attempt to sideline my appeal to dictionaries, ambiguity tests, and speaker discretion by claiming that linguists use 'ambiguity' in a different sense than philosophers. This will be addressed when I pass to a demonstration that 'ambiguous' is semantically univocal. However, in the meantime, I register agreement that 'ambiguous' is pragmatically ambiguous. In particular, the equivocationist can resolve some of the "conflict" between linguists and logicians by drawing attention to how their different purposes affect the pragmatic dimension of 'ambiguous'. For instance, we prefer to call words ambiguous only when the differences between the readings are significant. But this is compatible with the existence of much ambiguity. (Psycholinguistic reaction time studies suggest that frequently we unconsciously disambiguate sentences -- the sentence looks univocal because the implausible readings have been screened out.) After all, different speech acts can be performed with 'That is ambiguous': accusing a debater of equivocation, excusing an inadvertent rule breaker, or, in the opposite spirit, inviting or licensing further interpretations. The assertibility conditions for 'That is ambiguous' are far narrower than its truth conditions. A failure to draw the distinction will lead us to underestimate how much ambiguity there is.

Since vagueness concerns insignificantly small differences between the readings, linguists deny that vagueness is ambiguity. But is this a denial of the assertibility of 'Vagueness is ambiguity' or a denial of its truth? Equivocationism merely says that, for logical purposes, ambiguity and vagueness only differ in scale, not in kind. 'Ambiguity' is used for one purpose by logicians (diagnosing the fallacies), and for other purposes by linguists. Thus the equivocationist will dismiss his apparent conflict with linguists as a verbal dispute turning on a (pragmatic) ambiguity of 'ambiguity'.

Diagnosing an argument as intrinsically equivocal requires a psychological explanation of how a fluent speaker could fail to detect the shift in meaning. (An argument is intrinsically equivocal if the meaning shift turns on properties of the speaker himself rather than relational features such as those involved with indexicality, linguistic division of labor, and other phenomena cited by externalists.) Special justification is needed because part of linguistic competence consists of an ability to detect ambiguity. (That is why foreign language instructors are pleased when their students begin to chuckle at double-entendres.) So how do equivocationists shoulder this burden of explaining the lapse in our ambiguity detection? By appealing to the principle that people are insensitive to small differences. In particular, the shifts in meaning of 'noonish' are subliminal. An illusion of univocality is conjured in the same way that the rapid succession of film frames creates an illusion of continuity. Thus supervaluationists say vagueness is "ambiguity on a grand and systematic scale" (Fine 1975, 282).

One must be careful not to postulate unlearnably many senses. Contextualists economize by stressing the relational nature of the

ambiguity. 'Noonish' would then only need to be "completed" in the way of 'north', 'empty' and 'flat'.

Speakers can relativize words to subtly different domains of discourse. Watch my imitation of Peter Unger (1975, 65-68): Make your hand flat. Done? Then compare your hand to your desk top. See, your desk top is flatter. Therefore, your hand is not really flat. Is your desk top flat? There are things flatter than your desk top and those things themselves could be flatter. Therefore, nothing is flat! David Lewis says that Unger is "changing the score on you" (1983, 245) by jacking up standards of precision. According to Lewis, the sorites monger is also abusing his right to control the context of his own assertions. The sorites monger is free to draw the line anywhere he wants -- but he must stick to one delineation. Mixed delineations are equivocations.

Alvin Goldman (1989) intimates that we are driven to equivocate by a principle of good continuity: having applied 'noonish' to 12:14, we are committed to extending 'noonish' to include 12:15.

Diana Raffman (1994) moves even closer to psychologism. She maintains that people judge like cases alike over short runs but eventually undergo a gestalt switch to another category. Times that we now "see as" non-noonish are later seen as noonish. The induction step is true only on a small scale, when limited to items within a perspective. However, no perspective is large enough to encompass six hundred minutes. Thus the induction step only looks plausible because we agglomerate many local perspectives into an ambiguous montage. Strictly speaking, the sorites argument is inexpressible -- no category functions (univocally) over such a wide stretch of cases.

A charge of equivocation must avoid condemning good arguments. However, Raffman's localism jeopardizes sound mathematical inductions such as

1. A bath at 40 degrees centigrade is hot.
2. If a bath at  $n$  degrees centigrade is hot, then a bath at  $n + 1$  degrees is also hot.
3. Therefore, a bath at 60 degrees centigrade is hot.

As the baths get hotter, there would eventually be a gestalt shift. After all, moving back from 60 degrees to 40 would seem like a plunge into coolness. What was seen as hot, would be seen as non-hot. But this sensitivity to perspective is compatible with simultaneously affirming the first premise and conclusion.

A switch in perspective does not entail ambiguity. There is a whole genre of jokes that turn on satisfying descriptions in surprising ways. My favorite features an adulterer bragging to his companion. He happens to spot his mistress having lunch with his wife and remarks 'What a scene! A mistress spends breakfast with her lover and then lunch with his wife!'. His companion turns white and gasps "How did you know?".

We know that a psychological phenomenon is peculiar to vagueness only if we know that the phenomenon does not also arise for precise terms. For instance, suppose we verify that observers who start with red shades over-extend 'red' and those who start with non-red shades under-extend 'red'. We must then, as a control, check whether this primacy effect holds for precise terms. Consider a sequence of squares (of various

sizes) that are followed by nearly square rectangles and then clearly non-square rectangles. This "slippery slope" lets us check whether observers over-extend 'square' when they start from squares and under-extend 'square' when they start from non-squares.

The equivocationist needs to attribute ambiguity in a pattern that preserves a discriminative account of mathematical induction (i.e. one that rejects bad arguments while accepting good ones). This has led to logics of vagueness that restrain the postulation of ambiguity. Supervaluationists carefully shape the notion an "admissible precisification" to attain reflective equilibrium. Complete disambiguation was originally pictured as a practical option. After all, bureaucrats precisify terms for administrative purposes. Better yet, scientists share an ideal of precision that leads them to cumulative sharpenings (Carnap 1950). Even if actual disambiguations are inevitably partial, we can extrapolate to the limiting case in which all vagueness is eliminated. The charge of equivocation could then amount to the claim that the sorites could not be sound in an ideal language.

An equivocation gives you the choice of interpreting the argument uniformly, in which case one of the premises is false, or attaching different meanings to the terms in the premises, in which case the argument is invalid. The conservative desire to preserve the theorems of classical logic lead supervaluationists to emphasize the first alternative. On the other hand, revolutionary zeal leads some paraconsistent logicians to say the sorites is invalid (Hyde 1997). They make a special study of reasoning from premises that are both true and false. Since they think ambiguous sentences do not obey the law of non-contradiction, they think that the sorites is invalid.

## II. THE META-EQUIVOCATION SERIES

Those who assimilate vagueness to ambiguity, must characterize higher order vagueness as higher order ambiguity. For I can mount a defense of (A) with the help of a higher order mathematical induction:

- (B') 1. The poser of argument (A) does not equivocate at the first step.
2. If the poser of (A) does not equivocate at step  $n$ , then he does not equivocate at step  $n + 1$ .
3. Therefore, the poser of (A) does not equivocate at any step.

The assimilationist will object that argument (B') equivocates on "equivocates on `noonish'"). This is a complex accusation. But the objections will need to be more complex. Why? Because I shall defend myself against the charge of equivocation by a yet higher order argument:

- (B'') 1. The poser of (B') does not equivocate at the first step.
2. If the poser of (B') does not equivocate at step  $n$ , then he does not equivocate at step  $n + 1$ .
3. Therefore, the poser of (B') does not equivocate at any step.

The new objection will be that argument (B'') equivocates on `equivocates on "equivocates on `noonish'". As my meta-arguments ascend to (B'''), (B''''), . . . the objections become indefinitely more complex.

To equivocate is to equivocate between senses. Thus the equivocationist must specify the different senses. However, there are no such alternatives. Even if there were, I (the alleged equivocator) did not

intend one of the alternatives at one stage of the argument and another at another stage. So I am not equivocating when defending the sorites monger against the charge of equivocation. Since there is no further flaw in the (B) arguments, they are sound.

Granted 'equivocate' is vague and can thereby figure as the inductive predicate of sophistical sorites arguments. In sense spectra series the demarcation between senses is vague. The terms are pairwise indistinguishable while members at the extremes are plainly distinct. Metaphorical extension often creates a semantic slippery slope. D. A. Cruse (1986, 72) illustrates with 'mouth':

1. John keeps opening and shutting his mouth like a fish.
2. This parasite attaches itself to the mouths of fishes, sea-squirts, etc.
3. The mouth of the sea-squirt resembles that of a bottle.
4. The mouth of the cave resembles that of a bottle.
5. The mouth of the enormous cave was also that of the underground river.

We can show that the sense of 'mouth' in 1 is a different sense than the sense of 'mouth' in 5 by the clearly zeugmatic nature of

6. The poisoned chocolate entered the Contessa's mouth at the same instant that the yacht entered that of the river.

Cruse (1986, 71-74) also cites 'handle' as applied to door, drawer, suitcase, umbrella, sword, knife, and spoon. We can show that 'handle of the door' and 'handle of the spoon' use 'handle' in different senses by

the double-reading we are forced to give 'He grasped the handle of the door in one hand, and that of the spoon in the other.' Ambiguity can be systematically exposed by such zeugmas. The zeugma test reinforces the judgment that 'handle' is used equivocally in 'Bill owned a handle of a door and a handle of spoon, therefore, Bill owned two handles'. But no clear zeugma is obtained by substituting immediately neighboring members of the sequence. So there is no clear equivocation in 'Bill owned a handle of a door and a handle of a drawer, therefore, Bill owned two handles.' Nor in 'Bill owned a handle of a door, a handle of drawer, and a handle a suitcase, therefore, Bill owned three handles'. As we consider arguments that progressively claim more and more handles, we eventually come to the clearly equivocal argument in which Bill is claimed to own seven handles. But it is not clear which argument contains the first equivocation.

The 'handle' example demonstrates that 'equivocate' is vague. However, it does not show that 'equivocate' is vague along a dimension that can help the equivocationist refute the B series of meta-arguments. For the charge that one has equivocated on 'equivocate' requires specification of alternative senses of 'alternative senses', not alternatives senses of another word. The infinite ambiguities of 'equivocate' could not all be traced to 'noonish' because a 24 hour clock only offers 1,440 delineations of the form 'within n minutes of noonish'. Our inability to think of alternative senses of 'alternative senses' is a sign that there is something misconceived in the very idea of an alternative sense of 'alternative sense'.

### III. `AMBIGUOUS' IS NOT AMBIGUOUS

Those who assimilate vagueness to ambiguity agree that `vague' is vague; they decline the invitation to draw the line between the borderline tall men and clearly tall men. The need to iterate `vague' without limit is illustrated by stacked dissolutions. Suppose a husband and wife debate whether 12:15 is noonish. A second couple witness the dispute. The husband of the second couple asserts the first couple's debate is irresolvable on the grounds that 12:15 is a borderline case of `noonish':

(C) "`12:15 is noonish' is vague.

However, his wife begins a debate about (C). This attracts the attention of a third couple. The husband of the third couple dismisses the second couple's debate on the grounds that 12:15 is only a borderline case of "a borderline case of `noonish'". In other words, he asserts:

(CC) "`12:15 is noonish' is vague" is vague.

The chain of higher order vagueness can be continued indefinitely. The wife might contradict (CC) and so on. This is a pregnant point. But for my purposes, it suffices to note that iterating `vague' sometimes yield a truth. Indeed, (CC) might be just such a truth.

Can `ambiguous' yield a true iteration? Philosophers and linguists agree that

(D) "The bank is muddy" is ambiguous.

However, they find the iteration bizarre:

(DD) ` "The bank is muddy" is ambiguous' is ambiguous.

For they read `ambiguous' in their customary way; as `has alternative senses'. Those intent on finding a way to interpret (DD) as true will rummage for peripheral senses of `ambiguous'. For example, some dictionaries offer `uncertain' as a synonym. Uncertainty iterates. A reporter might say (DD) to her editor if unsure whether her only source told her (through a bad phone connection) that he was unsure about whether the bank is muddy. The existence of other senses of `ambiguous' would also open the possibility that the two occurrences of `ambiguous' in (DD) might mean different things. For example, someone may assert (DD) to caution that the utterer of (D) could be using `ambiguous' to mean `uncertain' and could be using `ambiguous' to mean `has alternative senses'.

There are semantic doctrines that imply `ambiguous' is ambiguous. Operationalism identifies meanings with methods of verification. Operationalists would infer the ambiguity of `ambiguity' from the divergent outcomes of ambiguity tests.

Jaakko Hintikka (1973) characterizes Aristotelian ambiguity as ambiguous because Aristotle sometimes used `ambiguous' to cover homonymy and sometimes to cover any multiplicity of use. The latter "sense" of ambiguity would commit Aristotle himself to the ambiguity of `ambiguity' because there are diverse species of ambiguity: polysemy, amphiboly, etc. Those with the same penchant for confusing generality as ambiguity, such as Gilbert Ryle, are apt to form a large consensus that `ambiguous' is ambiguous. If believing that a word means something

were enough to make the word mean it, then the `ambiguity' of ambiguity would be infallibly believed by this group.

However, a conception of ambiguity does not qualify as a concept of ambiguity. If it did, my thesis could be refuted by simply stipulating distinct readings for `ambiguity'. Worse, all arguments would be open to the charge of equivocation. For any term used in an argument, there is a possible eccentric usage. If this usage qualified as a sense, the argument would be equivocal.

We feel pressured into licentious postulation of senses because we fear that holding out for our preferred definition will mire us in trivial disputes. To avoid unrewarding debates about the real meaning of the word, we embrace semantic subjectivism: a word means whatever the speaker intends it to mean.

Sometimes we are forced to treat a conception as if it were a concept to avoid begging the question. But acting as if a word is ambiguous is not a concession that it is really ambiguous.

The above ways of making sense of the ambiguity of `ambiguous' do not help those who assimilate vagueness to ambiguity. To state their thesis as a proposition, they must use `ambiguous' in a single sense. They do not want their thesis about equivocations to be itself equivocal.

Univocality is also a requirement at the conceptual level. Words can be ambiguous between different concepts. But concepts cannot themselves be ambiguous. What would they be ambiguous between? Any concept of ambiguity must itself be unambiguous. In contrast, the concept of vagueness can itself be vague just as the concept of generality can itself be general. The assimilationist must concede that he has

thought that vagueness is ambiguity. So his concept of ambiguity must be as unambiguous as anyone else's.

And indeed, the assimilationists' use of 'ambiguous' is univocal. They clearly intend the 'ambiguous' in their thesis to be read in the standard way, as 'has alternative senses'. That is the usage in currency amongst linguistics and philosophy. And that is the use of 'ambiguity' needed to make sense of the charge that the sorites monger equivocates.

Perhaps some assimilationists think that 'has alternative senses' has alternative senses. We should then wait for them to specify which sense they intend in formulating their thesis that vagueness is a kind of ambiguity. Once they have done that, we will ask the same question: is this specified sense of 'ambiguous' itself ambiguous? If they answer yes, then they have failed to specify a proposition that constitutes their assimilation thesis. If they answer no, then they agree to the asymmetry thesis, namely, there is higher order vagueness but no higher order ambiguity.

'Has alternative senses' is vague. After all, polysemous words acquire extra senses gradually. So sometimes there is no telling whether a word is ambiguous. The vagueness of 'ambiguous' suggests a simple argument for the distinctness of ambiguity and vagueness:

1. 'Ambiguous' is vague.
2. 'Ambiguous' is not ambiguous.
3. Therefore, vagueness is not ambiguity.

Is vagueness ever a form of ambiguity? The pervasiveness of higher order vagueness shows that vagueness is never ambiguity. Typically, where

there is vagueness, there is vagueness as to where the borderline cases begin and end. `Vague' is used in the same sense when characterizing lower order vagueness and higher order vagueness. Since higher order vagueness cannot be ambiguity, lower order vagueness cannot be ambiguity.

#### IV. AMBIGUITY IF, AND ONLY IF DISCRETION

The univocality of `ambiguous' is reinforced by the discretionary nature of ambiguity. If a sentence is ambiguous between two senses, the speaker has authority over which reading is correct. For example, if I intended the money-bank reading, then my utterance of `The bank is muddy' does indeed mean that the money-bank is muddy. Since ambiguity implies discretion, ambiguity about ambiguity implies discretion about discretion. However, discretion about discretion entails discretion. This ensures that ambiguity about ambiguity collapses into ambiguity. Therefore, there cannot be any ambiguity about ambiguity.

Discretion does not entail discretion about discretion. The dean may forbid the chairman from delegating his power over whom to hire. However, as long as the chairman has discretion over whether to have discretion over whom to hire, he has discretion over whom to hire. For he can choose not to delegate and to act on his freedom to hire.

(Existentialists go further than me by insisting that the discretion to choose can never be waived; there is no escape from freedom. I am merely saying that the choice lasts as long as the discretion to choose.)

If the speaker has power over whether he has power over what his utterance means, then he does have power over what the utterance means. This discretion over meaning is a sufficient condition for

ambiguity. Since second order ambiguity entails first order ambiguity, there is no sense of `ambiguous' under which there can be second order ambiguity without first order ambiguity.

Illustration: Some philosophers think that `or' has an inclusive sense and an exclusive sense. Others think that `or' only has an inclusive sense (Barrett and Stenner, 1971). So the two parties debate whether `or' is ambiguous. Suppose some third party diagnoses this as a verbal dispute, one that turns on an ambiguity of `ambiguous'. We refute the neutrality of the third party's "dissolution":

1. If there is an ambiguity about whether `or' is ambiguous, then there must be discretion about whether `or' is ambiguous.
2. If there is discretion about whether `or' is ambiguous, then there is discretion about whether there is discretion about `or'.
3. If there is discretion about whether there is discretion about `or', then there is discretion about which reading of `or' to adopt.
4. If there is discretion about which reading of `or' to adopt, then `or' is ambiguous.
5. Therefore, if there is an ambiguity about whether `or' is ambiguous, then `or' is ambiguous.

The argument shows that the "dissolution" would actually take the side of those who think `or' is ambiguous.

There is a second way discretion excludes second order ambiguity. If `ambiguous' were ambiguous, then the utterer of `ambiguous' would have discretion over whether `ambiguous' is ambiguous. Now suppose I act on this discretion in the hope of demonstrating that `ambiguous' is

unambiguous. In particular, I make a special point of using 'ambiguous' unambiguously in my denial of

(E) 'Ambiguous' is ambiguous.

My adversary must concede that my denial of (E) expresses a true proposition. However, he will quickly add that he also speaks the truth when he affirms (E). My "adversary" says that our utterances are both true because I am not denying what he is affirming. We are expressing distinct propositions.

Recall David Lewis' (1979) theme of speaker authority. If the speaker affirms 'Italy is boot-shaped', then standards change to make the utterance true. If he denies 'Italy is boot-shaped', then standards change to make it false. Each speaker has a whim of iron. The difference in standards shows that conflict over whether 'Italy is boot-shaped' may be merely verbal -- different propositions are expressed by the affirmer and denier. The same shiftiness favors a speaker who denies (E). The denial leads us to adopt standards that orchestrate the falsehood of (E). However, the affirmer of (E) will also utter a truth because standards will also shift to accommodate him.

This reply has a special problem when applied to 'ambiguous'. The contextualist can only assert a different proposition than I am denying if he is asserting a proposition. However, the contextualist's utterance of (E) must itself be ambiguous because he has chosen to use 'ambiguous' ambiguously. So, by his own lights, his utterance of (E) fails to express a proposition. The only way the contextualist can make his utterance express a proposition is to make it express a false proposition by using

`ambiguous' unambiguously. Sincere affirmation of (E) is paradoxical because we cannot read in an object of belief. I cannot believe a sentence that I believe has an unresolved ambiguity.

Contextualism looks like relativism when it tries to accommodate those who disagree with it. A standard that makes `ambiguous' ambiguous must also be a standard that is compatible with `ambiguous' not being ambiguous. No single standard can do this. The conflict cannot be resolved by dividing the incompatible properties between distinct standards:

(F) There is a standard under which `ambiguous' is ambiguous and a standard under which `ambiguous' is not ambiguous.

For the first conjunct of (F) just repeats the problematic proposition. Applying the splitting strategy again just takes another step down an infinite regress.

## V. DOUBTS ABOUT WEAK ASSIMILATION

The strong assimilation thesis says that vagueness is literally a species of ambiguity. The weak assimilation thesis merely says that there is an illuminating analogy between vagueness and ambiguity.

I certainly wish to grant that the purported analogy has expository value. Historians of philosophy will be able to characterize much of this century's thought about vagueness as conclusions drawn from widespread beliefs about ambiguity. However, if these premises about ambiguity are false, then there is no genuine analogy between ambiguity and vagueness. The myths about ambiguity would be powerful psychological predictors

of beliefs about vagueness. But they would not support cogent inductions about vagueness itself.

There is an historical parallel with theories of inheritance. Prior to the dissemination of Mendelian genetics, biologists were strongly influenced by the blending model of inheritance. Most knew that children are not blends of their parents because, for instance, some blue eyed children have brown eyed parents. But the absence of a better theory led biologists to regularly revert to the simplicity and familiarity of blending. Similarly, even those who reject the ambiguity model of vagueness tend to picture vagueness as a form of systematic ambiguity.

In contrast to misleading comparisons, informative analogies yield knowledge. They draw upon law-like similarities rather than accidental resemblances. The weak assimilation thesis would be vindicated just in case the analogical reasoning from ambiguity to vagueness helped us understand vagueness. In particular, the analogy would be informative if it helped us diagnose the sorites paradox.

However, only the strong assimilationists can charge the sorites monger with equivocation -- for equivocation entails ambiguity. If one concedes that the sorites argument is univocal, then one cannot invalidate the sorites by showing that it merely resembles an equivocal argument. Refutation by logical analogy is only effective where there is a chance that the target actually has the same flaw as the fallacious argument offered in comparison.

Background errors about the nature of ambiguity might make the weak assimilation thesis seem relevant to the sorites. For example, Kit Fine (1975) contends that an ambiguous sentence is true if it is true

under all of its disambiguations. His reasoning: If John went to the money bank which is also on the river bank, then

(G) John went to the bank

is true. In the case of tautologies, there is no need to rely on coincidences to make the ambiguous sentence true:

(H) Either John went to the bank or it is not case that John went to the bank.

"Mere ambiguity does not impugn [the law of excluded middle]. So why should vagueness?" (Fine 1975, 285). Truth in virtue of truth under all disambiguations is cited as a precedent for truth in virtue of truth under all precisifications. This principle would ensure the truth of classical tautologies and falsehood of all classical contradictions. Logic stays classical (at least as far as the theorems are concerned). As a bonus, the principle implies that the induction step of the sorites is false. For there is a last noonish minute under every (complete) precisification of 'noonish'.

Michael Tye correctly objects that this is a bogus precedent: 'John went to the bank' is true only if it has been actually disambiguated. If the speaker has not intended one reading rather than another, then the best that can be said is that the utterance would have been true had it been disambiguated. If hypothetical disambiguations do not count, why should hypothetical precisifications? (Although supervaluationists have a

fondness for Aristotle, Aristotle has premonitions of Tye's misgivings in De Caelo I II.280b1 ff and Sophistici Elenchi 17.176a4 ff.)

Tye's objection can be supplemented. Usually, speakers disambiguate uniformly. Uniformity makes the sentence simpler to understand. However, as David Lewis (1982, 439) observes in the course criticizing relevance logic, mixed disambiguations are permissible. His example:

(I) Scrooge walked along the bank on his way to the bank.

Lewis is sensitive to the limits mixed disambiguations impose on relevance logic but not to the implications mixed disambiguations carry for supervaluationism. In particular, mixed disambiguations refute Fine's contention that the law of excluded middle applies to even ambiguous sentences. An utterance of (H) can be false if the first occurrence of 'bank' is disambiguated differently than the second occurrence.

Lewis might try to preserve the symmetry between ambiguity and vagueness by insisting that vague sentences can have mixed interpretations. For example, it may be suggested that 'Few poets are poets' can be true because of a transition from a loose usage of 'poet' to a strict usage. However, this is a pragmatic phenomenon. Compare 'Few poets are poets' with 'Few poets are real poets' and 'Few poets are poets'. Emphasis does not change the semantic meaning of the term although it does alter the pragmatic uptake. 'Few poets are poets' is false but it suggests a truth just as Tom Hayden's 1992 observation of Mario Cuomo's coyness about his presidential aspirations: "Cuomo is running by not running."

In any case, Lewis cannot allow mixed precisifications because his whole objection to the sorites is that it fails to keep uniform standards. He accuses the sorites monger of "changing the score". But if mixed precisifications are permitted, then the induction step does not come out false on every precisification.

Vague statements always require a uniform reading. Vagueness does not present us with a choice between pre-established meanings. The only way I can make 'noonish' mean 'within thirteen minutes of noon' is to stipulate this as a new meaning. In the absence of stipulation, 'noonish' will fail to mean 'within thirteen minutes of noon' even if I intend that to be its meaning. Selective intentions only have semantic impact between ambiguous alternatives.

## VI. VAGUENESS IS AS MUCH AKIN TO GENERALITY

The assimilation of vagueness to ambiguity should be no more fruitful than assimilating vagueness to generality. In some ways, the assimilation of vagueness to generality makes more sense. It is no accident that 'vague' has a sense in which it is roughly synonymous with generality.

The direct bearers of vagueness and generality are a word's full disambiguations such as 'short for eighteenth century French man'. Words are only vague or general indirectly, by virtue of having a sense that is vague or general. In contrast, an ambiguous word has its ambiguity directly -- simply in virtue of having multiple meanings.

Typically, a word is ambiguous between some readings, vague between other readings, and general between yet other readings. For example, 'child' is ambiguous between 'immature offspring' and 'offspring', vague over when a child becomes an adult, and general in

that it covers both males and females. To avoid conflating the ambiguity/generality/vagueness distinction, we must relativize to the appropriate range of readings.

Most words are vague and most words have two discretionary aspects. But none of this discretion issues from the word's vagueness. A highly general instruction confers discretion by tolerating a wide range of choices, for instance, 'Pick a four digit number of personal identification'. All the freedom lies in how the instruction is satisfied. None of the latitude lies in the meaning of the discretion. All of the discretion operates within the bounds of an established meaning.

In contrast, an ambiguous sentence has several readings. The speaker gets to decide which of these readings will be possess by his utterance. The speaker decides whether his utterance of 'Some bats are dangerous' is about a sport tool or about flying mammals. Ambiguity gives the speaker control over meaning. Generality gives control over how an utterance with a fixed meaning is rendered true or false.

Vagueness does not confer any discretion. A word's ambiguity or generality can confer discretion. But these sources of discretion get the credit rather than the word's vagueness.

## VII. CONCLUSION

Although the univocality of the sorites has the clearest impact on supervaluationism, other theories have a stake in the assimilation of vagueness to ambiguity. I have already noted a connection between ambiguity and paraconsistent approaches to the sorites. But it should be further observed that many-valued logicians frequently maintain that vagueness arises from the failure of predicates to pick out a unique

property. For example, 'noonish' could pick out the property of being with 15 minutes of noon or the property of being within sixteen minutes of noon, and so on. If one thinks of properties as meanings, then the failure to uniquely specify a meaning comes close to ambiguity. For they certainly do not wish to interpret the multiplicity as generality.

Since the sorites monger is not equivocating, the sorites can only be criticized in the manner of other univocal arguments. That means the sorites can only be challenged on the grounds of soundness. Since the base step is obviously true, the induction step must be false -- and not merely "super-false". This in turn means, via quantifier negation, that there are indeed sharp boundaries for vague predicates.

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