

Visual experience

(penultimate version)

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1 Introduction

A visual experience, as understood here, is a sensory event that is conscious, or *like something* to undergo. I include among visual experiences veridical perceptions, illusions, and hallucinations, but I leave open whether these form a common kind. (That issue will not be discussed at length, but will be touched on in section 4.)

It is standardly accepted that visual experiences—or at least those that are veridical perceptions—have an “act-object structure”. For example, in an experience of red, we can distinguish (i) red, which is the “object” of the experience, and (ii) the *experience of red* (the “act”). However, the character of the “acts” is disputed, and the character and the range of the “objects” of these acts are also disputed. Are the acts *representations* of some kind? Or non-representational relations? What kind of awareness do we, and can we, have of visual experience *acts* as opposed to what they are of? An experience of red is an awareness of *red*, but does it also involve an awareness of *the experience of red*? Regarding the “objects” of visual experiences, it is widely accepted that they include properties like red. But exactly which properties are among the objects of visual experiences? Was for example Hume right that we never experience necessary causal connections between events? And, do the

objects of visual experiences include *particulars*, and if so which particulars? Do we sometimes visually experience mind-independent particulars like trees? Do we sometimes visually experience mind-dependent, particular “sense-data”?

This chapter will make contact with all the just-mentioned issues, but the focus will be selective. Section 2 discusses in what sense, if any, visual experiences are “transparent”, and what in turn follows from that. Section 3 discusses which properties we are presented with in visually experiences. Section 4 briefly discusses whether we are ever presented with spatiotemporal outer particulars—or other kinds of particular—in visual experiences.

2 Transparency

Much recent literature has debated whether visual experiences are “transparent”, and what further conclusions one can, or cannot, draw from settling that issue. Despite the frequent talk about “*the* transparency of experience”, there are, as this section will illustrate, many different transparency claims. They raise quite different issues, and figure in quite different arguments.

2.1 Varieties of transparency claims

Let us first acquaint ourselves with some formulations of “the” transparency idea. Current discussions often trace back to the following passage from Gilbert Harman:

When Eloise sees a tree before her, the colors she experiences are all experienced as features of the tree and its surroundings. None of them are experienced as intrinsic features of her experience. Nor does she experience any features of

anything as intrinsic features of her experience. And that is true of you too. ... Look at a tree and try to turn your attention to intrinsic features of your visual experience. I predict you will find that the only features there to turn your attention to will be features of the presented tree (Harman 1990: 39).

A few years later Michael Tye picks up the thread:

Focus your attention on a square that has been painted blue. Intuitively, you are directly aware of blueness and squareness as out there in the world away from you, as features of an external surface. Now shift your attention inward and try to become aware of your experience itself, inside you, apart from its objects. Try to focus your attention on some intrinsic feature of the experience that distinguishes it from other experiences, something other than what it is an experience *of*. The task seems impossible: one's awareness seems always to slip through the experience to blueness and squareness, as instantiated together in an external object. In turning one's mind inward to attend to the experience, one seems to end up concentrating on what is outside again, on external features or properties (Tye 1995: 30).¹

These passages, and others like them, make transparency claims that vary in several dimensions. Let me note five dimensions of variation.

¹ See also Moore (1903: 450) for a much-cited, earlier transparency formulation, and Pasnau (2016) for a review of the influence of such ideas in pre-contemporary philosophy.

(1) Transparency claims vary with regard to what we may call their *modality*. For example, one type of claim concerns what we *are*—or are typically—aware or not aware of. Another type of claim concerns what we *can* or *cannot* be aware of.

(2) Transparency claims vary with regard to the *mental acts* they focus on. For example, some are claims about what we *experience*, others about what we can *attend to*, and yet others about what we can be *aware of*.

(3) Transparency claims vary with regard to the *objects* of the mental acts they focus on. For example, some say that we are not aware of our *experiences*, others that we are not aware of *properties of* our experiences or of *intrinsic* properties of them.

(4) Some transparency claims are (“positive”) assertions about what *are or can* be aware of (e.g., colours of external objects). Others are (“negative”) assertions about what we are *not or cannot* be aware of (e.g., intrinsic properties of experiences).

(5) Some transparency claims stay within a “phenomenological bracket”: they are claims about how, say, experiences or introspections *present*—or do not present—things to us. Other transparency claims go beyond such a bracket, asserting, for example, that when we try to attend to an experience, we end up focussing on what (not just *seems* to us to be but) *actually are* properties of external objects.

The remainder of this section will revolve around two transparency claims. These claims or close kin of them have been central in recent discussions. I will consider if the claims are correct, and what follows if they are.

2.2 Transparency and the whereabouts of colours

Let me start with this claim, which some have tried to establish on the *basis* of

“transparency”:

Non-Colour-Mentalism: No experienced colour is a property of a mental or mind-dependent object.

Non-Colour-Mentalism stands opposed both to the view that experienced colours are properties of mind-dependent *sense-data* that are the immediate objects of our visual experiences (see, e.g., Russell 1912, Jackson 1977, Robinson 1994), and to the view that experienced colours are properties (“qualia”) of visual experiences themselves (see, e.g., Robinson 2004).²

One “transparency strategy” for defending *Non-Colour-Mentalism* appeals to the following claim, which echoes the first two sentences from Harman above:

Transparency-1: We experience colours as properties of external objects like trees, and not as properties of experiences or other mind-dependent things.

Transparency-1 is a conjunction of a “positive” claim about how we experience colours, and a “negative” claim about how we do not experience them. Both conjuncts remain within a “phenomenological bracket”. As formulated, *Transparency-1* can be read with stronger or weaker “modalities”. I will tinker with some variations along this dimension, but for the time

² That is one but not the only theory that goes by the name ‘qualia theory’. See Crane 2000 and Sundström 2014 on different “qualia theories”.

being, I will operate with a strong-modality version according to which we *inevitably* experience colours as properties of external objects and *cannot* experience them in other ways.

How might one argue for *Non-Colour-Mentalism* on the basis of *Transparency-1*? It is clear that even a strong-modality version of *Transparency-1* does not *by itself* provide much support for *Non-Colour-Mentalism*. *Transparency-1* is a claim about how we *experience* and do not experience colours. Meanwhile, *Non-Colour-Mentalism* is a claim about what experienced colours *are*—or are not—properties of. And things are not always as we experience them. One can therefore consistently (a) accept *Transparency-1* and (b) with a sense-datum or “qualia” theorist, deny *Non-Colour-Mentalism*.³ An argument for *Non-Colour-Mentalism* on the basis of *Transparency-1* requires an explanation of why the combination of (a) and (b) should be a bad idea.

One reason that has been offered in this context is that perceptual experiences are *trustworthy* when it comes to the whereabouts of colours. For example, Tye has argued for something like *Non-Colour-Mentalism* on the basis of something like *Transparency-1* and such a “trustworthiness”-claim:

Intuitively, the surfaces you see directly are publicly observable physical surfaces. ... In seeing these surfaces, you are immediately and directly aware of a whole host of qualities. ... you experience them as being qualities of the surfaces. None of the qualities of which you are directly aware in seeing the various surfaces look to you

³ This often-made observation goes back at least to Hume (1758: sect. 12).

to be qualities of your experience. ... To suppose that the qualities of which perceivers are directly aware in undergoing ordinary, everyday experiences are really qualities of the experiences would be to convict such experiences of massive error. This is just not credible (Tye 2000: 46).

One can develop at least two different arguments from this suggestion. The first argument appeals to the “positive” claim that we experience colours as properties of external objects, and adds this trustworthiness claim, which rules out “universal false positives”:

Sometimes-Correct: If we experience colours as properties of external objects, then some experienced colour is a property of an external object.

To get to *Non-Colour-Mentalism* from this, one must also add:

Not-Both: It is not the case that some experienced colour is a property of an external object *and* that some experienced colour is a property of a mental or mind-dependent object.

The second argument appeals to the negative claim that we do *not* experience colours as properties of mental objects and adds the following, quite different trustworthiness claim, which rules out false negatives:

No-Misses: If we do not experience colours as properties of mental or mind-dependent objects, then no experienced colour is a property of a mental or mind-dependent object.

I shall here make only some brief remarks about the strengths of these arguments.

It is clear that, even if one takes *Transparency-1* as given, each argument requires at least one substantial additional assumption. It is arguable that the burden of defending such assumptions is often underplayed in the literature. For example, Tye does not defend any such assumptions in the context of the above-quoted passage.

Moreover, *Transparency-1* is itself controversial, at least on the strong-modality reading that we have so far assumed. For example, Paul Boghossian and David Velleman argue that *colours of after-images* are experienced as belonging to “figments of one’s eyes” (1989: 87), which I take to imply the negation of strong-modality *Transparency-1*. Similarly, Hilary Putnam (2014) argues, on the basis of empirical and clinical observations (reported in Held and Hein 1963, Held et al. 2011, and Ostrovsky et al. 2009), that “transparent experience” is something learned and that we do not experience colours as being “out there” in early developmental stages.⁴

Transparency-1 is less controversial on a weak-modality reading according to which we (mature human adults) *typically* experience colours as properties of external objects and typically not in other ways. But that version of *Transparency-1* can also carry lesser burdens in arguments for *Non-Colour-Mentalism*. Consider for example the first of the two arguments spelled out above. If we can establish a strong-modality version of *Transparency-1*, we need in the next step appeal to nothing more than a *strong-modality-antecedent* version of *SometimesCorrect*. That commits us to the claim that, if no experienced colour is a property of an external object, then it is *possible* for us to not experience colours as properties of external objects. If by contrast we can establish only a weak-modality version

⁴ See also Kind (2003) for doubts specifically about *strong-modality* transparency claims.

of *Transparency-1* we must in the next step defend a *weak-modality-antecedent* version of *SometimesCorrect*. That commits us to the less plausible claim that, if no experienced colour is a property of an external object, then it is *atypical* for us to experience colours as properties of external objects.

2.3 Transparency and introspection of properties of experiences

Here is another transparency claim, which is suggested by the quotes from Harman and Tye in section 2.1:

Transparency-2: There is no property P such that P is a property of a visual experience E and one can become aware of the P-ness of E by introspecting E.⁵

By ‘introspection’ I here understand our peculiar way of accessing our own mental states, *however* that peculiar way is understood. To be ‘aware of the P-ness’ of something is understood in a distinct sense. In the intended sense, you can be aware of *a fact* of the form x is P without being aware of the *P-ness* of x—or the P-ness of anything. For example, waiting at a traffic light, you may be aware *that* the light facing away is green. But there is a sense in which you are not aware of the *greenness* of that light. You are aware of the *fact* that the light facing away is green by being aware of *motions* of certain cars (compare Dretske 1999).

To appreciate what *Transparency-2* claims and does not claim, it is crucial to bear in mind the distinction, from section 1 above, between experiences and their objects. Take an

⁵ Speaks (2009; 2015) defends transparency claims closely related to this.

experience of red. Even though the experience is *of* red, it may not itself *have* the redness that it is *of*—or be red at all (compare Harman 1990: 35, and Dretske 1995: 36). And if the experience does not have the redness that it is *of*, *Transparency-2* allows that by introspecting the experience one can become aware of that redness. Consider on the other hand the property *being a visual experience*. This is a property that any visual experience has. *Transparency-2* therefore rules out that one can by introspecting an experience become aware of its *visual experienteness*. Consider also the fact that one can have blurry experiences of red. The property *being blurry* is plausibly a property of experiences. If it is, *Transparency-2* rules out that one can by introspecting an experience become aware of its blurriness.

Transparency-2 is thus a quite substantive claim. It is arguable that *Transparency-2* makes a more substantive and interesting claim on its own than *Transparency-1* does on its own. *Transparency-2* can also be used to support further conclusions about visual consciousness. I will shortly discuss whether *Transparency-2* might be defensible, and what one might be able to infer about visual consciousness on the basis of it. But let me first make two sets of observations about the “lay of the land” around *Transparency-2*.

First: Claims in the vicinity of *Transparency-2* often feature in conjunction with *intentionalist* views according to which experiences are representations. However, *Transparency-2* can be naturally combined with other views as well. Consider for example a naïve realist theory according to which having a visual experience of red amounts to standing in a non-representational relation to a mind-independent red object or its redness. This view can be combined with *Transparency-2*; they jointly entail that one cannot by introspecting a visual experience become aware of any property-instance of the relevant experiencing relation.

Transparency-2 can similarly be combined with a sense-datum theory according to which having a visual experience of red amounts to standing in a relation to a mind-dependent sense-datum.⁶

Second and relatedly: There is a two-way independence between *Transparency-1* and *Transparency-2*. For example, an intentionalist or naïve realist can accept the *Transparency-1* claim that colours are inevitably experienced by us as properties of mind-independent external objects and never in other ways, and maintain, contra *Transparency-2*, that we sometimes become introspectively aware of property-instances of our experiences, like blurriness. For the converse independence, one may think that we *sometimes*—e.g., in having after-images—experience colours as belonging to mind-dependent objects, and still accept the *Transparency-2* claim that we can never—even in having after-images—become introspectively aware of property-instances of our experiences; that we inevitably “see through” our experiences to what they are *of*, which are sometimes mind-dependent objects.⁷

⁶ See Martin (1998: sect. 1), and Tye (2000: 47) for related observations.

⁷ There is however one important connection between *Transparency-2* and issues from the preceding section. The preceding mentioned a type of “qualia” theory according to which experienced colours are properties of experiences. It is difficult to combine that qualia theory with *Transparency-2*. For it seems very plausible that, *if* experienced colours are properties of experiences, then one can by introspecting a visual experience become aware of its experienced colour. And, it is doubtful that *Transparency-2* can ground a strong case against this kind of qualia theory (compare Sundström 2014: sect. 7). If that is right, then

Let us now consider whether *Transparency-2* might be plausible. I will first discuss two candidate counter-examples.

Consider to begin with the property *being a visual experience*.⁸ It is undisputable that we can on the basis of introspection become aware *that we are having a visual experience*. But as we have noted, one can grant this and still maintain that we are never, in the intended sense, introspectively aware of the *visual experienteness* of an experience that one has. To repeat, one can in general be aware that some *x* is *P* by being, in the intended sense, aware, not of the *P*-ness of *x* or the *P*-ness of anything, but of some other property of some other thing. Now, Dretske (1994; 1995), Tye (2000: sect. 3.2; 2014a: sect. 2), and Byrne (2005; 2012) all argue that when we are introspectively aware of the fact that we have a visual experience, we gain this awareness, not by being introspectively aware of *visual experienteness*, but by being visually aware of the colours, shapes and motions of external

Transparency-2 is plausible only if there are *independent* grounds for rejecting that kind of qualia theory. Now the preceding section outlined two *Transparency-1* based arguments against—*inter alia*—this kind of qualia theory. If either of these arguments is the *best* argument against that kind of qualia theory, then the acceptability of *Transparency-2* relies on the acceptability of *Transparency-1*. One might understand Tye (2000: 45 ff., partly cited above) as arguing in such stages, although he does not explicitly break down his discussion that way. For *non-transparency based* arguments against the relevant qualia theory, see Mehta (2013) and Sundström (2014: sect. 7).

⁸ Lycan (2004: sect. 6.2) cites this property as a counter-example to a transparency claim that he finds in Tye (2002).

objects like trees and cars. If that is correct, the property *being a visual experience* is not a counter-example to *Transparency-2*.

Let us next consider *blurriness*. And let us again start with some undisputable facts.

The boundaries of objects are more or less distinct. Furry things have less distinct boundaries than knives for example. And visual experiences can be more or less sharp. There are often similarities between (a) a sharp visual experience of an indistinctly bounded object and (b) a blurry experience of a distinctly bounded object. For example, both experiences may—as we may put it—“fail to present a distinct boundary”. But there is an important difference between these cases. A sharp visual experience of an indistinctly bounded object fails to present a distinct boundary *because* of how the object is while a blurry experience of a distinctly bounded object fails to present a distinct boundary because of how the experience is. A further fact is that when we are in a situation of one of these types, we can often easily tell which type of situation we are in.

Blurry vision is a counter-example to *Transparency-2* if we sometimes tell that we see a distinctly bounded object blurrily by being, in the relevant sense, introspectively aware of the blurriness of our experience. Tim Crane seems to promote such a view. He asks whether blurry seeing of a distinctly bounded object is not

a straightforward case of where one can be ‘directly’ aware of an aspect of one’s experience which is not an aspect of the objects of experience? It is natural to say that I am aware of blurriness; but I am not aware of blurriness by being aware of

any other properties; and blurriness does not seem to be a property of objects of experience (2006: 130).⁹

However, there are alternative explanations of the undisputable fact that we can often easily tell whether we see a distinctly bounded object blurrily or see an indistinctly bounded object sharply. One alternative explanation is that we tell such cases apart on the basis of a variety of (typically easily accessible) cues. One kind of cue derives from the boundaries characteristic of various types of objects. If an object looks knife-like but is not seen to have a distinct boundary when one focuses on it, that raises the chance that it is seen blurrily. Another cue is whether there are *some or no* distinct boundaries in the visual field. Blurry vision typically affects the whole visual field. Thus, if *some* object in the visual field is seen to have a distinct boundary, that raises the chance that the visual experience is sharp. If the availability of cues like these always suffice to explain our ability to tell apart blurry seeing of distinct boundaries and sharp seeing of indistinct boundaries, then introspective awareness of the blurriness of one's experience is not required to explain this.¹⁰

⁹ See Bach (1997: 467) and Smith (2008) for similar views.

¹⁰ This proposal develops a suggestion by Schroer (2002). The proposal can be combined with various suggestions about the content of blurry vision. I would be most inclined to combine it with something like the proposal from Dretske (2003: 77) that blurry vision incorrectly represents objects as having less distinct boundaries than they have. For a recent discussion of this and some competing proposals, see Allen (2013).

The above provides, I hope, a flavour of how *Transparency-2* can be defended against purported counter-examples. Let me add one remark relevant to the assessment of the claim.

I have so far explained “awareness of the P-ness” of something only by *example*. I have not tried to analyse this phenomenon. Nor will I. But it *might* be plausible that “awareness of P-ness”, in the sense exemplified, is best understood as a kind of *perceptual* awareness.¹¹ And, it *might* be plausible that perception is in some ways a bad model for introspection; in particular, that introspection is always and only an awareness *that* so-and-so is the case, and never awareness of P-ness, in the present sense.¹² If all this is right, that provides reason to accept *Transparency-2*.

¹¹ Stoljar (2004: 371) claims that this is “the usual way” of understanding such awareness, and Dretske (1999), after highlighting that one can be *aware that x is F* without being *aware of F*, moves without comments between locutions like “*sees F*”, “*perceives F*”, “*senses F*” on the one hand, and “*is aware of F*” on the other.

¹² Compare Shoemaker (1994, especially lecture 1) and Dretske (1999). Perceptual models of introspection go back at least to Locke (1689). For some relevant recent discussion of differences and similarities between introspection and perception, see (besides the just-mentioned Shoemaker and Dretske) also Armstrong (1968: chap. 15), Lycan (1996: chap. 2; 2004), Rosenthal (2002: sect. 2), Goldman (2006: chap. 9), and Picciuto and Carruthers (2014).

I will conclude this section by briefly discussing a line of arguments concerning visual *consciousness* based on *Transparency-2*.

Let us take it as given that what a visual experience is *like* is at least *partly* constituted by its being *of* such-and-such. For example, what my current visual experience is like is at least partly constituted by its being of red. We can then go on to ask whether or not the following is correct:

Nothing-Other-Than-Of: What a visual experience is like is not constituted by any factor other than its being of such-and-such.

There is a natural line of thought leading from *Transparency-2* to *Nothing-Other-Than-Of*. It is natural to think that there is a close connection between consciousness and introspection (compare for example Kriegel 2002: 175-6). Consider now the following specification of that thought (*C* and *I* for *consciousness* and *introspection* respectively):

CI-Link: If what a visual experience *E* is like is constituted by some factor other than its being of such-and-such, then that factor is a property *P* such that *P* is a property of *E* and one can become aware of the *P*-ness of *E* by introspecting *E*.

CI-Link rings somewhat plausible, to my ears, and together with *Transparency-2* it entails *Nothing-Other-Than-Of*.

Now, a problem with this line of thought is that there are serious worries about *Nothing-Other-Than-Of*. I will focus on one. It is standardly accepted that there are cases of unconscious perception. And, any unconscious perception differs from any conscious perception in what it *is like*: any conscious perception is like *something*, but no unconscious

perception is. Yet, it may be possible that some unconscious perception is *of* exactly the same that some conscious perception is of. For example, each may be of a red square. If so, then contrary to *Nothing-Other-Than-Of*, what a conscious perception is *like* must be partly constituted by some factor other than what it is of. And if *Nothing-Other-Than-Of* is incorrect, then either *CI-Link* or *Transparency-2* must be incorrect.

I will briefly outline one strategy (i) for retaining *Nothing-Other-Than-Of*, *Transparency-2*, and *CI-Link* in view of this objection, and two strategies (ii-iii) for retaining as much as possible, as it were, of this package.

The first strategy, (i), is to argue that an unconscious perception cannot, after all, be *of* what a conscious perception is of. For example, Ian Phillips (2016 and in Phillips and Block 2017) questions that there are any cases of unconscious perception. To the extent that that is doubtful, it may also be doubtful that some unconscious perception could possibly be of exactly what some conscious perception is of.¹³ If there is promise in this thought, then one might after all be able to retain the whole package of *Nothing-Other-Than-Of*, *Transparency-2*, and *CI-Link*.

Barring that option, one must give up either *Transparency-2* or *CI-Link*. But each alternative has room for a kind of minimal retreat.

¹³ Thau (2002: chap. 5) may be sympathetic to this view.

Beginning with *Transparency-2*, one might—this is strategy (ii)—urge that the property *being conscious*—or *like something at all*—is the *sole* exception to *Transparency-2*. One will then urge that we should accept, instead of *Transparency-2*:

*Transparency-2**: Except for the property *being conscious*, there is no property P such that P is a property of a visual experience E and one can become aware of the P-ness of E by introspecting E.

One can then retain *CI-Link* without getting committed to *Nothing-Other-Than-Of*. *CI-Link* and *Transparency-2** commits one to only the following, more cautious claim, which has a significant following in the literature:

Nothing-Other-Than-Of-and-Conscious: What an experience is like is not constituted by any factor other than its being of such-and-such and its being conscious.¹⁴

The retreat to *Transparency-2**, *CI-Link*, and *Nothing-Other-Than-Of-and-Conscious* suggests that a visual experience has exactly two properties that constitute what it is like: the property *being conscious* and the property *being of such-and-such*. The former property is one that we can become aware of by introspection. The second is not, but we can become

¹⁴ *Nothing-Other-Than-Of-And-Conscious* is accepted by Tye (1995; 2000), Byrne (2001), Chalmers (2004), and Kriegel (2009), but it is not clear that they all accept it together with *Transparency-2** and *CI-Link*. An alternative way of accepting it follows momentarily.

aware *that* an experience has it by being aware of other properties, e.g., by being *visually* aware of the redness and squareness of an outer object.

An alternative, minimal-retreat strategy, (iii), is to urge that the property *being conscious* is the sole exception to *CI-Link*. One will then urge that we should accept:

*CI-Link**: If what a visual experience E is like is constituted by some factor other than its being of such-and-such and its being conscious, then that factor is a property P such that P is a property of E and one can become aware of the P-ness of E by introspecting E.

Then one can retain *Transparency-2* without getting committed to *Nothing-Other-Than-Of*. *CI-Link** and *Transparency-2* commits one, again, to nothing more than *Nothing-Other-Than-Of-and-Conscious*. This package suggests that a visual experience has exactly two properties that constitute what it is like: the property *being conscious* and the property *being of such-and-such*. But we cannot become aware of either of these by introspecting an experience. This position requires that we become aware *that* an experiences has both these properties by being aware of other properties.

3 Which properties are we presented with in visual experience?

We operated above with the idea that what an experience is *like* is partly constituted by its *being of* such-and-such. But what are visual experiences of? As we have seen, it is natural to think that visual experiences are in a sense of less than what we can come to know on the basis of them. To re-employ the earlier example, I can come to know on the basis of visual

experience that the traffic light facing away is green although I do not experience any greenness. Now greenness is a property that I plausibly *sometimes* experience. But there may be cases where I come to know something of the form x is P on the basis of visual experience and where P is a property I *never* experience. For example, I sometimes come to know on the basis of visual experience that my neighbour forgot to cancel the newspapers before she left town. But it might be natural to think that I never visually experience the property *having forgotten to cancel the newspapers before leaving town* (compare Dummett 1976: 95). If that is right we can ask: which properties do we sometimes visually experience, and which properties do we never visually experience?

I shall say that a *sparse* theory is a theory according to which we never visually experience any property other than colours, shapes, locations, orientations, sizes, illuminations, motions, and textures; I will sometimes call these the *sparse* properties. An *abundant* theory says that we sometimes visually experience some property other than the sparse ones. I will restrict myself to the “anthropological” question of which properties *we* (humans) sometimes visually experience; I set aside questions about which properties other actual or possible creatures or systems *could* visually experience.

The issue has a long history. One historical landmark is Berkeley’s (1709) argument that distance in the depth dimension is not seen. Another is Hume’s (1739) argument that we never observe necessary causal connections. It is natural to associate these arguments with *sparse* theories even if they do not explicitly aim for that conclusion. For it is natural to think that, if we do not visually experience *distance in the depth dimension* then we never visually experience any property beyond the sparse ones; similarly for necessary causal connections.

In recent debates, there has been a tendency that abundant theorists have tried to establish their view while sparse theorists have tried to rebut these arguments rather than offer positive arguments for their view. The discussion here will largely reflect this tendency.

In particular, much recent debate has revolved around a family of arguments by Susanna Siegel (2006; 2011) for an abundant theory. Whether or not Siegel's arguments succeed—I shall suggest that they do not—they have done much to highlight and sort out data and hypotheses that both abundant and sparse theorists must take into account. I will therefore discuss a representative argument by Siegel in some detail.

Siegel discusses the issue within the frame of an *intentionalist* theory according to which visual experiences are representations with “contents” that are “accuracy conditions” (2011: chap. 2). But as she notes (2006: 483), her discussion could be reconstructed within other theories of perception, like disjunctivist or sense-datum theories.

“Contents of visual experiences”, as Siegel understands them, supervene on what visual experiences *are like*: If two visual experiences have different contents, then they must differ in what they are like; equivalently, sameness in what two visual experiences are like guarantee sameness in their contents (2011: 88).

Many philosophers agree that visual experiences have *a* kind of content, *phenomenal content*, that thus supervenes on what they are like, but claim that visual experiences also have non-phenomenal contents that do not.¹⁵ Given such a distinction, one can accept

¹⁵ See for example Kriegel (2002), Chalmers (2006), Prinz (2006), Bayne (2009), and Briscoe (2015).

different types of theory of the different types of content; for example, one can combine a *sparse* theory about the phenomenal contents of visual experiences with an *abundant* theory about their non-phenomenal contents.¹⁶ It is not clear that Siegel has any stake in denying that visual experiences have a kind of content in addition to the phenomenal one that she focuses on. In any case, the present focus will be on contents of experiences that supervene on what experiences are like.

The argument from Siegel that I will focus on revolves around the following case of “perceptual learning”:

Suppose you have never seen a pine tree before and are hired to cut down all the pine trees in a grove containing trees of many different sorts. Someone points out to you which trees are pine trees. Some weeks pass, and your disposition to distinguish the pine trees from the others improves. Eventually, you can spot the pine trees immediately: they become visually salient to you.¹⁷

Siegel takes it as given that *what it is like* for you when you experience pine trees at the end of this process is different from what it was like for you when you experienced pine trees at

¹⁶ Prinz (2006) develops such a view. Chalmers (2006) develops a view on which phenomenal and non-phenomenal contents differ, though do not clearly differ in that one is sparse and the other abundant.

¹⁷ Siegel (2011: 100). The phenomenon of perceptual learning is often traced to Gibson (1963), who characterises it as a “relatively permanent and consistent change in the perception of a stimulus array, following practice or experience with this array” (29).

its beginning. She takes this assumption to be “minimal” (2011: 101). The claim is not that your *visual experiences* differ in what they are like. It is only that there is a difference in the *totality* of what it is like when you view pine trees at the beginning and end of this process; as Siegel puts it, there is a difference in the “overall” experiences of which the visual experiences are “parts”. Siegel then *argues* that the difference between what the overall experiences are like is best *explained* on the assumption that the visual experience at the expertise stage represents some non-sparse property.

What non-sparse property might be such that it is visually represented at the expertise stage and this explains—or contributes to explaining—the relevant “phenomenal contrast”? A salient candidate is: the property *being a pine tree*. I will assume that there is no more plausible candidate than this.¹⁸

Siegel’s argument can be construed as concerning experience *types* or experience *tokens*. I will touch on both readings, but I will concentrate on the token reading, and take that argument to aim for the conclusion that *some actual token* visual experience of some expert pine spotter represents some non-sparse property. Admittedly, there are parts of Siegel’s discussion that are more naturally understood as concerned with experience types. But not

¹⁸ This assumption will play a rather marginal role in the discussion. I will highlight it wherever it comes into play. It is not always essential where it is in play. Note that Siegel does not assume that her conclusion is made true by the representation of the property *being a pine tree* (2011, 114-5).

all parts are.¹⁹ Moreover, the token conclusion by itself amounts to an abundant theory, as I have specified things; the conclusion of the type argument, which is more committal, is not needed.²⁰

¹⁹ Perhaps most importantly, the starting assumption of the argument is not—or not clearly—as “minimal” as Siegel suggests on the type reading. The *overall* experiences of which expert visual experiences of pine trees are parts belong to all kinds of types. For the expert who is in pain, the overall experience will be of the pain type. For another expert, it will be of the itchy type. Presumably these typings are not relevant for purposes of Siegel’s argument (construed as concerning types). But what then is the relevant typing? Presumably, the *visual phenomenology* characteristic of expert pine tree spotting is relevant. But on that typing, it is hard to see any important difference between the starting assumption concerning overall experiences and the claim that the *visual phenomenology* characteristic of experts’ pine-tree experiences differs from the visual phenomenology characteristic of non-experts’ pine-tree experience. And, as mentioned above, Siegel intends the starting assumption to be importantly more minimal than a claim about visual phenomenology. Perhaps there is another relevant typing that does secure a minimal starting point for the argument, but it is not clear to me that there is.

²⁰ On the type reading of the argument, the aimed-for conclusion would be, I take it, that (a) there is a type of visual experience characteristic of an expert pine spotter, and experiences of that type represent some non-sparse property. It would be crazy to accept this conclusion and deny that (b) there is some actual token visual experience of some expert

On the token reading, we may formulate Siegel's central claim thus:

Siegel's Central Claim: There is a pair of token overall experiences, OE1 and OE2;

and pair of visual experiences, VE1 and VE2, such that:

- (i) VE1 is a visual experience of a pine tree by an expert pine spotter,
- (ii) VE2 is a visual experience of a pine tree by a non-expert,
- (iii) VE1 and VE2 are parts of OE1 and OE2 respectively,
- (iv) there is a difference in what OE1 and OE2 are like, and
- (v) the "abundant hypothesis" that VE1 represents some non-sparse property is part of the best explanation of the difference in what OE1 and OE2 are like.

There are clearly *many* actual cases that satisfy (i)-(iv). The question is whether at least one such case also satisfies (v). To assess this claim, we need to consider what alternative explanations there might be of the phenomenal contrast of (iv) in the cases that satisfy (i)-(iv).

Following Siegel, we can divide the factors that could figure in such alternative explanations into the following three types:

pine spotter that represents some non-sparse property. To maintain (b) and deny (a) may not be appealing, but is clearly not as crazy.

- (A) Differences in *non-visual phenomenology* between OE1 and OE2.
- (B) Differences in visual phenomenology between VE1 and VE2 that do not derive from differences in the *contents* of the experiences.
- (C) Differences in visual phenomenology between VE1 and VE2 that derive from differences in the contents of the experiences but do not include that VE1 represents some non-sparse property.

I will largely set aside differences of type (B). It is controversial that there are differences of this type.²¹ And, as I think will emerge, taking into account any differences of type (B) that there may be makes only a marginal difference to the assessment of Siegel's argument.

Here are some examples of differences of type (A):

- (A1) The expert might have phenomenology deriving from bodily sensations—e.g. tensions in muscles around the eyes—that the non-expert lacks (cf. Siegel 2011: 102).
- (A2) The expert might have phenomenology deriving from imagery—e.g., visual imagery of similar-looking (pine) trees—that the non-expert lacks (cf. Siegel 2011:

²¹ The existence of such differences is denied by the “intentionalist” view that two experiences with same content must be the same in what they are like. That view is an instance of *Nothing-Other-Than-Of* and of *Nothing-Other-Than-Of-and-Conscious* above. See also this volume, chapter xx [insert relevant chapter(s) here].

102, Price 2006: chap. 1; 2009: sect. 3, Prinz 2013: 830, Strawson 1971, Hume 1739: sect. 1.1.7).

(A3) The expert might have phenomenology deriving from judgments—e.g., the judgment *that is a pine tree*—that the non-expert lacks (Siegel 2011: 103ff., Price 2006: chap. 1; 2009: sect. 3).

(A4) The expert might have phenomenology deriving from emotions—e.g., the emotion naturally expressed in terms like, “how nice to see one of these familiar pines again”—that the non-expert lacks (Siegel 2011: 112, Price 2006: chap. 1; 2009: sect. 3, Prinz 2013: 830).

And here is one example of a difference of type (C):

(C1) The expert might allocate her attention to some constellation of “sparse” properties that are distinctive of pine trees, like the shapes and orientations of the branches, the colours and texture of the bark, and the shapes, sizes and colours of the cones and needles, and as a consequence of this visually represent sparse properties other than those that the non-expert represents (Price 2006: chap. 1; 2009: sect. 3, Nanay 2011: sect. 3, Prinz 2013: 830, Connolly 2014; 2019, chap. 3).²²

It is clear enough that, for *any* relevant pair of *actual* pine tree experiences, the *overall* experiences of which they are parts *will* differ in some of the respects (A1)-(C1). (In fact, this

²² Siegel does not consider (C1). The only difference of type (C) that she considers is that the expert might visually represent a “pine tree shape gestalt”, which is something different

understates things. Any actual overall experiences of this kind will differ in their auditory phenomenology, and/or olfactory phenomenology, and/or tactile phenomenology as well.) Therefore, it is clear that at least a *part* of the “phenomenal contrast” between any relevant pair of overall experiences *will* be explained by factors other than that one visual experience represents a non-sparse property.²³ The relevant question is then whether these factors make up the *whole* contrast in *every* case, or whether there is in *some* case a *residual* contrast that cannot be thus explained. *Siegel’s Central Claim*—and in particular the crucial component (v)—requires that the latter is correct.

It is not evident to me that this is correct. It is also doubtful that Siegel provides any reason to think that it is. Siegel concentrates on three alternatives to her abundant hypothesis: that the relevant phenomenal contrast is explained *exhaustively* by differences of type (A); that it is explained *exhaustively* by differences of type (B); and that it is explained *exhaustively* by

from a complex of *specific* colours and shapes. A pine tree gestalt is something that is: “general enough that it can be shared by different-looking pine trees. But it is specific enough to capture the look shared by exemplary pine trees. The pine-tree-shape gestalt is invariant across differences in the shape of particular pine trees” (2011: 111). It is not clear to me that visual experiences represent pine tree shape gestalts thus understood. (Though it may be plausible that such gestalts play a role in the identification of pine trees on the basis of visual experience. It may also be plausible that they play a role in generating visual imagery accompanying pine tree experiences.) In any case, I do not think it matters much for the assessment of Siegel’s argument whether or not this is so. It is clear, I take it, that visual experiences represent complexes of *specific* colours and shapes.

²³ Koksvik (2015: 325) makes a closely related observation.

differences of type (C). She does not—or not clearly—address the hypothesis that the relevant contrast is explained by the *sum total* of differences of these three types. But it is clear, I think, that this is the most important alternative to her view.²⁴

²⁴ Siegel’s focus on three alternatives that (I claim) do not include the most important one can perhaps be traced to her break-down of her argument into the following steps (rendered with innocent liberty from 2011, 101):

- (0) There is a difference in the phenomenology of OE1 and OE2.
- (1) If there is a difference in the phenomenology of OE1 and OE1, then there is a difference in the phenomenology of VE1 and VE2.
- (2) If there is a difference in the phenomenology of VE1 and VE2, then there is a difference in content of VE1 and VE2.
- (3) If there is a difference in the content of VE1 and VE2, then VE1 represents some non-sparse property.

(0) is the minimal starting point. And each of (1)-(3) in a sense “addresses” each of the three types of factor, (A)-(C), that might contribute to explaining that starting point. And, (1) is true as long as the contrast of (0) is not explained exhaustively by (A)-type differences in non-visual phenomenology. One might then think that (2) is similarly guaranteed if we can in addition rule out that the contrast of (0) is exhaustively explained by differences of type (B), and that (3) is guaranteed if we can further rule out that the contrast of (0) is exhaustively explained by differences of type (C). But this is not so. Suppose we rule out both that the contrast of (0) is exhaustively explained by differences of type (A), and that it is exhaustively explained by differences of type (B). We still need not accept (2). Our

It is arguable, I think, that there is ultimately better reason to accept a sparse explanation than an abundant explanation of the phenomenal contrasts of the pine tree case. Let me first review one consideration that I believe both theories can handle equally well, and then two considerations that seem to me to speak in favour of the sparse theory.

It might be plausible—and here we touch on the type reading of Siegel’s argument—that there is a type of visual experience that expert pine spotters sometimes have and that non-experts *cannot* have; an experience that is not in the “repertoire” of non-experts. This can be explained on an abundant theory. For example, it can be explained by the hypothesis that expert pine spotters sometimes visually represent the property *being a pine tree*, and that non-experts cannot do so. But a sparse theory can provide the relevant explanation as well.²⁵ It is natural to think that an expert’s visual identification of a pine tree involves a trained skill to allocate visual attention to shapes, colours, sizes, orientations, and textures

suppositions allow that, contra (2), the phenomenological differences between *VE1* and *VE2* consists entirely in differences of type (B), and that the phenomenological difference between *OE1* and *OE2* consists in *that* difference *together with* differences of type (A). One might perhaps suspect that, in offering (0)-(3), Siegel has in mind an argument different from the one I discuss in the text. But I think it is clear that, when Siegel defends the consequents of (1), (2) and (3), the focus is consistently on what best explains the contrast of (0), which is in effect the argument I discuss.

²⁵ The following is inspired by Connolly (2014; 2019, chap. 3), who in turn draws on work by Goldstone (1998) and Goldstone et al (2011). See also Briscoe (2015: 178-9) and Siewert (1998: 256) for related thoughts.

that are distinctive of pine trees (compare (C1) above). Now, trained skills differ with respect to how easy or hard it is to “mimic” them on a single occasion. A mediocre dart player can largely mimic the skill of an expert on a single occasion. By contrast, a mediocre juggler cannot largely mimic the skill of an expert even on a single occasion. Now, it is not implausible that an expert spotter’s skill at allocating attention to sparse properties that are distinctive of pine trees is more like the latter skill than the former, and that a non-expert in practise cannot imitate it even on a single occasion. It is also not implausible that, if non-experts cannot imitate this capacity for attention allocation, then expert spotters sometimes visually experience constellations of sparse properties that a non-expert *cannot* experience.

I now turn to the two considerations that, I think, provide some support for sparse explanations of the phenomenal contrasts of pine tree cases.

First, it seems plausible that pine tree spotting expertise comes in all kinds of degrees: there are mediocre pine tree spotters, good ones, and experts, and there are pairs of perceivers such that one is ever so slightly better than the other. Relatedly, it seems plausible that there is a range of token visual experiences that reflect the expertise of their subject (just as there is a range of juggling performances that reflect the skills of jugglers). Now, even supposing that there is a well-marked phenomenal contrast between the typical expert experience and the typical experience of a very poor pine spotter, it is plausible, I think, that the development of pine tree spotting expertise, and of the phenomenology that goes with it, is a gradual, continuous process without significant “jumps” (compare again the development of juggling expertise, and see Siegel 2011: 100, for an observation in this vicinity). All of this is compatible with a sparse theory. Connecting again to (C1), it is plausible that the best version of a sparse theory says that the relevant development centrally involves

improving the ability to allocate attention to, and thus visually represent, complexes of sparse properties that are distinctive of pine trees, and that this development is continuous. By contrast, it is unclear that what we have supposed is compatible with an abundant theory. The best version of an abundant theory says—I have assumed—that expert pine spotters represent the property *being a pine tree*. It is hard to see that one could *halfway* visually experience that property. If this is not possible, then this theory predicts—questionably—an important “jump” in the development in pine spotting expertise.

Second, suppose there had been no pine trees but instead twin-pine trees that replicated all the sparse properties of pine trees, or at least all the sparse properties that we encounter in normal viewing circumstances, from which I exclude, e.g., viewings of the cellular structure of trees. Suppose further that things were in other relevant respects the way they actually are. In particular, in the counter-factual scenario, there are people who gradually develop expertise at identifying twin-pine trees, and at the end of this learning process have overall experiences that include visual experiences of twin-pine trees and that differ in their phenomenology from overall experiences that include visual experiences of twin-pine trees by non-experts.

Now consider the following two claims:

- (1) If no phenomenal contrast in this counter-factual scenario is best explained on the assumption that some expert visually represents the property *being*

a pine tree, then no actual phenomenal contrast is best explained on this assumption.

- (2) No phenomenal contrasts in this counter-factual scenario is best explained on the assumption that some expert visually represents the property *being a pine tree*.

(1) and (2) entail:

- (3) No actual phenomenal contrast is best explained on the assumption that some expert visually represents the property *being a pine tree*.

If, as I have assumed, the most plausible abundant explanation of phenomenal contrasts in pine tree cases includes the proposal that some expert visually represents the property *being a pine tree*, (3) in turns vindicates a sparse explanation of these phenomenal contrasts.

And, (1) seems plausible. It is, I think, more plausible than it might sound. The kind of “explanation” we have discussed throughout is (evidently) an explanation of what the relevant phenomenal contrasts *are*, or *consist* in. And it seems plausible that the phenomenal contrasts in the counter-factual scenario are just the *same* as the actual phenomenal contrasts; if instead of pine trees there had been sparse-property-replicating twin-pine-trees, there would plausibly have been no difference in *what it is like* for anyone of us (in normal viewing circumstances). And if the contrasts are the same, it is plausible that the explanations of what the contrasts consist in are the same.

Finally, (2) is beyond dispute. (2) is correct if all phenomenal contrasts in the twin scenario are fully explained by factors like (A1)-(C1). But (2) does not require this. (2) allows that

some phenomenal contrast in the twin scenario is partly explained by the fact that some visual experience represents the property *being a twin-pine tree*. (2) just rules out that some contrast in the twin scenario is best explained on the assumption that some visual experience represents the property *being a pine tree*. This we can rule out with as much confidence as we can rule out that any *actual* case is best explained by some expert visually representing the uninstantiated property *being a twin-pine tree*.²⁶

The preceding has focused on perceptual learning and the case of pine trees. One might think there are other perceptual learning cases that are better suited to support an abundant theory. Some hearsay about chicken sexing suggests as much. It is sometimes said that chicken sexers have no clue how they distinguish male and female baby chicks on the basis of sensory encounters with them.²⁷ This might be taken to suggest that there is no difference in which sparse properties they visually represent in the two cases, and that there is therefore a phenomenal contrast here that is best explained on the assumption that chicken sexers visually represent the non-sparse properties *being male* and *being female*.²⁸

However, as far as I can tell, such an argument would be based on a myth. Chicken sexers distinguish male and female baby chicks (primarily) by getting a good angle of the copulatory

²⁶ For similar defences of a sparse theory, see Price (2006: chap. 1, sect. 3; 2009: sect. 5), Pautz (2009: 505-7), Prinz (2013: 832-3), Silins (2013: 21-2), and Byrne in Siegel and Byrne (2017: part 2).

²⁷ See for example Turri (2014: 176-7).

²⁸ Bayne (2009: 398-9) outlines such an argument but does not whole-heartedly endorse it.

organ and viewing its size and shape—and they are able to tell that this is what they do.²⁹

There is therefore, I believe, no reason to think that the chicken sexing case differs from the pine tree case in any way that matters for present purposes. The same goes, I conjecture, for other cases of perceptual learning.

Perceptual learning cases need not be the only source of evidence on the present issue.

Recent work has explored other ways of moving the issue forward. Here I can do no more than briefly review two such attempts.³⁰

First, William Fish (2013: sect. 3) and Ned Block (2014) both try to advance the discussion by considering “adaptational effects”. An example of such an effect is the waterfall illusion. If you watch downward motion for a period of time your visual system will adapt to that stimulus, and if you shift your gaze to a still stimulus, like a wall, you will as a consequence of the adaptation typically experience upward motion. The general idea of Fish and Block is that adaptation to a property might be a sign that the property is presented in your experience, and that therefore, if we were to find an adaptational effect stemming from

²⁹ Specifically, they do so in “vent sexing”, which (I presume) is the sexing method that people who have suggested the above have had in mind. See Masui and Hashimoto (1933), Canfield (1940; 1941), Lunn (1948), and Biederman and Shiffrar (1987). See also various videos explaining vent sexing on the internet.

³⁰ For further recent attempts to defend an abundant theory, see Bayne (2009), Masrour (2011); Fish (2013: sect.1-2), Speaks (2015, chap. 20), McClelland (2016), Bayne and McClelland (2018), and Toribio (2018). For arguments in favour of a sparse theory, see Byrne (2009, sect. 7) and Prinz (2012: 166-8).

some property beyond the sparse ones, that would support an abundant theory. For example, if we were to find an adaptational effect stemming from the property *being a pine tree* (a property not had by *twin-pine* trees) rather than from the property *having such-and-such constellation of sparse properties* (which happens to be distinctive of pine trees but does not distinguish them from twin-pines), that would provide support for an abundant hypothesis. It is not clear to me that any such thing has been found, and it might be a sign of the strength of the sparse theory that it is hard to imagine it being shown. In any case, the prospects of this approach might well be further illuminated over the next few years.

Second, Bence Nanay (drawing on work by Humphrey and Riddoch 2001 and Riddoch et al. 1998) claims that patients with symptoms of unilateral neglect sometimes “are unaware of the shape, size and color properties of the objects presented to them in the contralateral side of their visual field” (2012: 238). Although Nanay focuses on “shape, size and color properties”, the suggestion is that some of the relevant patients are more broadly not aware of *any* sparse properties of objects in the relevant part of their visual field (ibid.: 237, 242). Yet, Nanay claims, the same subjects sometimes “consciously see” objects in these parts of their visual field, and are aware of some of their “action properties”, like the property *being edible* or *being climbable* (ibid.: 237, 238). Nanay argues that the best explanation of these data is that action properties are parts of these patients’ “visual phenomenology” (ibid.: 242; see also Nanay 2011).

As I understand it, Nanay’s argument appeals to something like the following principle: If some subject S has a visual experience of some object x, then there is some property P such that: x is P and S has a visual experience of P. If such a principle is correct, and Nanay’s account of the unilateral neglect data accurate, that would make up a strong case for an

abundant theory, because the account suggests that there are cases of this type: an object is visually experienced and there is no property other than some action property that the subject plausibly experiences.

The relevant principle may be plausible.³¹ I am less convinced by Nanay's account of the data. In particular, I do not find clear support in his sources for the suggestion that some of the relevant patients lack awareness of *all* sparse properties (including, say, the *locations*) of objects they "consciously see".³² But here again, the issues may well get further clarified over the next few years.

4 Which particulars are we presented with in visual experiences?

Recall the idea that visual experiences have at least *a* type of content, phenomenal content, that is determined by what the experience is like. Substituting the technical "content"-terminology for the more ordinary "of"-terminology, we can formulate the idea thus: Necessarily: If what two experiences *are like* is the same, then what they are in the phenomenal sense *of* must be the same; or, as I will say, they must be *phenomenally of* the same. Specifically, I will take the idea to be that if two experiences *in any two possible worlds* are the same in what they are like, they must be the same in what they are phenomenally of.

³¹ For defence of something like it, see Burge (2010: 33-4, and 539 ff.)

³² See Raftopolous (2015) for some related discussion.

There is a powerful argument that no visual experience is in this sense *phenomenally* of any spatiotemporal outer object like a fork or a tree. Suppose I turn my eyes and attention towards a particular fork, F1, and have a visual experience that in some sense “concerns” it. Call this the *F1 situation*. Now, it is possible that a numerically distinct fork, F2, with the exact same colour, size and shape as F1 had been in the same location and that the viewing circumstances had been otherwise exactly the same. Call such a situation an *F2 situation*. It seems plausible that:

1. For some possible F2 situation, what my visual experience would have been like in that situation = what it is like for me in the F1 situation.

From the specification of phenomenal-of-ness it follows that:

2. Therefore: What my visual experience would have been phenomenally of in that F2 situation = what my visual experience is phenomenally of in the F1 situation.

Moreover, it is clear that:

3. My visual experience in the F2 situation would not have been phenomenally of the fork F1.

This is clear because my experience in this situation would not have been of F1 *at all*.

Therefore it would not have been *phenomenally* of F1.

2 and 3 entail that:

4. Therefore: My visual experience in the F1 situation is not phenomenally of F1.

The argument generalises. There is nothing special about the fork F1. If my visual experience in the F1 situation is not phenomenally of F1, then it is safe to suppose that no visual experience is ever phenomenally of any spatiotemporal outer particular.

In fact, the arguments generalises further. Let me note two further generalisations.

First: My visual experience in the F2 situation may have been phenomenally of the property *being silver coloured*. But it would not have been phenomenally of the particular *silver colouredness of F1*. From this and 2 one can infer that my visual experience in the F1 situation is not phenomenally of the particular silver colouredness of F1. And similarly for any *property instance* of any spatiotemporal outer object.

A second dimension of generalisation involves sense-datum theory. Suppose a sense-datum theory allows the following.

5. There could be two distinct sense-data, S1 and S2, such that: what it is like for a subject of one visual experience to encounter S1 = what it is like for a subject of another visual experience to encounter S2.

Then, by reasoning no more controversial than 1-4, one can infer that no visual experience is phenomenally of any particular sense-datum. An equally strong, parallel argument can be made concerning property instances of sense-data.

These generalisations suggest that, if one accepts 4, one will be committed to accepting that our experiences are phenomenally of nothing more than abstract, non-spatiotemporally located properties (or “universals”), like the property *being silver coloured*.

So far we have nothing more than a set of conclusions couched in terms of the technical notion of “phenomenal-of-ness”. However, it is somewhat natural to suppose that phenomenal-of-ness, as specified, captures what is “present”, or “directly present”, or at least in *one important sense* “directly present” to us in our conscious experiences. Insofar as it does, we can conclude from the arguments above that particular objects and their particular property instances are, in one important sense, not directly present to us in our conscious experiences. A number of philosophers have accepted conclusions along these lines (see for example McGinn 1982: chap. 4, Davies 1992, Tye 1995; 2000, Pautz 2009, and Mehta 2014).

There is remarkably limited room to resist these arguments. Specifically, it seems they can be challenged on two, and no more than two points.

First, one can question premise 1. One might urge that the seeming plausibility of 1 stems from the correct observation that (a) one may be unable to *distinguish* an experience of the fork F1 from an experience of the fork F2, but that it does not follow from this that (b) these experiences are the same in what they *are like*. Michael Martin (2004) defends this kind of divorce between what experiences *are like*—or what he calls their “phenomenal properties”—and what we can *tell apart*, arguing that such a divorce is demanded by a “suitable modesty” about what we can know about our conscious life. John Campbell (2002: chap. 6), Bill Brewer (2011) and Jeff Speaks (2015, part 7) defend similar views.

Second, one can question that there is a link between phenomenal-of-ness and *any* important notion of what is present or directly present to us in experience. Why, after all, should I accept that the fork F1 is, in any important sense, not “directly present” to me on the grounds that there is a possible experience of another fork that is exactly like my experience of F1? Inspired by Mark Johnston, one might urge that this thought reflects nothing more than “an influential but unhappy stipulation about how to use the terms ‘direct’ and ‘indirect’”. To which the response should be to simply avoid these terms, at least when they are intended in the stipulated sense” (2004: 154).³³

Barring these two responses, there seems to be no alternative to accepting that there is one important sense in which particular objects and property instances are not directly present in our experiences. For the argument for 4 is valid: 4 follows from 2 and 3, and the step from 1 to 2 is guaranteed by the specification of “phenomenal-of-ness”. The premise 3 is undisputable. And the generalisations from the argument seem to not involve anything more controversial than the argument itself.

Much recent work in the vicinity of these issues has tried to reconcile “common-factor theories”, which accept claims like 1, with the view that experiences can in some sense put

³³ Johnston’s target here is a principle that connects (i) *qualitative indistinguishability* between experiences and (ii) what one is *directly presented* with in experiences, and it is not entirely clear whether, in challenging this principle, Johnston would wish to sever the connection between *qualitative indistinguishability* and sameness in what it is like, or the connection between sameness in what it is like and sameness in what one is “directly presented” with.

us in direct contact with particular objects. For example, David Chalmers (2006: sect. 12) proposes to reconcile these ideas in terms of experiences involving a “demonstrative modes of presentation”. Tye (2009: chap. 4) proposes that the content of an experience is a kind of “schema” that gets “filled” by whatever object one experiences, if one experiences an object at all, and otherwise—if one hallucinates—contains a gap in the object “slot”. Susanna Schellenberg (2010; 2011a; 2011b; 2016) develops a similar view. Alan Millar (2007) and Neil Mehta (2014) also develop views in this neighbourhood.³⁴

Such a project can be understood in two ways. It can be understood as conceding everything in our family of arguments and as trying to merely *supplement* that concession with an explanation of how experiences can still in some sense put us in direct contact with particular objects, although such objects are, in one important sense, never directly present in our conscious experience (I think Chalmers 2006 and Mehta 2014 should be understood in this way).

Alternatively one can understand such a project as denying that there is any important sense in which particulars fail to be directly present in our conscious experiences. As we have seen, that requires denying that phenomenal-of-ness connects with *any* important notion of what is directly present in experience. It is possible that Tye or Schellenberg should be understood in this way; however neither of them clearly takes issue with the common idea that there is such a connection.

³⁴ Tye (2014b) criticises his own view from 2009, and sketches two alternatives to it.

It is worth noting that while much literature has been concerned to avoid a “threat of indirectness” arising from *mental* or *inner* intermediaries,³⁵ no argument under consideration here has arrived at an intermediary of that kind. And, given the generalisation involving sense-datum theory above, it is arguable that this kind of intermediary does not pose the only—or even the most serious—threat to the idea that we are in direct experiential contact with outer, spatiotemporal objects. Another threat comes from the possibility that what our experiences are most directly of are abstract, non-spatiotemporally located properties (or universals).^{36,37}

³⁵ See for example Tye (2009: 77), Millar (2007: 183-4), and Genone (2016: sect. 2).

³⁶ Kriegel (2011) develops and discusses this kind of “veil of abstracta” threat to “intentionalist” views of perception.

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Helton (2016) provides an overview of recent issues in ‘high-level perception’. There is significant overlap in selection of issues between that article and section 3 above. To the best of my knowledge, the selections were made entirely independently. I submitted the ‘first final’ version of the present article, and did not thereafter revise the selection of issues, shortly before the publication of Helton’s article, of which I had not seen any earlier draft.

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