

The No-Proposition View of Vagueness

Abstract: This paper proposes a novel method of identifying the nature of vague sentences and a novel solution to the sorites paradox. The theory is motivated by patterns of use that language users display when using vague predicates. Identifying a coherent cause of this behaviour provides us with a theory of vague sentences that is behaviour—rather than paradox—led. The theory also provides a solution to the sorites paradox and is therefore more explanatory than other available theories of vagueness.

§ I Introduction

When a term is vague its legitimate instances of application are blurred: there are no means by which to demarcate situations in which a sentence containing the term correctly describes matters from those in which it does not. Not only are there no means of so demarcating but looking for such demarcation is misguided and the insistence on such demarcation may, in any case, make natural language less useful.

As is familiar, vague sentences give rise to paradox in the following way.¹ Consider these sentences regarding 100 objects in an ordered series, each slightly different from the previous, progressing from a clearly red object to a clearly orange object.

- (1) *Patch #1 is red.*
- (2) For any n in the series, if *Patch n is red* then *Patch $n+1$ is red.*
- (3) Therefore, *Patch #100 is red.*

¹ I am using ‘vague sentence’ to quantify over all sentence *types* that are prone to vagueness in their use. For example ‘That is red’ counts as being a vague sentence even though there are instances of application (e.g. a standard British postbox) under which it is not uncertain that the sentence correctly describes the state of affairs under considerations.

Premise (1) is stipulated to be true. The lack of possible demarcation between the reds and the non-reds supports the universal generalisation, (2), and apparently valid reasoning from apparently true premises delivers the false conclusion, (3).

Extant theories can be coarsely divided into two camps. The first camp, call them the *many-valued theories*, avoid paradox by stating that the universal claim is false.² Any theory that claims that the universal generalisation is *false* must have something to say about the resulting positive existential, ‘sharp boundaries’ claim, that there *is* some pair of objects in the series such that one satisfies the predicate and the other fails to satisfy it. The many-valued theorists deny that the existential claim is true, insisting instead that there is some instance in the series that takes a third or other truth-value.³ The second camp, call them the *epistemicist theories*, also state that the universal claim is false. But they accept the resulting existential statement as true and state that we are simply ignorant of the true instance that falsifies the universal generalisation.⁴

Theories of vagueness tend to be given as responses to the sorites paradox, yet there is more to observe regarding vague sentences than their paradox-inducing qualities. The behaviour that subjects display when using vague sentences in the borderline area provides us with a good deal of information about the nature of the predicates—at least as competent subjects perceive them. A convincing theory of vagueness must provide a natural means for accommodating this behaviour. In this paper I propose a theory that can straightforwardly, and without the use of an error theory, accommodate the distinctive behaviour that subjects display in the borderline and that can also offer a solution to the sorites paradox. It is the ease

³ Under many-valued theorists we include those who stipulate a special status for some proposition of the series, for example, the supervaluationists (see Fine, 1975 and Lewis, 1982), subvaluationists (see Cobreros, 2011, Hyde and Colyvan, 2008, and Ripley, 2011) and Kripke’s (1975) three-valued approach.

⁴ Here we include Williamson’s (1994) brand of epistemicism and the contextualist theories of Shapiro (2006), Kamp (1981), Raffman (1996), Graff Fara (2000) and Soames (1999) that give a contextualist explanation of why we cannot come to know where the cut-off is for the vague predicate (or, in the case of Shapiro and Raffman, why we cannot know which context we are in.)

in which the theory plays this double role that gives it an advantage over existing theories of vagueness.

The paper has the following structure: in § 2 I identify the distinctive behaviour that accompanies subjects' use of vague predicates in the borderline area; in § 3 I question whether existing theories of vagueness can accommodate such behaviour. In order to properly diagnose the cause of borderline behaviour we require a distinction between judgements and verdicts. This is given in § 4. The judgement/verdict distinction becomes significant in light of the judgement-dependent nature of vague predicates. In § 5 I propose that the judgement-dependent nature of the sentences combined with an inherent lack of judgement on some uses explains the borderline behaviour that was identified in § 2. Finally, in § 6 I show that the diagnosis of vague sentences that is given to explain borderline behaviour provides us with a solution to the sorites paradox.

§ II Borderline behaviour

Semantic theories of vagueness tend to be paradox-driven in that their *raison d'être* is to dispel or accommodate the sorites paradox. However, there are noteworthy semantic features of vague predicates beyond their sorites-provoking aspects. When we use vague predicates we display distinctive patterns of use that, it is natural to assume, are potentially as worthy an indicator of their nature as their paradox-inducing qualities. Furthermore, if a paradox-driven theory of vague predicates is disappointing when it comes to its ability to account for general usage we might question whether it is really a workable theory after all. And while it is nothing new to point out the distinctive behaviour that subjects display when using vague predicates, using such behaviour to motivate a semantic theory of vague predicates—from which a solution to the sorites paradox might be a welcome side effect—is a distinctive approach.⁵

⁵ There are different ways to define the borderline area. It is common to assume that a borderline case is one that appears to neither satisfy the predicate nor not satisfy it, and many semantic theories have been proposed to capture the resulting fact that the sentences used to describe such cases are neither

There are three prominent permissible attitudes or behaviours that can accompany the use of a vague predicate in the borderline area. First, we allow ourselves and others a certain amount of freedom with borderline pronouncements. When asked to judge whether patch number 50, in the series of 100 patches as they are described above, is red, Aaron can assert ‘Patch 50 is red’ while Aidan asserts ‘Patch 50 is not red’ without, it would seem, either party taking this to be evidence of being mistaken or even less than fully competent. Equally, Aaron himself can assert ‘Patch 50 is red’ at t and assert ‘Patch 50 is not red’ at t' , without this being considered evidence of error. We can call this attitude of willingness to ‘go either way’ on the issue of whether or not a borderline object satisfies the relevant predicate, *liberality*.

There are further distinctive behaviours. If they make what appear to be conflicting assertions in a *non-vague* scenario, it would be natural for Aaron and Aidan to form an attitude of disagreement towards each other. We might expect the parties involved to debate the matter, each appealing to evidence in favour of his own view and testing the other’s linguistic and conceptual competence to find where the other has gone astray. It would be very unusual in such a situation for the subjects to pass the difference off with a shrug. However, a shrug is precisely what we would expect to see were the subjects to assert apparently contradictory sentences in the borderline area. There is no feeling of conflict between what, at face value, appear to be incompatible assertions here. Furthermore, one party pronouncing a verdict that appears to conflict with that of the other gives neither party a reason to doubt or retract their verdict. We will call this behaviour, *indubitability*.

Finally, a refusal to pronounce a verdict in light of what appears to be full awareness of all the knowable facts can be a perfectly appropriate, perhaps even intelligent and well-considered, attitude to have towards some object when faced with a borderline case in a

true nor false. However, as will become clear as this paper progresses, one need not assume that utterances of such sentences are truth apt at all. For our purposes we can follow Crispin Wright and think of borderline cases as those which result in ‘hesitant differences of opinion (either between subjects at a given time or within a single subject’s opinion at different times), about a polar verdict which we have no idea how to settle and which, therefore, we do not recognise as wrong.’ Wright (2001: 70)

sorites series. The attitude is standardly called *agnosticism*. The concept can be refined a little for our purposes. Generally the term ‘agnosticism’ covers a stance of non-believing but we can distinguish between two forms of agnostic attitude. There is the attitude of a subject who is asked to pass judgement in a situation where he is aware that there are unknowable (by present means) facts that would settle the question. Perhaps agnostics over the existence of a divine creator fall into this category as, presumably, they will agree that there is a fact that would settle the matter. We can call this *ignorance agnosticism*. By contrast, there is the attitude of a subject who is asked to pass judgement in a situation where he does not believe that there is a fact of the matter to settle the question—either because he does not know whether there is such a fact or because he believes that there is no such fact. It is this second agnostic attitude that may display itself in the sorites context. For, as discussed below, even if the epistemicist is right and there *is* a precise cut-off to vague predicates, language users do not take there to be one—they do not believe that there is a precise cut-off that is hidden from view. The agnostic attitude is not provoked by the subject believing that there are facts that cannot be located, rather he holds an agnostic attitude because he is not committed to there *being* such facts and does not want to respond to any questions the answer to which would depend on the existence of such facts. Agnosticism, so described, is best understood as a legitimate rejection of a particular question, rather than as attitude of lack of belief. It is a ‘don’t ask me that’ rather than a ‘I don’t know what to believe’. We can call this attitude *rejection agnosticism*.

In summary, subjects display a range of behaviours—liberality, indubitability and rejection agnosticism—when faced with objects that fall in the borderline area.

§III Existing theories and borderline behaviour

How do the existing theories of vagueness fare in accounting for borderline behaviour? We have grouped theories of vagueness very coarsely into two camps. On the one hand we have

the many-valued theorists who propose that vagueness is some form of semantic incompleteness such that the rules of application leave us either with truth-value gaps (e.g. supervaluationism, see Fine 1975, Lewis 1982), truth-value gluts (e.g. subvaluationism, see Corberos 2011, Hyde and Colyvan 2008) or some other third truth-value (e.g. in applications of many-valued logics, see Weber and Colyvan 2010). On the other hand we have those who propose that vague predicates are unknowably precise—Williamson (1994) being the stand-out advocate here, though we might also wish to include some forms of contextualism if they employ context shifts to disguise or disarm the existence of a sharp cut-off (see, e.g., Shapiro 2006, Fara 2000).

In proposing that vague predicates do draw sharp boundaries the epistemicist will find it difficult to accommodate borderline behaviour. We do not display liberality, indubitability and rejection agnosticism with non-vague predicates that draw sharp boundaries. So the question arises, why do we display this behaviour with vague predicates? The epistemicist may hope to accommodate the behaviour via the subject's ignorance of the sharp cut-off. But ignorance of a cut-off does *not* explain liberality, indubitability or rejection agnosticism. If a subject is ignorant of the cut-off of a precise predicate such as 'is smaller than 2 metres' when judging the height of a fine-grained ordered series of Christmas trees by sight alone he will be in no way inclined to pronounce verdicts of the trees that are close to the 2 metre boundary. Nor will he tolerate other subjects pronouncing unqualified verdicts. The subject may well remain agnostic. But, as noted above, this is not the rejection agnosticism we are looking to accommodate: this agnosticism is a measure taken to avoid making an error in light of the (unavailable) facts. The epistemicist might try to argue that liberality, indubitability and rejection agnosticism are relevant features of subjects using vague predicates because the subjects do not *know* or believe that there is an unknown cut-off. But to say this is to offer an error theory to accommodate the linguistic behaviour of subjects using vague predicates. And, if an error theory is required, then epistemicism does not in itself accommodate liberality, indubitability and rejection agnosticism.

Theories that advocate semantic incompleteness of some kind do a little better but they explain neither liberality nor indubitability. Consider Williamson's (1990: 107) example of an explicitly semantically incomplete term, provided by piecemeal definition. Williamson introduces the word 'dommal' by stipulating that all dogs are dommals and that all dommals are mammals. As the description gives only the sufficiency conditions of application it is unclear how to apply the predicate in situations that fall outwith the conditions as described. It is unclear, for example, whether the predicate applies to cats. The predicate is interesting because of its explicit incompleteness—it wears its incompleteness on its sleeve. If vague predicates were similarly explicitly semantically incomplete we would expect to see the patterns of usage around dommal mirroring that of vague predicates: that is, we would expect to see liberality, indubitability and rejection agnosticism. But if a subject were confronted with a cat and asked whether or not the animal was a dommal how would we expect him to behave? He will not display liberality as the definition of the predicate is *explicitly* silent on whether mammals other than dogs can count as dommals and, it seems, it is in no sense up to the subject to decide the further conditions of application. He will not display indubitability as he will judge anyone who classifies a cat as a dommal as incompetent as they are making an unwarranted judgement. He may well display agnosticism. And this agnosticism may well be of the required kind—a rejection of the question. It will certainly not be ignorance agnosticism as the subject is aware that the predicate is semantically incomplete.

As explicit semantic incompleteness does not provoke either liberality or indubitability we cannot use semantic incompleteness to explain liberality and indubitability without some additional theory or error theory. However, a semantically incomplete predicate such as *dommal* and a vague predicate such as *red* do have something in common. In both cases a competent subject is aware that more information would be required in order for the predicates to draw a boundary between the objects that fall under it and those that fall under its negation. However in the dommal case, as noted above, the subject will display neither liberality nor indubitability because he is also aware that it is in no sense up to him to decide

whether or not a cat can be legitimately classed as a dommal. Not so in the case of vague predicates. With vague predicates we *do* feel as though it is in some cases ‘up to us’ whether or not the predicate applies. This is because vague predicates are judgement-dependent—the extension of *red* is at least partly determined by dispositional judgements. Before we consider the judgement dependent nature of vague predicates it will be beneficial to first understand the nature of the permissibility that we find in the borderline area.⁶ The taxonomy of forms of permissibility requires a further distinction between verdicts and judgements.

§ IV Verdicts and judgements

As noted above, the borderline area is one in which there is some element of permissibility—the subject *may* pronounce that the object falls under the predicate, the subject *may* pronounce that the object does not fall under the predicate, the subject *may* be agnostic on the matter. What does such permissibility amount to and what makes it appropriate?

Permissibility comes in more than one form. Compare the following permissibility principles.

WIDE-PERMISSIBILITY: A subject’s behaviour can correspond with any one of the following attitudes from the set of permissible attitudes, $\langle A_1, \dots, A_n \rangle$.

Wide-permissibility is very undemanding. It informs us that there is a range of permissible attitudes but it does not require of a subject who chooses, say, attitude A_1 that he take an attitude of tolerance towards those who choose attitudes A_2 or A_3 . In fact, for all wide-permissibility tells us, the subject need not even be aware that attitudes A_2 and A_3 are permissible. In order to act in accordance with wide-permissibility a subject simply has to

⁶ I use judgement dependence for what is often referred to as response dependence because, as will become clear, I want to make a distinction among the class of responses such that not all responses are semantically relevant.

display behaviour that corresponds with one member of the relevant set of attitudes. He may be extremely intolerant of a subject whose behaviour indicates that he holds a different attitude from the relevant set. Wide-permissibility does not capture the characteristic features of our use of vague predicates because, if it did, a subject could competently use a vague sentence exactly as if it were precise. Perhaps moral predicates such as 'is good' are governed by a form of the wide-permissibility principle: different attitudes may count as being good in situation s , but competence with the predicate does not seem to require one to be aware of the existence of various permissible attitudes and furthermore if one comes across a subject who takes a different but equally permissible attitude one need not view that subject's attitude as being permissible.

Now consider a different permissibility principle:

TOLERANT-PERMISSIBILITY: The subject's behaviour can correspond with any one of the following attitudes from the set of permissible attitudes, $\langle A_1, \dots, A_n \rangle$, and the subject must be disposed to demonstrate awareness that other subjects may perform a different action from the set.

Tolerant-permissibility is an improvement on wide-permissibility in as much as it demands some demonstration of awareness of the permissibility of various attitudes. However, tolerant-permissibility is not strong enough to capture the distinctive features of our use of vague predicates because, although it correctly registers the subject's awareness of the permissible divergent use of other subjects, it does not reflect the subject's awareness of the fact that his or her own response is neither *grounded* in a judgement nor given to him by some standard or other. Perhaps the use of sentences containing predicates of taste such as 'is tasty' are governed by tolerant-permissibility: one can use the sentence 'Mussels are tasty' and allow that another subject can competently use the sentence 'Mussels are not tasty'.

What we are looking for, what will mark a distinction particular to our use of vague predicates, is some guiding principle that captures the fact that, in the borderline areas a

subject is not committed to his *own* response: he is aware that his own response corresponding to one of the permissible attitudes is not appropriately grounded in a judgement of *redness*. That we follow this principle is evident in our use of the predicate, in particular in terms of how our use demonstrates that, although we have a great deal of freedom regarding the *content* of our pronouncements in the borderline area, the freedom does not carry over into *how* we pronounce that content. Borderline pronouncements—whatever their content—must be given in a manner that belies some uncertainty or lack of commitment. As Wright puts it:

[...] each competent subject should offer progressively less confident verdicts, eventually entering a range where any verdict is uncomfortable, and then later a range where confidence is gradually restored. (92, 2003)

A failure to display a lack of certainty when asserting of borderline objects is a sign of incompetence with vague sentences.

Consider the subject *Confident Judge*. Confident Judge is faced with a sorites series of patches from clear red to clear orange. He proceeds along the series barking pronouncements of ‘red’ or ‘orange’ with equal confidence across the entire range. There is something unsatisfactory—perhaps even incompetent—about such a response, something that has nothing to do with the *content* of the responses. Another subject, *Tentative Judge*, could give exactly the same pronouncements but in a manner that demonstrates the required degree of uncertainty. The required tentative nature of borderline responses provides some evidence that pronouncements of the status of borderline objects are not grounded in the appropriate judgements. Confident Judge, in acting against this expectation, is offering some evidence that he does not understand the vague nature of the predicate and perhaps evidence to suggest that he takes the predicate to be precise.

It is a misconception to suppose that the borderline area is one in which various *judgements* are permissible. It is a thesis of the semantics of vague predicates proposed here

that the borderline area is one in which *no* judgement (of the relevant kind) is possible let alone permissible, yet various *verdicts* are permissible. We will call this verdict-permissibility.

VERDICT-PERMISSIBILITY: When in the borderline area the subject's behaviour can correspond with any one of the following attitudes from the set of permissible attitudes, $\langle A_1, \dots, A_n \rangle$, yet the subject must be disposed for his behaviour to mark that the attitudes represent *verdicts* and not judgements.

For the purpose of this theory we will stipulate that a *verdict* is a pronouncement of a vague sentence 'x is F' that is not grounded in a judgement of the form $x \text{ is } F$ but is grounded in either (i) a judgement of the form $x \text{ is } G$ (where G is some concept related to but not identical with F), or (ii) a second-order judgement determining that a pronouncement of 'x is F' will meet some practical purpose but is not accompanied by a predicating judgement. By contrast, a pronounced *judgement* 'x is F' is grounded in a judgement of x being F .

On (i), it is a common feature of our every day use of language that question displacement occurs: we substitute the question we are asked with a closely related and sometimes implied question. Consider IDENTIKIT.

IDENTIKIT: Stephan has witnessed a crime. At the police station the inspector asks him to group a selection of identikit facial parts together until he finds a grouping that resembles the culprit. The inspector asks 'Does this look like the man who committed the crime?'⁷

How should Stephan reply? If Stephan were to take the inspector's question quite literally he should reply 'no'. Because identikit pictures do not look like *anyone*: they are an oddly put together collection of features that no person is unfortunate enough to possess for a face. The

⁷ Thanks to [] for suggesting this example in discussion.

question Stephan is answering if he answers ‘yes’ to the inspector is ‘For the purpose of our investigation and given our resources, does this look like the man who committed the crime?’ or, perhaps the weaker, ‘Will this be of any help in finding the culprit if we release it to the media?’

On (ii), examples abound in situations where it may be prudent for one to pronounce ‘that is red’ for some practical purpose. For example, were I to send you to bring me a dress from my closet and looking in my closet you ask me ‘Is it red?’ I may well answer ‘yes’ if I judge that telling you that the dress is red will help to achieve my purpose. This second order judgement is not a judgement that the item is red, nor even that it is *red enough*. Similar replacement of second-order for first-order judgements can occur in scenarios where a sorites series of objects must be split in two for some practical purpose. For example, in *Concepts Without Boundaries* (1996: pp 159-160) Mark Sainsbury describes a scenario in which the owner of a paint shop must divide the fine-grained series of red and orange paints between the shelves named ‘red’ and ‘orange’. Again it is likely that the paint shop owner is not judging the paint to be red in the borderline cases, rather he is judging how to classify the paint for the practical purpose of shelving.

In summary, when verdicts are pronounced in the borderline area there may be an accompanying judgement but it will not be a judgement of the relevant kind: it will not be a judgement of the form ‘that is red’.

That there can be no judgement of this kind of a borderline object should not surprise us: the definition of vague predicates that we started with was one in which the meaning of a vague predicate gave *no means by which to demarcate situations in which a sentence containing the term correctly describes matters from those in which it does not* and for which *looking for such demarcation is misguided*. Objects that fall in the borderline area defy judgement in terms of the relevant predicate.

§ V Judgement-dependence and lack of judgement

Vague predicates refer to judgement-dependent properties. To say that an object has a judgement-dependent property is to say that the object is disposed to be judged to have the property by competent subjects under good conditions. The distinction between judgement-dependent properties and non-judgement-dependent properties is straightforward enough to grasp, at least intuitively: a man may have the properties of being *bald*, *tall* and *thin*—properties that are partly dependent on human responses—in addition to the purely physical properties of having no hairs on his head, being 6’6” tall and having a 28” waist—properties that are independent of human responses.

When a sentence makes reference to a judgement-dependent property an occurrence of the sentence requires some feature of context, a judgement—dispositional or otherwise—in order for the occurrence of the sentence to be truth apt or fully propositional. So, the sentence ‘A standard issue British postbox is red’ is truth apt partly in virtue of a standard issue British postbox being such that it is disposed to be judged to be red by a competent subject. We can capture the required notion of judgement-dependent truth as follows:

Judgement-dependent Truth: The sentence ‘x is red’ expresses a true proposition if x is disposed to be judged to be red under good conditions by a competent subject, expresses a false proposition if x is disposed to be judged to be not-red under good conditions by a competent subject and expresses no proposition if x is neither disposed to be judged to be red nor disposed to be judged to be not-red under good conditions by a competent subject.

A few relevant notes: It is assumed—as is fairly standard—that it is propositions, and not sentences, that are the primary bearers of truth and the objects of propositional attitudes. It is also assumed that not every uttered sentence will produce a proposition. There are familiar context-sensitive sentences that can fail to achieve propositionality on use. Consider, for example the sentence:

(D) That book was written by Wittgenstein.

In order for an occurrence of (D) to be propositional the context must provide content for the compound demonstrative ‘that book’. There are many different accounts of how context will supply content for a demonstrative and we need not take a stand on which is preferable. All we need to note is that, for each account of the way that context can supply propositional content, there will be a way that this process can go wrong, not in supplying the wrong object but in failing to supply any object at all. That is, there are possible utterances of (D) that are nonpropositional, perhaps because the utterance occurs when there are simply no books in the vicinity, and the relevant object cannot be supplied by anaphora or any other feature of context. In such a case although something has been said—in the minimal sense that a sentence has been tokened—nothing truth-evaluable, and nothing that could stand as the object of a propositional attitude, has been expressed.

Likewise, an utterance of a judgement-dependent sentence can fail to be true in two ways. A sentence can fail to be judgement-dependent-true if the proposition it expresses is false. ‘That is blue’ of a standard issue British post box would fail to be true in this way. A sentence can also fail to be judgement-dependent-true if it fails to express a proposition—if one is neither disposed to judge it to be red nor disposed to judge it not to be red.

According to the view that I propose here—the No Proposition View (NP-view)—judgement-dependent sentences are context sensitive as context supplies a judgement or dispositional judgement to accompany the use of the judgement-dependent predicate. However, we can remain neutral on the details of the contextualist semantics.⁸

⁸ In more detail, we can remain neutral between various semantic theories such as standard contextualism (upon which propositional truth varies with context of use in virtue of variation in content), nonindexical contextualism (upon which propositional truth varies in virtue of context of use while content remains invariant), content relativism (upon which propositional truth varies with context of assessment in virtue of variation in content), and truth relativism (upon which propositional truth varies in virtue of context of assessment while content remains invariant) and any other semantic system under which a sentence *S* can take a different truth value relative to context *c*₁ than it takes at context *c*₂. For a clear description of contextualism, nonindexical contextualism, truth-relativism and content-relativism see MacFarlane’s ‘Nonindexical Contextualism’ (2009)

Context-dependence: For some sentence in natural language, S , if in order for an occurrence of S to be truth-apt some contextual parameter must provide a value, then S is context-dependent.

We then note that non-propositionality can occur when vague sentences are used.

Non-propositionality: An occurrence of a sentence will be *non-propositional* when it is context-dependent yet context cannot provide the relevant value.⁹

Objects in the borderline area are such that there is intrinsic uncertainty over whether they are correctly described by S , and intrinsic uncertainty surely precludes judgement. In summary,

(P1) As vague predicates are judgement-dependent, a vague sentence (a sentence containing a vague predicate), ‘ x is F ’, requires an accompanying judgement of the form x is F in order for that sentence to become propositional.¹⁰

(P2) There is a state of affairs, a borderline case, such that it is intrinsically uncertain whether the sentence ‘ x is F ’ correctly describes that state of affairs.

(P3) Intrinsic uncertainty over whether x is F precludes judgements of the form x is F .

Therefore, by P1-P3,

(C) Borderline assertions of ‘ x is F ’ are non-propositional.

Of course this is not to say that nothing is said when ‘ x is F ’ is uttered—in fact the utterance can still be pragmatically useful. But it cannot take a truth-value.

How does this explain liberality, indubitability and rejection agnosticism? Liberality and indubitability are explained by a subject’s awareness that borderline assertions are not

⁹ There is a distinction between *incomplete propositions* (which arise when a sentence-context pair fails to generate a complete content) and *open-sentences* (which arise when a sentence-context pair generates a complete content but fails to fix the features of context required to determine a truth-value) but as we are remaining neutral on context-sensitive semantics we will do well to remain neutral on the *kind* of incompleteness found in the relevant uses of vague sentences.

¹⁰ As noted earlier, some *other* proposition may be expressed or conveyed by the utterance of ‘ x is F ’, but if it is not the proposition x is F we will count the assertion of ‘ x is F ’ as being non-propositional.

accompanied by a judgement of application of the predicate. Recall that indubitability is only appropriate when borderline assertions are suitably tentative. It is the demonstration of the lack of relevant judgement accompanying the assertion that makes indubitability entirely fitting because doubt is not an appropriate attitude to have towards an assertion that is put forward as unsupported by a judgement to play the role of relevant reason. If Aidan had no more reason to assert 'x is red' than he did to assert 'x is not red', what sense does it make for him to doubt or question his judgement? And if Aaron asserts a similarly non-committal 'x is not red' while Aidan asserts 'x is red' it makes no sense for Aidan to challenge Aaron's assertion.

Furthermore, although it is unlikely that speakers are aware of the semantic repercussions in terms of the non-propositionality that arises from the lack of judgement accompanying borderline cases, liberality is a demonstration of some awareness on the part of speaker that our borderline assertions cannot be *wrong*. It is this that gives speakers the freedom to make assertions in the borderline area, despite the fact that they lack the appropriate judgement—hence the attitude of liberality.

What about rejection agnosticism? Why do subjects feel it is sometimes necessary to return no verdict at all? Subjects turn to rejection agnosticism when the situation seems to *demand* a judgement, for whatever reason, and pronouncing a verdict becomes inappropriate. Recall Confident Judge. His pronouncements were inappropriate because they were put forward in a manner that led others to mistakenly believe that they were supported by judgements of the appropriate form. Features of context can sometimes heighten the stakes such that *only* assertions that are backed by appropriate judgements will be acceptable. If, for example, Stephan is marched past a sorites series of objects and told that he is only to assert 'x is F' or 'x is not F' in cases where he is confident of the truth of his pronouncement, he is likely to remain agnostic in the borderline area. Similarly, in the philosophically enlightened context when the subject is wary of falling foul of sorites reasoning he may well choose agnosticism. When, for whatever reason, an assertion of 'x is F' implies that the subject has

made the accompanying judgement x is F , yet he cannot make this judgement, rejection agnosticism is an appropriate behaviour: rejection agnosticism is a demonstration of our reluctance to act in any way that signifies that we take our verdicts to be pronouncements of judgements.

§ VI The No-Proposition solution to the sorites

The No-Proposition view (the NP-view) makes sense of the distinctive behaviour that subjects display when using vague predicates in the borderline area. Furthermore, a solution to the sorites paradox falls out of it.

The proposed dissolution of the paradox is clear enough: according to the NP-view of vagueness the use of each in a series of vague sentences goes from propositional (and true), to non-propositional, to propositional (and false.)¹¹ The imagined paradox ignored the possibility of such a distinction. The distinction may have been missed as it is usual for the paradox to be stated in terms of true sentences. However, it is propositions, and not sentences, that are standardly taken to be the primary bearers of truth and, due to context sensitivity and completion, slipping between sentences-truth and propositional-truth is not always harmless. On the NP-view, sentences are bearers of vagueness and propositions are bearers of truth. On the NP-view there are *no* vague propositions.¹²

As sentences are the primary bearers of vagueness our puzzle must be stated as one arising from sentences. Let sentence #1 be ‘Patch #1 is red’, sentence #2 be ‘Patch #2 is red’,

¹¹ It is assumed that there are no partial judgements. It may be possible to propose a version of the NP-view that employed something like Schiffer’s (2000) notion of partial belief such that in order for a sentence to be propositional a certain level of certainty in judgement has to be reached.

¹² In their (2007) David Braun and Ted Sider propose a similar position as an amendment of Frege’s semantic nihilism. According to Braun and Sider, vague sentences—even those describing clear cases such as ‘The postbox is red’—can never be true or false. As most language is vague most of the things we say can never be true or false. Whilst I agree with much of what they propose I think that the NP-view offers an improvement in allowing much of our utterances to take truth-values.

and so on up to sentence #100, 'Patch #100 is red'. The premises of the vague sentence argument (VSA) are:

(VS1) Sentence #1 is true.

(VS2) (Quantifying over the series of 100 sentences) For all sentences, if sentence n is true then sentence n_{+1} is true.

And the conclusion:

(VSC) Sentence #100 is true.

On the NP-view (VS2) is to be rejected. To better appreciate why (VS2) is false a more perspicuous version of the premise can be considered, one that allows for the fact that, although we use sentences to make claims about the world, it is the propositions expressed by sentences that bear truth-values. The vague proposition version of the argument (VPA) has the following premises:

(VP1) The proposition expressed by sentence #1 is true.

(VP2) (Quantifying over the series of 100 sentences) For all sentences, if sentence n expresses a proposition p_n and p_n is true, then sentence n_{+1} expresses a proposition p_{n+1} and p_{n+1} is true.

(VP2) is false. It is false, not because the sentences in the series express propositions and some of these are false, but because some sentences in the series do not express propositions at all. For only a limited number of sentences—those that are accompanied by judgements of the form x is F —express propositions. The sentences applied to the objects of the borderline area do not express propositions.

The series of sorites sentences goes from propositional and true, to non-propositional, and then to propositional and false. There is nothing paradoxical about sentences behaving in this way upon use. And it is a virtue of the NP-view that it gives a simple explanation of the seemingly paradoxical. Some sentences require features of context in order to become propositional and sometimes context fails us in this requirement.¹³

VII Conclusion

This paper provides a theory of vague sentences given to accommodate the distinctive behaviour that subjects display when using such sentences in the borderline area. We began by identifying the distinctive borderline behaviour that subjects display when using vague sentences and noting that none of the existing theories of vagueness could accommodate such behaviour without the use of an error theory. We then identified the cause of borderline behaviour: borderline behaviour is appropriate because subjects are aware that their borderline assertions are not grounded in judgements. So, vague sentences are those that require an accompanying judgement but that, for some uses of the sentence, no judgement is available. This is the NP-view of vagueness.

The NP-view of vagueness also provides a solution to the sorites paradox. Not every use of a vague sentence is propositional. In particular, borderline uses of vague sentences are not propositional. The series of sorites sentences runs from propositional to nonpropositional to propositional and the paradox is avoided. Since other available theories of vagueness provide a solution to the sorites which does not directly explain borderline behaviour, and the NP-view does, the NP-view is to be preferred to other available theories of vagueness.

References

- Cobrerros, Pablo, 2011, "Paraconsistent Vagueness: A Positive Argument", *Synthese* 183(2): 211–227
- Braun, David and Sider, Theodore, 2007, "Vague, So Untrue", *Noûs*, 41, 133-156.
- Fine, Kit, 1975, "Vagueness, truth and logic", *Synthese*, 54: 235–59. Reprinted in Keefe and Smith (eds.) 1996, 119–150.
- Fara, Delia Graff, 2000, "Shifting sands: an interest-relative theory of vagueness", *Philosophical Topics*, 28: 45–81. Originally published under the name "Delia Graff"
- Kamp, Hans, 1981, "The Paradox of the Heap", in Uwe Münnich (ed.), 1996, *Aspects of Philosophical Logic*, Dordrecht: D. Reidel, 225–77.
- Lewis, David, 1982, "Logic for Equivocators", *Noûs*, 16: 431–441.
- Hyde, Dominic and Mark Colyvan, 2008, "Paraconsistent Vagueness: Why Not?", *Australasian Journal of Logic*, 6: 107–121.
- Raffman, Diana, 1996, "Vagueness and context-sensitivity", *Philosophical Studies*, 81: 175–92.
- Ripley, David, 2011, "Contradiction at the Borders", *Vagueness in Communication*, Rick Nouwen, Robert van Rooij, Uli Sauerland, Hans-Christian Schmitz (eds.)
- Sainsbury, R. Mark, 1996, "Concepts without boundaries", *Vagueness: A Reader*, in Keefe and Smith (eds.) 1996, 251–264.
- Schiffer, Stephen, 2000, 'Vagueness and Partial Belief', *Philosophical Issues*, 10: 220-257.
- Shapiro, Stewart, 2006, *Vagueness in Context*, Oxford: Oxford University Press.
- Soames, Scott, 1999, *Understanding Truth*, New York: Oxford University Press.
- Williamson, Timothy, 1994, *Vagueness*, London: Routledge.
- Wright, Crispin, 2001, "On Being in a Quandary", *Mind*, 110: 45–98.
 —, 2003, "Vagueness: A fifth column approach", in *Liars and Heaps: New Essays on the Semantics of Paradox*, J.C. Beall (editor), Oxford University Press.