

Paradoxes—Reading group 3

In this chapter, Sainsbury guides us through ‘Sorites paradoxes’ (‘paradoxes of the heap’). These paradoxes centre around well-known questions such as: at what point does removing gains of sand from a heap no longer leave a heap? Here’s one way of getting at the idea of what’s paradoxical here, which might be familiar to some of you:

P1: A 0-year-old is young.

P2: If 0-year-old is young, then a 1-year-old is young.

P3: If 1-year-old is young, then a 2-year-old is young.

...

P101: If a 99-year-old is young, then a 100-year-old is young.

C: Therefore, a 100-year-old is young.

Consider this argument, then answer the following questions:

1. Is **P1** true or false in the actual world? Is **C** true or false in the actual world?
2. What does the validity (or invalidity) of the argument tell you about the truth or falsity of at least one of the premises **P2-P101**, in the actual world?
3. Is your answer to (2) plausible?

Chapter 3: Sorites paradoxes

The problem with reasoning such as that presented above is that it seems to suggest that there are *hard cut-offs* in when someone ceases to be young, or in when a heap ceases to be a heap—and that (the thought goes) does not sound plausible. In light of this, we need to find some way of identifying what’s problematic in the above argument.

Vagueness

All the sorites paradox examples involve *vagueness*:

What do these paradoxical arguments have in common? In each case, the key word is vague: "tall", "heap", "red". ... Vagueness gives rise to borderline cases, ones in which we do not know what to say, despite having all the information that would normally fix the correct verdict. (Sainsbury, p. 41)

Sainsbury (p. 42) then goes on to give a list of possible options as to what vagueness could be:

1. *Vagueness is absence of fact. When it is vague whether someone is tall, there is no fact of the matter whether or not he is tall. The reason we do not know what to say in borderline cases is that there is nothing to know.*
2. *Vagueness is absence of definite truth: a person is borderline for "tall" just on condition it is neither definitely true nor definitely not true that she is tall.*
3. *Vagueness is absence of a sharp boundary. E.g. in a series of men of closely similar but steadily diminishing height there is no last (definitely) tall man, and no first (definitely) non-tall man.*
4. *Vagueness is incompleteness of meaning. A vague expression is a bit like a partial function in math. Words whose meaning is fully specific and complete are not vague.*
5. *Vagueness is indecision: "The reason it's vague where the outback begins is not that there's this thing, the outback, with imprecise borders; rather there are many things, with different borders, and nobody has been fool enough to try to enforce a choice of one of them as the official referent of the word 'outback.' Vagueness is semantic indecision" (Lewis, On The Plurality of Worlds, p. 212).*
6. *Vagueness is a feature of the world: some things, like mountains, are vague, because it is vague what their spatial extent is; others, like properties, are vague because it is vague what things they apply to.*
7. *Vagueness is ignorance: there are sharp boundaries (facts of the matter, definite truth or falsehood, etc.), but we cannot know where they fall.*

Epistemicism

When faced with sorites arguments, one option would be to just accept their conclusion: there is a definite point at which a person ceases to be young, or at which a heap ceases to be a heap, etc. Another more sophisticated option is (7) in the list above: *epistemicism* (see e.g. Williamson, *Vagueness*):

On the epistemic view, there are heaps and also non-heaps, and these are separated by a sharp line. In other words, for some number n , a collection of grains with n members can make a heap but a collection of grains with $n - 1$ members cannot. The special twist the theory gives, from which it earns its name and also any plausibility it may have, is that we cannot, even in principle, know where this sharp boundary lies. That is why borderline cases are confounding: they ask for a verdict in a situation in which we cannot know what the right verdict is. (Sainsbury, pp. 49-50)

Sainsbury mentions in this context *verificationism*: the thesis (popular in the early 20th century) that the only meaningful claims are ones which can be verified or falsified empirically (cf. Ayer, *Language Truth and Logic*). Verificationism is clearly incompatible with epistemicism. Thankfully for the epistemicist, not many people are verificationists these days!

Question: Do you find epistemicism plausible? Why, or why not?

Three-valued semantics

Another response to the sorites argument is to modify the rules of logic, by introducing a third truth value (this can provide a way of cashing out options like (1), (2), (4), and (6) above). The general idea here is that, by introducing a third truth value, we can avoid hard cutoffs in when someone becomes old, or in when a heap ceases to be a heap. Two options here are *Kleene semantics* and *supervaluationism*. For the details of the semantic moves involved here, see e.g. (Sider, *Logic for Philosophy*); I will also explain them in the group! The general idea here, though, is that by introducing third truth values, we are no longer committed to hard cut-offs. Here are some observations on Kleene semantics and supervaluationism worthy of discussing:

1. Supervaluationism preserves the Law of Excluded Middle (LEM)—“Either she is an adult or she is not”; Kleene semantics does not.
2. Both run into issues with *higher-order vagueness*.

(Supervaluationism tries to model *insufficiently precise definitions*; Kleene semantics tries to model *partial truth*.)

Vague objects

Can objects themselves be vague?

Are there vague objects, or is vagueness something that arises, not from the way the world itself is, but rather from how we describe it? This question is answered by the epistemic theory: the home of vagueness lies in our cognitive faculties, not in the world. ... [But can] we make sense of the idea that the world itself is vague? (Sainsbury, p. 63)

When one thinks about these things, it's hard to hold onto the idea that objects themselves are vague. Sainsbury seeks to bring this thought out with the following well-known philosophical parable:

Let us consider an old story. Theseus had a ship. When a plank rotted, it was replaced, and thanks to the repair the ship remained in service. After a while, none of the original planks were left. Likewise for the other kinds of parts of the ship—masts, sails, and so forth. Did Theseus' ship survive? There was a ship in continuous service, and we incline to hold that this is indeed Theseus' ship, much repaired. But suppose that someone had kept the rotted planks and other parts and then reassembled these into a (possibly unseaworthy) ship. Does this have a better claim to be the original ship of Theseus? There is vagueness of some kind here. The question is: is the ship itself vague, or does the vagueness end with the word "ship," leaving the ship itself uncontaminated?

It seems to me that the second answer is the right one. In such a case, we can give an agreed and relatively precise account of the "facts of the matter." We know just what happened. It is a verbal question to which object, if any, we ought to apply the phrase "the ship of Theseus." So the vagueness comes from words. (Sainsbury, p. 64)

(NB: This example is usually presented in philosophical discussions of *diachronic identity*.)