

THE PHENOMENAL REPRESENTATION OF SIZE

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Abstract: Suppose that, while you are dreamlessly asleep, the sizes of and distances between all objects in the world are uniformly multiplied. Would you be able to detect this global inflation? Intuitively, *no*. But would your experience of size remain accurate? Intuitively, *yes*. On these grounds, some have concluded that our experiences do not represent size and instead represent modes of presentation of size. We are, in this sense, ‘cut off’ from the sizes of things in the external world. Here, I argue for a more modest conclusion: undetectable inflation reveals that our experiences represent only *relative* size. Call this view *austere phenomenal relativism*—or *austere relativism* for short. I develop a framework to contrast austere relativism with its competitors, give an extended argument for the view, and then defuse a potential dilemma concerning the units in which our experiences represent size.

Keywords: perception; space; phenomenal content; representation; experience; consciousness.

1. Introduction

Philosophical thought experiments often involve certain kinds of *undetectable inflation*. In the following example, Henri Poincaré asks us to imagine

that in the night all the dimensions of the universe become a thousand times greater. . . what was a meter long will measure thenceforth a kilometer, what was a millimeter long will become a meter. The bed whereon I lie and my body itself will be enlarged in the same proportion. When I awake tomorrow morning, what sensation shall I feel in the presence of such astounding transformation? I shall perceive nothing at all. [1913: 162]

Poincaré and others have thought that this story reveals something about the nature of space—specifically, that space is fundamentally relative, not absolute.¹ An alternative hypothesis,

however, is that what is revealed is not something about space, but something about how our experiences *represent* space. What exactly is revealed?

Brad Thompson [2010], Simon Prosser [2011], and David Chalmers [2019] have argued that it reveals that size is not part of the *phenomenal content* of experience—only *modes of presentation* of size make their way into phenomenal content. If right, we are in a certain sense ‘cut off’ from the sizes of objects in the external world. My goal is to defend an alternative, less radical hypothesis. What undetectable inflation reveals is that our experiences only represent *relative size*—roughly, size that concerns the relations of larger-than, smaller-than, and so on. Call this view *austere phenomenal relativism*—or just *austere relativism* for short.

I defend this hypothesis by first teasing apart two different lines of argument: one concerning an intuition about the accuracy of experiences and the other concerning an intuition about what our experiences put us in a position to know. Each argument naturally points to austere relativism, though I contend the second of the two is stronger. After preliminary objections have been addressed, a potential dilemma for austere relativism arises—one that concerns the *units* in which our experiences represent size. I show that the dilemma, if examined carefully, can be defused. And once it is defused, I raise a larger question: to what extent is austere relativism true of experience *in general*?

2. Framing the Issue

To begin, I must lay out some assumptions about how the phenomenal character of experience relates to the representational features of experience.

An experience’s *phenomenal character* is, as it is often put, what it is like to undergo the experience. For example, consider what it is like to have the visual experience typical of seeing a red ball. This ‘what-it-is-like’ aspect is the experience’s phenomenal character. Its phenomenal character differs from the phenomenal character of other visual experiences—say, the experience typical of seeing a *green* ball. Moreover, it differs dramatically from the character of experiences in other modalities. Think about what it is like to experience a pain in your lower back or what it is like to smell burnt toast. Each is quite different from what it is like to visually experience a red ball.

I assume that experiences that are alike in phenomenal character must be in certain respects alike in what they represent. So that I may distinguish this notion of representation from others, I will speak of *phenomenal representation*. I shall say that for any experience e and entity Φ (where ‘ Φ ’ ranges over things of any ontological category), e phenomenally represents Φ iff e represents Φ and, necessarily, for any experience e^* , if the (total, maximally specific) phenomenal character of $e^* =$ the (total, maximally specific) phenomenal character of e , then e^* represents Φ .² To illustrate, imagine again the experience typical of seeing a red ball. Call any experience with this character a *red-round* experience. It is plausible that my red-round experiences represent redness and roundness. In fact, it is plausible that, necessarily, *all* token red-round experiences represent redness and roundness. And if that is right, then token red-round experiences *phenomenally* represent redness and roundness.³

In addition to phenomenally representing colour and shape, it is extremely intuitive that red-round experiences phenomenally represent *size*. That is, red-round experiences phenomenally represent not only that something is red and round, but that very same something is a certain size. And the same holds for all of our visual experiences: they phenomenally represent (putative) objects in our environment as having sizes.

This raises a question: What sort of sizes do our experiences phenomenally represent? And, in particular, are these sizes *relative*, *absolute*, *both*, or *neither*?

What are relative and absolute sizes? Say that F is a *relative size* iff F is a size and having F consists in bearing a size relation to something. *Size relations* include relations like larger-than, wider-than, shorter-than, twice-as-large-as, half-as-far-from, four-times-as-small-as, etc. My computer screen bears a number of these relations to things and thereby has a number of relative sizes—like being a fifth as wide as my television screen or being three times as wide as my mobile phone screen. Say that F is an *absolute size* iff F is a size and having F does not consist in bearing a size relation to something.⁴ Intuitively, my computer screen has a certain absolute length along its diagonal. It is absolute in the sense that it does not consist in any sort of length relations that the screen bears to anything else (though perhaps it may in some way depend on length relations between the screen’s parts).⁵

With respect to absolute and relative sizes, the question of what sort of sizes our experiences represent has three possible answers:

PHENOMENAL ELIMINATIVISM: Our experiences do not phenomenally represent sizes.

PHENOMENAL PLURALISM: Our experiences phenomenally represent relative and absolute sizes.

PHENOMENAL MONISM: Our experiences *either* phenomenally represent relative sizes *or* phenomenally represent absolute sizes, but not both.

Two extant views are naturally read as eliminativist. On some interpretations, *Fregean* views of phenomenal representation are versions of eliminativism.⁶ As Brad Thompson, a Fregean, puts it

There is no single spatial property that a particular [phenomenal] type of spatial experience necessarily represents. If that is right, then it cannot be said that in having an experience of that type we “directly grasp” specific spatial features of external objects. According to Fregeanism, spatial experiences acquaint us, in the first instance, only with a mode of representing some physical spatial property or other. [2010: 181]

In other words, Thompson is saying that although our experiences may represent spatial properties, they do not *phenomenally* represent these properties. Instead, they only phenomenally represent modes of presentation of spatial properties.⁷ Certain types of *Gibsonian* views are also versions of eliminativism. For example, Simon Prosser claims that ‘phenomenal content does not consist in spatial properties such as sizes and distances’ [2011: 494]. Instead, on his view, our experiences phenomenally represent Gibsonian *affordances*—where affordances are action-oriented features of the environment that concern what the environment ‘offers the animal, what it provides or furnishes, either for good or ill’ [Gibson, 1979: 127]. In so far as our experiences do not phenomenally represent sizes and instead only phenomenally represent certain affordances, Prosser’s view is also a version of eliminativism.

Pluralism and monism are both non-eliminativist. The pluralist holds that *both* absolute and relative sizes are phenomenally represented. She may choose from (at least) three different views:

PHENOMENAL EGALITARIANISM: Our experiences phenomenally represent absolute sizes and phenomenally represent relative sizes, but do not phenomenally represent one in virtue of phenomenally representing the other.

PRIORITY PHENOMENAL ABSOLUTISM: Our experiences phenomenally represent absolute sizes and phenomenally represent relative sizes, but they phenomenally represent relative sizes only in virtue of phenomenally representing absolute sizes.

PRIORITY PHENOMENAL RELATIVISM: Our experiences phenomenally represent absolute sizes and phenomenally represent relative sizes, but they phenomenally represent absolute sizes only in virtue of phenomenally representing relative sizes.

On egalitarianism, our experiences phenomenally represent both absolute and relative sizes, but there is no general rule as to which sort of representation is more fundamental than the other. However, on priority absolutism or relativism, there are such rules. The former view has it that phenomenally representing absolute size is more fundamental than phenomenally representing relative size. If true, then whenever you phenomenally represent that (say) your pinky finger is smaller than your index finger, you do so in virtue of phenomenally representing the absolute size of your pinky and the absolute size of your index finger. If the former size is less than that of the latter, then you phenomenally represent that your pinky is smaller than your index finger. Priority relativism says the opposite is true. In so far as you phenomenally represent the absolute sizes of your fingers, it is in virtue of phenomenally representing size relations as holding between them.

Monism rejects all forms of pluralism and covers exactly two views:

AUSTERE PHENOMENAL ABSOLUTISM: Our experiences only phenomenally represent absolute sizes.

AUSTERE PHENOMENAL RELATIVISM: Our experiences only phenomenally represent relative sizes.

In contrast to egalitarianism, priority absolutism, and priority relativism, neither of the above views makes a claim about metaphysical priority. Instead, each holds that there is only *one* type of size that our experiences phenomenally represent. On austere absolutism, our experiences never phenomenally represent relative sizes like being larger than x , being smaller than x , etc. Instead, they only phenomenally represent absolute sizes. But on austere relativism, absolute sizes are never represented. Our experiences only phenomenally represent relative sizes.

My concern, then, is which of the preceding views is true. Should we be eliminativists, pluralists, or monists? If one of the last two, which sort of pluralism or monism should we embrace? The issue I take up next is how undetectable inflation bears on this choice.

3. From Undetectable Inflation to Austere Relativism

Brad Thompson [2010], Simon Prosser [2011], and David Chalmers [2019] use undetectable inflation to generate certain intuitions about the *accuracy* of experiences in inflated scenarios.

Imagine a planet called *Doubled Earth*. Doubled Earth is a perfect duplicate of Earth in all respects but one: it is twice the absolute size of Earth. Moreover, its occupants are twice the absolute size of their Earthly counterparts. Now imagine Oscar, a typical inhabitant of Earth and his doubled counterpart Big Oscar, a typical inhabitant of Doubled Earth. Oscar and Big Oscar are, let us suppose, *phenomenal duplicates*—what it's like to be Oscar is exactly what it's like to be Big Oscar and vice versa. When Oscar sees Mount Rushmore from a distance of 100m, his experience will be the same as Big Oscar when he sees Big Mount Rushmore from 200m—it is only that his experience is caused by something twice the absolute size of Mount Rushmore. In light of this difference, is one of the two misperceiving? Intuitively, no. More generally, 'there look to be no objective grounds for saying that Earthlings, rather than Doubled Earthlings, see size and distance properties *as they really are*' [Thompson 2010: 157].

To make this a bit more precise, say that scenario s^* is an *inflated counterpart* of s when precisely the same ‘network’ of relative sizes (and distances) is instantiated in both s and s^* , but the absolute sizes of objects in s^* are uniformly greater than the absolute sizes of objects in s . The core, accuracy-related intuition about these scenarios seems to be something like the following:

ACCURACY INTUITION: An experience e that is accurate with respect to a scenario s has a phenomenal duplicate e^* that is accurate with respect to s 's inflated counterpart s^* .

The alleged problem is that non-eliminativist views cannot handle this intuition. As Thompson observes, if Oscar and Big Oscar phenomenally represented the same sizes and distances, then it seems that at least one would be misperceiving. But neither is. Hence, one might conclude that in such cases ‘there is sameness of phenomenal character...but differences in the represented sizes and distances of objects’ [Prosser 2011: 487]. In other words, one might conclude that sizes and distances are not phenomenally represented.

But this is too hasty. The most we can conclude from such an argument is that our experiences do not phenomenally represent *absolute* size. For although objects on Earth and objects on Doubled Earth differ in absolute size, they do not differ in relative size. And given that eliminativism is arguably less plausible than non-eliminativism (more on this below), the only immediate consequence of the accuracy intuition is that we reject all forms of pluralism as well as austere absolutism. That leaves us with austere relativism. Call this the *accuracy argument*.

The argument is not without difficulties. Perhaps the most salient concerns the very possibility of the Doubled Earth scenario.⁸ One might wonder whether it is *really* possible for Oscar and Big Oscar to be phenomenal duplicates. But this, as Thompson suggests, is neither here nor there. All we need to do is consider whether Oscar’s experience would be accurate *of the scenario that Big Oscar is in* (or vice versa) [2010: 160-161]. This doesn’t require that the experience is in fact had in that scenario. We can evaluate an experience for accuracy relative to a scenario in which it is not had just as we can evaluate a belief for truth relative to a world in which it is not had.

However, this suggests a different argument for austere relativism—a purely *epistemic* argument. As Thompson points out in giving his above response, ‘[t]he content of Oscar’s experience does not rule either scenario out’ [ibid.: 161], that is, it does not *tell him* whether he is in a given scenario or that scenario’s doubled counterpart. This is a way of putting the intuition that we considered at the beginning of this paper: that certain kinds of inflation are undetectable. On the face of it, *this is separate from the issue of whether experiences in scenarios and their inflated counterparts are accurate*. Granted, the point could be perhaps be cashed out in terms of which scenarios would verify the contents of experience. But the fundamental intuition seems more basic and less specific than this. The intuition is that: if the absolute sizes of (and distances between) everything in the universe were uniformly multiplied, but their relative sizes (and the relative distances between) remained unchanged, the content of our perceptual experiences *wouldn’t put us in a position to know that such change had occurred*.

Let us make this more precise. An experience’s ‘content’ here is meant to refer to its *phenomenal content*, where this is the totality of things that the experience phenomenally represents. (We may be silent on the nature of this content—specifically, whether it is propositional, a complex property, set-theoretic, etc.) Typically, the phenomenal content of experience gives us (defeasible) reason to believe that certain things are the case and that other things are not [Pryor 2000; Huemer 2007]. For example, the phenomenal content of my present visual experience gives me defeasible reason to believe that my situation is one in which there are coloured objects before me *and not* a situation in which there are no coloured objects before me. This is reason to think that my visual experience phenomenally represents colours. However, sometimes the phenomenal contents of our experiences fail to give us reason to believe that one of several situations obtains. Suppose there are identical twins Rima and Rooney. If I see one of them in the distance, the phenomenal content of my experience may not give me reason to believe that it is Rima as opposed to Rooney that approaches, or vice versa. This is reason to think that my experience does not phenomenally represent which particular individual approaches.

Relatedly,

EPISTEMIC INTUITION: The phenomenal content of an experience does not provide reason to believe that one is in a given scenario *s* as opposed to one of *s*'s inflated counterparts.

To illustrate, consider two worlds Single and Double. In these worlds, objects instantiate all the same relative sizes—in fact, they instantiate exactly the same relative sizes as objects in the actual world. However, the absolute sizes of objects in Double are twice that of the objects in Single (the same holds for the absolute distances between objects). Despite this, the phenomenal contents of my visual experiences *do not tell me whether the actual world is Single or Double*. They provide me no reason to believe that Single as opposed to Double is actual. And the same holds of any scenario and its inflated counterparts—the phenomenal content of my experience is silent on precisely which of these scenarios obtains.

Austere relativism neatly explains the epistemic intuition. If true, the phenomenal content of my experience does not contain absolute sizes, and this would explain why my experience does not give me reason to believe that I am in a given scenario or one of that scenario's inflated counterparts. This is, of course, not the only explanation. Another would be some variety of eliminativism. If the phenomenal content of experience contained no size properties at all, it would be no mystery as to why it does not give us reason to think that we are in a given scenario or an inflated counterpart of that scenario. But non-eliminativist views are, on the face of it, preferable to eliminativist ones. It is extremely intuitive that our experiences phenomenally represent sizes. Eliminativism is a position that we retreat to only once all other options have been exhausted. And, for this reason, austere relativism seems a better explanation. It preserves the idea that our experiences phenomenally represent sizes *and* explains the epistemic intuition.

However, one might object that the epistemic intuition is not best explained by an appeal to the nature of phenomenal content. Rather, it is best explained by a failure to pick up on subtleties of phenomenal content.⁹ Perhaps absolute sizes are, as Jeff Speaks would put it, *phenomenally sneaky*—indiscriminable experiences may differ in which absolute sizes they phenomenally represent [2015: 228]. If so, our experiences phenomenally represent absolute sizes, but we cannot tell that they do via introspection.

What would make this explanation preferable to the explanation offered by austere relativism? Maybe the thought is that it will, in some way, give us direct experiential access to the absolute sizes of things in the world. But whatever direct access is afforded, it is minimal. After all, it is being granted that the phenomenal content of experience does not enable one to know whether one is in an inflated scenario or one of its counterparts. Alternatively, as an anonymous referee suggests, it might be odd to think that there could be phenomenal representation of relative size without phenomenal representation of absolute size. But whatever oddness there is, it is likely due to the fact that it would seem odd for there to *be* relative size without absolute size. This is because having a relative size seems to require having an absolute size. But this should not lead us to think that phenomenally representing a relative size requires phenomenally representing an absolute size. Here's an analogy: having a determinable colour requires having one of that colour's determinates. Nonetheless, in peripheral perception, we may phenomenally represent a determinable colour without representing one of that colour's determinates [Cutter 2019]. What this illustrates is that even if being F requires being G, we may still phenomenally represent F without phenomenally representing G.

Additionally, the alleged failure to pick up on the subtleties of phenomenal content looks quite different from more familiar failures that might encourage us to posit phenomenally sneaky representation. Consider cases of apparent phenomenal continua where one seems incapable of detecting small changes in the colours one's experiences phenomenally represent [Fara 2001]. In these cases, it is not so hard to imagine that an enhanced capacity for introspection would enable one to detect these small changes. This isn't obviously true for undetectable inflation. It is hard to imagine any kind of introspective enhancement that would enable us to detect differences in absolute size across experiences that convey the same information about relative size.

A distinct challenge to the austere relativist explanation of the epistemic intuition stems from another non-eliminativist explanation. We could explain the epistemic intuition by appealing to the following claim: our experiences phenomenally represent *disjunctions* of absolute sizes. This is why phenomenal contents do not discriminate between scenarios and their inflated counterparts. On this explanation, our experiences have disjunctive properties of the form *being absolute size $S_1 \vee$ being absolute size $S_2 \vee$ being absolute size $S_3 \vee \dots$ etc.* as parts of

their phenomenal content. Since your experience only tells you that objects in your environment have these sort of disjunctive properties, but does not tell you which of the disjuncts they have, this explains why the phenomenal content of experience does not tell you whether you are in Single or Double.

Yet there is an obvious complication here. We must remember that our experiences do not discriminate between a scenario and *any* of its inflated counterparts. Since every scenario has infinitely many inflated counterparts, if our experiences do not discriminate between these scenarios in the sense that they phenomenally represent disjunctions of the absolute sizes of objects in these scenarios, then they must phenomenally represent infinitely long disjunctions of absolute sizes. But it is implausible that our experiences phenomenally represent infinitely long disjunctions of any sort. For this reason, the austere relativist explanation still seems preferable.

Instead of providing an alternative explanation of the epistemic intuition, one might instead challenge the intuition itself. For example, one might say something like the following:

Our visual experiences *do* give us reason to think that a given scenario as opposed to one of its inflated counterparts is actual. Upon seeing a ripe orange, my visual experience gives me reason to think that this very orange is *this size*. ‘This size’ is most naturally read as referring to the orange’s absolute size. But this absolute size is the size that the orange has here, in this scenario, and not any of this scenario's inflated counterparts.¹⁰

This objection seems to be an *ignoratio elenchi*. The claim, recall, is not that experiences provide us no knowledge of the absolute sizes of things. Perhaps they do. The claim is that *the phenomenal content* of experience does not provide a certain kind of contrastive knowledge. This is compatible with experience providing some minimal kind of knowledge of the absolute sizes of things when we employ demonstrative concepts. It may very well be that when we exercise the complex demonstrative concept answering to ‘that size’, and do so on the basis of experience, the extension of the relevant concept is the absolute size of the thing perceived. But if this is so, the explanation of the resulting knowledge will not be in terms of the phenomenal content of an experience. Instead, it may be in terms of a distinct kind of *non-phenomenal*

content that the experience possesses, or perhaps some sort of causal relation that obtains between the experience and the absolute size of the object perceived.

A final objection that one might raise is that austere relativism cannot be the best explanation of the epistemic intuition since it cannot explain accuracy intuitions in so-called *El Greco world* thought experiments.¹¹ An El Greco counterpart of our world is, for example, one where the absolute, *vertical* lengths of objects and distances are uniformly multiplied, but otherwise the world remains unchanged. When upright, my El Greco counterpart is twice as tall as I am, but not twice as wide. Lying down on his side, however, he is no longer twice as tall but now *is* twice as wide. Some have the intuition that our experiences are just as accurate as our phenomenal duplicates' in El Greco worlds. Austere relativism might not be able to respect this. Suppose you see a square and have a 'suarish' visual experience. The typical cause of your experience is an object that has four sides equal in length. Yet, due to the 'stretched out' nature of the El Greco world, the typical cause of your El Greco phenomenal duplicate's 'suarish' experience is *not* something that has four sides equal in length. The upshot: the object you experience and the object your El Greco counterpart experience differ in the relative lengths of their sides. Hence, austere relativism might predict that (at most) one of your experiences is accurate.

However, austere relativism is flexible enough that it *could* accommodate the El Greco accuracy intuition if necessary.¹² Aside from this, the intuition about the accuracy of experiences in El Greco scenarios is, I think, relatively unstable. To see why, consider the following line of reasoning: It is eminently plausible that my typical experience of a square phenomenally represents that there is something before me with *four sides equal in length*. Normal or not, any experience of this sort caused by something that did not have four sides of equal length would not *phenomenally* represent the world accurately.¹³ Since my phenomenal duplicate in an El Greco world has an experience caused by something that *does not* have four sides of equal length, it seems that his experience cannot be accurate.¹⁴

Here, then, is a brief recap. I have just distinguished two lines of argument for austere relativism: one pertaining to an intuition about accuracy and another pertaining to an epistemic intuition. The latter argument—the one I endorse—is that the phenomenal content of our

experiences does not put us in a position to know whether we are in a given scenario or one of that scenario's inflated counterparts, and this is best explained by the hypothesis that our experiences only phenomenally represent relative size.

4. A Dilemma for Austere Relativism?

However, there is a potential dilemma for austere relativism, one that can be extracted from Thompson [2010]. Thompson ultimately opts for a version of Fregeanism, though, along the way, he considers something like austere relativism. The reason he does not accept it is as follows. He notes that if relative sizes are relations to things, then there is a question of precisely which things they are relations to [2010: 164]. This presents a choice point:

CENTRALISED RELATIVISM: Our experiences only phenomenally represent relative sizes, and there is a unique individual, property, or metric to which all these sizes are relations.

DECENTRALISED RELATIVISM: Our experiences only phenomenally represent relative sizes, and there is no unique individual, property, or metric to which all these sizes are relations.

Thompson may be read as arguing that the choice between these two views reveals a destructive dilemma. If austere relativism is true, then either centralised or decentralised relativism is true. But, as Thompson argues, neither is. Hence, austere relativism is false. Let's unpack this.

On the first horn of the dilemma is centralised relativism, a view on which there is '...an 'anchor point' for the represented relations' [2010: 165]. In other words, centralised relativism earns its name because, if true, there is one thing—a 'centre'—to which all phenomenally represented sizes are relativized. A reasonable suggestion might be that this centre is *one's body*. That is, all the sizes we phenomenally represent are of the form *bearing thus-and-such size relation to one's body*. In this sense, there are privileged units of phenomenal space. We can say of any phenomenally represented object that it is represented as being to some degree larger or smaller than one's body.

The problem, as Thompson argues, is that if we pick any particular as an anchor point, then either Oscar's experiences on Earth or Big Oscar's experiences on Doubled Earth will misrepresent. Suppose we chose Oscar's body on Earth as the anchor point. Since Big Oscar has experiences phenomenally identical to Oscar's, then *his experiences must also phenomenally represent relations to Oscar's body*. If Oscar's experience phenomenally represents Mount Rushmore as being 1000 times the size of Oscar's Earth body, then Big Oscar's phenomenally identical experience phenomenally represents Big Mount Rushmore as being 1000 times the size of *Oscar's* Earth body. But this would make Big Oscar's experience inaccurate, which cannot be right.

This objection depends on the assumption that the anchor point needs to be some *particular* body. But there is no reason to assume this.¹⁵ Suppose that the anchor point is simply *a viewed body*. For example, as Oscar looks at Mount Rushmore, perhaps his experience phenomenally represents the property of *being 1000 times larger than a viewed body*. This is a fully general property. It is the property we get by performing something like existential generalisation on particular-involving properties like being 1000 times larger than *Oscar's* viewed body or being 1000 times larger than *Big Oscar's* viewed body. For this reason, Oscar's and Big Oscar's experiences may both accurately represent. Mount Rushmore is (let us suppose) 1000 times the size of Oscar's body and hence 1000 times the size of a body he views. Big Mount Rushmore is 1000 times the size of Big Oscar's body and hence 1000 times the size of a body he views. Of course, there are ways that we might want to expand upon this view.¹⁶ But the point stands: the first horn of Thompson's dilemma is unproblematic because there is no reason that the anchor point for phenomenally represented sizes must be a particular. It can be some general anchor point, one that renders the experiences of both Oscar and Big Oscar accurate.

Now, this would be enough to defuse the dilemma. But it is worth noting that the second horn is also unproblematic. On the second horn, we find *decentralised* relativism. Decentralised relativism earns its name because, if true, there is no one thing to which all phenomenally represented sizes are relativized. It may be that some of the sizes we phenomenally represent consist in relations to our bodies, but this will not always be the case. One might, say, simply phenomenally represent a chair as being twice the size of a desk. No reference to 'body units'

need be invoked. The relation in question is just a size relation between the chair and the desk. We can compare this to Christopher Peacocke's [1989] claim that the spatial contents of experience are *unit-free*. On decentralised relativism, since there is no one thing to which all represented sizes are relativized, there are no *privileged* units in which phenomenal space is measured.

Thompson's argument against this view asks us to

consider two visual experiences, both of which are of two objects. In both, one object is twice as big as the other. One experience [call it 'COIN'] is the seeing of a small and a large coin. The other experience [call it 'ELEPHANT'] is of a small and a large elephant. The small coin has the same relative size relative to the large coin, as does the small elephant relative to the large elephant. But clearly the coin is not represented by the experience as being the same size as the elephant. [2010: 164]

The problem: If decentralised relativism is true, then all there is to phenomenally represented size is phenomenally represented size relations. But since COIN and ELEPHANT represent their objects to be the same relative sizes, Thompson worries that decentralised relativism is committed to saying that COIN and ELEPHANT represent their objects to be the same sizes. But this is implausible, and so we should reject decentralised relativism.

This is a clever objection. And it would indeed be problematic if decentralised relativism delivered the result that COIN represents (say) the large coin to have the same size that ELEPHANT represents the large elephant to have. We can see that this would be a mistake because these are both types of experiences we could have, and we can tell that they simply do not represent their objects in this way. But precisely because they are types of experiences that we could have, they are more spatially complex than Thompson lets on. Focus on ELEPHANT. It would be a mistake to think that the only thing determining the represented sizes of the two elephants is this: that ELEPHANT represents one as twice the size of the other. ELEPHANT is a typical experience of *ours*. Accordingly, it will also represent the elephants as bearing certain size relations to other perceived objects—the large one might be represented as being (say) ten times the size of one's body. But given that COIN is also a typical experience of ours, these are not *precisely* the same

size relations that COIN will represent. COIN will not represent that the large coin is 10 times the size of one's body. In this sense, ELEPHANT and COIN do not represent their objects to be the same size. Rather, at most, there is some relative size property that both represent their objects to have. This is unobjectionable.

Thompson might reply that what we should do is imagine experience ELEPHANT* in which the only things experienced are the two elephants and experience COIN* in which the only things experienced are the two coins. In this case, decentralised relativism will deliver the erroneous result that the large elephant and the large coin are phenomenally represented to be the same size. Yet, I have no definite intuitions about this pair of experiences. I do not know what it would be like to have an experience that is *only* as of two elephants and only phenomenally represents one as twice the size of the other. Nor do I know what it would be like to have an experience that is *only* as of two coins and only phenomenally represents one as twice the size of the other. To that extent, I cannot rely on these experiences to make any assessment of austere relativism.

Thus, neither horn is problematic. The first horn does not yield false predictions about accuracy and the second does not yield false predictions about what is phenomenally represented. We do not have a genuine dilemma and, therefore, do not have a reason to reject austere relativism.

5. Beyond Austere Relativism About Size

Austere relativism says that our experiences only phenomenally represent relative sizes. I have argued for this view on the grounds that it offers a powerful explanation of why our experiences do not enable us to know whether we are in a scenario or one of its inflated counterparts. I then defused a dilemma for this view that concerns the units in which our experiences phenomenally represent size.

A further question is that of whether austere relativism applies broadly, namely, to all phenomenal representation. At the very least, I suspect that it applies to all spatial properties we phenomenally represent. This includes shape, at least in so far as shape is a matter of representing (in the case of vision) the relative distances between coloured points and/or objects. However, I doubt that it applies to so-called 'secondary qualities' like colour. Frankly, I cannot

imagine uniform inflations along dimensions of hue, saturation, and/or brightness being undetectable. And, to that extent, it seems unlikely that austere relativism about colour is true.¹⁷

I am more optimistic about a *temporal* analog of austere relativism. For I can dimly see how my experiences might not put me in a position to know whether I am in a given world or one of that world's *temporally inflated* counterparts. It is somewhat plausible, for example, that my experiences do not put me in a position to know whether I'm in a world w , or world w^* where the relative duration of all events is the same as w , but absolute duration is uniformly doubled. This strikes me as more plausible than the corresponding claims about colour. Of course, much more needs to be said here. But it is interesting, and perhaps significant, to note that there is some reason to think the representation of space and time is fundamentally relational whereas the representation of colour and other secondary qualities is not.

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¹ A parallel line of reasoning is found in Leibniz—see Sklar [1974: 73-74] for explanation. More recently, Shamik Dasgupta [2013] has used a species of undetectable inflation to argue for relativism about mass.

² Three qualifications. First, others speak of *phenomenal content* where I speak of phenomenal representation. For now, it will be more convenient to speak of phenomenal representation, though, later on, I introduce the notion of phenomenal content. Second, this definition might rule out particulars (individuals, tropes, and the like) being *phenomenally* represented since (arguably) experiences with the same phenomenal character can veridically represent distinct particulars. I accept this consequence, though it will not impact the arguments I make here. Third, when I say ‘an experience phenomenally represents Φ ’, I mean (roughly) that an experience phenomenally represents that something has Φ , as opposed to the experience phenomenally representing Φ as being some way.

³ Phenomenal representation corresponds to species of representation invoked by *representationalist* theories of consciousness and by the *phenomenal intentionality research program*. See Dretske [1995: 73], Tye [2014: 47], and Pautz [2008: 250-251] for examples of the former. See Horgan and Tienson [2002] and Kriegel [2013] for the latter.

⁴ One may question whether there are any absolute sizes. However, even if there are none, one can still intelligibly ask whether our experiences phenomenally represent absolute sizes (just as one can intelligibly ask whether composite objects exist even if none do). In fact, if there are no absolute sizes, then the argument for austere phenomenal relativism (my preferred view) is much simpler.

⁵ This distinction crosscuts another concerning *perspectival* and *non-perspectival* spatial properties [Green and Schellenberg 2018]. Additionally, it is not the distinction between *intrinsic* and *extrinsic* size properties. Some relative size properties are intrinsic. My hand has a relative size: it is exactly the same size as itself. Yet, it has this property intrinsically—it has it wholly in virtue of the way it is in itself.

⁶ But as an anonymous referee points out, there may be a reading of Fregeanism on which spatial features are phenomenally represented, but under a mode of presentation.

⁷ I will not attempt a positive characterisation of what a mode of presentation is.

⁸ Additionally, it might be said that the accuracy intuition is threatened by the possibility of reliable phenomenal *misrepresentation* [Mendelovici 2013: 422]. I am sympathetic to this worry. See, however, Cutter [2017] and Epstein [2018] for defences of the accuracy of spatial experience (in light of special relativity). Additionally, as I go on to point out, the strongest version of the argument for austere relativism does not appeal to intuitions regarding accuracy.

⁹ Thompson [2010: 161] considers a related objection.

¹⁰ The point here is closely related to one that comes up in literature on inexpressible ignorance. See Dasgupta [2015: 442-448] for discussion.

¹¹ Thanks to an anonymous referee for pointing this out. See Thompson [2010] and Chalmers [2019] for further discussion.

¹² This is a complexity that I lack the space to address properly. In short, as an anonymous referee observes, it depends on the ‘anchor point’ to which distances and lengths are relativized.

¹³ Maybe it would represent it accurately in a sense corresponding to some non-phenomenal content it possesses. This would not conflict with austere relativism.

¹⁴ Additionally, my main argument for austere relativism relies on the epistemic intuition and not the accuracy intuition, and so accommodating accuracy intuitions in general is not as pressing for my project as it might be for others.

¹⁵ David Bennett [2011] develops a view that illustrates this point.

¹⁶ For example, one might wonder whether it is too permissive and will erroneously count certain experiences as accurate when they are not. This is a familiar worry for any theory on which phenomenal content is fully general. See Soteriou [2000] and Tye [2009: 77-94] for discussion.

¹⁷ But see Morrison [2013] for an argument that visual representation of colour relations is more fundamental than visual representation of monadic colours.