(A)Symmetric Vagueness and the Absolute/Relative Distinction*

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1 Introduction

This paper presents a novel empirical contribution to the ongoing study of the relationship between a well-established lexical class distinction in the adjectival domain (the *relative* vs *absolute* distinction) and the phenomenon known in linguistics and philosophy as *vagueness*. Some examples of members of the relative class (henceforth *RAs*) are shown in (1), and some examples of members of the absolute class (henceforth *AAs*) are shown in (2).

(1) **Relative Adjectives:**

    a. John is **tall**.

    b. This watch is **expensive**.

    c. This stick is **long**

(2) **Absolute Adjectives:**

    a. This room is **empty**.

    b. John is **bald**.

    c. This towel is **wet**.

Although members of both the relative and absolute classes of scalar adjectives can appear in the comparative (ex. *John is **taller** than Mary*; *This room is **emptier** than that room* etc.), it has been observed by many authors (ex. Cruse (1986), Kamp and Rossdeutscher (1994), Pinkal (1995), Yoon (1996), Rotstein and Winter (2004), Kennedy and McNally (2005) and Kennedy

(2007), among others) that adjectives like those in (1) behave differently from those in (2) with respect to a large variety of syntactic and semantic tests. Pinkal (1995) and Kennedy (2007) make the additional proposal that relative adjectives and absolute adjectives are further differentiated at the pragmatic level in that the members of the former class display the characteristic properties of vague language in all contexts; whereas, the distribution of the symptoms of vagueness with members of the latter class is subject to contextual variation. As is standard in the recent literature on vagueness (cf. Keefe (2000), Fara (2000), Smith (2008), among others), I take vague language to be characterized by the presence of a cluster of three (related) properties: 1) *borderline cases* (objects for which it is difficult or even impossible to tell whether they satisfy the predicate), 2) *fuzzy boundaries* (the observation that there appear to be no sharp boundaries between cases of a vague predicate and its negation), and 3) *susceptibility to the Sorites paradox* (a paradox for systems based on classical first order logic that follows from the fuzzy boundaries property). These properties will be further discussed and exemplified in the body of the paper.

The main claim of the paper (which is in line with Pinkal and Kennedy) is that the absolute/relative distinction is important for the distribution of vagueness; however, not in the way that these authors (and others) have proposed. I argue that the proper characterization of how absolute and relative predicates differ when it comes to vagueness is not based on contextual variability, but on something else. I provide new data showing that RAs also display contextual variability in the symptoms of vagueness, and, thus, I argue that this property should not be attributed solely to members of the AA class. Building on this empirical observation, I propose that we can arrive at a more accurate description of the phenomenon of vagueness and its distribution across contexts by employing a context-relative notion that I call *potential vagueness*, defined (informally) in (3).

(3)   **Potential Vagueness (informal):**
      An adjective P is *potentially vague* iff there is some context c in which P has borderline cases, fuzzy boundaries, and gives rise to a Soritical argument in c.

Finally, I show that relative and absolute adjectives do display variability in (potential) vagueness; however, it is *complement*-based, rather than context-based. In particular, I show that relative adjectives have both potentially vague positive forms (P) and negative forms (*not P*), while, for AAs, only one of the two are potentially vague. I show that whether an AA has a potentially vague positive or negative form is straightforwardly predictable from which well-established scale-structure AA subclass it belongs to: the *total* class or the *partial* class (cf. Cruse (1980), Yoon (1996), Rotstein and Winter (2004), among others). More precisely, I show that total AAs (ex. *empty, bald, straight, clean* etc.) have potentially vague positive forms and non-potentially vague negative forms; whereas, partial AAs (ex. *wet, dirty, bent* etc.) have potentially vague negative forms and non-potentially vague positive forms.

Class	P. Vague P	P. Vague $\neg P$
Relative	✓	✓
Total Absolute	✓	×
Partial Absolute	×	✓

Table 1: **Potential Vagueness Typology of Scalar Adjectives**

The paper is organized as follows: In section 2, I present some of the (vagueness-independent) grammatical tests that distinguish between relative and absolute adjectives on the one hand and total and partial AAs on the other. Then, in section 3, I outline the previous proposal that what further distinguishes RAs from AAs is that RAs display the properties of vague language in all contexts; whereas, there are some contexts in which AAs do not display these properties. In section 4, I present new data that suggest that the vagueness of RAs is also subject to contextual variation, and thus it is not clear that this feature truly partitions the class of adjectives along RA/AA lines. Then, in section 5, I present the new empirical generalization concerning vagueness and the RA/AA distinction: I argue that relative adjectives are *symmetrically* (potentially) vague (have both p. vague positive and negative forms), while absolute adjectives are *asymmetrically* (potentially) vague (have either a non-p. vague positive or negative form). Finally, I discuss the implications of this generalization for theories of the relationship between the phenomenon of vagueness and scalarity in natural language.

2   The absolute/relative distinction

It has been long observed that the syntactic category of bare adjective phrases can be divided into two principle classes: *scalar* (or *gradable*) vs *non-scalar* (*non-gradable*). The principle test for scalarity of an adjective *P* is the possibility of *P* to appear (without coercion) in the explicit comparative construction. Thus, we find a first distinction between adjectives like *tall, expensive, bald, empty, dirty*, and *wet* on the one hand (ok: *taller, more expensive, balder, emptier, dirtier, wetter*) and *atomic, pregnant*, and *geographical* on the other (*?more atomic, ?more pregnant, ?more geographical*). In this section, I present some of the arguments from the literature in favour of the further division of the class of scalar adjectives into two subclasses: what are often called the *relative* class and the *absolute* class. In particular, (following others) I show that, in languages like English, adjectives like *tall* and *expensive* pattern differently from ones like *bald* and *empty* with respect to a variety of independent syntactic and semantic tests[1]. The tests that I present in this section are only a very small subset of the diagnostics described in the literature, and the reader is encouraged to consult works such as Cruse (1986), Yoon (1996), Rotstein and Winter (2004), Kennedy and McNally (2005), and Kennedy (2007) for more information.

The main test for RA-hood or AA-hood that I will adopt is the *definite description* test[2]. As observed by Kyburg and Morreau (2000), Kennedy (2007), and Syrett et al. (2010), adjectives like *tall* and *empty* differ in whether they can 'shift' their thresholds (i.e. criteria of application) to distinguish between two individuals in a two-element comparison class when they appear in a definite description. For example, suppose there are two containers (A and B), and neither of them are particularly tall; however, A is (noticeably) taller than B. In this situation, if someone asks me (a), then it is very clear that I should pass A. Now suppose that container A has less liquid than

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[1]Note that, by virtue of the fact that *bald* is generally considered to be a vague adjective, Kennedy (2007) classifies it as relative, not absolute. However, (as he notes and as we will see in this section), this adjective passes the non-vagueness-related tests for being a total (in his words: *associated with an upper closed scale*) AA.

[2]The choice of this diagnostic is not arbitrary: Firstly, it is one of the few semantic tests in which total and partial AAs pattern together against RAs; in the vast majority of the scale-structure diagnostics in the literature, partial AAs either pattern with RAs and/or display a distinct behaviour from AAs (cf. Rotstein and Winter (2004), Kennedy and McNally (2005), and Kennedy (2007)). Secondly, it is also one of the few semantic tests that have been investigated in an experimental manner: see Syrett et al. (2010).

container B, but neither container is particularly close to being completely empty. In this situation, unlike what we saw with *tall*, (b) is infelicitous.

(4)   a. Pass me **the tall one**.

     b. Pass me **the empty one**.

In other words, unlike RAs, AAs cannot change their criteria of application to distinguish between objects that lie in the middle of their associated scale. Using this test, we can now make the argument that adjectives like *full, straight,* and *bald* are absolute, since (a) is infelicitous if neither object is (close to) completely full/straight/bald. Likewise, we can make the argument that *dirty, wet*, and *bent* are also absolute, since (b) is infelicitous when comparing two objects that are at the middle of the dirtiness/wetness/curvature scale (i.e. both of them are dirty/wet/bent).

(5)   **Absolute Adjectives**

     a. Pass me the **full/straight/bald** one.

     b. Pass me the **dirty/wet/bent** one.

Furthermore, we can make the argument that *long, expensive,* and even colour adjectives like *blue* are relative, since the (6) is felicitous when comparing two objects when both or neither are particularly long/expensive/blue[3].

(6)   Pass me the **long/expensive/blue** one.

2.1   The total/partial distinction

Although the definite description test groups together AAs like *empty, bald, straight, wet, dirty*, and *bent* to the exclusion of adjectives like *tall* and *long*, (at least one) further distinction within the class of AAs appears to be linguistically significant. In this section, I present two tests that distinguish **total** (also known as *universal* cf. Kamp and Rossdeutscher (1994)) adjectives like *empty/bald/straight* from **partial** (a.k.a. *existential*) adjectives like *wet/dirty/bent*. They are both based on the distribution of adjectival modifiers.

Firstly, as discussed in Rotstein and Winter (2004) (among others), total adjectives are natural with modifiers like *almost* and *completely*; whereas, partial adjectives do not naturally occur with these modifiers. On the other hand, partial AAs can appear with modifiers like *slightly* or *a little* in their existential interpretation[4].

(7)   **Total AAs**

     a. This room is **almost/?slightly** empty.

     b. John is **almost/?slightly** bald.

     c. This stick is **almost/?slightly** straight.

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[3]For an example of the use of a colour adjective like *blue* to distinguish between two not particularly blue objects, see Fara (2000).

[4]Note that all scalar adjectives are possible with *slightly/a little* on an 'excessive' interpretation (as in *John is slightly tall for his age*; however, only partial AAs have the existential 'there is some *P*' interpretation. See Solt (2011) for discussion.

(8) **Partial AAs**

    a. This towel is **?almost/slightly** wet/dirty.

    b. This stick is **?almost/slightly** bent.

2.2 Summary

In summary, the class of scalar adjectival predicates can be divided into (at least) the three principle subclasses shown in figure 1 based on how these predicates behave with respect to a series of syntactic and semantic tests[5].

Scalar Adjectives

Relative (*tall*)   **Absolute**

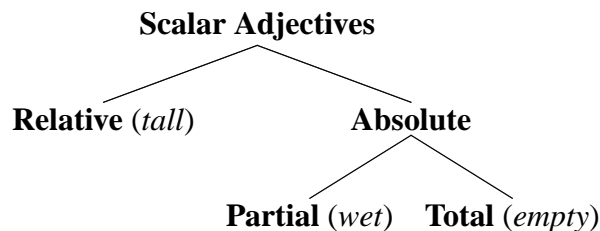**Partial** (*wet*)   **Total** (*empty*)

Figure 1: Adjectival Scale Structure Distinctions

    In the next sections, I will discuss the additional proposal that RAs and AAs differ in how they display the characterizing properties of vague language. I will first present Kennedy (2007)'s version of this proposal in which absolute adjectives, unlike relative adjectives, are subject to **context-based** variation in the presence of the properties of vague language. However, in section 4, I will argue that this proposal is incorrect. I will then argue in section 5 that variation in the presence of vagueness with AAs is not context-based, but **complement-based**.

3 Context-based variability in vagueness

In this section, I present the empirical phenomenon of vagueness and its characteristic properties. I first illustrate the phenomenon with relative adjectives, and then turn to the question of whether or not absolute adjectives are also vague.

3.1 Vagueness and relative adjectives

The first characterization of vague predicates found in the literature is the *borderline cases* property. That is, vague predicates are those that admit borderline cases: objects of which it is unclear whether or not the predicate applies. Consider the following example with the predicate *tall*: If we are in a context where we take the set of American males as the appropriate comparison class for *tallness*, we can easily identify the ones that are clearly tall: for example, anyone over 6 feet. Similarly, it is clear that anyone under 5ft9" (the average) is not tall. But suppose that we look at John who is somewhere between 5ft9" and 6ft. Which one of the sentences in (9) is true?

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[5]Kennedy and McNally (2005) and Kennedy (2007) make a further distinction within the class of AAs between total AAs that are associated with scales that have only one endpoint (like *clean*) and AAs that are associated with scales that have two endpoints ('totally closed scales', like *empty*). However, I will abstract away from this division here. For how 'totally closed scale' adjectives fit into the picture developed in this paper, see Burnett (2012).

(9)   a. John is **tall**.

       b. John is **not tall**.

For John, a borderline case of *tall*, it seems like the most appropriate answer is either "neither" or "both"[6].

A second characterization of vague predicates is the *fuzzy boundaries* property. This is the observation that there are (or appear to be) no sharp boundaries between cases of a vague predicate *P* and its negation. Considering the context described above: If we take a tall person and we start subtracting millimetres from their height, it seems impossible to pinpoint the precise instance where subtracting a millimetre suddenly moves us from the height of a tall person to the height of a not tall person. In principle, if we line all the individuals in the domain up according to height, we ought to be able to find an adjacent pair in the *tall*-series consisting of a tall person and a not tall person. However, it does not appear that this is possible. Of course, one way to get around this problem would be to just stipulate where the boundary is, say, at another contextually given value for *tall*; however, if we were to do this, we would be left with the impression that the point at which we decided which of the borderline cases to include and which to exclude was arbitrary. The inability to draw sharp, non-arbitrary boundaries is often taken to be the essence of vagueness (for example, by Fara (2000)), and it is intimately related to another characterization of vague language: vague predicates are those that are *tolerant*. This novel characterization of vagueness was first proposed by Wright (1975) as a way to give a more general explanation to the 'fuzzy boundaries' feature; however, more recently, versions of this idea have been further developed and taken to be at the core of what it means to be a vague expression (ex. Smith (2008), van Rooij (2010), Cobreros et al. (2010), a.o.).

(10)   **Definition of *Tolerance* (Wright, 1975)(p. 334):**
       "Let Θ be a concept related to a predicate, *F*, in the following way: that any case to which *F* applies may be transformed into a case where it does not apply simply by sufficient change in respect of Θ; colour, for example, is such a concept for 'red', size for 'heap', degree of maturity for 'child', number of hairs for 'bald'...

       •   Then *F* is **tolerant** with respect to Θ if there is also some positive degree of change in respect of Θ insufficient ever to affect the justice with which *F* is applied to a particular case."

This property is more nuanced than the 'fuzzy boundaries' property in that it makes reference to a dimension and to an incremental structure associated with this dimension. The definition in (10) puts an additional constraint on what can be defined as a vague predicate: the distance between the points on the associated dimension must be sufficiently small such that changing from one point to an adjacent one does not affect whether we would apply the predicate. Immediately, we can see

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[6]In fact, many recent experimental studies on contradictions with borderline cases have found that the "both" and/or "neither" answers seem to be favoured by natural language speakers. For example, Alxatib and Pelletier (2010) find that many participants are inclined to permit what seem like overt contradictions of the form in i with borderline cases. Additionally, Ripley (2011) finds similar judgments for the predicate *near*.

(i)   a. Mary is **neither tall nor not tall**.

       b. Mary is **both tall and not tall**.

that, in the context of American males, *tall* satisfies (10). There is an increment, say 1mm, such that if someone is tall, then subtracting 1 mm does not suddenly make them not tall. Similarly, adding 1mm to a person who is not tall will never make them tall.

The observation that relative adjectives are tolerant leads straightforwardly to the observation that these predicates gives rise to a paradox for systems like first (or higher) order logic (upon which most formal theories of the semantics of natural language are based) known as the *Sorites*, or the paradox of the 'heap'. Formally, the paradox can set up in a number of ways. A common one found in the literature is (11), where $\sim_P$ is a 'little by little' or 'indistinguishable difference' relation.

(11) **The Sorites Paradox**
   a. **Clear Case:** $P(a_1)$
   b. **Clear Non-Case:** $\neg P(a_k)$
   c. **Sorites Series:** $\forall i \in [1, n](a_i \sim_P a_{i+1})$
   d. **Tolerance:** $\forall x \forall y((P(x) \wedge x \sim_P y) \rightarrow P(y))$
   e. **Conclusion:** $P(a_k) \wedge \neg P(a_k)$

Thus, in first order logic and other similar systems, as soon as we have a clear case of *P*, a clear non-case of *P*, and a Sorites series, though *universal instantiation* and repeated applications of *modus ponens*, we can conclude that everything is *P* and that everything is not *P*. We can see that *tall* (for a North American male) gives rise to such an argument. We can find someone who measures 6ft to satisfy (a), and we can find someone who measures 5ft6" to satisfy (b). In the previous paragraph, we concluded that *tall* is tolerant, so it satisfies (d), and, finally, we can easily construct a Sorites series based on height to fulfill (c). Therefore, we would expect to be able to conclude that this 5ft6" tall person (a non-borderline case) is both tall and not tall, which is absurd.

In summary, we have seen a context (evaluating the height of men on the street) in which a relative adjective, *tall*, had borderline cases, fuzzy boundaries, and gave rise to a Soritical argument. We can think of other contexts in which *tall* would have these properties, and, indeed, it is difficult to think of a context in which they would disappear. Furthermore, relative adjectives as a class seem to display these properties. For example, consider the predicate *expensive* in the context of buying a large television (at which exact cent does a TV go from being *expensive* to *not expensive*?), or *long* in the context of a watching a movie (at which exact second does a movie go from being *not long* to *long*?), and so on.

3.2   Are absolute adjectives vague?

With these puzzling properties in mind, I turn to absolute adjectives like *bald*, *empty* and *straight*. Do AAs also have borderline cases and fuzzy boundaries? Are they tolerant and do they give rise to the Sorites?

On the one had, it seems like the answer to these questions is "yes." It has been observed since Ancient Greece that adjectives like *bald* display certain properties that are eerily similar to the properties displayed by *tall* and *long*. For example, if we take a normal case of the use of the word *bald*, talking about men on the street, we can easily identify clear cases of bald men (those with zero hairs on their head) and clear non-cases (those with a full head of hair). However, in this context, what about people with a quarter head of hair? Are they bald? Not bald? Both or neither? Thus, in

this situation, *bald* appears to have borderline cases. Similarly, at what number of hairs does one go from being bald to not bald? The boundaries of *bald* appear fuzzy. Indeed, it seems bizarre to think that there is some point at which adding a single hair to a man's head could take him from being bald to not bald; therefore, *bald* is tolerant in this context. Thus, we have the ingredients for a Sorites-type argument. We can see the same thing for *empty* and *straight*. Consider a context in which we are talking about theatres and whether or not a particular play was well-attended. In this kind of situation, we often apply the predicate *empty* to theatres that are not completely empty (i.e. those with a couple people in them), and, in this context, *empty* has borderline cases, has fuzzy boundaries, and is tolerant: If we are willing to call a theatre with a couple of people in it *empty*, then at what number of spectators does it become *not empty*? Likewise, in most situations, we can refer to objects with slight bends as *straight*, provided the bends are not large enough to interfere with our purposes. And, in these contexts, *straight* is vague with respect to how big these bends are allowed to be before they make an object become not straight. In summary, we can conclude that, at least in some contexts, absolute adjectives also display the characteristic properties of vague language.

On the other hand, it has been observed (by Pinkal (1995), Kennedy (2007) and others) that, in some other contexts, the symptoms of vagueness with AAs disappear. As a first example, we might consider Kennedy (2007)'s discussion of the absolute predicate *straight*. He observes that, in some very special cases where our purposes require the object to be perfectly straight, it is possible to say something like (12).

(12)   The rod for the antenna needs to be **straight**, but this one has a 1mm bend in the middle, so unfortunately it won't work.
       Kennedy (2007) (p.25)

In this situation, *straight* has no borderline cases: even a 1 mm bend is sufficient to move an object from *straight* to *not straight*. Similarly, the boundary between *straight* and *not straight* is sharp and located between the perfectly straight objects and those with any small bend. Thus, we have a context where *straight* stops being vague. We can see the same pattern with *empty*. Suppose, instead of evaluating the success of a play, we are describing the process of fumigating a theatre. In this case, since having even a single person inside would result in a death, the cutoff point between empty theatres and non-empty theatres would be sharply at 'one or more spectators'. Finally, we can see that even *bald* can stop being vague in some contexts. To adapt an example from Fara (2000): suppose we are trying to cast a movie biography of the actor Yul Brynner. Brynner is completely bald, and, indeed, his appearance is one of the things he is famous for. Thus, it is very important that the person that we pick to play him be completely bald (have zero hairs on their head). In this context, it would be appropriate to say something like (13).

(13)   The lead actor must be **bald**, but this guy has a hair on his head, so unfortunately, he won't work.

In this situation, *bald* has no borderline cases, and adding a single hair moves one sharply from *bald* to *not bald*. In summary, we have seen both contexts in which AAs display the characteristic properties of vagueness and contexts in which they do not; thus, when we ask whether absolute

adjectives are vague, it seems that the appropriate answer to this question is "sometimes (but not always)."[7]

As I mentioned above, at first glance, the behaviour of AAs appears to be different from that of RAs, because RAs seem to be vague in all contexts. We can state this empirical observation that links lexical subclass membership to possible lack of vagueness, which I will henceforth call the *Pinkal/Kennedy Generalization*, as in (14).

(14)   **The Pinkal/Kennedy Generalization**
       Relative adjectives are vague in all contexts; whereas, there exist contexts in which absolute
       adjectives are not vague.

In other words, absolute adjectives display contextual variation in the presence of vagueness; whereas, relative adjectives do not. However, in the next section, I will argue that (14) is false: relative adjectives also show contextual variation.

4   Contextual variation in vagueness with RAs

At first glance, the P/K generalization (14) appears correct: indeed, when we consider the classic example of a vague predicate, *tall*, it certainly seems difficult if not impossible to think of situations in which *tall* can be used precisely. However, if we consider a relative adjective like *expensive*, whose scale is built out of discrete units of value (i.e. cents, centimes etc.), we see a different pattern. In fact, it appears that relative adjectives with discrete scales can also have a non-vague use. For example, in North America, there is a certain class of candies known as 'penny' candies because, historically, they were always sold for one cent in corner stores. When we're discussing the price of one of these candies, since the normal price is one cent, adding a single cent (the smallest amount of change that, for this scale, we could make) to the price of an object will cause it to move from *not expensive* to *expensive*, as shown in the felicitous dialogues in (15) and (16).

(15)   a. Speaker A: How much did you pay for your candy?
       b. Speaker B: One cent.
       c. Speaker A: Yeah. That's not expensive: that's what they usually cost.

(16)   a. Speaker A: How much did you pay for your candy?
       b. Speaker B: 2 cents.
       c. Speaker A: That's expensive!

When the appropriate comparison class for *expensive* is the set of penny candies, this predicate has no borderline cases, and its boundaries are sharp: one cent for a candy is not expensive, but two cents for a candy is. Thus, we have our first counter-example to the generalization that relative

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[7]Interestingly, contextual variation in the presence of vagueness has been taken by many authors to indicate that AAs are **not** (or never) vague. Under this view (as presented in, for example, Kennedy and McNally (2005) and Kennedy (2007)), the uses described above that give rise to Soritical arguments are cases of a different phenomenon: "imprecision." I suggest however that, at this point, it is unclear to what extent we are justified in treating vagueness and "imprecision" as separate (possibly unrelated) phenomena, given that they share so very many non-trivial properties. I therefore follow the philosophical tradition that searches for a unified, more complete understanding of Sorites-type arguments and the predicates that give rise to them across adjectival classes. See Burnett (2012) for discussion.

adjectives always display the properties of vagueness. Note that it might be tempting to propose, in order to save (14), that *expensive* in (16) has been somehow transformed into a homophonous absolute adjective; however, this analysis would predict that we have two *expensive*s in our lexicon: *expensive*$_1$, which is a relative adjective, and *expensive*$_2$, which is a (total) absolute adjective[8]. However, in this case, we would expect *expensive*$_2$ to be licensed in the constructions that license AAs, and, as shown in (17), this prediction is not borne out.

(17)   ?This watch is almost/completely expensive.

Instead, all that we have done in (16) is provide the appropriate comparison class for the predicate, something that is necessary for all occurrences of relative adjectives.

However, 'sharpening up' is not only possible with adjectives that are commonly associated with discrete scales. A second counter-example to (14), which was suggested to me by an anonymous reviewer in another context, involves the relative adjective *long*. Suppose we are in a situation in which we are evaluating the length of trains that are composed of a number of cars, and the cars that are concatenated to form the train are sufficiently long themselves such that adding a single car can make a salient difference to the length of the train. In this situation, it might be appropriate to say something like (18).

(18)   Train A, with 3 cars, is not long, but Train B, with 4 cars, is long.

Thus, in this context, *long* has no borderline cases: trains with less than four cars are not long, trains with more than 3 cars are long, and the boundaries of *long* (for a train) are sharp: between three and four cars. In other words, contra (14), *long* does not display the properties of vague language in this context. A final counter-example (which was also suggested to me) involves the predicate *hot*. Suppose we want to bake a cake and, according to the recipe, we need to preheat the oven to 350 degrees Fahrenheit. In this situation, it is conceivable that we might consider an oven heated to any degree less than 350 as not hot; however, we move sharply to hot ovens as soon as the temperature hits 350 degrees.

I therefore conclude that (14) is incorrect and that whether or not contextual variation in the appearance of the properties of vagueness with an adjective is not directly determined by its membership in the relative or absolute adjectival classes[9].

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[8]Another option is that the absolute adjective *expensive*$_2$ is actually a member of the partial class. This analysis would predict that, like the other partial adjectives, *expensive*$_2$ would have an existential meaning. Presumably, in the same way that the partial adjectives *wet/dirty/sick* are generally proposed to hold of objects with non-zero degrees of wetness/dirt/sickness (cf. Yoon (1996); Rotstein and Winter (2004), among others), it would be true of an object just in case the object had a non-zero degree of value. However, then we would expect to be able to utter (i) using *expensive*$_2$ and then to conclude (ii). But this is simply not possible.

   (i)   This watch is more expensive than that watch.

   (ii)   This watch is expensive.

Furthermore, *This watch is slightly expensive* only has an excessive interpretation ('slightly too expensive') not an existential interpretation ('has some small degree of value'), which is counter to our expectations if *expensive*$_2$ were a partial AA.

[9]I leave to future research the analysis of which contextual factors favour or disfavour an adjectival predicate being vague in a particular context.

4.1   Potential vagueness

In the previous sections, we observed that vagueness (even with (at least some) relative adjectives) is context-dependent. In other words, I argued that being *vague* (by which I mean "exhibiting the cluster of properties discussed in section 3") is a stage-level property, i.e. one that is subject to contextual variation. This picture is at odds with the traditional use of the term *vague* (beginning with Peirce (1901)) which takes it to be an individual-level, context-independent property. Thus, I propose that, in order to account for the empirical patterns described above and in the literature on vagueness, "imprecision", and the absolute/relative distinction, we should employ a more nuanced notion, one that makes the contribution of the context fully explicit. I therefore introduce the term *potentially vague*, defined in (19)[10].

(19)   **Potential Vagueness:**
       An adjective *P* is *potentially vague* iff there is some context *c* in which *P* has borderline cases, fuzzy boundaries, and gives rise to a Soritical argument in *c*.

In the next section, I will present a new empirical generalization concerning the distribution of the *potentially vague* property and the absolute/relative distinction.

5   Complement-based variability in (potential) vagueness

In the previous sections, I argued that both relative adjectives and absolute adjectives were potentially vague. However, in this section, I will argue that not all of these potentially vague predicates are potentially vague in the same way. In short, I propose that the relative/absolute distinction **is** relevant for vagueness, and we can see this by comparing positive potentially vague predicates with their negations.

Firstly, we can observe that, for relative adjectives, there is no difference in the potential vagueness of their positive form and their negation. We saw in section 3 that *tall* was potentially vague, and we can make the same observation about *not tall:* At what point does adding a millimetre to the height of a 'not tall' person change them into a tall person? In the contexts in which '± one millimetre' counts as an irrelevant change, then *not tall* will also be tolerant; that is, we will generally assent to both the statements in (20).

(20)   **Tolerant *tall* and *not tall*:**
       a. **Tall:** For all x, y, if x is tall and x and y's heights differ by a millimetre, then y is tall.
       b. **Not tall:** For all x, y, if x is not tall and x and y's heights differ by a millimetre, then y is not tall.

I will refer to the property of having both a potentially vague positive and negative form as being *symmetrically vague*.

(21)   **Symmetric vagueness:**
       A predicate *P* is symmetrically vague iff *P* is potentially vague and 'not *P*' is potentially vague.

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[10]A more formal characterization of the *potentially vague* property is given in Burnett (2012); however, for the purposes of this paper, (19) will suffice.

However, absolute adjectives display a different pattern. Consider firstly total AAs like *bald* and *empty*. We saw in previous sections that these predicates were potentially vague, and we can think of contexts in which we would assent to the principle of tolerance using them:

(22)   **Tolerant *bald* and *empty*:**
   a. For all x, y, if x is bald and x and y's heads differ by a single hair, then y is bald.
   b. For all x, y, if x is empty and x and y's contents differ by a single item, then y is empty.

If adding or subtracting one hair is viewed as an irrelevant change in the context, then whether y has one more or one fewer hair than x will not affect the application of *bald*. The same thing holds for *empty:* if adding or removing an object from a container is viewed as an irrelevant change, then we will always consider y empty if x is.

But we can observe that the negations of total AAs behave differently. In particular, even in the same contexts as described above (and in section 3), the principle of tolerance is not valid for *not bald* and *not empty* (23).

(23)   **Intolerant *not bald* and *not empty*:**
   a. **False:** For all x, y, if x is not bald and x and y's heads differ by a single hair, then y is not bald.
   b. **False:** For all x, y, if x is not empty and x and y's contents differ by a single item, then y is not empty.

The statements in (23) are falsified by the cases where we move from individuals who are at the endpoint of the relevant scale to those who lie at the second to last degree: if x has a single hair, it is conceivable that they would be considered *not bald* (cf. the Yul Brynner example); however, if y has absolutely no hair, then they would never be considered *not bald*. Similarly with *empty*: (b) is falsified by the case where x has one object and y has zero objects.

Thus, total AAs and their negations show a fundamental asymmetry with respect to potential vagueness: while it may be possible to find contexts in which an individual who is not completely bald/empty counts as *bald/empty*, someone (or something) who is completely *bald/empty* can never count as *not bald/not empty*. I will refer to the property of differing in vagueness with one's negation as being *asymmetrically vague*:

(24)   **Asymmetric vagueness:**
   A predicate P is asymmetrically vague iff one of $\{P, \text{not } P\}$ is not potentially vague.

What about partial AAs? We can immediately see a difference between adjectives like *wet, dirty* etc. and *empty, bald* etc.: the negations of partial adjectives are potentially vague. For example, if we are in a situation where a single drop of water does not make a difference to our interests[11], then *not wet* will be tolerant (a). Similarly with *not dirty*: this negated predicate will satisfy the tolerance principle in cases where one speck of dirt is perceived as irrelevant (b).

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[11]Consider the following situation: I am looking for a towel to dry myself off. In this case, it is natural to refer a towel that has one tiny drop of water on it as *not wet*, since a single drop of water does not affect a large towel's absorbency.

(25) **Tolerance of *not wet* and *not dirty*:**
    a. For all x, y, if x is not wet, and x and y differ by one drop of water, then y is not wet.
    b. For all x, y, if x is not dirty, and x and y differ by one speck of dirt, then y is not dirty.

However, with partial absolute adjectives, it is the positive form of the adjective that is not potentially vague: even if a single drop/speck is perceived as irrelevant, *wet* and *dirty* do not satisfy tolerance. In particular, objects that are completely dry and completely clean cannot ever be described as *wet* or *dirty* respectively.

(26) **Intolerance of *wet* and *dirty*:**
    a. **False:** For all x, y, if x is wet, and x and y differ by one drop of water, then y is wet.
    b. **False:** For all x, y, if x is dirty, and x and y differ by one speck of dirt, then y is dirty.

In summary, I have argued that the proper distribution of the potential vagueness property within the set of scalar adjectives is as shown in table 2.

Class	P. Vague P	P. Vague $\neg P$
Relative	✓	✓
Total Absolute	✓	✗
Partial Absolute	✗	✓

Table 2: **Potential Vagueness Typology of Scalar Adjectives**

6 Conclusion

In this paper, I argued that a scalar adjective's membership in the absolute or relative class has an important effect on whether or not they (or their negation) will exhibit the characterizing properties of vague language. This proposal is in line with previous research on vagueness and scale structure; however, I argued that existing proposals by Pinkal (1995) and Kennedy (2007) that take contextual variation in vagueness to be the contribution of the absolute/relative distinction are not empirically correct. I proposed a new empirical generalization concerning the difference between RAs and AAs: RAs are symmetrically vague (have (potentially) vague positive and negative forms); whereas, AAs are asymmetrically vague (have only one (potentially) vague form). The link proposed in this paper between (a)symmetric vagueness and the relative/total/partial distinctions raises questions concerning the interaction between the properties of vague language and the properties of the scales associated with different kinds of adjectives. However, a full investigation of the relationship between potential vagueness and scale structure is out of the scope of this paper.

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