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SENSORY PHENOMENOLOGY AND PERCEPTUAL CONTENT

By Boyd Millar

The consensus in contemporary philosophy of mind is that how a perceptual experience represents the world to be is built into its sensory phenomenology. I defend an opposing view which I call 'moderate separatism', that an experience's sensory phenomenology does not determine how it represents the world to be. I argue for moderate separatism by pointing to two ordinary experiences which instantiate the same sensory phenomenology but differ with regard to their intentional content. Two experiences of an object reflected in a mirror can possess the same spatial phenomenology while representing that object to occupy different spatial locations. So, contrary to the current consensus, the representation of spatial location is not fixed by an experience's sensory phenomenology.

In his *Logical Investigations*, Husserl maintains that the phenomenology of a perceptual experience involves a distinct sensory element – what he calls sensations or 'sensational contents'.[1] According to Husserl, these sensational contents are independent of an experience's intentional (or representational) content in the sense that the sensations instantiated by a given experience do not determine or fix its intentional content. For instance, he claims (*ibid.*) that 'whatever the origin of the experienced contents now present in consciousness, we can think that the same sensational contents should be present with a differing interpretation, i.e., that the same contents should serve to ground perceptions of different objects'. In other words, according to Husserl, in order for your perceptual experience to represent the world to be a certain way, it is not sufficient for you to have sensations of a certain sort: two experiences with the same sensory phenomenology could represent the world to be different ways.

The view that the sensory phenomenology of an experience is independent of its intentional content is rather unpopular within contemporary analytic philosophy; the present consensus is that how an experience represents the world to be is *built into* its sensory phenomenology. Consider, for example, the phenomenal property typically instantiated by your visual

[1] E. Husserl, *Logical Investigations* [1900], tr. J.N. Findlay (London: Routledge & Kegan Paul, 1970), p. 565.

experiences of red objects under normal lighting conditions – the property sometimes called 'phenomenal redness'.[2] According to representationalists, for an experience to instantiate phenomenal redness just is for it to instantiate a certain specific intentional content. More specifically, a Russellian representationalist such as Dretske or Tye claims that for an experience to instantiate phenomenal redness is for it to represent something in the environment to be physically red.[3] On the other hand, a Fregean representationalist such as Chalmers claims that for an experience to instantiate phenomenal redness is for it to instantiate a certain specific Fregean content (a mode of presentation such as *the property that normally causes phenomenally red experiences in the subject of the experience*).[4] In addition, there are a number of philosophers who, while rejecting representationalism, maintain that there is a fundamental kind of intentional content that is determined by phenomenal character – *phenomenal content*, as it is called. According to defenders of this view, such as Siewert, Horgan and Tienson, and Kriegel, any experience which instantiates phenomenal redness thereby represents something in the environment to be red.[5]

While these philosophers disagree regarding the exact nature of the relationship between an experience's intentional content and phenomenal character, they all agree that any experience that instantiates a certain specific phenomenal property, like phenomenal redness, also instantiates a certain specific intentional content. In this respect, there is a fundamental division between the current consensus and the Husserlian view with regard to the nature of perceptual experience – specifically, concerning the relationship between sensation and representation. According to the current consensus, in order for your experience to represent the world to be a certain way, *all you need is to have sensations of a certain sort*; according to the

[2] See, e.g., D. Chalmers, 'The Representational Character of Experience', in B. Leiter (ed.), *The Future for Philosophy* (Oxford: Clarendon Press, 2004), pp. 153–81, at p. 167.

[3] See F. Dretske, *Naturalizing the Mind* (MIT Press, 1995); M. Tye, *Ten Problems of Consciousness* (MIT Press, 1995).

[4] For the distinction between Russellian and Fregean representationalism, see Chalmers, 'The Representational Character of Experience', pp. 167–74; B. Thompson, 'Colour Constancy and Russellian Representationalism', *Australasian Journal of Philosophy*, 84 (2006), pp. 75–94, at pp. 75–7.

[5] See C. Siewert, *The Significance of Consciousness* (Princeton UP, 1998); T. Horgan and J. Tienson, 'The Intentionality of Phenomenology and the Phenomenology of Intentionality', in D. Chalmers (ed.), *Philosophy of Mind: Classical and Contemporary Readings* (Oxford UP, 2002), pp. 520–41; U. Kriegel, 'Intentional Inexistence and Phenomenal Intentionality', in J. Hawthorne (ed.), *Philosophical Perspectives*, 21: *Philosophy of Mind* (Malden: Blackwell, 2007), pp. 307–40. Defenders of the phenomenal content view differ from representationalists in that they deny that phenomenal properties are *identical to* intentional or representational properties, claiming instead that there is an important kind of intentional content which perceptual experiences possess *in virtue of* instantiating the sensory phenomenology they do. See, e.g., Siewert, p. 221.

Husserlian view, having sensations of a certain sort is not sufficient for your experience to represent the world to be a certain way.

My intention is to defend the Husserlian view, which I will call *moderate separatism*. The view is *separatist* in that it claims that an experience's intentional content and phenomenal character are separate from or independent of each other; and it is *moderate* in that the separatist claim is restricted to a particular class of phenomenal properties (someone who claimed that all phenomenal properties are independent of intentional content could be called a *radical separatist*).[6] My argument for moderate separatism will be simple: by pointing to two ordinary experiences that instantiate the same sensory phenomenology but differ with regard to their intentional content, I will attempt to show that an experience's sensory phenomenology does not determine or fix its intentional content.[7] The example which I present targets spatial phenomenology rather than colour phenomenology. Specifically, my claim is that two experiences of an object reflected in a mirror can possess the same spatial phenomenology while representing that object to occupy different spatial locations.

I will explain in greater detail in §I what I mean by the 'sensory phenomenology' of an experience. In §II I will describe two visual experiences of an object reflected in a mirror, and explain why they can plausibly be described as instantiating the same sensory phenomenology while differing with regard to their intentional content. In the face of this example, in order to reject the conclusion that moderate separatism is true there are only two options: either one must deny that the experiences at issue differ with regard to their intentional content, or one must deny that they instantiate the same sensory phenomenology. In §§III–IV I consider each of these replies in turn and argue that neither is ultimately acceptable.

I. SENSORY PHENOMENOLOGY

Moderate separatism is a view about the relationship between an experience's intentional content and its sensory phenomenology, so before getting to the argument for the view I first need to clarify what 'sensory phenomenology' is supposed to be. The *phenomenal character* of an experience is what the experience is like for the subject; some distinguishable aspect of

[6] The label 'separatism' is used this way by Horgan and Tienson, p. 520, and by Graham, Horgan and Tienson, in their 'Consciousness and Intentionality', in M. Velmans and S. Schneider (eds), *The Blackwell Companion to Consciousness* (Malden: Blackwell, 2007), pp. 468–84, at p. 468.

[7] Husserl (pp. 564–7) also defends moderate separatism by pointing to examples of ordinary perceptual experiences. Peacocke, a more recent defender of this view, presents an example of this sort as well: see C. Peacocke, *Sense and Content* (Oxford: Clarendon Press, 1983), p. 16.

the overall phenomenal character of an experience is a *phenomenal property*. There is a certain class of phenomenal properties that philosophers sometimes refer to by talking about *sensory qualities* or *sensations*. For example, when you look at a ripe tomato, a Chinese flag, a red wall under white light, or a white wall under red light, these various visual experiences are phenomenally similar in a certain obvious respect; this common aspect of the phenomenal character of these different experiences is a particular sensory quality or visual sensation. Two experiences possess the same sensory phenomenology if and only if they instantiate exactly the same sensory qualities.

All perceptual experiences instantiate sensory qualities, but, as many philosophers have argued, the sensory element of an experience does not exhaust its phenomenology.[8] By way of illustration, suppose you first see the shape in Figure 1 without having any notion that it is in fact a symbol. That is, you first see the figure merely as a triangle made up from lines of different thicknesses. Next, imagine that some time later you come to the realization (for whatever reason) that the figure you were looking at is in fact a Greek delta. You then look at the figure again (under exactly the same conditions as before) and have another visual experience, but this time you see the figure as a Greek delta. Many philosophers have the intuition that in such a case the overall phenomenology of your two experiences is different.[9] That is, it seems that once you learn to see the figure as a delta, the phenomenology of your visual experience itself is different: it is not as though the phenomenal change is due to some accompanying mental episode of *interpretation*, of *seeing as* instead of merely seeing.[10] Yet it is highly plausible to claim that your two visual experiences instantiate the same sensory qualities: there seems to be no change to the visual sensations you undergo when viewing the figure. The phenomenal difference between these two visual experiences, then, seems to concern their *cognitive* phenomenology, not their sensory phenomenology.[11]

Δ

Figure 1

But since the question at issue is whether it is possible for two experiences which possess the same sensory phenomenology to differ with regard to their

[8] See, e.g., G. Strawson, *Mental Reality* (MIT Press, 1994), ch. 1; Siewert, *The Significance of Consciousness*, ch. 8; Kriegel, 'Consciousness as Sensory Quality and as Implicit Self-Awareness', *Phenomenology and the Cognitive Sciences*, 2 (2003), pp. 1–26.

[9] See Peacocke, *A Study of Concepts* (MIT Press, 1992), pp. 89–90; Siewert, *The Significance of Consciousness*, p. 257; S. Siegel, 'Which Properties are Represented in Perception?', in T. Gendler and J. Hawthorne (eds), *Perceptual Experience* (Oxford: Clarendon Press, 2006), pp. 481–503, at pp. 490–1. Auditory versions of this type of example are presented by Husserl (pp. 566–7), Strawson (pp. 5–13), Siewert (pp. 275–6) and Horgan and Tienson (p. 523).

[10] For a defence of this claim, see Siegel, pp. 492–7.

[11] Whether there is such a thing as cognitive phenomenology continues to be controversial. For the present state of the debate, see the papers in T. Bayne and M. Montague, *Cognitive Phenomenology* (Oxford UP, forthcoming).

intentional content, some method is needed for determining whether or not two given experiences possess the same sensory phenomenology. Here we can rely on a method adapted from Peacocke (*Sense and Content*, pp. 24–6) which involves comparing judgements of what he calls *subjective similarity*. In the case of vision, for instance, you can determine whether two of your visual experiences instantiate different sensory qualities by considering whether you would make opposing judgements regarding how subjectively similar the objects presented in those experiences look as compared with other stimuli. More specifically, for any two of your visual experiences e_1 and e_2 and any two possible stimuli s_1 and s_2, if you would judge (upon due reflection) that the object(s) presented in e_1 looks subjectively more similar to s_1 than to s_2 and that the object(s) presented in e_2 looks subjectively more similar to s_2 than to s_1, then e_1 and e_2 instantiate different sensory qualities. Conversely, if there are no two possible stimuli s_1 and s_2 such that you would judge (upon due reflection) that the object presented in e_1 looks subjectively more similar to s_1 than to s_2 and that the object presented in e_2 looks subjectively more similar to s_2 than to s_1, then e_1 and e_2 instantiate the same sensory qualities.

What it means for a given object to look subjectively more similar to one thing than to another should be tolerably clear from the following examples. When you view a circular object head on, that object looks subjectively more similar to the left-hand shape in Fig. 2 than it does to the right-hand shape. But when you view that same object while it is tilted, the reverse is true. Consequently these two experiences of the circular object instantiate different sensory qualities.

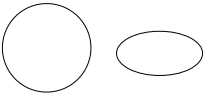

Figure 2

Similarly, as you look at the Necker cube in Fig. 3, your experience probably switches back and forth between two 'interpretations'. When you interpret the figure in one way you will notice that it looks subjectively more similar to the left-hand shape than the right-hand one in Fig. 4; when you interpret the figure the other way, the reverse is true. Consequently your two experiences of the Necker cube involving these two different 'interpretations' instantiate different sensory qualities.[12]

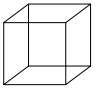

Figure 3

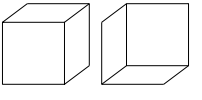

Figure 4

[12] A number of writers have claimed that when the 'interpretation' of such ambiguous figures changes one's visual sensations change as well. See, e.g., C.D. Broad, *Scientific Thought* (New York: Harcourt, Brace, 1923), p. 260; Tye, *Ten Problems*, p. 140; F. MacPherson, 'Ambiguous Figures and the Content of Experience', *Noûs*, 40 (2006), pp. 82–117, at pp. 87–93. Kriegel, 'Consciousness as Sensory Quality', p. 8, disagrees; but for my purposes it will be preferable to stick with the present broader conception of sensory qualities.

Conversely, in the case of your two experiences of the Greek delta, it should be clear that there are no two stimuli you could point to regarding which it would be true to say that when you see the figure merely as a triangle, it looks subjectively more similar to one of these stimuli than to the other, but that suddenly the reverse is true when you see it as a delta. Learning to recognize the figure to be a certain sort of symbol need not make any difference to how subjectively similar it looks to other stimuli. This being so, even though there is some kind of phenomenal difference between your two experiences of the Greek delta, these two experiences instantiate the same sensory qualities.

Finally, suppose the first time you look at a wall painted a certain specific shade of red, the colour appears highly attractive, but when you look at the wall at some later time (under exactly the same viewing conditions), the colour appears unattractive. In such a case it would be plausible to say that these two experiences differ with regard to their overall phenomenal character.[13] However, it might still be the case that there are no two possible stimuli such that you would judge that when the wall appeared attractive it looked subjectively more similar to one of these stimuli than to the other, but that when the wall appeared unattractive the reverse was true. For instance, suppose the wall in question is painted scarlet, and even though your tastes have changed concerning the attractiveness of scarlet, you consistently find crimson attractive and vermilion unattractive. Nevertheless, even though the phenomenal character of your experience of the scarlet wall has changed, you might not judge that at first the wall looked more similar to a wall painted crimson than to a wall painted vermilion, but that later the wall looked more similar to a wall painted vermilion than to a wall painted crimson. In such a case, then, we should say that your two experiences of the scarlet wall instantiate the same sensory qualities. (This method of determining when two experiences instantiate the same sensory qualities can easily be adapted to other sense modalities, but the foregoing discussion will suffice, since the subsequent argument focuses on visual experience only.)

II. THE MIRROR EXAMPLE

Presumably everyone has had an experience of being fooled by a mirror. Sometimes when you are in unfamiliar surroundings and a mirror is placed

[13] One might object that the difference in such a case is merely a difference between the emotional states caused by the visual experiences in question. However, I do not think that the attractiveness or unattractiveness of some object can be excluded from the visual experience itself; when something looks beautiful the character of your visual experience itself is different from when something looks ugly, just as when something tastes good the character of your gustatory experience is different from when something tastes disgusting.

in just the right location, it seems to you that the room you are in is larger than it actually is; later, you acquire more information and realize that you are not looking into open space but at the surface of a mirror. At other times there are instances when you cannot tell for a moment whether you are looking at a mirror or not – maybe the room continues, or maybe there is a mirror positioned just so; but from a certain position you cannot tell which is the case. Later, you are able to settle the question as you acquire new information, and then when you look again the indeterminacy of your previous visual experience disappears.

In cases such as these, when you are first fooled by a mirror but then realize your mistake (or when you are first uncertain of your surroundings but then make an accurate determination), there seems to be a change with respect to what your visual experience 'says' about your surroundings: at first you are under a visual illusion in that you seem to see an open space where there is none, but later you have an accurate experience of a reflection in a mirror. However, on a purely sensory level, your experience does not seem to change at all. Accordingly, the moderate separatist can make use of such cases as an argument for the claim that an experience's sensory phenomenology does not determine or fix its intentional content.

So that the discussion is focused on a specific example, suppose you are facing a mirror, but from your position the only thing you can see reflected in the mirror is a single pillar in an otherwise empty room. When you first look at the mirror, it appears to you that you are looking through a window at a pillar in the next room. Some time later, you come to recognize (for whatever reason) that what you took to be a window is in fact a mirror, and what you took to be a pillar in the next room is in fact a pillar some distance behind and to one side of you. You then look at the mirror again (under exactly the same conditions as before), but this time you see that the pillar is behind you and is being reflected by the mirror in front of you. I will call this case the *mirror example*.[14]

It is at least plausible to assume that in such a case your two visual experiences would differ with regard to their intentional content. Your first

[14] Looking at a pillar in a mirror is a famous example of Grice's: see H.P. Grice, 'The Causal Theory of Perception', *Proceedings of the Aristotelian Society*, Supp. Vol. 35 (1961), pp. 121–52, at p. 142. The fact that looking at an object reflected in a mirror can often be phenomenally similar to looking at an object through a window has been noted by at least two different philosophers. Broad (pp. 317–18) says that a visual experience of a light source reflected in a mirror possesses precisely the same 'sensa' as an experience of a similar light source viewed through a thin pane of glass (assuming the light source is in the right position). Robert Stalnaker, 'On a Defense of the Hegemony of Representation', in E. Villanueva (ed.), *Philosophical Issues*, 7: *Perception* (Atascadero: Ridgeview, 1996), pp. 101–8, at p. 107, points out that a situation in which you are looking at trees through a window could produce an illusory experience of trees reflected in a mirror.

experience, it seems natural to say, is an illusory representation of a pillar some specific distance in front of you on the opposite side of a window. Conversely, your second experience seems to be an accurate representation of a pillar located behind you and reflected in a mirror. Moreover, it is also plausible to assume that these two experiences instantiate the same sensory qualities. After all, neither your visual system nor the visible scene has changed, and the viewing conditions by hypothesis are exactly the same. It seems reasonable to conclude, then, that the two experiences under consideration possess the same sensory phenomenology, but differ with regard to their intentional content.

If it is true that these two experiences differ with regard to their intentional content despite the fact that they instantiate the same sensory qualities, then it follows that an experience's sensory phenomenology does not determine its intentional content. Consequently if you want to reject moderate separatism there are only two ways to respond. First, you can insist that the two experiences possess the same intentional content. Secondly, you can claim that the two experiences instantiate different sensory qualities. If neither of these two available responses are convincing, then the conclusion must be that the mirror example involves an intentional difference with no accompanying difference in sensory phenomenology.

III. THE 'SAME INTENTIONAL CONTENT' REPLY

I have said that it is at least plausible to assume that the two experiences at issue differ with regard to their intentional content. In cases where you are fooled by a mirror, it seems natural to say that it is your visual experience itself that is the source of the mistake. In the example just described, it seems natural to say that your first visual experience represents the pillar to be located in front of you on the other side of a window, and is therefore illusory. Further, it seems natural to say that once you have discovered your mistake and you look again, your visual experience now accurately represents that the pillar is behind you and is being reflected by a mirror.

Very often when we discover visual mistakes we cannot alter the illusory content of our experience. For example, even when you have measured the two lines in the Müller–Lyer diagram and discovered that they are the same length, they continue to *look* as if they are different lengths. However, we are also often able to eliminate visual illusions by acquiring new information. For instance, it sometimes happens that your visual experience gets the size of some unfamiliar object wrong when you first see it; but once you get close enough to it, or once you see it next to some other object the size of which

you are familiar with, your visual experience no longer misrepresents its size. It seems plausible to treat the mirror example as analogous to such a case: first you are subject to a visual illusion, but when you learn that what you took to be a window is in fact a mirror, the content of your visual experience is corrected.

I acknowledge, of course, that there is a good deal of content shared by the two experiences in the mirror example (for example, both your experiences attribute the same colour and shape to the pillar). My claim is only that your two experiences differ with regard to the representation of the spatial location of the pillar. Accordingly, someone who wants to respond to the example by claiming that there is no difference in intentional content must say either that both experiences represent the location of the pillar accurately, or that both represent the location of the pillar inaccurately. (A Fregean account may provide an exception. This point is addressed below.) The problem facing someone who wants to reject the present argument, however, is that neither of these two options is acceptable.

First, consider the claim that both experiences are illusory. One could object to the present argument by granting the assumption that the first experience represents the pillar to be in front of you, while denying the assumption that the second experience does not. In other words, one could claim that both times when you look at the pillar reflected in the mirror, your experience represents the pillar to be in front of you, and therefore that both experiences are illusory. According to such an account, the first time you see the pillar in the mirror, you are fooled because you judge in accordance with the content of your visual experience; but the second time you see the pillar in the mirror, while the content of your visual experience does not change, you nevertheless *judge* that the pillar is located behind you. The two times you look at the pillar in the mirror are different, then, not because the content of your visual experience itself is different, but only because you make an accurate judgement in the second instance which you fail to make in the first instance.

There are at least two reasons for rejecting such an account of the mirror example. First, since there is nothing special about looking at pillars in mirrors, such an account is only plausible if all visual experiences involving mirrors are illusory. Some scientists and philosophers have in fact maintained that every time we see an object reflected in a mirror our visual experience inaccurately represents an object to be on the far side of the mirror.[15] However, there is good evidence to the contrary. Specifically, Jones and Bertamini have shown that when a subject can see both an object

[15] See A. Clark, 'Three Varieties of Visual Field', *Philosophical Psychology*, 9 (1996), pp. 477–95, at pp. 489–90, and R. Gregory, *Mirrors in Mind* (New York: Freeman, 1997), pp. 77–8.

and its reflection in a mirror, the perception of the reflection improves the representation of the size and distance of the relevant object.[16] If the visual system were always fooled by reflections in mirrors, then in such situations a subject would perceive two objects, and the properties of the one would not provide any information about the size and distance of the other.[17]

Secondly, the claim that both experiences of the pillar in the mirror represent the pillar to be in front of you is unacceptable because it makes the second experience a case where what your eyes are telling you is inconsistent with what you believe. The problem with this suggestion is that the phenomenology of the second visual experience of the pillar is not similar to the phenomenology of other cases where what your eyes tell you is inconsistent with what you believe. For instance, when you are subject to the Müller–Lyer illusion after having measured the two lines in the diagram, you are immediately aware of a conflict between what your eyes are telling you and what you know to be the case. In such a case you *feel* a disconnection between your different mental states (a feeling which can be strange and even uncomfortable).[18] Conversely, after you have discovered that what you took to be a window is in fact a mirror, you do not sense any conflict between your visual experience and your beliefs about the scene in front of you (and this is true of your visual experiences of reflections generally). One might suggest that the difference has to do with the frequency with which one encounters mirrors, but this fact is not relevant: familiarity with the Müller–Lyer illusion does not have any tendency to eliminate one's immediate awareness of the conflict between one's visual experience and what one believes. Consequently, since you are aware of the conflict when

[16] L. Jones and M. Bertamini, 'Through the Looking Glass: How the Relationship Between an Object and its Reflection Affects the Perception of Distance and Size', *Perception*, 36 (2007), pp. 1572–94.

[17] One might suggest that in such situations individuals are subjected to the visual illusion that there is more than one object in front of them, but none the less on the basis of that illusory experience are able to make more accurate judgements about the size and distance of the relevant object based on their knowledge of the relationship between objects and mirror reflections. However, this explanation is less plausible than the alternative, given that it has been well documented that most people's knowledge of the relationship between objects and their mirror reflections is seriously flawed, and given that they make simple mistakes when reasoning about mirror reflections: see C. Croucher *et al.*, 'Naive Optics: Understanding the Geometry of Mirror Reflections', *Journal of Experimental Psychology: Human Perception and Performance*, 28 (2002), pp. 546–62; M. Bertamini and T. Parks, 'On What People Know about Images on Mirrors', *Cognition*, 98 (2005), pp. 85–104; H. Hecht *et al.*, 'Naive Optics: Acting on Mirror Reflections', *Journal of Experimental Psychology: Human Perception and Performance*, 31 (2005), pp. 1023–38.

[18] I am assuming, of course, that your experience when viewing the Müller–Lyer diagram is typical of other standard visual illusions (e.g., the Ponzo illusion or Fraser's spiral illusion): in such cases, when your beliefs about the object you are looking at are inconsistent with your visual experience, you are immediately aware of the conflict.

the content of your visual experience is inconsistent with what you believe, and since you are not aware of any such conflict when you have the second visual experience of the pillar, it is implausible to claim that this second experience represents that the pillar is in front of you.

It seems implausible, then, to claim that both experiences involved in the mirror example represent the location of the pillar inaccurately. The only other way to maintain that both experiences have the same content is to claim that both experiences are accurate. I can see two different ways of doing this: first, you could say that both experiences are neutral with respect to the location of the pillar; secondly, you could say that both experiences represent the pillar to be located behind you.[19]

To take the former suggestion first, it is at least possible to maintain that the two visual experiences involved in the mirror example do not specify the location of the pillar: perhaps one could claim that both experiences represent merely that there is a pillar somewhere nearby. If that were true, then since there is a pillar in the vicinity each time you look, it follows that both experiences are accurate. Alternatively, one could claim that the two experiences involved in the mirror example represent that the pillar is located *either* in a certain position in front of you *or* in a certain position behind you. If that were the case then both experiences would be accurate, because there is a pillar in the appropriate position behind you each time you look. It should be obvious, however, that both of these suggestions are highly counter-intuitive. It is difficult to understand the notion that a visual experience could represent merely that some object is nearby without specifying where. The suggestion that the experiences featured in the mirror example are accurate so long as there is a pillar *anywhere* nearby just seems false. The suggestion that these experiences are accurate so long as there is a pillar *either* in one location *or* in another entirely different location seems similarly implausible.

More importantly, neither of these suggestions would be able to explain the phenomenal difference between the two experiences featured in the mirror example. I assume that most people would grant that what it is like to see the pillar as located in front of you is different *at least in some respect*

[19] Researchers sometimes talk in terms of the perception of *virtual* objects or images in mirrors (for example, A. Higashiyama and K. Shimono, 'Mirror Vision: Perceived Size and Perceived Distance of Virtual Images', *Perception & Psychophysics*, 66 (2004), pp. 679–91; Jones and Bertamini, 'Through the Looking Glass'); so one might think that virtual objects are being accurately represented here. However, it is simply not clear what virtual objects or images are supposed to be, and so it is not clear what it would mean for one's visual experience to represent the presence of a *virtual* object or image on the far side of a mirror. In any case, an account of mirror perception in terms of the representation of virtual objects is unnecessarily complicated, and ought to be rejected for that reason: a far simpler account is that when you see something reflected in a mirror what you see is an ordinary physical object.

from what it is like to see the pillar as located behind you. But according to the account at issue, both times when we look at the pillar in the mirror our visual experiences are exactly alike; the only difference concerns the judgement to which each of the two experiences gives rise. Specifically, the two experiences specify the same range of possible locations of the pillar, but the first time we look we judge that the pillar is located in a certain position in front of us, and the second time we look we judge that the pillar is located in a certain position behind us. This being so, the only way for someone defending such an account to explain the phenomenal difference between seeing the pillar as in front of you and seeing it as behind you would be to maintain that you make different conscious judgements in each case. In other words, someone defending such an account would have to say that visually locating the pillar is a matter of first seeing that the pillar is within a certain range of possible locations, and then *consciously choosing* one of the locations within that range. However, it should be clear that when you locate the pillar visually you do not consciously choose a particular location amongst a range of possibilities. There is an analogy here with Siegel's point (p. 497) about understanding the meaning of a given bit of text. Seeing the pillar to be in a certain location is something that 'just happens', something that is simply 'taken in' visually; it is not something that requires a distinct conscious judgement. Therefore any account of the mirror example according to which the relevant experiences are neutral with regard to whether the pillar is located in front of or behind you ought to be rejected.

In order to maintain, then, that the two experiences involved in the mirror example are both accurate, the only other option would be to maintain that both experiences represent the pillar to be located behind you. According to such an account, both experiences represent that there is a mirror in front of you reflecting a pillar located behind you. But the first time you see the pillar in the mirror you are fooled because you mistakenly judge (contrary to the testimony of your eyes) that there is a pillar in front of you on the other side of a window. When you look a second time, you are not fooled because you refrain from making this faulty judgement thanks to whatever additional information you have acquired in the meantime. The two times you look at the pillar in the mirror are different, then, not because the content of your visual experience is different, but because you make a faulty judgement in the first instance which you avoid making in the second instance.

Such an account of the mirror example is unacceptable for at least two reasons. First, this account makes the first experience of the pillar an instance where what your eyes are telling you is inconsistent with what you believe to be the case. The problem is again that the first time you view the

pillar in the mirror, you are not aware of a conflict between what your eyes are telling you and what you believe to be the case: rather, you enjoy a perfectly ordinary visual experience of a pillar on the other side of a window. But as noted above, when the content of your visual experience is inconsistent with what you believe, you are aware of the conflict.

The second problem with the present account is that people do not form judgements inconsistent with the content of their visual experiences unless they have independent reasons for doing so (in other words, you need a reason for not believing your eyes). For example, if you were completely unfamiliar with the Müller–Lyer diagram, when you first viewed it you would certainly judge that the two lines were different lengths. It is not until you measure the lines, or until someone tells you it is a trick, that you judge the lines to be the same length. However, in the mirror example there is no necessity to presuppose that you have any independent reasons for judging, contrary to the content of your visual experience, that there is a window in front of you rather than a mirror, and that the pillar you see is in front of you rather than behind. In fact, even if you have by hypothesis no independent reasons for so judging, the example is still perfectly comprehensible. In that case, the claim that the first experience represents the pillar to be behind you makes your judgement that the pillar is actually in front of you a complete mystery. Such an account of the mirror example is implausible in that it entails that in ordinary circumstances people sometimes for no reason at all form judgements inconsistent with the content of their visual experience.

Before concluding that the two experiences of the pillar reflected in the mirror differ with respect to their intentional content, there is one final response I need to consider. I said above that to maintain that both experiences have the same content, you must claim either that both are inaccurate or that both are accurate; but one might think that a Fregean representationalist has the resources to allow that the first experience is inaccurate and the second accurate, and still maintain that both experiences possess the same content. Because Fregean theorists maintain that perceptual contents are composed of modes of presentation rather than objects and properties, they can allow that two phenomenally identical experiences can represent the world to be different ways. For instance, Thompson has developed a Fregean view that allows for phenomenally identical experiences to represent different spatial relations to obtain between objects in the perceiver's environment.[20] On his account, when Oscar, who lives on Earth, looks at a tree ten metres from him, and Big Oscar, who lives on Doubled Earth (a

[20] B. Thompson, 'The Spatial Content of Experience', *Philosophy and Phenomenological Research*, 81 (2010), pp. 146–84.

planet just like Earth except that everything is twice as big), looks at a corresponding tree twenty metres from him, their experiences are phenomenally identical; and while each of these two experiences has the same mode of presentation as its content, each experience accurately represents the distance of the tree from the perceiver having that experience.

However, the Fregean view can only allow for phenomenally identical experiences to represent objects to be at different distances from the subject by building the normal causal basis of the relevant phenomenology into the mode of presentation. In the case of Oscar and Big Oscar, Oscar's experience represents the tree he is looking at to be ten metres in front of him, because an object's being located ten metres in front of him is what normally causes experiences with the relevant phenomenology in Oscar; Big Oscar's experience represents the tree he is looking at to be twenty metres in front of him, because an object's being located twenty metres in front of him is what normally causes experiences with the relevant phenomenology in Big Oscar.

But since the mirror example involves a single subject in a single environment, it should be clear that including the normal causal basis of an experience with a certain phenomenology in the relevant modes of presentation does not help in the present case. Unless you are surrounded by mirrors most of the time, what normally causes experiences with the phenomenology possessed by your experience of the pillar is an object's being located in front of you; so if both experiences pick out what normally causes experiences with this phenomenology in you, then both experiences accurately represent the pillar to be located in front of you (and I have already explained why such a view is unacceptable). The Fregean might respond that viewing conditions are also included in the relevant modes of presentation; however, this suggestion is no help either, since the viewing conditions are precisely the same for each experience. If the mode of presentation picks out what normally causes experiences with the relevant phenomenology in you *under present viewing conditions*, then both experiences accurately represent the pillar to be located behind you (and again I have already explained why such a view is unacceptable).[21] Ultimately, then, the Fregean view of perceptual content does not provide a way to maintain that the two experiences possess the same content while maintaining that the first experience is inaccurate and the second accurate.

Consequently my original assumption was correct: to object to the present argument by denying there is a difference in content, you must claim either

[21] As Thompson, 'Senses for Senses', *Australasian Journal of Philosophy*, 87 (2009), pp. 99–117, at pp. 111–12, makes clear, it would also be problematic for the Fregean representationalist to claim instead that *viewing conditions represented to obtain by the subject* can deal with this sort of example (Thompson is discussing the content of colour experience, but analogous points would apply to the present case).

that both experiences of the pillar are accurate or that both are inaccurate. But for the reasons just provided, neither option is acceptable. The only plausible view, then, is that the two experiences of the pillar in the mirror represent the pillar to be in different locations. Accordingly, the only other way to respond to the argument would be to maintain that the two experiences of the pillar in the mirror differ with regard to their sensory phenomenology.

IV. THE 'DIFFERENT SENSORY PHENOMENOLOGY' REPLY

One's initial reaction to the mirror example might be to complain that there is indeed a significant phenomenal difference between the two experiences of the scene in question. However, such a claim does not constitute an objection to the present argument. I have already acknowledged that the overall phenomenal character of the two experiences is different: what it is like for you to see the pillar as located in front of you is different from what it is like for you to see the pillar as located behind you. But the fact that there is some kind of phenomenal difference between the two experiences does not entail that they instantiate different sensory qualities. For instance, a perfectly natural account of the mirror example is that the phenomenal difference between the two experiences is exclusively a difference of cognitive phenomenology (as with your two visual experiences of the Greek delta, discussed above).

In order to reject moderate separatism, then, one needs to insist that the two experiences in the mirror example instantiate different sensory qualities. In defence of this claim one might object that in order to perceive the pillar as being reflected in a mirror you must notice certain visual cues that you failed to notice when you perceived the pillar to be located on the far side of a window, and that noticing these visual cues would make a difference to the sensory qualities instantiated by your experience. The suggestion here would be that perceiving an object to be reflected in a mirror is made possible by the fact that your visual system is sensitive to certain cues. Such cues might include a disparity between the surrounding background and what is seen in the mirror (for example, when you look in your rear-view mirror while driving), imperfections of the mirror's surface that warp the reflection, or the presence of dust (or other sorts of dirt and grime) on the mirror's surface reflected in a characteristic pattern. The present example assumes that the mirror is hung on the wall in such a fashion as to be easily mistaken for a window, and so the only potentially relevant cues would be imperfections of the mirror's surface or dust. The objection, then, would be that in this scenario it would not be possible to switch from seeing the pillar as located

on the far side of a window to seeing it as located behind you, unless the second time you look you notice either imperfections or dust that you failed to notice the first time you looked. Assuming that noticing such features would involve a change in the sensory qualities instantiated by your experience, one could insist that it would consequently not be possible to switch from seeing the pillar as located on the far side of a window to seeing it as located behind you unless the sensory qualities instantiated by your experience change.

However, while it is surely correct that visual cues of this sort play a role in the perception of mirror reflections in certain situations, the claim that you *cannot* perceive an object to be reflected in a mirror in the absence of such cues is implausible. Many people encounter mirrors on a regular basis where the only potential cues are surface imperfections or dust; but these cues are not always present, and they are not noticeable beyond certain distances or from certain vantage points. Accordingly, if perceiving an object to be reflected in a mirror required making use of such cues, mirrors would produce illusory experiences much more frequently than they do.

It is more plausible to assume, then, that even in the total absence of such cues, background knowledge and expectations are sometimes sufficient for perceiving an object to be reflected in a mirror (for instance, it is highly unlikely that you would ever perceive the objects reflected in a mirror above the sink in a bathroom to be located on the far side of a window, even if no dust or surface imperfections were visible to you). That is, we should assume that in some situations the visual information available to you leaves two possibilities open: either there is a mirror in front of you or there is a window in front of you; and in such situations your expectations or beliefs about your environment can influence the content of the resulting visual experience (just as sometimes your expectation that you are about to see a picture of a vase results in your seeing a vase rather than two faces when you view the ambiguous vase/face figure). Consequently it can be stipulated for the mirror example that the switch from seeing the pillar as located in front of you to seeing the pillar as located behind you is not precipitated by your noticing any visual cues that would make a difference to the sensory qualities instantiated by your experience.

Putting these concerns regarding visual cues to one side, then, might it still be plausible to insist that your two experiences of the pillar reflected in the mirror differ with regard to their sensory phenomenology? Here it is possible to employ the method established in §I for determining when experiences instantiate the same sensory qualities. As was the case with the Greek delta, your two experiences of the pillar do not appear to give rise to conflicting judgements of subjective similarity. There are no two stimuli you

could point to regarding which it would be true to say that when you saw the pillar as being in front of you the visual scene looked subjectively more similar to one of these stimuli than the other, but that suddenly the reverse was true when you saw the pillar as being behind you.

For instance, could you produce two drawings each of which captured one of your two experiences more accurately than the other? Simply drawing a square opening in a wall with a pillar visible through it would not be any help; presumably you would have to resort to some kind of graphic convention, like inserting a stereotypical windowsill or a stereotypical mirror frame. But relying on such graphic conventions would not accomplish the task at hand: adding a stereotypical windowsill would indicate to the viewer that your drawing is a depiction of a window, but such a drawing would not look more subjectively similar to the scene when you seemed to see the pillar on the far side of a window than to the scene when you perceived the pillar to be reflected in a mirror. This same difficulty would apply to three-dimensional stimuli as well. For instance, one might build a qualitatively identical room but replace the mirror with a window and position a pillar on the other side just so. But the problem is that the resulting stimulus would not look subjectively more similar to the scene when you seemed to see the pillar on the far side of a window than to the scene when you perceived the pillar to be reflected in a mirror. Consequently, since your two experiences of the reflected pillar do not give rise to conflicting judgements of subjective similarity, they do not instantiate different sensory qualities.

At this point one might object that sometimes the way we 'interpret' a stimulus does change how subjectively similar that stimulus looks relative to other stimuli. In particular, as I have already remarked in the case of the Necker cube, when your 'interpretation' of a given ambiguous figure changes, how subjectively similar to other stimuli that figure looks changes as well. However, if you compare your experiences in the mirror example to your experiences of ambiguous figures, it should be clear that the phenomenological changes involved are distinct. When you are looking at an ambiguous figure such as the Necker cube, there is an abrupt phenomenal flip or switch when your 'interpretation' of the figure changes. But if you try to think back on cases where you were fooled by a mirror and later realized your mistake, it should be clear to you that this sort of sudden and pronounced phenomenological switch is absent in such cases. If you do not have a clear memory of such a case, the only thing to do is to find a mirror and try to convince yourself momentarily that you are in fact looking through a window and that the objects you see are not behind but in front of you. When you do this you will notice that there is *some sort* of phenomenal change as you switch from the false 'interpretation' to the correct one, but

you will notice that this phenomenal change is not like the one you experience when your 'interpretation' of an ambiguous figure changes.

Here one might note, however, that the experiences involved in the mirror example are similar in an important respect to experiences of looking at something like the Necker cube. Specifically, in both cases there is a change regarding the spatial relations perceived to obtain amongst particular elements. For instance, when your 'interpretation' of the Necker cube changes, a particular face appears to switch from the front to the back of the represented cube. Similarly, in the mirror example, the pillar first looks as if it is on the far side of the window in front of you, but later it looks as if it is on the same side of the mirror as you are. However, the fact that there is a switch of the spatial relations perceived to obtain between the pillar and the window is not a reason to think that the mirror example involves the sort of phenomenological switch at issue. On the contrary, if you compare the two examples, it should be clear that when your 'interpretation' of the Necker cube changes, there is a pronounced reorganization of the visual field which is entirely absent in the mirror example. It seems, then, that the perception of the spatial relations obtaining between different elements can change without a phenomenological switch of the sort found when viewing the Necker cube.

Consequently it is safe to assume that how subjectively similar the scene at issue looks relative to other stimuli does not change when you perceive the pillar to be located behind you and reflected in a mirror. But if there is no difference with respect to these sorts of subjective similarity judgements between seeing the pillar as located in front of you and seeing the pillar as located behind you, then these two experiences instantiate the same sensory qualities. Thus the experiences involved in the mirror example do not differ with regard to their sensory phenomenology.

V. CONCLUSION

For the reasons provided above, it is implausible to claim that the two experiences at issue instantiate different sensory qualities, and it is also implausible to suggest that they both represent the pillar to be in the same location. The mirror example, then, is a case where experiences with the same sensory phenomenology differ with regard to their intentional content. Therefore since one can point to ordinary experiences that instantiate the same sensory qualities yet represent the world differently, it follows that an experience's sensory qualities do not determine or fix its intentional content. In other words, it follows that moderate separatism is true.

Consequently the presently dominant views concerning the relation between sensory phenomenology and perceptual content should be rejected. First, the foregoing argument shows that representationalism is false. The experiences involved in the mirror example possess the same spatial phenomenology, but represent the pillar to be in different locations, and so the spatial phenomenology of an experience cannot be identified with the representation of the spatial location of objects (as the Russellian says), or even the representation of a mode of presentation of the spatial location of objects (as the Fregean says). Secondly, since the mirror example shows that the representation of the spatial location of objects is not determined by an experience's spatial phenomenology, and since there is no reason to think that spatial phenomenology is special in this regard, the foregoing argument also undermines the view that there is such a thing as phenomenal content. Ultimately, then, the present consensus that the way an experience represents the world to be is *built into* its sensory phenomenology should be rejected; on the contrary, perceptual content is *independent of* sensory phenomenology.[22]

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