

Perceptual Experience and the Reach of Phenomenal Content

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Abstract

The phenomenal character of perceptual experience involves the representation of colour, spatial and temporal properties, but does it also involve the representation of high-level categories? Is the recognition of an object as a tomato encoded in the phenomenology of perception? Proponents of a conservative view of the reach of phenomenal content say “no”, whereas those who take a liberal view of perceptual phenomenology say “yes”. This paper clarifies the debate between conservatives and liberals, and provides a case in favour of the liberal position: high-level content can inform perceptual phenomenology.

1. Introduction

Consider what it is like to look at a tomato. You will experience yourself as facing an object that occupies a certain region of space and has a particular shape. Unless you are colour-blind, you will experience the tomato as being a certain colour—say, a particular shade of red. If the tomato happens to be in motion, you may also experience it as being in motion. Each of these features of your perceptual experience involves particular phenomenal properties. Question: Do these phenomenal properties (and others like them) exhaust what it is like to look at a tomato?

Some say that they do. Proponents of what we might call a *conservative* approach to perceptual phenomenology hold that there is nothing more to the phenomenal character of visual experience than that which attaches to the representation of low-level properties—colour, shape, spatial location, movement, and so on.¹ Conservatives give similar accounts of other perceptual modalities: the phenomenology of audition is exhausted by the representation of volume, pitch, timbre and so; the phenomenology of gustation is exhausted by the representation of sweetness, sourness, and so on. The phenomenal world of the conservative is an austere one.

This conservative view of perceptual phenomenology can be contrasted with a liberal perspective, according to which perceptual phenomenology of looking at a tomato will typically include the representation of the object *as* a tomato. We see objects as belonging to various high-level kinds, and this—the liberal holds—is part and parcel of perception's phenomenal content. On this view, what it's like to see a tomato, taste a strawberry or hear a trumpet is not limited to the representation of various sensory qualities but also the representation of various 'high-level' properties—being a tomato, a strawberry or a trumpet.

The debate between these two approaches is of no little significance. Getting a fix on the location of phenomenal consciousness in the architecture of cognitive would provide us with an important set of constraints on a theory of consciousness: some accounts of the nature and function of phenomenal consciousness presuppose a conservative conception of perceptual phenomenology, others presuppose a liberal conception. My sympathies are liberal. This paper does not attempt to provide a full-blown defence of liberalism, but it does provide reasons for taking liberalism seriously.

¹ Strictly speaking, it's representations of properties rather than properties themselves that are low-level or high-level. Nevertheless, it is very convenient to refer to represented properties as low-level and high-level, and I will help myself to this convenience on occasion.

2. The reach of perceptual phenomenology

The first order of business is to clarify the contrast between conservatism and liberalism. We can begin with phenomenal consciousness. Phenomenal states are states that it is something it is like to instantiate (Nagel 1974). Phenomenal properties are properties the instantiation of which constitutes what it is like to be the subject of those properties. The ‘what it’s likeness’ of perception is shot through with representational content. Indeed, we typically pick out phenomenal properties by invoking particular representational contents. For example, we refer to what it’s like to see yellow, to see something as being square, and to feel something as smooth. So, phenomenal properties and representational contents are intimately related. The notion of phenomenal content puts these two notions together. Phenomenal content is that component of a state’s representational content supervenes on its phenomenal character. There are important debates concerning the kind of supervenience in question, but I leave them to one side for now. (We will return to some of them in due course.) My concern is not with the *nature* of perceptual content but with its *range*.²

As we noted, the literature presents us with a striking lack of agreement on the question of how far into perception phenomenal content reaches. Tye claims that the features represented in perceptual phenomenology are limited to the output of sensory modules, and conjectures that for us such features include such properties as “being an edge, being a corner, being square, being red₂₉” (Tye 1995: 141). In a similar vein, Prinz holds that only intermediate-level content enters into perceptual phenomenology, and that ordinary kind properties are not represented within phenomenal consciousness (Prinz 2005, 2007). And Lyons suggests that perceptual learning can enable one to enjoy new perceptual states without enlarging the range of one’s experiences. “X is an expert chicken sexer. Some chicks look male to X and some look female, even though the experiential states do not differ in any articulable way; nor do they differ from those of a novice.” (Lyons 2005: 244). Other theorists advocate a rather more inclusive conception of the reach of phenomenal content. According to van Gulick “seeing a telephone *as a telephone* is not something that accompanies visual experience; it is part of one’s visual experience” (van Gulick 1994: 46;

² Some theorists hold that intentional content is more fundamental than phenomenal character, and that some sort of reduction of the latter to the former is possible. Others hold that phenomenality is more fundamental than intentionality, and that we should attempt to reduce intentional content to phenomenal character. I remain neutral on these issues here. For discussion of the nature of phenomenal content, although not always under that label, see Kriegel (2002), Chalmers (2004), McGinn (1988), Horgan & Tienson (2002) and Siewert (1998).

emphasis in original). In a similar vein, Siegel has argued that some natural kind properties, such as being a pine tree, can be represented in visual experience (Siegel 2006). Indeed, even Fodor, who famously describes the outputs of perceptual modules as “relatively shallow”, suggests that perceptual phenomenology is pitched at the level of Rosch et al (1976) basic categories and that one can visually experience something as a dog (Fodor 1983: 94-97).

The contrast between the conservative and liberal positions is obviously not a precise one; the distinction is intended to capture two general approaches of perceptual phenomenology rather than clearly demarcated positions.³ For one thing, the distinction is vague concerns the fact that there is no precise line between low-level and high-level perceptual content. Perception contains multiple levels of content, and it is doubtful whether there is any precise point at which one makes the transition from low-level content to high-level content. For another, one could endorse an account of (say) visual phenomenology that was towards the liberal end of the spectrum and an account of (say) auditory phenomenology that was towards the conservative end of the spectrum. Nonetheless, we do have two clearly identifiable approaches to perceptual phenomenology, even if the lines between them could become blurred in various ways.

A second respect in which the contrast between conservative and liberals views stands in need of clarification concerns modal issues. Some conservatives might think that as a matter of fact perceptual phenomenology is restricted to low-level content, but take it to be an open question whether perceptual phenomenology is necessarily restricted to low-level content. The conservative could allow that it is possible that there be creatures with high-level content, it's just that we aren't creatures of that kind. Similarly, one can distinguish two versions of liberalism. One kind of liberal might hold that high-level perception necessarily has phenomenal character, whereas another kind of liberal might hold only that our high-level perceptual states enjoy phenomenal character, and that it is an entirely open question whether conservatism might be true of other types of creatures. (The liberal could also think that only some of our high-level perceptual states enjoy phenomenal content). To keep matters relatively constrained, I will focus on the debate between conservatives and liberals only insofar as it applies to human experience: how far does phenomenal consciousness reach into human perception?

³ Theorists who appear to be sympathetic to conservatism include Carruthers (2000), Clark (2000), Dretske (1995), Jackendoff (1987), Langsam (2000), Levine (2001) and Lormand (1996); theorists who appear to be sympathetic to liberalism include Goldman (1993), Horgan & Tienson (2002), Pitt (2004), Chalmers (1996), Siewert (1998), and Strawson (1994).

Is the debate between conservatives and liberals substantive? Although it certainly *looks* substantive, there is reason to worry that appearances might be deceptive and that the debate is—to some significant degree at least—merely terminological. At the very least, it is clear that the debate is *obscured* by terminological trouble. As a case in point, consider the term ‘experience’. Tye explicitly denies that phenomenal content includes high-level contents, he does allow that perceptual experience classifies objects into high-level kinds such as coins, telescopes and so on (Tye 2000: 73-76). In saying this, Tye is committed to a distinction between experiential content and phenomenal content that his liberal opponents will find puzzling, to say that least. I take it that when van Gulick and Siegel claim that the representation of an object as a telephone or a pine trees can be part of visual experience they mean to identify experiential content with phenomenal content. Further reason for thinking that the debate between conservatives and liberals might be partly terminological derives from worries about the ‘what it’s like’ locution. Tye argues for a conservative account of the reach of perceptual phenomenology, but he does allow that there may be “a very broad use of the locution ‘what it’s like’ in ordinary life which concedes a difference in what it is like whenever there is any conscious difference of any sort whatsoever”, before going on to add that “this is not his usage” (Tye 1995: 302, n. 3). This broad use may not be Tye’s, but perhaps it is that of his liberal opponents, in which case the debate between them might have important terminological components.

Having raised the question of whether the debate the conservative and liberal might be terminological, I will now leave it to one side. Let us proceed on the assumption that clearing away the various layers of terminological confusion that surround these issues will leave a real dispute about the reach of perceptual phenomenality.

3. Contrast arguments

How might the liberal argue for their position? Direct appeals to introspection are unlikely to possess much in the way of dialectical force, for conservatives deny that introspection reveals any hint of high-level perceptual phenomenology. Look at a tomato, the liberal says, is there not something it is like to see it as a tomato? The conservative denies that there is.

In light of the impotence of direct appeals to introspection, liberals have tended to rely on indirect appeals to introspection in the form of *contrast arguments*. Contrast arguments are so-called because they involve contrasting two scenarios that supposedly differ in

phenomenal character but not in low-level perceptual content.⁴ Consider the difference between what it is like to hear the sentence “Il fait froid” when one does not understand French and what it is like to hear the same sentence having learnt French. Intuitively, there is a ‘what it’s like’ difference between these two scenarios, despite the fact that they involve the same auditory input. In a similar vein, liberals argue that what it is like to hear the sentence “visiting relatives can be boring” depends on whether one takes the “boring” to qualify the relatives or the visiting, and that what it is like to look at the young woman/old woman figure depends on whether one perceives the figure as a young woman or as an old woman. Each of these scenarios involves phenomenal differences that are unaccompanied by low-level perceptual changes. Hence, the liberal argues, we have reason for thinking that phenomenal content extends into high-level perception.

The tools for a particularly forceful contrast argument are provided by agnosia. Agnosia is defined as an impairment in perception that is not due to elementary sensory malfunction.⁵ Following Lissauer (1890/1988), most theorists distinguish two main forms of agnosia: apperceptive agnosia and associative agnosia. Apperceptive agnosia, also known as ‘form agnosia’, involves an inability to perceive spatial form. Patients with this condition cannot group the various parts of overlapping objects into unitary percepts, and are unable to produce accurate copies of pictures that are presented to them. In cases of pure associative agnosia form perception remains unimpaired, but patients are unable to recognize objects as belonging to familiar categories. In Teuber’s (1968) oft-quoted words, associative agnosia involves “a normal percept stripped of its meaning”. Here is a particularly striking case of the condition:

For the first three weeks in the hospital the patient could not identify common objects presented visually and did not know what was on his plate until he tasted it. He identified objects immediately on touching them. When shown a stethoscope, he described it as “a long cord with a round thing at the end,” and asked if it could be a watch. He identified a can opener as “could it be a key.” Asked to name a cigarette lighter, he said, “I don’t know” but named it after the examiner lit it. He said he was “not sure” when shown a toothbrush. Asked to identify a comb, he said, “I don’t know.” When shown a large matchbook, he said, “It could be a container for keys.” He correctly identified glasses. For a pipe, he said, “Some type of utensil, I’m not

⁴ Contrast arguments can be found in Goldman (1993), Horgan and Tienson (2002), Pitt (2004), Siewert (1998), Strawson (1994) and Siegel (2006). The method itself is discussed in Kriegel (2007) and Siegel (2007).

⁵ See Farah (2004) and Humphreys & Riddoch (1987) for useful overviews of agnosia.

sure." Shown a key, he said, "I don't know what that is; perhaps a file or a tool of some sort." He was never able to describe or demonstrate the use of an object if he could not name it. If he misnamed an object his demonstration of its use would correspond to the mistaken identification...Remarkably, he could make excellent copies of line drawings and still fail to name the subject...He easily matched drawings of objects that he could not identify, and had no difficulty in discriminating between complex non-representational patterns differing from each other only subtly. He occasionally failed in discriminating because he included imperfections in the paper or in the printer's ink. He could never group drawings by class unless he could first name the subject. (Rubens & Benson 1971: 308-9).

Here's the argument from associative agnosia to perceptual liberalism. The phenomenal character of the patient's visual experience seems to have changed—his visual phenomenology is no longer what it was. Nonetheless, the patient's low-level perceptual abilities remained intact. His problem is not with form perception but kind perception. Hence, high-level perceptual representation—the representation of an object as a stethoscope, a can-opener or a comb—can enter into the phenomenal content of perception.

Associative agnosia can occur across a wide range of categories and modalities. Visual agnosia can occur as a relatively broad impairment in the recognition of objects, or as a more fine-grained impairment in the recognition of particular types of objects, such as faces (prosopagnosia) or words (alexia).⁶ Auditory agnosia can occur as a general impairment in the recognition of sounds, or as a more specific impairment in the recognition of nonverbal sounds (Motomura et al 1986) or music (Peretz 2001). The desert phenomenology of the conservative will need to be significantly enriched if, as seems plausible, each of these forms of agnosia involves the loss of high-level content that is normally present in phenomenal consciousness.

4. The conservative response

Conservatives have two strategies available to them in responding to contrast arguments. The most popular strategy is to allow that the cases in question do involve phenomenal contrasts, but account for those contrasts without committing themselves to distinctively high-level phenomenal content. For example, Tye allows that learning French makes a

⁶ For achromatopsia see Beauvois & Saillant (1985), Heywood and Cowey (1999) and Kentridge et al (2004). For akinetopsia see Zeki (1991).

phenomenal difference to how French sounds, but he denies that this contrast is best explained by supposing that the semantic content of French is phenomenally represented:

...in some cases conceptualisation can causally influence phenomenal character. Consider, for example, phenomenal differences in what it's like to hear sounds in French before and after the language has been learned. Obviously there are phenomenal changes here tied to experiential reactions of various sorts associated with understanding the language (e.g. differences in emotional and imagistic responses, feelings of familiarity that weren't present before, differences in effort or concentration involved as one listens to the speaker). There are also phenomenal differences connected to a change in phonological processing. Before one understands French, the phonological structure one hears in the French utterance is fragmentary. For example, one's experience of word boundaries is patently less rich and determinate. This is because some aspects of phonological processing are sensitive to top-down feedback from the centres of comprehension...Still, the influence here is causal, which I am prepared to allow. My claim is that the phenomenally relevant representation of phonological features is nonconceptual, not that it is produced *exclusively* by what is in the acoustic signal. (Tye 2000: 61: see also Tye 1995: 140).

What should we make of this response? We should certainly allow that low-level perceptual phenomenology is often subject to top-down modulation. Indeed, even colour perception can be modulated in this way. Subjects who are required to adjust the picture of a banana so that it appears achromatic will actually make it blue, and when the picture of the bananas is actually achromatic it will appear yellow (Hansen et al., 2006). However, it is at best very much an open question whether we will always be able to find such low-level differences in all contrast cases. Suppose that you are looking at a dog in the distance. The light is poor, and you have difficulty identifying the seen object. Suddenly, recognition dawns. Contrast your visual experience immediately before and after recognition. Must there be low-level differences between these two percepts? I don't see why.

The thought that the contrast cases can always be accounted for in low-level terms is particularly hard-pressed when confronted with associative agnosia. Although most cases of associative agnosia are impute in the sense that the patients also suffers from low-level perceptual impairments, in some instances associative agnosia takes a pure form.⁷ The

⁷ Although pure cases of associative agnosia are relatively rare, one does not need pure cases to show that associative agnosia is not merely a matter of low-level visual impairments (Ettlinger

patient described above is a case in point. Although he could not group objects by category he could match them to visually identical objects, and his performance on tests of immediate visual recall tests was excellent. (On one such test he correctly chose 7 of 8 designs after a three-minute delay.)

Even when contrast cases do involve differences in low-level perceptual content, it is doubtful that the role of high-level categorization is *merely* causal. It seems plausible to suppose that the phenomenal differences brought about by learning French involve both low-level changes in auditory representation concerning (say) word boundaries *and* high-level semantic differences. Similarly, the phenomenal contrast between seeing an object as a stethoscope and failing to recognize it as such might involve both low-level changes in perceptual focus and high-level changes associated with kind representation.

In fact, the liberal could grant that it is not possible for high-level perceptual phenomenology to change without that change being accompanied some low-level phenomenal change. The liberal could hold that high-level phenomenal content supervenes on low-level phenomenal content, such that any change to high-level phenomenal content demands some change of low-level phenomenal content. This position might not be particularly attractive to liberals, but there is nothing in the liberal commitment to high-level phenomenal content that rules it out. It is one thing to posit high-level phenomenal content, it is quite another thing to hold that high-level phenomenal content is independent of low-level phenomenal content. Consider the phenomenology of causation. On one view that has a certain amount of intuitive plausibility, the experience of causal relations is nomologically (if not constitutively) dependent on the experience of spatio-temporal relations, and so in this sense is not autonomous. It is not implausible to suppose that what holds of the experience of causation might hold more generally, although the existence of instances of pure associative agnosia suggests that at least some high-level contents may be relatively independent of low-level content.

If the conservative cannot account for the phenomenal contrast present in cases of (pure) associative agnosia by appealing to low-level changes, how *are* they to account for such cases? As best I can see, the conservative will have to deny that associative agnosia involves any loss of phenomenal content at all. He will have to deny that associative agnosia involves any disruption to the way in which objects look. Conservative who take

1956; Cowey *et al* 1998). Instead, one need only find patients with associative agnosia whose low-level visual impairments are no more serious than those of patients without associative agnosia, and such cases have indeed been found (Farah 2004; Warrington 1985).

this line will, no doubt, be at pains to point out that there are different senses of 'looks', and that to deny that associative agnosia involves any change in how objects look in the phenomenal sense is perfectly consistent with allowing that it involves changes to how objects look in some other sense of that term. According to this line of thought, associative agnosia may involve a change in the way that things look or appear in the epistemic or comparative senses of these terms, but it involves no change in how things *phenomenally* look or appear (Lyons 2005; Tye 2000).

This suggestion should be resisted. No doubt associative agnosia does involve disruptions of various kinds to how things look in the epistemic and comparative senses of these terms, but it *also* involves disruptions to the phenomenal looks of objects. At least, so it seems plausible to suppose. The conservative owes us an argument for thinking that this supposition is wrong. Something can look *F* to *S* in the epistemic, comparative *and* phenomenal senses. Arguably, a tomato can look (to be) red in all three senses of "look". And if a tomato can look to be red in all three senses of "looks" why cannot it also look to be a tomato in all three senses of the term? It seems to me that there is every reason to think that *associative* agnosia is no less a disorder of phenomenal consciousness than *apperceptive* agnosia: each condition involves the loss of a 'layer' of phenomenal content.⁸

There is a further lesson to be learnt from associative agnosia. Lying behind some versions of conservatism is a doxastic model of object recognition. Consider, for example, the following passage from Tye:

Object or shape recognition in vision ... is a matter of seeing that such and such a type of object is present. Seeing that something is the case, in turn, is a matter of forming an appropriate belief or judgment on the basis of visual experiences or sensations. ... there are two components in visual recognition, a belief component and a looking component. (Tye 1995: 215).

Object recognition, as Tye seems to think of it, is not strictly speaking perceptual; instead, it belongs on the cognitive side of the perception-cognition divide. If this model were

⁸ Sometimes phenomenal looks talk is introduced in a way that seems to bring with it a commitment to conservatism. For example, Tye says that "phenomenal looks talk involves locutions of the form "X looks *F* to *S*" and "X appears *F* to *S*", where '*F*' expresses a sensory property (that is, a property of which one is directly aware via introspection as one undergoes a sensory experience)" (Tye 2000: 54). Leaving aside the question of whether the notion of a sensory property is best glossed in terms of direct introspective awareness, the crucial problem here is with the implication that phenomenal looks talk can be defined in terms of sensory properties. It's one thing for conservatism to be true, and quite another for it to be a definitional truth.

right, then one might suppose conservatism to be true simply because ‘high-level’ perceptual content is not really perceptual. If object recognition were a matter of appropriately formed belief, and if belief lacks any proprietary phenomenal character—as many assume it does—then object recognition would also lack proprietary phenomenal character.

It is controversial whether thought does lack proprietary phenomenal character. According to some liberals, phenomenal consciousness pervades not only high-level perception but also cognition. But let us leave that point to one side here, and focus on the question of where to locate the representational states involved in object recognition. Do they fall within perception, as I have been assuming, or are they really doxastic, as Tye suggests?

There may be no straightforward answer to this question; different accounts may be needed for the recognition of different kinds of objects. However, I think that there is good reason to suppose that object recognition—of the kind that is disrupted in agnosia, at least—tends to fall within perception. In fact, there are two reasons for this view. Firstly, object recognition is *mandatory*: one cannot help but see an object as a stethoscope, a pipe, or a cigarette lighter. The experience of an object in such terms resists doxastic penetration, and such resistance is a mark of perception. Secondly, the state that is lost in visual agnosia seems to be visual rather than merely caused by visual input. Let me explain.

Consider a patient with associative agnosia who fails to recognize the object at which he is looking as a pipe. Suppose that the patient is told that he is looking at a pipe, and on that basis forms the (occurrent) belief that he is looking at a pipe. (The patient will be able to do this, for associative agnosia does not involve any conceptual loss.⁹ The patient will be able to both reason about pipes and recognize them via other modalities, such as touch.) Now, the patient has the two things that Tye regards as constitutive of visual recognition: the belief component and the looking component. Would the patient now recognize the perceptual object as a pipe? Perhaps so, at least in some cases.

When told the correct name of an object, he usually responded with a quick nod and said, “Yes, I see it now.” Then, often he could point out various parts of the previously unrecognised item as readily as a normal subject (e.g. the stem and bowl of a pipe, and the laces, sole and heel of a shoe). However, if asked by the examiner,

⁹ It should be noted that there is some evidence that conceptual knowledge of a domain is not entirely unaffected in associative agnosia (see Farah 2004: 152-53).

“Suppose I told you that the last object was not really a pipe, what would you say?” He would reply, “I would take your word for it. Perhaps it’s not really a pipe”. Similar vacillation never occurred for tactilely or aurally identified objects (Rubens & Benson 1971: 308).

However, this remission does not seem to be reflected in other reports of associative agnosia, and even in this case it seems to have been only temporary. Although the patient (presumably) retained the belief that he was looking at a pipe, he seems not to have retained his experience of it as a pipe. Perceptual recognition is not simply a matter of believing that such and such a type of object is present whilst enjoying low-level visual experience.

Of course, Tye’s account of object recognition involved the claim that one must form the appropriate belief *on the basis of* visual experience, and the critic might point out that this grounding relation was absent from my examples. This grounding relation is missing in the associative agnosia case. Is the omission relevant? I think not, for we could include the causal component by supposing that the patient suffers from some freak neurophysiological condition that causes him to believe that every object he is looking at is a pipe. This case satisfies Tye’s causal condition on visual recognition, but it seems doubtful whether it suffices to reinstate the missing experiential content. Furthermore, it is far from clear that any such causal condition would really be appropriate. Associative agnosia involves the loss of a certain type of certain type of *occurrent* state and not simply the loss of a capacity or counter-factual relation. And, as we saw above, that occurrent state cannot be identified with a belief or a judgment.

Return to Teuber’s (1968) suggestion that associative agnosia involves a “normal percept stripped of its meaning”. It seems to me that there are two ways to read this claim. Tye’s doxastic account places a percept’s meaning outside the percept, and hence suggests that a percept could remain normal even when stripped of its meaning. I have defended a rather different picture, according to which a percept’s meaning is to be located within the percept itself, and hence that a percept stripped of its meaning could no longer be normal. What one has in associative agnosia is a percept that would have been normal had it not been stripped of its meaning.

5. Indiscernibility and indubitability

The conservative needs to draw some line between those perceptual contents that are phenomenally conscious and those perceptual contents that are not. Where—and how—might they draw such a line?

One answer to this question appeals to indiscernibility. One might argue that high-level properties cannot be phenomenally represented, since perceptually indiscernible objects can have different high-level properties. Whisky can be perceptually indiscernible from water; suitably disguised racoons can be perceptually indistinguishable from dogs; and the German word “*leider*” can be perceptually indistinguishable from the English word “*leader*”. One might take these facts to indicate that perceptual experience cannot represent a liquid as whisky (or water), dogs as dogs, or spoken utterances as instances of the word “*leader*”.

Tye seems to have an argument like this in mind, when he suggests that nothing looks like a tiger to us in the phenomenal sense of the term, because “there might conceivably be creatures other than tigers that look to us phenomenally just like tigers” (Tye 1995: 141). It is certainly true that non-tigers could look to us phenomenally just like tigers. For one thing, one might mistake a non-tiger—a liger, say—for a tiger. But presumably what Tye has in mind is that non-tigers could look just like tigers without being *misrepresented*. This too is true. One might find oneself on a planet that is inhabited by tiger-like creatures that look just like tigers. Does it follow from this that tigerhood cannot be phenomenally represented? I think not. To see why, a short excursion to twin-earth is needed.

Twin-earth scenarios are routinely employed to put pressure on the link between phenomenal content and perceptual indiscernibility. It seems conceivable that there are worlds in which some property other than yellowness looks (in the phenomenal sense) just like yellowness, or that there are worlds in which some property other than sourness tastes (in the phenomenal sense) like sourness. The point is not restricted to secondary qualities. It is conceivable that there are worlds in which cracks might look (again, in the phenomenal sense) the way that shadows look (Burge 1986; Davies 1997). Nonetheless, it does not follow that being yellow, being sour, or being a shadow cannot be phenomenally represented. In short, one cannot employ the fact that an object with property *P* might be perceptually indiscernible from an object lacking property *P* as a reason for thinking that *P* cannot be admitted into perceptual phenomenology.

I suspect that Tye is tempted to take indistinguishability as a guide to phenomenal content because he has a Russellian conception of phenomenal content, according to which phenomenal character is identified with those properties or objects that it represents (Tye 2003). On this view, phenomenal content that was directed (in the relevant sense) to different types of objects would necessarily mis-represent at least one of those objects, and a non-yellow object could not be indistinguishable from a yellow object without one of the two objects being misrepresented. To take another example, the Russellian is committed to the view that a non-tiger that phenomenally looked just like a tiger would must be

misrepresented if, as the liberal suggests, being a tiger is the kind of property that is phenomenally admissible. But, the conservative might continue, non-tigers could look just like tigers without vision being guilty of any kind of mis-representation.

So the question we are now faced with concerns the status of the Russellian conception of phenomenal content. In my opinion, the Russellian account is problematic. It is unable to account for the intuitive thought that the same phenomenal properties might represent different properties in different contexts. Intuitively, the phenomenal properties associated with the representation of yellow could have been associated with the representation of blue and vice-versa; the phenomenal properties associated with the representation of shadows could have been associated with the representation of cracks and vice-versa, and so on. If this is right, then accounts of phenomenal content will need to be Fregean in some sense (Chalmers 2004; Thompson 2008). They will need to factor in something akin to phenomenal senses or modes of presentation, at least for some phenomenal properties.

The conservative might press the argument from indiscernability from another angle. She might argue that if the property of being a tiger were phenomenally admissible, then it would be possible for two objects to look identical apart only from the fact that one looks (in the phenomenal sense) to be a tiger but the other does not. But—so the objection goes—this is not possible. Hence, the property of being a tiger is not phenomenally admissible.

Is it possible for two objects to look identical, apart from the fact that only one of them looks like a tiger? Consider not tigers but chickens. Chicken-sexers can distinguish male chicks from female chicks, but they typically can't tell you how they do it (Biederman and Shiffrar 1987). Of course, chicken-sexers are employed low-level cues to differentiate male chicks from female chicks, but it is possible that these low-level cues are not phenomenally represented. Perhaps male and female chicks are phenomenally indistinguishable apart from the fact that male chicks 'seem to be male' whereas females 'seem to be female'. Perhaps there are many high-level properties that enter consciousness on the basis of low-level perceptual cues that are not themselves conscious. We are often sensitive to the mental states of others' without being aware of the basis of our sensitivity. No doubt the detection of others' mental states involves complex computations of their behavioural dynamics, but it doesn't follow that such dynamics are consciously available, any more than the complex representations underlying colour constancy are consciously available.

A second response to the objection involves pointing out that the objection assumes that high-level phenomenal content must be autonomous—and, as we noted above, the liberal need not accept that high-level phenomenology is autonomous of low-level perceptual phenomenology. The liberal could hold that any pair of objects that are phenomenally represented as having the same low-level properties must also be phenomenally represented as having the same high-level properties, and thus that they must be phenomenally indistinguishable. Consider the phenomenology of causation. One could hold that visual phenomenology can represent causal relations without holding that the phenomenal representation of causation is autonomous. Indeed, there is reason to think that the phenomenal representation of causation is anything but autonomous. Arguably, the experience of causation is intimately dependant on the experience of spatio-temporal relations; even so, it clearly wouldn't follow from this that causation is not phenomenally represented. Of course, the data derived from associative agnosia suggest that there is a certain degree of independence between high-level phenomenology and low-level phenomenology, for instances of pure associative agnosia suggest that high-level perceptual content can be (selectively) disrupted even when low-level content is left unscathed. Nonetheless, it seems plausible to suppose that where the mechanisms responsible for high-level phenomenal content are intact, their output will be a function of the low-level input that they receive. And if that is so, then any two objects that appear to S to have the same low-level perceptual features will also appear to S to have the same high-level perceptual features.

I turn now from indiscernability to indubitability. Consider the following well-known passage from Price:

When I see a tomato there is much that I can doubt. ... One thing however I cannot doubt [in reflecting on my experience is] that there exists a red patch of a round and somewhat bulgy shape, standing out from a background of other colour-patches, and having a certain visual depth, and that this whole field of colour is directly present to my consciousness. ... This peculiar and ultimate manner of being present to consciousness is called *being given*, and what is thus present is called a [sense] *datum*. The term is meant to stand for something whose existence is indubitable (however fleeting), something from which all theories of perception ought to start, however much they may diverge later. (Price 1932: 18 & 19)

Price does not commit himself to a conservative conception of phenomenal consciousness, but the tenor of the passage certainly points in that direction. The perceived object is 'given' as red, bulgy, and as occupying a particular spatial location, but there is no suggestion here that it also given as a tomato. The passage also suggests that one might be

led to this view by considerations deriving from indubitability: one can doubt that one is presented with a tomato, but one cannot doubt that “there exists a red patch of a round and somewhat bulgy shape, standing out from a background of other colour-patches, and having a certain visual depth”.

I don't know how much of a role an argument along these lines might have played in tempting theorists towards conservatism, but I do know that its allure should be resisted. We need to ask what exactly it is that is indubitable. Is it the subject's belief that the tomato is red, or her belief that the tomato seems to be red? Surely only the latter has any claim to indubitability. But there is no asymmetry between being red and being a tomato on this score: one can doubt whether the perceptual object is a tomato, but (arguably) one cannot doubt whether one *experiences* it as a tomato. High-level perceptual content seems to be as indubitable in precisely the same sense in which low-level perception is indubitable. We have yet to identify any crucial asymmetry between low-level perception and high-level perception that might bring with it a phenomenal divide.

6. The knowledge argument and the explanatory gap

I turn now to another potential source of support for conservatism. At first sight, some of the deepest puzzles surrounding phenomenality suggest that high-level perceptual content might be excluded from phenomenality. Consider Mary, the expert neuroscientist who has never experienced red but knows everything there is to know about the perception of red (Jackson 1982). Intuitively, Mary learns something when she first sees red—something that she could not have learnt as a neuroscientist. Therefore, so the argument goes, facts about what it is like to see red are not physical facts. Whether or not the argument is sound, the immense literature that it has spawned bears witness to its intuitive forcefulness. But does the argument generalize to high-level phenomenal content, or is there a good reason why Jackson's argument centres on colour—a low-level perceptual feature?

Suppose that Mary is an expert in high-level perception. She knows everything there is to know about how tomatoes are recognized, but she has never experienced a tomato. Does Mary learn anything when she first recognizes a tomato? Arguably not. At any rate, the intuition that she does is *much* weaker than the intuition that she learns something when she first sees red. Why should this be? Perhaps, the conservative might suggest, Mary doesn't learn anything when she first enjoys the phenomenal property distinctive of seeing red is that there isn't any such property.

But the argument is too quick. We should certainly grant that it is much harder to construct a plausible version of the knowledge argument around high-level perception

than it is to construct a plausible version of the argument around the experience of colour, but we cannot infer from this fact alone that high-level content is not phenomenal.

Consider not colour experience but spatial experience. Suppose that Mary is an expert in the perception of space. However, she has never seen—or, indeed, experienced in any modality—a square. Does Mary learn anything when she first sees a square? Perhaps, but the claim that she does is *much* less intuitively compelling than is the claim that she learns something when she first sees red.¹⁰ Should we conclude from this that primary qualities such as being a square are not phenomenally admissible? Surely not—it is beyond doubt that one can phenomenally represent squares as such. So, we cannot take the fact that a property does not easily lend itself to the construction of a compelling version of the knowledge argument as a reason for thinking that it does not enter into phenomenal content.

We might, at this point, ask why it is harder to construct the knowledge argument around some feature than others. I suspect that the answer to this question has something to do with what we might call “phenomenal distance”. Consider an *unsuccessful* colour-based version of the knowledge argument. Suppose that Mary has experienced red₂₇, but has never seen red₂₈. Does she learn anything when she first sees red₂₈? Perhaps, but this version of the knowledge argument is not particularly compelling. There is a reason why Jackson restricted Mary to a black and white room. Intuitively, red₂₇ and red₂₈ are ‘close enough’ in phenomenal space that one can ‘work out’ what it would be like to experience the one from having seen the other. (Consider Hume’s missing shade of blue.) By contrast, experiences of red are sufficiently phenomenally distinct from achromatic experience that one cannot work out what it would be like to experience red without having experienced colours. Arguably, the square-based version of the knowledge argument has little intuitive plausibility because there is insufficient phenomenal distance between what it is like to see something as a square and other phenomenal properties associated with spatial perception with which Mary will be acquainted in her squareless room.

In light of the foregoing, we are now in a position to hazard some thoughts on why it is difficult to create a plausible version of the knowledge argument for high-level perceptual content. Take the phenomenal property associated with recognizing an object as a tomato. To construct a plausible tomato-based version of the knowledge argument, we would

¹⁰ Note that I am not claiming that one *cannot* construct a compelling version of the knowledge argument that centres on the representation of an object as a square. Rather, my claim is only that it is much more difficult to construct square-based versions of the knowledge argument than it is to create a red-based version of the argument.

need to ensure that Mary could learn about the neurophysiology of high-level perception without being acquainted with phenomenal properties sufficiently close to the target phenomenal property that she could work out, from within her room, what it would be like to recognize an object as a tomato. Can that be done? Perhaps, perhaps not. It is difficult to tell, for the notion of phenomenal distance is somewhat obscure. We have some grip on how the notion might be understood within reasonably constrained domains such as colour experience, but the notion becomes very difficult to deploy outside such domains. This analysis of why it is difficult to construct a plausible version of the knowledge argument for high-level content is somewhat speculative, and may turn out to be false. But the central point—which is independent of that analysis—is that there is no straightforward knowledge argument objection to phenomenal liberalism. One certainly cannot conclude that high-level content is not phenomenally admissible on the grounds that it is difficult to construct a plausible knowledge argument based on such content, for any such position threatens to lead to a highly implausible form of über-conservatism according to which even primary properties may not be phenomenally admissible.

So much for the knowledge argument—what about the explanatory gap (Levine 1983)? Might the explanatory gap provide the conservative with some encouragement? The conservative might be tempted to argue that the explanatory gap between physical properties and low-level perceptual properties does not obtain—or at least, does not obtain in quite the same way—between physical properties and high-level perceptual properties. Perhaps there is an argument to be developed along these lines, but if so it is difficult to see. There is, it seems to me, an explanatory gap between the experience of a tomato's colour and the various neurophysiological states underlying that experience, but there is also an explanatory gap between the experience of the tomato as a tomato and the various neurophysiological states underlying *that* experience. Maybe this gap can be closed, maybe it can't: either way, the gap itself is not restricted to low-level perception. Indeed, one cannot use the explanatory gap to separate high-level perception from low-level perception even if there is no real explanatory gap but only the illusion thereof. It's gaps—or at least the appearance thereof—all the way up.

7. Conclusion

I have done three things in this paper. Firstly, I have distinguished two general approaches to phenomenal content: a conservative approach that would limit phenomenal content to low-level features and a liberal approach that sees phenomenal content as reaching all the way into high-level perception. Secondly, I have suggested that associative agnosia provides the tools for a particularly potent contrast argument against

phenomenal conservatism. Thirdly, I have surveyed a number of armchair arguments against liberalism. Some of these arguments appealed to a supposed link between phenomenal content on the one hand and indiscriminability or indubitability on the other; others appealed to a supposed link between phenomenal content on the one hand and the knowledge argument and the explanatory gap on the other. None of these arguments were found convincing. The roots of resistance to a liberal treatment of phenomenal content are deep and complex, and it is clear that much more needs to be said by way of addressing them than I was able to say here. Nonetheless, I hope that what I have said here suffices to establish phenomenal liberalism as a serious option and undermines the thought—dominant in some quarters—that the theorist of phenomenal consciousness has no direct interest in high-level perception.

Suppose that some form of liberalism is true—what might follow from this? The debate between conservatives and liberal treatments of perceptual phenomenality is part of a wider debate about the reach of phenomenality more generally. Some theorists hold that phenomenal consciousness is restricted to perception, bodily sensations and certain kinds of affective states, others—we might call them ‘cognitive liberals’—hold that cognitive states, such as desires, judgments, and intentions have a distinctive (proprietary) phenomenal character, over and above that which they may inherit from whatever sensations or images that accompany them. Wading into the debate between cognitive liberals and their opponents is beyond our present brief, but we might note some points of contact between that debate and the one on which I have focused.

One point of contact between the debate over high-level perceptual phenomenology and that over cognitive phenomenology concerns concepts. The route from perceptual liberalism to cognitive liberalism may be rather straightforward on a conceptual view of high-level perception, for one might argue that if the phenomenal character of high-level perception is fixed by its conceptual content, then there is no barrier to the suggestion that the phenomenal character of cognitive states might also be fixed by their conceptual content. If, on the other hand, one thinks of high-level perception as having (only) non-conceptual content, then the route from perceptual liberalism to cognitive liberalism might be rockier; after all, one could embrace high-level perceptual phenomenology but resist cognitive phenomenology on the grounds that phenomenal content is exclusively non-conceptual. But even those who advocate a non-conceptual view of perceptual content—as I am inclined to—might think that perceptual liberalism provides the cognitive liberal with some encouragement. After all, even if high-level perceptual phenomenology is not fully conceptualised it is surely cognitive in some genuine sense, and the line between high-level perception from cognition is neither bright nor strong. If

that is right, then any attempt to admit phenomenality to high-level perception but exclude it from cognition may be hard to defend. It is, I think, no accident that those who are sympathetic to the thought that high-level perceptual states have a proprietary phenomenal character tend to be sympathetic to the thought that cognitive states also have a proprietary phenomenal character.

Whatever the fate of the arguments presented here, I hope that they at least have the effect of focusing attention on the question of how far perceptual phenomenology reaches. Given the pivotal importance of this question for theories of phenomenality and intentionality, it is astonishing how little attention it has received. There is much work to be done before the debate between conservatives and liberals can be considered settled, and it is work well worth doing.¹¹

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