17

Vagueness as Semantic

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I shall argue that vagueness, understood as a semantic phenomenon, can be accommodated within standard semantics by assimilating it to contingency in standard modal semantics and suitably modifying the pragmatics. I claim that vagueness in natural language is not a defect and that accommodating it is therefore obligatory for semantic frameworks for natural languages. In section 17.2, I interpret the claim that vagueness is a semantic phenomenon as involving at least the claim that vague predicates do not determine an extension. I then outline three ways in which standard semantics can account for the failure of an expression to determine an extension, namely ambiguity, indexicality and relativity to circumstances of evaluation (e.g. contingency). I point out some problems with treating vagueness as a form of ambiguity or as a form of indexicality. Then I explain the view that vagueness is a form of relativity to circumstances of evaluation, and why such a view needs to provide an account of the normative significance of truth for assertion and belief. I show how this normative role is constrained by the two desiderata that we explain the seductiveness of sorites arguments and give an account of borderline cases. Finally I briefly consider higher-order vagueness and conclude by comparing the account given with other views of vagueness.

17.1 VAGUENESS IS NOT A DEFECT

Many natural language predicates are vague in the sense that they seem subject to tolerance constraints and therefore generate sorites paradoxes. For example, the predicate 'is rich' is vague because it seems to be subject to the constraint that if someone is not rich then receiving a small amount of money such as one cent will not make that person rich. Thus a sorites paradox can be formulated as follows:

(A) A person with possessions worth 0 Euros is not rich.

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(B) If a person with possessions worth n Euros is not rich, then a person with possessions worth $n + 0.01$ Euros is not rich either.[1]

(C) A person with possessions worth 100 million Euros is not rich.

(C) seems to follow from (A) and (B), but while (A) and (B) seem clearly true, (C) seems clearly not true.

This phenomenon is widespread. Countless natural language predicates are vague in this sense. The vagueness of these predicates does not seem to be an impediment to their usefulness in communication. Similarly, the concepts expressed by vague predicates do not seem to create any problems for our thought. The vagueness of natural language predicates and the concepts they express is therefore not some deficiency, shortfall or malfunction. Vagueness is perfectly normal.

If vagueness is normal, then semantic frameworks for natural languages, ought to be able to accommodate it. If standard frameworks cannot accommodate vagueness, then they need to be abandoned in favour of new or modified frameworks that do accommodate vagueness. In the interest of continuity, it is therefore desirable to explore if and how standard semantics can make room for vagueness. As we shall see, there are several ways in which room can be made for vagueness within standard semantics, some better than others.

17.2 VAGUENESS AS EXTENSIONAL INDETERMINACY

There is a minority of philosophers, the *epistemicists*, who hold that vagueness is not a semantic problem, but rather reflects our inability to know the exact borderlines of the extensions of the predicates (and concepts) we use. On this view, premise (B) in the above sorites is simply false. There is a truth of the form

(D) A person with possessions worth n Euros is not rich and a person with possessions worth $n + 0.01$ Euros is rich.

But we cannot know that truth because of general principles concerning knowledge.[2] It is this fact that explains why (B), despite its falsity, is so attractive. According to epistemicism, then, vagueness is an epistemic, and not a semantic phenomenon. The meaning of vague as well as non-vague predicates determines for each object whether it is in that predicate's extension or not.

The majority, however, finds the epistemic view incredible, in large part because it remains mysterious how the precise extensions of vague predicates are determined. The majority instead believes that vagueness is a semantic phenomenon, i.e. that the meanings of vague predicates fail to determine exact extensions. I will not provide any reasons to favour semantic views over epistemicism. I shall merely assume that

[1] There are different ways of formalizing 'a person' in (B), see Pagin 2009. These differences will not matter for the current discussion.

[2] See Williamson 1994 and Sorensen 1988.

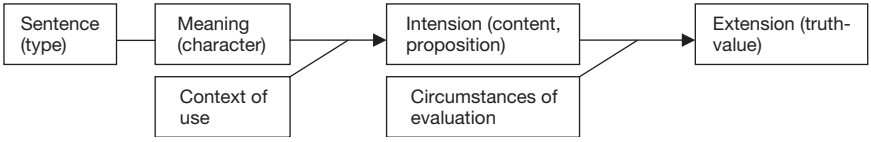
the semantic view is correct. Starting from that assumption, I will make a case for a certain treatment of vagueness, understood as semantic, within standard semantic frameworks. Thus the conclusion of this chapter is a conditional one.

Some of those who believe that vagueness is a semantic phenomenon may think that the failure of vague predicates to determine an extension is a kind of imperfection that it would be better to reform away. I have already argued above that vagueness should not be treated as an imperfection because it is a normal, widespread and unproblematic aspect of language use. Others may infer from the extensional indeterminacy of vague predicates that we must modify the semantic framework, e.g. by allowing three truth values. But before going down that path, we ought to examine the resources of the existing standard framework to accommodate the kind of extensional indeterminacy characteristic of vague predicates.

17.3 STANDARD SEMANTICS FOR CONTEXT-SENSITIVE LANGUAGES WITH INTENSIONAL OPERATORS

The semantic framework I shall be using can be called 'double-index semantics for context-sensitive languages'.[3] According to this framework, the meanings of natural language sentences determine *characters*, and these are functions from contexts of use to contents (propositions). Contents in turn are (or determine) functions from circumstances of evaluation to truth values (see diagram below). In the language of intension and extension: the meaning of each expression determines, in a context of use, an intension, and an intension determines, in each circumstance of evaluation, an extension, as shown in the diagram. For example, the English sentence 'I am hungry now.' has a character that determines different contents in different contexts of utterance. Utterances of the sentence can express propositions about different people and different times, depending on who utters it when. Now, consider one of these propositional contents, about some person John and some time *t*. This content, i.e. the proposition that John is hungry at *t*, has a truth value. Which truth value it has will depend on how things are with John at *t*, or, in other words, it will depend on the circumstances of evaluation. If John goes long enough without eating before *t* and is otherwise normal, then the proposition is true. If John has a large breakfast just before *t*, then it is not true. Thus the proposition is true in some possible worlds and not in others. The extension of the concept *is hungry at* t varies from one possible world to another. To summarize: the determination of the truth value of an utterance is generally a matter of two stages: the meaning or character of the expression determines,

[3] This type of framework is familiar from Kaplan (1977). Lewis (1980) argues against Kaplan's two-stage approach and proposes a competing one-stage theory, which does not postulate contents expressed by sentences in contexts. I shall assume that Kaplan is right to introduce double-indexing, but that otherwise the difference between Lewis's index theory and Kaplan's two-stage theory is not directly relevant to present purposes. For discussion see Recanati 2007.



for each context of utterance, a content, and then that content determines, for each circumstance of evaluation, an extension. Such variation in extension with different circumstances is a feature of contents that is exploited in the standard semantics of modal operators.

It is worth adding that natural language *sentences*, in addition to their characters, also exhibit force indicators. These force indicators indicate the communicative function of utterances of the sentence.[4] Thus, the proposition that John is hungry at *t* could be expressed, for example, with assertoric force, or as a question. Even though semanticists are traditionally more concerned with the truth conditional content of utterances, their theories must ultimately connect up with the theory of speech acts. One particular link that will play a role below is the normative role the extension of an utterance has for assertoric speech acts. Usually it is thought that assertion in some sense aims at truth, so that asserting an untrue proposition constitutes some kind of mistake.

A semantic theory for a language in some sense[5] represents part of the competence of users of that language. One aspect of linguistic competence, however, is usually treated as pre-semantic: the ability to resolve ambiguities. The input from which a semantic theory can be used to derive intensions (and illocutionary forces) of utterances, is thought of as *unambiguous* syntactic forms. *Which* unambiguous syntactic form is expressed by the utterance of an ambiguous sentence (such as 'The bill was huge.') is something that will again be resolved by recourse to the linguistic and non-linguistic context of the utterance. Despite some similarities, there is a difference between disambiguation and assignment of content to indexicals.[6] Disambiguation is usually treated as pre-semantic, while assignment of contents to indexical elements is treated as part of semantics. This is why the diagram above does not represent the determination of character or meaning of an expression type as yet another semantic function, in addition to the functions from context to content and from circumstance to truth value.

[4] See Kölbel forthcoming for more detailed reflections on force indicators and assertoric force.

[5] In what sense is a notoriously difficult question which I shall not broach here.

[6] It is not easy to justify the relegation of disambiguation to the pre-semantic realm, or the strict separation of the two phenomena. There are great similarities between some of the phenomena that are standardly treated as cases of ambiguity and those that are standardly treated as cases of indexicality. Names, such as 'John' are often treated as ambiguous, and such treatment may explain why in some contexts one can say literally and coherently 'John is home, but John isn't.'. Some however, will treat this as evidence for the indexical character of personal proper names—compare 'He is French and he isn't.' or 'Now the lights are on and now they are not.', when demonstrating different people or times at the moment of uttering the different occurrences of 'he' and of 'now'.

17.4 THREE STANDARD SOURCES FOR EXTENSIONAL INDETERMINACY

As already noted, on the semantic view of vagueness, vague predicates fail to determine for each object whether the predicate applies to it. For short, vague predicates are extensionally indeterminate. Diagnoses of this sort are not at all alien to the semanticist. There are three ways in which a semantically non-deficient predicate (thought of as an expression type) can fail to determine an extension: the predicate may be ambiguous, indexical or its extension may vary with the circumstances of evaluation. Let me briefly review these three sources of extensional indeterminacy.

The first source is ambiguity: ambiguous expressions fail to determine an extension. For example, the word 'coach' has several distinct and unrelated meanings in English. Each meaning determines a different extension. On one meaning, some people are, some people are not in the extension of 'coach'. On the other meaning, no person is in the extension.[7] When ambiguous expressions are used in communication, confusion is avoided because the context of use allows communicators correctly to disambiguate, i.e. to focus on one of the meanings of the ambiguous expression and to ignore the others. For example, if someone utters 'The coach is waiting.', then successful communication seems to require correct disambiguation. Correct disambiguation would here seem to involve at least that speaker and audience disambiguate in the same way.

The second source is indexicality. A predicate may fail by itself to determine an extension because its character is a non-constant function. For example the predicate 'is my uncle' expresses different properties when used by different speakers. When used by you it expresses a (relational) property instantiated by your uncles (if any), and when expressed by me it expresses a property instantiated my uncles.

The third source is sensitivity to circumstances of evaluation. A predicate may fail to determine an extension because the content it expresses is a non-constant function from circumstances of evaluation to extensions. The best known and least controversial type of example is that of predicates expressing contingent properties. The extension of the property of being a photographer varies according to what actually happens. Modotti is in the extension the property has in some circumstances of evaluation, including the actual circumstance. But had she met different people in her youth, she would not have become a photographer, and would consequently not have been in the extension of the property. Sensitivity to circumstances of evaluation is best known in the case of contingency, and often circumstances of evaluation are interpreted merely as possible worlds. However, the framework does in principle allow further parameters in the circumstances. For example, one circumstantial parameter that

[7] Some prefer to use 'word' ('expression', 'predicate') in such a way that by definition each word has only one meaning. Thus instead of having one word with several meanings, we have several words that are phonetically and orthographically indistinguishable. On this terminology, it is not words, but, for example, phonetic types that are ambiguous. This is just a terminological variation.

has been much discussed is the time parameter that temporalists (including Kaplan himself) want to add.[8]

The standard framework thus allows for three sources of extensional indeterminacy, and if vagueness is a form of extensional indeterminacy, each of these is a potential source of vagueness. I shall discuss the three sources in turn.

17.5 VAGUENESS AS AMBIGUITY

Suppose we want to account for the phenomena of vagueness by treating vagueness as a special form of ambiguity. This is how the story goes: a vague predicate, such as 'rich' has many meanings, in fact countless meanings, each of which draws a different precise boundary between the rich and the non-rich. This explains why the predicate by itself does not determine an extension. Thus, the semantics is standard, but we have an especially complicated pre-semantics.[9]

There is an immediate worry. When successfully communicating with ambiguous expressions, communicators are generally required to disambiguate, and to do so correctly. This means, at least, that in successfully interpreting an ambiguous utterance, speaker and audience have in mind the same of the candidate meanings. But there does not seem to be an analogous requirement of disambiguation in the case of vague communication. It seems wrong to say that when I hear 'Anita is rich.' I need to select one of many precise meanings of 'rich', and then to use that meaning (and only that meaning) in interpretation.

There are answers to this worry. The ambiguity theorist might argue that communication with ambiguous expressions does not always require disambiguation. Consider an uncontroversially ambiguous sentence: 'The coach is waiting.' True, understanding an utterance of this sentence will often require correct disambiguation. However, there may be occasions, when no disambiguation is required. Suppose the coach of a second division football club doubles as the team's chauffeur. Everyone knows that after the match, the team's bus is waiting iff the team's trainer is waiting. For it's the team's trainer who conducts the bus and if the trainer is waiting after a match, he is always waiting in the bus, the engine running. Given this background knowledge, neither speaker nor audience may need to disambiguate 'coach' in an utterance of 'The coach is waiting.'. Another example: in order successfully to argue about whether a chemical purifier factory ought to be built down the road, we may not need to disambiguate 'chemical purifier factory'. The differences

[8] For an overview of other forms of variation of extension with circumstances of evaluation, see Kölbel 2008.

[9] The actual position closest to this view is that defended by Linda Burns in her 1991. Her view in turn is inspired by some remarks in Lewis 1975. Kit Fine's classic exposition of supervaluationism (Fine 1975) also has some affinity, as Fine calls vagueness 'ambiguity on a grand and systematic scale'. However, supervaluationism is not usually read as a form of the ambiguity view presented in this section.

between the various possible meanings may be irrelevant to our communicative purposes.[10]

No doubt, the ambiguity theorist of vagueness could devise a systematic account of what is involved in communicating ambiguously without disambiguation, and she could apply this account to the special case of vague predicates. But whatever that account is, it faces some further difficulties. On the standard account sketched above, it is assumed that any non-defective utterance expresses a unique content or proposition. So, what, on the view that vagueness is ambiguity, is the proposition asserted by an utterance of 'Anita is rich.'? There are only two ways the ambiguity theorist can go. Either she retains the principle that non-defective utterances express a unique proposition, or she does not.

Let's consider the first case first. The predicate 'rich' has countless precise meanings. In a given utterance of 'Anita is rich.', each of these meanings corresponds to one non-vague proposition concerning Anita. Let's call these propositions the 'candidate propositions'. The ambiguity theorist's account will devise a way that allows us to derive the proposition expressed by an utterance of 'Anita is rich.' in some way from the set of candidate propositions. For example, she might say that the context of use determines a certain range of *relevant* candidate propositions, and that the proposition expressed is a conjunction, or perhaps a disjunction, of the relevant candidate propositions. Whatever the merit of these proposals, it is clear that they are proposals that move away from the idea that 'rich' is ambiguous. For what the so-called 'ambiguity theorist' is now claiming is that the content expressed by utterances of 'rich' (not the meaning of 'rich') is determined systematically by the many meanings of 'rich' and the context of use. So, while there may be a viable theory in the neighbourhood, it is highly misleading to describe it as a theory according to which vagueness is a form of ambiguity. The resulting theory will belong to the group of views that treat vague predicates as varying in *intension* with the context of use, i.e. as being indexical at least in a wide sense. These views will be considered in the next section.

Now consider the second case. Suppose the ambiguity theorist wants to give up the principle that each non-defective utterance of a declarative sentence expresses a unique proposition. She might say, for example, that in using a sentence like 'Anita is rich.', the utterer does not determinately assert any single proposition but indeterminately asserts a range of the candidate propositions. She might abandon the idea that assertion is a propositional act that relates a person to a single proposition and

[10] This example is from Sainsbury 2001. Sainsbury uses it to support the view that certain unspecificities in compound expressions are due to very unspecific meanings, rather than to hidden indexical variables, as claimed by Stanley (2000), or to ambiguity in the pre-semantic sense, as defended by Travis (1985, 1996). Unlike Sainsbury, I am here taking it for granted that 'chemical purifier factory' is ambiguous. For whatever one may think about the unspecificity in the compounding operation (i.e. 'purifier factory' can be read as a factory that makes purifiers or as a factory that employs purifiers in making something), the phrase also exhibits a classic scope ambiguity ('chemical' can qualify 'purifier' or 'factory'). Thus, even if Sainsbury's view about the first unspecificity were correct, the example can still illustrate my thesis that disambiguation is not always necessary.

instead think of assertion as an act relating the asserter to a range of propositions.[11] I cannot see any principled reason why such proposals could not be made to work. They would need to be complemented with an appropriate theory of assertion and indeterminate assertion, and similarly with an account of the belief states we express by vague utterances (e.g. an account of indeterminately believing a range of propositions, or belief as a relation towards a range of propositions). This may ultimately yield an explanation of the phenomena of vagueness. But any such proposal does require some major modifications to the standard framework. If, on the ambiguity view, utterances of vague sentences express multiple propositions then we are in fact dealing with a phenomenon quite different from ordinary ambiguity. I shall not here examine the ambiguity view further because the approach discussed in section 17.7 below seems to me to involve less of a departure from the standard framework.

17.6 VAGUENESS AS INDEXICALITY

Let us now consider the view that vagueness is a special form of indexicality. Indexical expressions do not by themselves determine an extension because they determine a content (intension) only in a context of use (their character is not constant). Thus, the predicate 'is my uncle' does not have a specific content until it is used by someone in a suitable context of utterance. At that point, it expresses a specific content (namely the property of being that person's uncle), and determines an extension in any possible world. If vague predicates are indexical, then the content expressed by them similarly varies with context. Which property is expressed by 'is rich' will vary from one context of utterance to another. But what are these variable contents, and how does the context of utterance determine which of these variable contents is expressed?

Consider 'rich'. The extension of 'rich' clearly varies with a comparison class. In a context where we are talking about the wealth of sub-Saharan refugees, the threshold for membership in the extension of 'rich' will be much lower than in a context where we are discussing the comparative wealth of European royalty. Richness for a refugee and richness for a royal are two different properties with different extensions. The same goes for many vague adjectives: 'tall', 'small', 'poor', 'bald', 'young', etc. However, this form of context-sensitivity, as obvious as it is, is not particularly useful in accounting for the phenomena of vagueness. For the tolerance constraints characteristic of vagueness, and responsible for sorites paradoxes, govern 'rich for a sub-Saharan refugee' just as much as they do 'rich'.

[11] Soames 2003, as well as Cappelen and Lepore 2005 and Cappelen 2008 distinguish the proposition *semantically expressed* from the proposition(s) *asserted* by an utterance. I will not discuss this complication here for reasons of clarity of exposition. These theories face the challenge of specifying how the proposition semantically expressed constrains the proposition(s) asserted. If semantic properties of expressions are to be determined by their use (and use is in turn to be constrained by semantic properties) then this challenge cannot be ignored, as it is deliberately by Cappelen 2008 (see also Pagin and Pelletier 2007).

Those who invoke context-relativity in trying to account for vagueness[12] usually appeal to forms of context-relativity that explain why we are unable to find the exact border between the members and the non-members of the extension of a vague predicate. The idea is that the extension of a vague predicate depends on the context in such a way that the border between the members and the non-members is never where we are currently looking. Thus, in a context where we are considering two people whose level of wealth is only marginally different, our very act of considering them ensures that the boundary between the rich and the non-rich (at that context) does not separate these two people.[13] Thus, the borderline is never where we are looking, and each of the instances of the generalized conditional premise of the sorites ((B) above) will be true at every context. However, it does not follow that the generalized conditional premise is therefore also true at every context. With the right account of a context, it will not be true in any context.[14] Whatever the details of such an account, it will crucially claim that when we make utterances concerning the *F*-ness of objects located at different parts of a sorites series for *F*-ness, then the context-relativity of '*F*' will be such that the contexts of these utterances differ significantly, i.e. they differ in a way that triggers a change in '*F*' 's content and therefore extension.

Let's introduce a neutral term for that feature of an utterance context that allegedly determines the extension of vague predicates. Let's say that each vague predicate has a determinate extension only relative to a *standard*, and that one aspect of each relevant context of utterance is precisely such a standard. In other words, each context of utterance determines a precise standard of richness, poverty, youth, baldness etc. I shall leave open how exactly an ordinary context of utterance determines one such standard — my observations will be neutral as to the exact implementation of the indexical approach.

The indexical approach faces several problems. Like epistemicism, it holds that vague predicates determine a precise extension at every context of use, but that we are ignorant of it.[15] While the epistemicist explains our ignorance of the extension of

[12] Here I have in mind primarily Kamp 1981, Raffman 1994, 1996, Soames 1999, 2002, Fara 2000 and Shapiro 2005. I am not claiming that *all* these writers regard vague predicates as indexicals, just that they invoke context-dependence of some sort in resolving the paradox. In the last section I will say more about this question. For now I just want to consider the position (no matter whether actually held by anyone) that vague predicates are indexical, and that their indexicality is the source of the characteristic extensional indeterminacy.

[13] Raffman's 1994 constraint (IP*) is that two adjacent members of a sorites series *that are being judged* at a context must be both in the extension at that context or neither. Soames requires that if two objects are sufficiently and relevantly similar, and one of them is salient at a context, then either both or neither are in the predicate's extension at that context. Fara 2000 speaks of a 'similarity constraint', which in her case requires that any two things that are relevantly and sufficiently similar and whose similarity is salient at a context, are either both in the extension at that context or neither is. Kamp's (1981) treatment is different in that his context-dependence involves the semantics for the conditional, but this is beside the point here.

[14] Kamp 1981 is most thorough on this point, by offering a formal theory of contexts that rules out a context in which an entire sorites series is salient as incoherent. Raffman's account is reminiscent of Kamp's but gives a psychological explanation of why usually, before we regard an entire sorites series, our inner context switches.

[15] This means that it shares a problem with epistemicism: if the meaning, and a fortiori the extension, of an expression is ultimately determined by the way we use it, then it seems mysterious how vague predicates in context should have acquired these meanings (extensions).

vague predicates with certain general limitations on knowledge, the indexical contextualist attempts to explain this with the way in which vague predicates vary in extension with context, which is governed by some similarity constraint. The moment we consider two sufficiently similar objects (or consider their similarity), we are forced to conclude that they are either both inside or both outside the extension (compare Fara 2000, 59).

However, this explanation is not satisfactory. Consider another context-dependent predicate: the predicate 'is an object I am currently not considering'. Clearly, whenever I consider whether some particular object *o* is in the extension of this predicate, my very act of considering *o* causes *o* to be excluded from the extension. This does not mean that the extension of the predicate is empty. The way to convince yourself of that is to think of some particular utterance of 'There is an object I am currently not considering.' in some context *c*. After *c*, you can retrospectively, consider which objects where in the extension of our predicate in *c*. Equipped with a sufficiently detailed and reliable introspective memory, you could then determine for any object whether it is in that extension. The same goes for vague predicates, if the indexical contextualist story is right. It should be possible to consider a particular utterance of 'Bob is rich.', made in context *c*1, and retrospectively to consider for any object whether the extension of 'is rich' in *c*1 includes that object. There is no danger that in so considering we change the context, because we are thinking about the extension of the predicate in *c*1, a context that can no longer be changed. However, it seems utterly mysterious how we should go about it. Holding the context fixed does not make the limits of the extension in any way less elusive.[16]

The second and third problem for the indexical approach is that vague predicates do not behave like typical indexicals in certain respects. It is important to be clear from the start that these two points can merely show that vague predicates are not *typical* indexicals. They leave open whether vague predicates are a special or unusual kind of indexical (where indexicality is understood to be the phenomenon of variation of content with context of use).

The second problem concerns speech reports. In general, when reporting indexical speech one must adjust the words used in the report to any relevant changes in the context. For example, if reporting an utterance of 'You are a fool.', one can use the same words in the report as originally uttered *only if* the addressee of the context of the report is the same as the addressee of reported utterance. If Otto addresses Peter saying 'You are a fool.', then I can report his utterance with the words 'Otto said you were a fool.' only if in making the report I am also addressing Peter. Otherwise I would have to adjust and say something like 'Otto said Peter was a fool.' Thus reporting indexical speech follows the following general rule:

[16] A related problem is that the indexical contextualist does not have an appropriate way to characterize borderline cases. For, if she is to remain within the standard classical framework, a vague predicate in a context of use determines a precise concept. So the indexical contextualist will have to say that borderline cases are objects that either are or are not in the extension of the vague concept, but that we simply do not know which. But why this should be so is mysterious. Perhaps the indexical contextualist would at this point show her true colours and adopt one of the epistemicists' explanations.

(SR) If a sentence *s* is indexical in such way that the content expressed by *s* varies with contextual feature *f*,

and utterance *u* is an utterance by *S* of *s* in context c_1,

and context c_1 differs from context c_2 in feature *f* in a way that would alter the content of *s* in c_2 as compared to its content in c_1,

then an utterance in context c_2 of '*S* said that *s*' is incorrect.

Now, clearly, if vague predicates are indexical in the way described above (i.e. if their extension varies with the context of use in such a way that a similarity constraint is met), then they do not comply with this rule. Consider a speaker who is being 'force-marched' from left to right through a sorites series of 50 coloured patches which range from paradigmatic red at the left to paradigmatic orange to the right. Suppose the speaker at some point utters 'Patch 25 is red.'. Later on, she is force-marched through the same series from right to left. This time she utters 'Patch 25 is not red.'. Remembering her earlier utterance, she might add 'but a while ago I said that it *is* red'. I believe that this would be a correct report. However, if the indexical contextualist theory of vagueness is correct, then (SR) predicts that this is not a correct report. The conclusion is that if vague predicates are indexical in the suggested way, then they are reported in an exceptional way at relevantly changed contexts.

The third problem is related. When we evaluate the correctness of indexical utterances retrospectively, we evaluate them with respect to the original context of utterance. Thus, if I utter 'I am hungry.' before lunch and then consider the correctness of my utterance after lunch, I will evaluate what I said before lunch as correct just if I believe that I was hungry *then*. Thus, we would expect that if the above-mentioned speaker re-evaluates her earlier verdict on patch 25 when considering it in the later context, she should without hesitation evaluate the earlier utterance as correct. However, it would seem decidedly odd, if she said 'Patch 25 is not red. A while ago I said that it *was* red, and what I said is true.'. Again, the conclusion is that if vague predicates are indexical in the way proposed then these indexicals behave unexpectedly when utterances of them are evaluated at a relevantly changed context.

These three problems do not conclusively refute the indexical approach to vagueness. However, I believe that the first represents a serious challenge, while the second and third show that at the very least we are dealing with indexicals of an exceptional variety. This should be sufficient motivation for exploring the third potential source of the extensional indeterminacy of vague predicates.

17.7 RELATIVITY TO CIRCUMSTANCES OF EVALUATION

The third potential source of the extensional indeterminacy of vague predicates is a variation of extensions with circumstances of evaluation. In order to illustrate this possibility, I shall first briefly discuss another, better known case in which such variability has been debated, namely the case of tensed sentences.

17.7.1 Eternalism and temporalism

Eternalism and temporalism are two alternative ways of construing the semantics of tensed sentences, such as 'MK is hungry.' or 'The root canal treatment is over.'. Eternalism treats tensed sentences as expressing different propositions with eternal truth value at different times of use. Thus, the indeterminacy of truth value exhibited by tensed sentences is treated as indexical, and as being resolved by placing the sentence in a context of use. Temporalism on the other hand treats tensed sentences (*qua* tensed sentences) as non-indexical.[17] Tensed sentences (*qua* tensed sentences) express the same proposition in all contexts of use. However, these propositions are so-called 'tensed propositions'. Tensed propositions do not have absolute truth values. Like contingent propositions, they vary in truth value with circumstances of evaluation. The difference is that while contingent propositions are sensitive merely to a possible world parameter in the circumstances, tensed propositions are sensitive to a time parameter in the circumstances. Thus the sentence 'MK is hungry.' expresses the tensed proposition that MK is hungry, and this proposition changes its truth value regularly. Before lunch, on most days, it is true at the actual world, and after lunch, on most days it is false (when events take their normal course).

One advantage of, and motivation for, temporalism is the fact that it can accommodate certain intuitions about propositions conceived of as the objects of belief, assertion, etc. For example, believing the tensed proposition expressed by the sentence 'My root canal treatment is over.', will typically cause relief. However, believing a corresponding eternal proposition (the proposition that my root canal is over 12 March 2006 at noon) does not, by itself warrant any relief, for one might believe that proposition truly even before the 12 March at noon, and relief would be out of place then.[18]

The disadvantage of temporalism may be that there are also different intuitions regarding the objects of assertion and belief, which it does not accommodate. For example, suppose I sincerely use the sentence 'Clinton is US president.' twice, once in 1996 and once in 2000. Clearly, what I have asserted first (the belief I expressed) is true, and what I have asserted on the second occasion false. So it would seem that the objects of assertion cannot be the same on both occasions.[19] Put in this form, the argument can be resisted: for why should it follow from a difference in truth value that the propositions expressed are also different? If tensed propositions have different truth values at different times then we can continue to maintain that both utterances expressed the same tensed proposition. However, there does seem to be a robust intuition that in some sense the object of belief changes. The most sensible reaction would seem to be the ecumenical one of allowing both tensed and eternal propositions, and to say that I expressed the same tensed, but different eternal propositions on the two occasions.[20]

[17] See, e.g. Kaplan 1977 and Prior 1967.

[18] See Recanati 2007, Book I, for a detailed defence of temporalism.

[19] Compare Richard 1981.

[20] Temporalism and eternalism are also different in their treatment of tenses and other temporal qualifications, such as 'sometimes'. Thus, temporalists construe tenses and temporal qualifications as operators while eternalists treat them as quantifiers. While the quantifier treatment is clearly more

Whatever we may think about the debate between temporalists and eternalists, I here merely want to draw attention to the way in which temporalists need to refine the way they think about the normative significance of propositional truth. A tensed proposition, such as the proposition that my root canal treatment is over, does not have an absolute truth value, but varies its truth value not just from possible world to possible world but also from time to time. This raises the question (also asked by Evans 1979): truth at which time is relevant for the correctness of an assertion, or for the correctness of a belief? Suppose at $t1$ I assert (and believe) the tensed proposition p, that the root canal is over. At $t2$ (later than $t1$) we can ask: is the assertion (and the belief) correct? The question is unclear. We could look at the truth value of p at $t1$, we could look at the truth value of p at $t2$, or we could look at the truth value of p at any other time or even range of times. In principle all these manners of evaluation could be interesting and legitimate. But it is obvious that only one manner of evaluation is relevant if we want to test our semantics against language use: the truth value of p at $t1$, the time at which the assertion was made (or at which the belief occurred). Temporalism in the semantics of natural language makes sense only on the background of certain assumptions of how truth at a circumstance is relevant for the evaluation of assertions (or beliefs) as correct. The obvious principle expressing this relevance is:

(TP) An assertion (belief) that p occurring in context c is correct only if the proposition that p is true at the time of c.

17.7.2 Vague propositions

Let us turn to the third potential source of extensional indeterminacy, according to which the extensions of vague predicates vary not with the context of use, but with the circumstances of evaluation. The proposal is to mimic the temporalist by adding another parameter to the circumstances of evaluation, and saying that the propositions expressed by sentences containing vague predicates vary in truth value with this parameter. They vary in this way because the vague predicates used to express these propositions express vague concepts which themselves vary their extensions with this parameter.

What are the values of the circumstantial parameter with which the truth values (extensions) of vague propositions (predicates) vary? They are ways of making vague predicates precise consistently with clear cases and with certain *a priori* principles, i.e. functions that assign to the vague concepts expressed by vague predicates precise extensions. We could call these functions 'reasonable standards of precisification'. But I will here rely on the terminology familiar from supervaluationism and call them '(admissible) sharpenings'. On this view, then, vague predicates express properties that are extensionally sensitive to a sharpening component in the circumstances of evaluation (just as contingent properties are extensionally sensitive to a possible world

popular among semanticists, there does not seem to be any compelling reason for this preference (for discussion see King 2003, Recanati 2007).

component in the circumstances of evaluation). Consequently sentences containing vague predicates will sometimes express vague propositions, i.e. propositions that are sensitive in their truth value to a sharpening parameter in the circumstances of evaluation.[21]

Just as in the case of tensed propositions, in order now to make sense of vague propositions as the objects of assertions or beliefs, we again need to spell out the normative significance of propositional truth. We need to know which sharpening or sharpenings are relevant for the evaluation as correct of an assertion or belief. In the case of tensed propositions, it was plausible to say that for each assertion (or belief) there was just one time for evaluation, namely the time at which the assertion (the belief) occurs. In the case of vague propositions, the situation will be more complicated. What we need is an appropriate completion of the following schematic principle:

(VP) An assertion (belief) that *p* occurring in context *c* is correct only if the proposition that *p* is true at . . .

I would like to broach this task by first distinguishing in the abstract two dimensions in which completions of (VP) can vary, and then argue for each of these dimensions what our completion should look like. In principle, the completion of (VP) could either

(a) privilege a unique sharpening

or

(b) privilege a range of several sharpenings

and it could either

(1) privilege the same sharpening(s) in each situation of assertion/belief

or

(2) privilege a different sharpening (or different sharpenings) in different situations of assertion/belief.

In the next two sections I shall explain why I advocate a b-2 completion of (VP).

17.8 LEARNING FROM CONTEXTUALISTS: THE SORITES

I believe that contextualists about vagueness teach us how option (2) helps us avoid sorites paradoxes. Let's consider a non-inductive version of the sorites of section 17.1. Consider a sorites series of people, P_0, P_1, P_2, . . . $P_{1,000,000}$, such that P_0 has €0, P_1 has €1, P_2, has €2 and so on, each P_i having exactly *i* Euros.

[21] For simplicity, I am ignoring the indexicality of many vague predicates, such as their sensitivity to a contextually salient comparison class. Thus I am strictly speaking considering only a subclass of vague predicates, namely those whose character is constant—such as, perhaps, 'is tall for a British male born between 1975 and 1980'. Such predicates are no doubt still vague.

(P0) P_0 is not rich.
(P1) If P_0 is not rich then P_1 is not rich.
(C1) P_1 is not rich.
(P2) If P_1 is not rich then P_2 is not rich.
(C2) P_2 is not rich.
.
.
.
(P1,000,000) If $P_{999,999}$ is not rich then $P_{1,000,000}$, is not rich.
(C1,000,000) $P_{1,000,000}$, is not rich.

Now, on an indexical contextualist approach, each of the constituent modus ponens arguments is valid in the sense that if its premises are true in a context *c*, then the conclusion is also true in *c*. However, there is no context *c* such that all the non-conditional premises (C1)–(C1,000,000) are true in it, and there is no context such that all conditional premises (P1)–(P1,000,000) are true in it. This is because considering more and more people in the series will accumulatively change the context until at some point the context undergoes a sudden reversal (cf. Raffman's 1994 'gestalt switch' and Kamp's 1981 'incoherent' context). If someone were to begin pronouncing the entire argument, then in each of the premise pairs (P*n*)/(C*n*), 'rich' would express a *slightly* different property, until suddenly it would express a significantly different property.

This means that the corresponding generalized conditional premise

(GP) For all *x*, *y*: if *x* is not rich and *y* has only €1 more than *x*, then *y* is not rich either.

[There are no *x*, *y*, such that *x* is not rich, y has only €1 more than *x* and *y* is rich.]

is false in every context. Nevertheless, there is no context in which a counterexample of the form

(B) *a* is not rich, *b* has only €0.01 more than *a*, and *b* is rich.

could be uttered and be true at that context. This explains (GP)'s appearance of truth.

If sentences containing vague predicates express vague propositions in the sense outlined above, and if the normative significance of propositional truth is given by a type (2) completion of (VP), then a structurally analogous response to the sorites is available. On the non-indexical approach, the premises of the sorites argument are not indexical, but express the same propositions in all contexts of use. However, the propositions expressed vary in truth value with the sharpening parameter in the circumstances of evaluation. The question we are now considering concerns the normative significance of these relative truth values, e.g. under what conditions it is correct to assert or believe such a proposition (i.e. how to complete (AP)). According to response (2), the sharpening or sharpenings relevant for evaluating an assertion will vary as a subject is marched along the sorites series. At the beginning of the series,

when we are asking ourselves whether some P_n is rich, we'll have to say that she is not, because we have just previously ruled that P_{n-1} is not rich. The sharpening(s) relevant for the correctness of an utterance in a context *c* obey the following constraint: if two individuals *x* and *y* are relevantly similar (e.g. they differ only by €1), and their similarity is salient[22] in *c*, then the sharpening(s) relevant for judging correct assertability (believability) in *c* will not classify differently the proposition that *x* is not rich and the proposition that *y* is not rich. As the subject moves further and further along the series, however, there will come a point at which the context undergoes a sudden leap (perhaps just because proximity to clear cases of rich is becoming all too obvious).

This explains why (GP) is not correctly assertable (believable) in any of the contexts, yet each of its instances is. This in turn explains the deceptive pull exerted by (GP) despite its unacceptability.

Despite emulating some aspects of indexical contextualism, the non-indexical approach here proposed clearly differs in other respects. According to the indexical approach, 'rich' expresses a different property, and concept, at each stage of the march through the sorites series, whereas on the relativist approach, the property and concept expressed by 'rich' typically remain constant as a subject is moving along a sorites series. It is merely the correctness of calling an individual 'rich' and the correctness of believing an individual to be rich that varies as we move along the series.

A comparison with the more familiar case of contingent properties and propositions may be illuminating: in the actual situation it is correct to call Modotti (or believe her to be) a photographer. In some non-actual situations, it would not have been correct to call her (believe her to be) a photographer. Nevertheless, the property ascribed to her in the different situations is the same: the property of being a photographer. It's just that that property has an extension that varies from one possible world to another. Similarly, the proposition accepted in each case is the same, it is merely the truth value of that proposition that changes from one world to another. The proposal is that we treat the variability in the range of things to which 'rich' can be correctly applied analogously with this variability in the extension of 'is a photographer'.

In summary, when completing (VP), we should make assertability and believability depend on a *variable* (range of) sharpening(s):

(VP) An assertion (belief) that *p* occurring in context *c* is correct only if the proposition that *p* is true at $S(c)$.

where '*S*' is some contextual function that will be further described in the next section.

17.9 BORDERLINE CASES

It remains to argue that in completing (VP) we should privilege a range of sharpenings rather than an individual one, and then to superevaluate. The motivation for this

[22] I here go with Fara's (2000) 'saliently similar' rather than with Soames's (1999) 'similar and salient'.

comes from our intuitions about borderline cases. There are three obvious options for construing *S*:

(VPa) An assertion (belief) that *p* occurring in context *c* is correct only if the proposition that *p* is true at **the** sharpening determined by *c*.

(VPb) An assertion (belief) that *p* occurring in context *c* is correct only if the proposition that *p* is true at **all** sharpenings in the range determined by *c*.

(VPc) An assertion (belief) that *p* occurring in context *c* is correct only if the proposition that *p* is true at **some** sharpenings in the range determined by *c*.[23]

The consequence of (VPa) would be that vague propositions are, in any context, either correctly assertable or correctly deniable, and never both (where correct deniability of *p* is equivalent to correct assertability of not-*p*). This goes against all intuitions: against the intuition that in borderline cases of a predicate one may neither assert nor deny and also against the intuition that in borderline cases one may both assert and deny. Thus, I believe, (VPa) can be discarded.

As for the remaining two options: it seems that there are two ways of thinking about borderline cases. According to one view (I believe the majority's), borderline cases of richness are cases where it is neither correct to affirm nor to deny richness. Thus, for some *n*, it may neither be correct to call P_n rich, nor to call her not rich, at least in certain contexts (not, for example, when one has just judged P_{n-1} to be not rich). Option (VPb) is the way to make room for this intuition.[24]

Some have argued that borderline cases are cases where both verdicts are permissible (e.g. Wright 2003). According to them, in a borderline case it is both correct to assert and deny the property in question. A theorist supporting this view would naturally opt for (VPc). However, I am persuaded by the more common conception of borderline case.

There is a close structural similarity, then, between the characterization of borderline cases adopted here and the supervaluationist position. So it will be worth pointing out the differences. Supervaluationists typically claim that truth is super-truth and that falsity is super-falsity. Thus, supervaluationist semantics involves the claim that some utterances are neither true nor false. The relativist here described, however, does not superevaluate in the semantics: the semantics does not specify super-truth conditions. Rather, the relativist superevaluates at the pragmatic level, when it comes to spelling out the normative significance of the semantic properties of expressions.

One of the difficulties of supervaluationism is that it is committed to the truth of the negation of the general premise in the Sorites:

(¬GP) For some *x*, *y*: *x* is not rich, *y* has only €1 more than *x*, and *y* is rich.

[23] These three options are clearly not exhaustive. For example we might replace 'all' in (VPb) with 'most', 'many', 'a few', or even with 'twenty'. However, I do not see any reason to think that any of these options is promising.

[24] It s worth noting that even an epistemicist like Williamson can accept this characterization of borderline cases as cases where it is neither correct to assert (believe) nor to deny (disbelieve). For according to Williamson, correct assertability requires knowledge, and belief that is not knowledge is 'botched'. See Williamson 2000.

For (¬GP) is supertrue, i.e. true on each admissible sharpening. This seems to be a problem because there does not seem to be a true instance of (¬GP). It might seem that the current proposal is similarly committed to (¬GP) being correctly assertable. However, this is not so because, as pointed out above, the range of sharpenings which are relevant for assertability vary with the context. A similarity constraint will ensure that (¬GP) is not assertable in any context, while (GP) is assertable in every context.

The upshot, then, is that a principle along the lines of (VPb) states the normative significance of propositional truth. This explains the seductiveness of the sorites and makes good sense of borderline cases without in any way departing from standard semantics. What is new is the pragmatics, i.e. the role truth plays in assessing assertions and beliefs for correctness.

17.10 HIGHER-ORDER VAGUENESS

There are at least two ways in which higher-order vagueness might arise on the current proposal. First, the notion of an (admissible) sharpening might be vague, and secondly, correct assertability (believability) may be vague, due to the contextual determination relation mentioned in (VPb) being vague. I shall discuss these in turn.

17.10.1 Is 'sharpening' vague?

According to the semantic account of vagueness here proposed vague predicates vary in their extension with a sharpening parameter in the circumstances of evaluation. I likened this parameter to the sharpenings or precisifications familiar from supervaluationism: they are ways in which all concepts could be made precise consistently with clear cases and certain *a priori* principles. George Soros and Anita Roddick, for example, are clear cases of richness. An example of an *a priori* principle is the principle that if one person, A, is richer than another, B, then it cannot be that B is rich and A is not. Thus, according to my rough exposition of the relativist semantics, a precisification that does not count Carlos Slim as rich would not qualify as an admissible sharpening in any context, nor would a precisification according to which a non-rich person has more money than some rich person. Higher-order vagueness can arise in connection with the former issue: does a precisification qualify as a sharpening if it counts someone with possessions worth 10 thousand Euros as rich? What about one Euro less? It looks like the border between admissible and inadmissible precisifications in a given context is fuzzy.

There are at least two ways of dealing with this. One is to accept that the notion of an admissible sharpening, as it figures in the semantic meta-language, is a vague notion. This, I believe, is in principle unproblematic. However, it is important to notice that admitting this form of higher-order vagueness is not required to make room for the *phenomena* of higher-order vagueness. For example, it is a phenomenon of higher-order vagueness that there does not seem to be a clear cut-off point between those who, in some context, may be called rich (or believed to be so) and those who

are on the borderline between the two, i.e. those of whom it is neither correct to say (or believe) that they are rich nor that they are not. This phenomenon, in the current account will be accounted for by the vagueness of the notion of correct assertability (believability), which in turn derives from vagueness in the relation of determination between contexts of utterance and relevant sharpenings. I shall say more about this form of higher-order vagueness in a moment.

What then is at stake in the question whether the notion of an admissible sharpening is vague? Consider a proposal according to which it is not vague. We might say that any precisification that respects the relevant ordering principles (e.g. 'a non-rich person cannot have possessions worth more than some rich person's') is an admissible sharpening. In the case of supervaluationism, this would lead to the unwanted consequence that everyone is a borderline case of 'rich'. However, the current approach characterizes borderline cases at the level of correct assertability or believability, which in turn requires truth in all sharpenings in the range determined by the context. As long as that range is occasionally restricted, we avoid the trivializing result that everything is borderline.

What is at stake in the question whether 'sharpening' is vague is something quite different. According to the proposal that 'sharpening' is not vague, 'rich' varies in extension with various sharpenings, and for every person there is a sharpening that classifies him or her as a member of the extension and for every person there is a sharpening that classifies him or her as a non-member. Most of these sharpenings are pragmatically irrelevant because there is no context in which they are determined as relevant. So, even if everyone is classified as 'rich' in some sharpening, not everyone can correctly be called 'rich' or correctly be believed to be rich. However, a side-effect of this is that the semantic content of 'rich' will not differ in the expected way from that of 'very rich'; 'small' not from 'tiny', 'large' not from 'huge' etc. The difference between 'tiny' and 'small' will not be that the extension of the former is less comprehensive than that of the latter. The differences between these concepts will show up only in the sharpenings that are determined as relevant by context.

17.10.2 Is correct assertability/believability vague?

Higher-order vagueness in the usual sense is, on this account, an entirely pragmatic phenomenon, in the sense that it concerns correct assertability and believability. Typical vague concepts have borderline cases: objects of which it is neither correct to assert (believe) nor to deny (disbelieve) the concept. However, correct assertability (believability) seems itself to be subject to tolerance constraints that lead to vagueness. Just as there seems to be no n such that P_n is not rich and P_{n+1} is, there also seems to be no n such that it is correct to assert that P_n is not rich and not correct to assert that P_{n+1} is not rich.

Given the analysis of correct assertability proposed above, this form of higher-order vagueness could come about in two ways. First, the range of sharpenings determined by a context to be relevant to adjudicating the correctness of an assertion (belief) might be vague. Thus, in a given context c, there is no n such that P_n is in the extension of 'rich' relative to all c-relevant sharpenings and P_{n-1} is not. Thus, the

determination relation that determines for each context of use a range of relevant sharpenings is itself a vague relation.

Secondly, it may be that in each context a precise range of sharpenings is determined as relevant for correct assertability. Thus, for any context *c*, there *is* an *n* such that P_n is in the extension of 'rich' relative to all *c*-relevant sharpenings and P_{n-1} is not. In that case it may still be true that there is no *n* such that it is correct to assert that P_n is not rich and not correct to assert that P_{n+1} is not rich, i.e. higher-order vagueness may be present in this sense. However, this is only the result of the context changing when different P_n are under discussion. Hold any a context *c* fixed, and there will be an *n* such that it is correct to assert in *c* that P_n is not rich and not correct to assert in *c* that P_{n+1} is not rich.

The second view, I believe, faces the challenge of explaining how the predicates in question acquire the pragmatic features that determine a sharp borderline of correct assertability in a context, given that we manifestly have no idea where that borderline is located. This is analogous to the challenge facing epistemicists and indexical contextualists in explaining how vague predicates acquire their precise extensions (in contexts of use). I therefore prefer the first account of higher-order vagueness.

17.11 CONCLUSION

I have shown how a standard semantic framework along the lines of those proposed by Kamp and Lewis for modal indexical languages can accommodate vague predicates, conceived of as extensionally indeterminate. I discussed three ways in which standard semantics makes room for extensional indeterminacy of predicates: ambiguity, indexicality and sensitivity to circumstances of evaluation (e.g. contingency). After discussing the prospects for treating vagueness as a phenomenon of ambiguity or indexicality, I moved on to develop an account of vagueness that assimilates the extensional indeterminacy of vague predicates to that of contingent predicates. Vague predicates, on this view, vary their extension with an additional parameter in the circumstances of evaluation, a 'sharpening'. On this approach the semantics remains absolutely standard, and it is only the way in which the semantic notion of truth figures in pragmatic norms, the norms of assertion and belief, that requires some modification.

The account bears similarities with both contextualism and supervaluationism, so it will be worth once more to point out the differences.

The difference between viewing vagueness as a form of indexicality and the relativist view here proposed is clear. Indexical contextualists claim that the extensional indeterminacy of vague predicates is owed to their content being context-sensitive. Vague predicates (*qua* vague predicates) express different properties and concepts in different contexts of use, and vague sentences (*qua* vague sentences) express different propositions or contents in different contexts. The non-indexical view I proposed claims that the contents of vague predicates and sentences (*qua* vague predicates and sentences) are invariant, and that it is merely their extension that varies with circumstances of evaluation.

This difference is, I believe, sufficiently clear. What is not completely clear is whether well-known contextualists about vagueness should be read as putting forward a version of the indexicality view here described. As far as I can tell, much of what contextualists say is indeterminate between what I have called indexicality and sensitivity to circumstantial parameters. In so far as this is true, the account here outlined should be taken as a contribution to developing further the views of contextualists about vagueness. In so far as this not true, i.e. in so far as contextualists about vagueness subscribe to an indexical view, this chapter should be taken as a proposal for modifying contextualism about vagueness.[25]

[25] Soames is the only clear case of an indexical contextualist about vagueness because in his 2002 he makes it explicit. Kamp comes at times very close to being an explicit indexicalist, though since the framework treated here as standard was only emerging at that time (with Kamp one of the pioneers), the terminology may well be misleading here. Even though Kamp's contexts seem clearly intended as contexts of use, Kamp considers only one narrow aspect of the context of use, namely sentences that have previously been uttered.

Raffman's account (1994, 1996) is closely related to Kamp's. The way she discusses the various aspects of context in her 1994, 64, suggests strongly that she thinks of the context as an utterance context, the quote by Kamp suggests it especially. But literally and strictly, what she says is compatible with both an indexical and a non-indexical reading of contextualism. For she does not usually consider the question whether the property or proposition expressed by a predicate or sentence varies with the context, but only whether the extension thus varies. For this reason, her account seems to be undecided between an indexical and a non-indexical reading. In her 2005 she explicitly distances herself from the indexicality view, though in the context it is not clear whether she here intends 'indexical' to mean 'pure indexical' (in Kaplan's sense) or indexical in the wider Kaplanian sense of 'the content varies with the context of use'.

Fara (2000) is a complicated case because she considers many kinds of context-sensitivity of vague predicates. 'is tall' means roughly the same as 'is significantly (x) taller than is typical (y) for (z)'. The extension of 'tall' varies with a comparison class (z), a norm of what's typical by way of tallness for the comparison class (y), and also with standards of significance (x). The latter, she repeatedly says, is interest-relative.

All these seem clearly to be intended to be aspects of the context of utterance, and the phenomenon one of indexicality. On this view, the property expressed by a vague predicate changes with the context of utterance. However, she insists on 64 and 75, that at least the interest factor is not to be understood in this way:

'the property attributed to John by a particular utterance of "John is tall"—that is, once all contextual elements are fixed—is still a property the extension of which may vary even as the heights of everything remain stable, since the extension of the property may vary as the interests of the relevant parties vary, that is, as different differences become more or less significant as different similarities become more and less salient.' (75)

This is puzzling without any further explanation. The idea is the property expressed by 'tall' in a given context remains invariant but its extension still varies. On this view of a property, differences in extension are not sufficient for differences in property, and therefore what Fara had in mind in her 2000 may well have been something akin to what I have been proposing in this chapter. Fara 2008 makes this more explicit: here she speaks explicitly of interest-relative properties and interest-relative propositions.

Stanley 2003 claims that on Fara's view, vague predicates are not indexicals because they express invariant properties, just as 'is a US citizen', which always expresses the same property, but that property's extension varies with time. Thus, 'is tall for a British male' expresses the same property, namely that of being significantly taller than is typical for a British male, but of course that property changes its extension not just with time but also with interests.

What is the difference between the current relativistic account and supervaluationism? First, the relativist does not accept the 'supervaluationist's slogan' (Keefe 2000, 202) that truth is super-truth.[26] The semantic truth-conditions of a sentence (even of a sentence in a context) are relativized truth conditions, not conditions of super-truth. Supervaluation comes at the level of assessing assertions or beliefs for correctness in their context, not at the level of assessing the truth of the contents of such assertions of beliefs. Another difference is that the current relativistic account makes the range of sharpenings over which we superevaluate (when assessing correctness) contextually variable. This is not usually part of supervaluationism.

References

Burns, Linda (1991), *Vagueness: An Investigation into Natural Languages and the Sorites Paradox*, Dordrecht, Kluwer.

Cappelen, Herman (2008), 'Content relativism and semantic blindness' in Manuel García-Carpintero and Max Kölbel (eds.), *Relative Truth*, Oxford, Oxford University Press, 265–86.

Cappelen, Herman and Ernie Lepore (2004), *Insensitive Semantics*, Oxford, Blackwell.

Ellis, Jonathan (2004), 'Context, indexicals and the sorites', *Analysis* 64, 362–4.

Fara, Delia Graff (2000), 'Shifting sands: An interest-relative theory of vagueness', *Philosophical Topics* 28, 45–81.

—— (2008), 'Profiling interest relativity', *Analysis* 68, 326–35.

Evans, Gareth (1979), 'Does tense logic rest on a mistake?' in his *Collected Papers* (1985), 341–63, Oxford, Clarendon Press.

Fine, Kit (1975), 'Vagueness, truth and logic', *Synthese* 30, 265–300.

Kamp, Hans (1981), 'The paradox of the heap' in U. Mönnich, ed., *Aspects of Philosophical Logic*, Dordrecht, Reidel, 225–77.

Kaplan, David (1977), 'Demonstratives' in Almog *et al.*, eds, *Themes from Kaplan*, Oxford, Clarendon Press 1989.

Keefe, Rosanna (2000), *Theories of Vagueness*, Cambridge, Cambridge University Press.

King, Geoffrey (2003), 'Tense, modality and semantic value', *Philosophical Perspectives* 17, 195–245.

Kölbel, Max (2008), 'Motivations for relativism' in Manuel García-Carpintero and Max Kölbel, eds., *Relative Truth*, Oxford, Oxford University Press, 1–38.

—— (forthcoming), 'Assertion, intention and convention' forthcoming in Sarah Sawyer, ed, *New Waves in Philosophy of Language*, Hampshire, Palgrave Macmillan.

Lewis, David (1975), 'Languages and language' in *Minnesota Studies in the Philosophy of Language* 7, 3–35. Reprinted in Lewis (1983).

However, Stanley also attributes to Fara the view that one of the effects of this interest-relativity is that it will depend on the interests of an utterer which proposition is expressed by the utterance of a vague sentence. This suggests that on the wider Kaplanian sense of 'indexical' (the one I have been using earlier in this chapter), vague sentences are indexical in the sense that they express different propositions in different contexts of use, and that predicates are indexical if the content they contribute to the proposition expressed depends on the context of use.

[26] Though McGee and McLaughlin 1995, despite being supervaluationists, do not accept the slogan.

Lewis, David (1983), *Philosophical Papers*, vol. 1, Oxford, Oxford University Press.
——(1980), 'Index, context, and content' in Stig Kanger and Sven Öhman, eds., *Philosophy and Grammar*, Dordrecht, Reidel. Reprinted in Lewis, *Papers in Philosophical Logic*, Cambridge, Cambridge University Press 1998.
McGee, Vann and Brian McLaughlin (1995), 'Distinctions without a difference', *Southern Journal of Philosophy* 33, 203–51.
Pagin, Peter (2009), 'Central gap domain restriction'. This volume.
Pagin, Peter and Jeff Pelletier (2007), 'Content, context and composition' in G. Peter and G. Preyer, eds., *Content and Context. Essays on Semantics and Pragmatics*, Oxford, Oxford University Press, 25–62.
Prior, Arthur (1959), 'Thank goodness that's over', *Philosophy* 34, 12–17.
——(1967), *Past, Present and Future*, Oxford, Clarendon Press.
Raffman, Diana (1994), 'Vagueness without paradox', *Philosophical Review* 103, 41–74.
——(1996), 'Vagueness and context relativity', *Philosophical Studies* 81, 175–92.
——(2005), 'How to understand contextualism about vagueness: Reply to Stanley', *Analysis* 65, 244–8.
Recanati, François (2007), *Perspectival Thought*, Oxford, Oxford University Press.
Richard, Mark (1981), 'Temporalism and Eternalism', *Philosophical Studies* 39, 1–13.
Sainsbury, Mark (2001), 'Two ways to smoke a cigarette', *Ratio* 14, 386–406.
Shapiro, Stewart (2003), 'Vagueness and conversation', in Jc Beall, ed., *Liars and Heaps*, Oxford, Oxford University Press.
Soames, Scott (1999), *Understanding Truth*, Oxford, Oxford University Press.
——(2002), 'Replies', *Philosophy and Phenomenological Research* 62, 429–52.
——(2003), *Beyond Rigidity*, Oxford, Oxford University Press.
Sorensen, Roy (1988), *Blindspots*, Oxford, Clarendon.
Stanley, Jason (2000), 'Context and logical form', *Linguistics and Philosophy* 23, 391–434.
——(2003), 'Context, interest-relativity and the sorites', *Analysis* 63, 269–80.
Travis, Charles (1985), 'On what is strictly speaking true', *Canadian Journal of Philosophy* 15, 187–229.
——(1996), 'Meaning's role in truth', *Mind* 105, 451–66.
Tye, Michael (1989), 'Supervaluationism and excluded middle', *Analysis* 49, 141–3.
Williamson, Timothy (1994), *Vagueness*, London, Routledge.
——(2000), *Knowledge and its Limits*, Oxford, Oxford University Press.
Wright, Crispin (2003), 'Vagueness: A fifth column approach' in Jc Beall, ed., *Liars and Heaps*, Oxford, Clarendon Press.