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Abstract

This paper explores how a Humean may respond to issues of vagueness in philosophy of language—and in extension—ontology. It begins with an examination of the sorites paradox and two common responses: epistemicism, and eliminativism. I then turn to David Hume's conception of abstract ideas as a way to determine how vague terms refer and then compare this view to both epistemicism and eliminativism. The paper ends with a defense of the Humean view as a synthesis of the two, which ultimately questions the formulation of the sorites paradox as a proper use of language.

Towards a Humean Solution of Vagueness in Language and Ontology

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Abstract

This paper explores how a Humean may respond to issues of vagueness in philosophy of language—and in extension—ontology. It begins with an examination of the sorites paradox and two common responses: epistemicism, and eliminativism. I then turn to David Hume’s conception of abstract ideas as a way to determine how vague terms refer and then compare this view to both epistemicism and eliminativism. The paper ends with a defense of the Humean view as a synthesis of the two, which ultimately questions the formulation of the sorites paradox as a proper use of language.

Consider the following syllogism:

- (1) 10,000 grains of sand composes a heap.
- (2) For any n , if n number of sand grains composes a heap, then $n-1$ number of sand grains composes a heap.
- (3) Therefore, 0 grains of sand composes a heap.

Individually, premises (1) and (2) both appear to be true, but they lead to conclusion (3), which is blatantly false. This is an example of the *sorites paradox*, which illustrates the concept of vagueness. In this particular example, the vague term being illustrated is ‘heap’ because it is unclear at what point the grouping of sand grains goes from composing a heap, to not composing a heap.

The sorites paradox can be restated in other forms as well, such as on color spectrums and individuals.¹ For example, it is unclear on a color spectrum when something goes from looking red to looking orange, making colors, in addition to things like heaps,

¹ The paradox can be stated for essentially any predicate as long as it follows the form of (P1)
 $\exists xFx_1$ (P2) $\forall x(Fx_n \rightarrow Fx_{n+1})$ (C) $\forall xFx_n$.

vague. Taking this a step farther, any object can be treated like a heap such as a table or even a person. Instead of talking about how many sand grains compose a heap, one can rewrite the sorites paradox to be about the number of atoms composing an object or person. If we remove one atom, it will not change the status of the object, but at some point after continuing this process we will be left with nothing, making the issue of vagueness not solely semantic, but also ontological.² Since our language terms appear to refer to objects in the external world,³ if our objects are vague, then the terms that refer to those objects are also vague. Given that the sorites paradox can apply to most objects, in effect, most—if not all—of language is vague.⁴

The cause of the paradox, at least in part, is what Diana Raffman (2013) calls “the nontransitivity of marginal difference” (p. 607b).⁵ Essentially, in either situation the equation ‘ $n-1$ ’ does not make a significant difference; it is a marginal difference. However, the continuous action of removing one will eventually make the difference no longer marginal; these marginal differences are not *transitive*. If we are to properly understand how vague predicates can be applied and refer, then we must give a solution to the sorites paradox. If there is no solution, and we have no understanding of how vague terms refer, then *how* can we successfully communicate?

In this paper, I will examine two potential solutions to the sorites paradox currently in the literature known as epistemicism and eliminativism. In my examination I will find that both explanations suffer in some aspect, leading me to conclude they cannot be wholly correct. Instead of committing to either of these views, I will propose a new way of conceptualizing how to look at vagueness and the sorites paradox via David Hume’s analysis of how we form abstract ideas. Finally, I will argue for this view as a synthesis of epistemicism and eliminativism, which ultimately questions the formulation of the sorites paradox as a proper use of language.

Epistemicism

Epistemicism rejects premise (2) of the sorites paradox. According to Timothy Williamson (1994) there is a sharp boundary between what composes a heap and

² There has been some debate whether object are vague with the major detractor being Gareth Evans (1978). For critical discussion see, Lewis (1988), Tye (1990), Prinz (1998), and Hyde (1998).

³ That is, the best explanation for our successful use of language is that the terms we use refer to objects in the external world.

⁴ The view that all language is vague has been argued by Bertrand Russell (1923).

⁵ In citations to Raffman (2013) an ‘a’ next to the page number denotes the left column and a ‘b’ denotes the right column.

what does not compose a heap. Essentially, (2) cannot be correct since there must be some n where n number of sands composes a heap and $n-1$ number of sands does not compose a heap (Williamson, p. 233). Williamson sees that there are three potential ways out of the sorites paradox. The first would be to reject the existence of heaps and other objects, the second to reject classical bivalent logic where any proposition is either true or false, or the third, to reject the second premise. Williamson finds that we cannot reject classical bivalent logic or the existence of objects, leaving us with the option to reject the second premise, therefore, there must be some sharp boundary (p. 215). Essentially, for any vague predicate F , there must be some option in the sorites series, call it 'b', that is the last instance of F , and where b' is the first instance of $\sim F$. However, since we do not know how everyone uses vague terms, we do not know where this sharp boundary lies (p. 230-232). Therefore, we must accept that there is a sharp boundary, though we must do so without knowing where that boundary lies (p. 234).

Williamson states that this ignorance occurs because of an epistemic *margin for error* (p. 227-228). Essentially, in borderline cases we are unable to distinguish between the differences in the two cases being compared, creating a *margin for error* that forces us into being ignorant of where the boundary lies. In addition, since meaning supervenes on use for Williamson, if we do not know the precise ways in which people use terms, then we will not know the precise meaning of the terms.

Crispin Wright (1995) has objected to the epistemic view, stating that though Williamson's *margin for error* accounts for why we can't know where the sharp boundary is, it does not give us an account where the sharp boundary is not (p. 149). Essentially, if F is a vague predicate and 'b' refers to the last instance of F in a sorites series, with b' being the first instance of $\sim F$ then Williamson's account tells us that we cannot know 'Fb & $\sim Fb'$ ' but not why we cannot know instances of 'Fa & Fb' or ' $\sim Fb' & \sim Fb''$ ' (Wright, p. 149-150). This is because if we do not know where the sharp boundary is, then we also can't know instances such as 'Fa & Fb' or ' $\sim Fb' & \sim Fb''$ '. If we did know, we could determine 'Fb & $\sim Fb'$ '. Therefore, Wright concludes that this account is incomplete at best. Though there is an initial intuitive appeal for this view since it aims to keep common notions of objects and classical bivalent logic, building a case for reference on ignorance is at the very least an incomplete answer to the sorites paradox.⁶

⁶ For critical discussion on these points, see Wright (1995), Williamson (1996), Enoch (2007) and Vecsey (2010).

Eliminativism

Eliminativism⁷ rejects premise (1) of the sorites paradox. According to Peter Unger (1979a; 1979b; 1979c) there is no such object that composes a heap (1979a, p. 236-237). Unger argues this by presenting the Sorites Paradox as incomplete. Instead of ending with the conclusion that creates the paradox, Unger makes a second inference that the traditional conclusion (3) and premise (1) are contradictory and therefore concludes the negation of premise (1) via *reductio ad absurdum* (1979a, p. 243). This view is taken further to claim that there is no such thing as macro-level objects, only micro-level ones (e.g. atoms) (1979a, p. 237). As stated previously, vague terms can be people and bodies, which means on eliminativism persons (e.g. Peter Unger, me, or you) do not exist either (1979a, p. 235-236). However, atoms can be arranged *body-wise* (or *heap-wise*) creating the appearance of a body (or heap), and so on.

On this view it is not clear how we use vague terms to refer, since there are no referents. Essentially, there is a sacrifice of the objects themselves; that is, to solve the sorites paradox you decide there is no subject of the paradox itself. The position is also counterintuitive in that there definitely appear to be heaps, as well as individuals such as Peter Unger. The best explanation for using language successfully is that the terms in our language refer to objects in the world, and it appears to be the case that we use language successfully; however, this best explanation is not available to the eliminativist.⁸

Despite these obstacles for eliminativism there is still an intuitive appeal⁹ to the position as a way of solving the sorites paradox, just as there is an intuitive appeal to epistemicism. My consideration for these two views has been brief, and I do not pretend to offer knockdown arguments against them but to illustrate that there are sufficient obstacles for the views to be complete answers. Given these problems, I will now look at how Hume's conception of abstract ideas can shed light on how vague terms refer.

⁷ This view is also referred to in the literature as Nihilism, see Williamson (1994).

⁸ For critical discussion, see Unger (1979a, 1979b, 1979c), Sorenson (1985), and Williamson (1994).

⁹ Though on the surface this view may seem counter-intuitive, contemporary science gives some evidence for this view. We now know that the atoms that make up our body (and all other macro-level objects) are constantly swapping for other atoms, making it so that the physical stuff that constitutes bodies changes over time (Grand, 2003, p. 30).

Hume on Abstract Ideas

David Hume's view of abstract ideas can be summarized as an instance of a particular idea representing the universal (T 1.1.7.1; SBN 17).¹⁰ This conception is built upon Hume's cognitive system of *impressions* and *ideas*. Essentially, an *impression* is our lively experience of the world as we are experiencing it, which are then copied into the mind as an *idea*; this process is called the Copy Principle (T 1.1.1.1, 1.1.1.7; SBN 1, 4). The other aspect of Hume's cognitive system that relates to abstract ideas is his account of association, specifically *resemblance* (T 1.1.7.7; SBN 20).¹¹ Hume states that, "When we have found a resemblance among several objects, that often occur to us, we apply the same name to all of them" (T 1.1.7.7; SBN 20).

For example, the term 'car' refers to all objects that fall under the category of cars because, though one may have experienced multiple different cars, all of the cars resemble each other. It is due to this resemblance that the category is then created, to which the term 'car' refers. Furthermore, since each *idea* in the mind must correspond to an *impression*, when one uses the term 'car', the idea in the mind is of a specific, individual car. This occurrence is due to there being no impression that represents the category of cars.

In addition to Hume's cognitive system, this conception of abstract ideas also hinges on *custom*, which is directly tied to the association of *resemblance* because it is out of *custom* (or habit) that we get used to making these relations. Continuing with the example, due to the constant conjoining of the term 'car' with each individual car seen, one builds through *custom* that all objects in this category are cars and can be referred to with the term 'car'. It is due to *custom* that this practice of using the particular to represent the universal continues, despite any contrary intuition (T 1.1.7.8; SBN 21).

This cognitive structure used to understand how one comes by abstract ideas and abstract terms can be applied to vague terms, which I will argue for now.

Hume and Vague Terms

There are three main aspects to Hume's conception of abstract ideas: impressions and ideas, resemblance, and custom. In order to show how these three aspects apply to vague terms, I will take up the example of a heap.

¹⁰ All citations to Hume's *A Treatise of Human Nature* are abbreviated 'T' with reference to the book, part, section and paragraph supplied by the Norton & Norton edition (2000) and are quoted from the Selby-Bigge & Nidditch edition (1975) with page numbers in text.

¹¹ *Resemblance* is one of three types of association for Hume. The other two are *congruity* and *cause and effect*.

First off, given the use of the term ‘heap’, there must be an idea of some particular heap in the mind, which was originally copied from some impression. Due to this, there must have been an initial situation in which one learns the term ‘heap’ in relation to an example of a heap. Over time, one must be introduced to other heaps, which in some way resemble that initial heap. Due to this reintroduction of heaps, one then creates a category of heaps in the mind. Eventually, one will become accustomed to those objects that fit this category of heaps being conjoined with the term ‘heap’, making the connection in the mind. This cognitive process creates the opportunity for one to successfully use the term ‘heap’.¹²

Such a conception rests heavily on *resemblance*, which Hume considers to be the most common root of error (T 1.2.5.21; SBN 61). With this particular issue, resemblance is a vague term, which can lead us to error. For example, if one is determining whether or not an object belongs in the category of stapler, and notes that this object is silver, like many staplers, and is used to bind together other objects, then they recognize that this object *resembles* staplers. Therefore they conclude this object can be referred to with the term ‘stapler’. However, this object is actually a nail gun. In such a case, resemblance has led us to error, which is because it was vague how to apply resemblance. Due to these instances, it is important to give extra requirements upon resemblance in delineating what objects belong in a category. I believe two extra requirements are necessary.

The first requirement I propose is a convergence of resemblance with regards to relevant properties. Returning to the car example, there are specific properties that are quintessential properties for calling that object a car (e.g. wheels, agent steering, the ability to propel forward and backward, function for transportation, engine etc.); these are to be called *relevant properties*. This distinction in properties is important because there are certain properties that are not relevant (e.g. color, size, number of wheels). Such relevant properties again rest back onto custom. When the object in question shares a resemblance with all these properties, this is to be called a *convergence of resemblance*. This convergence of resemblance is what distinguishes the objects that gain acceptance into a category from those which do not. The objects that have been given the term ‘car’ all share these relevant properties, so any new member must share those properties as well. This requirement properly deals with the vagueness of resemblance because instances in which vague applications of ‘resembles’ lead to error are those that do not consider the convergence of resemblance.

¹² This is an example of vagueness with regards to a general term. It is important to restate that vagueness can occur with specific terms, as is the example with Unger (1979a) where the example used is his own body. I believe the Humean view could potentially deal with these instances as well, but not in its current form. Therefore, I deem it outside the scope of this paper to deal with such instances of vagueness until the view has been critiqued and refined.

The second requirement is cultural context. In order to determine if a vague term belongs within a certain category, the term must adequately fit the cultural context. Just like other context sensitive accounts such as Raffman (2013) and Graff Fara (2013), the boundary between gaining acceptance into a category or not is not a sharp distinction, but moves depending on the relevant context. For example, the property of *thinness* on the Humean view would be different depending on the cultural context since different cultures have different conceptions of what constitutes *thinness*. The relevant context for the Humean view is cultural due to the role custom plays in Hume's cognitive model. That is, since the determinant of what term we conjoin with a specific object is what we grow accustomed to hearing within a cultural context. That context will affect the boundaries since different cultures might use these terms slightly different.

The initial strength of this conception is that it gives an account of how we come by using vague terms to refer to objects in the world. However, more work is needed to determine how such a view functions in comparison to epistemic and eliminativist accounts or how it deals with the sorites paradox. In the next two sections I'll compare this Humean view with these two accounts and ultimately read it as a synthesis of the two.¹³

The Humean View in Comparison

This Humean approach to vague terms shares similarities with both epistemicism and eliminativism. At base, the approach can be viewed as a type of epistemicism. The Humean approach effectively creates a category of objects that vague terms refer to, which means that there would be a sharp boundary between what belongs in that category and what does not. Williamson's conception of epistemicism could be viewed as a form of *bare* epistemicism, because there is no way to delineate where the sharp boundary lies. Therefore, the Humean view differs in two respects. In the first respect, the view is context sensitive, which makes the boundary relative to the context. In the second respect, the two requirements given in the previous section give one a way to delineate what belongs in the category and what does not. However, one of the requirements, that the objects must be judged in a cultural context in respect to the social linguistic custom of the speaker is in agreement with Williamson's concept of social aspect of language and vague terms.

This view also has an eliminativist quality and could be considered a form of *soft* eliminativism, because the categorization relies upon the resemblance of objects and custom. In addition, Hume is not traditionally interpreted as giving a metaphysical

¹³ It is important to note that this view is truly a Humean view and not *Hume's* view. That is, it is inspired by Hume's writing and conception of abstract ideas, but it is not necessarily how Hume himself would respond to the issue of vagueness, if he would respond at all. Instead this account should be read as using Hume's cognitive system as a way to look at the issue of vagueness and present a theory of how one can deal with vagueness.

account of objects but showing what we are capable of knowing via experience (i.e. his cognitive system of impressions and ideas). Essentially, since any idea that could exist in the mind must come from an impression, we can only know objects in so far as they are bundles of impressions (Garrett, 1981, p. 338). This is what is often called *bundle theory*.¹⁴ For Hume, and in extension the Humean view I'm giving, terms are often used for the end goal of communication and not metaphysical accuracy.¹⁵ A good illustration of this is a Humean response to René Magritte's painting *The Treachery of Images*.¹⁶ The painting is of a pipe with the phrase "this is not a pipe"¹⁷ written underneath it. Magritte added that phrase to point out that it is not a pipe; it is a *painting* of a pipe. The Humean response would be that while it is metaphysically accurate that it is a painting of a pipe—as opposed to being *literally* a pipe—the image is still representative of a pipe, and we still use the term 'pipe' to refer to the image. Although it may be metaphysically accurate to describe macro-level objects as nonexistent and just composites of micro-level objects, they are still representative of what are traditionally conceived as macro-level objects and we use terms that reference macro-level objects in order to further communication. Furthermore with regards to reference, what matters is whether or not the object fits inside a category. Categories themselves are not natural but artificial, existing solely inside the mind as a means to communicate with others.¹⁸

Just as the Humean view shows extra strengths over a bare epistemicism, it also shows a particular strength over eliminativism. One of the criticisms of eliminativism is that it does not show how we use vague terms to communicate; for the Humean view this is not a problem. It is in the strengths and similarities with regard to eliminativism and epistemicism that the Humean view creates a synthesis. The Humean view takes the essential intuition of each of these views and uses it as a central part of the theory, while also building upon the weaknesses by giving an explanation of how we come by using vague terms, requirements that must be met to delineate the boundaries, and

¹⁴ It is important to note that *bundle theory* is usually used to talk about Hume's conception of self and not external objects, however I am adapting it to talk about external objects because it is consistent with his overall system. For critical discussion on *bundle theory* see Beauchamp (1979), Garrett (1981), Patten (1976), and Pike (1967).

¹⁵ One example of this is Hume's acceptance of the word 'proof' despite the fact that he believes all demonstrative knowledge devolves into probability (T 1.4.1; SBN 180-187).

¹⁶ Original French Title: *La trahison des images (Ceci ne'est pas une pipe)*

¹⁷ French: "Ceci ne'est pas une pipe"

¹⁸ In this way the view is similar to Locke's view that terms refer to ideas in the head (*An Essay Concerning Human Understanding*, 3.1§3), except on the Humean view the terms refer to a category in the head that's members are quasi-represented in the external world.

explanations for how we intelligibly speak about macro-level objects that may not actually exist. Therefore, the Humean view can be read as a form of epistemicism, a soft eliminativism, or potentially as a synthesis. It is this latter avenue that I will explore in the remainder of the paper.

The Humean View as a Synthesis

In order to synthesize epistemicism and eliminativism I will look at how each reading responds to the sorites paradox. As the sorites paradox has already been stated, the Humean view would reject premise (1) in line with the eliminativist, since the matter is not regarding the existence of heaps, which do not exist as macro-level objects, and because the true concern is whether or not the object gains admittance into the heap category. The Humean view also rejects (2), which will become clearer if we restate the paradox as follows:

- (1*) 10,000 grains of sand gain acceptance into the heap category.
- (2*) For any n , if n number of sand grains gain acceptance into the heap category, then $n-1$ number of sand grains gain acceptance into the heap category.
- (3*) Therefore, 0 grains of sand gain acceptance into the heap category.

When the paradox is stated this way, it is clear how the Humean review rejects (2*) and in extension (2), due to the same reason as epistemicism. In addition, the Humean view gives us some guidance on how to determine admittance into the heap category with the two requirements of convergence of resemblance and cultural context.

In effect, the Humean view outright rejects the very formulation of the sorites paradox as an argument.¹⁹ The implication of rejecting both premises is that the sorites paradox is not a proper use of language given how it functions on the practical level that the Humean view attempts to establish. Essentially, the sorites paradox exploits language to show the imperfection in our terms. In effect, accepting the Humean view is to accept that language is imperfect, which may be a problem for some and a source of a novel critique that the epistemic or eliminativist view does not suffer.

Although the Humean view could be viewed as a synthesis with particular strengths, given that it utilizes and builds upon both the epistemic view and the eliminativist view, it may also take on some of the objections of these views, plus the novel critique mentioned above. It is also possible to take the Humean view solely into either of these two camps and reject the synthesis version that I have laid out. Given these factors, I

¹⁹ It is in this move that one might make the case for how the Humean view deals with specific terms as instances of vagueness, however giving such an analysis is outside of the scope of this paper.

can understand a reluctance to accept the Humean view in its current state. However, conceptualizing vagueness in the way I have argued could bring about new ways of thinking about the problem of vagueness and create new avenues of exploration in vagueness scholarship.

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