

HOW DOES VISUAL PHENOMENOLOGY CONSTRAIN OBJECT-SEEING?*

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I argue that there are phenomenological constraints on what it is to see an object, and that these are overlooked by some theories that offer allegedly sufficient causal and counterfactual conditions on object-seeing.

Perception provides a form of contact with the world and the other people in it. For example, we can learn that Franco is sitting in his chair by seeing Franco; we can learn that his hair is gray by seeing the colour of his hair. Such perception enables us to understand primitive forms of language, such as demonstrative expressions ‘this’ and ‘that’. These are expressions we can readily use to talk about the particular things we perceive.

Given its apparently fundamental role in knowledge and understanding, it is natural to wonder what the nature of our perceptual access to the world is. I will focus on the case of seeing ordinary objects—people, horses, trains, and the like. What it is to be an object is notoriously difficult to define, but it is clear enough to support theorizing by psychologists (for instance, theorizing about what concept of object adults and infants each have) [Spelke, et al. 1995, and many of the papers cited therein], and there are plenty of paradigm objects to point to, however cloudy the margins of the concept may be. Sticking with paradigm ordinary objects, I’ll call cases of seeing them ‘object-seeing’. So while I’ll be talking quite a bit about seeing Franco, I won’t talk at all about seeing the colour of Franco’s hair.

Consider what makes an experience a case of seeing a particular object *o*, rather no object at all. Views at one extreme say that the phenomenology of the experience has nothing to do with this. An example is some versions of the causal theory of perception, according to which it doesn’t matter for object-seeing what sort of phenomenology object-seeing has; all that matters is how that phenomenology would change with changes in the object seen. A pure counterfactual analysis, on this view, can reveal the nature of the object-seeing relation. Views at another extreme say that given each object *o*, there are specific constraints on what kind of phenomenology the experience can have and still be an experience of seeing *o*. An example is the view that for each object *o*, there are limits, specific to *o*, concerning

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which properties *o* can falsely appear to a subject to have. If such a view were correct, then for each object *o*, there would be some clusters of properties such that if *S*'s experiences represented an object as having those properties, that experience could not be a case of seeing *o*. Views of this sort seem not to be defended in the literature, but views of the first sort have been, and I will be arguing against them without ending up at the opposite extreme.

I will argue that views on both extremes are wrong. Visual phenomenology plays a role in object-seeing that is overlooked by the simplest versions of the causal theory of perception. But there are no limits on which properties an object *o* can wrongly appear to a perceiver to have. So although visual phenomenology puts no specific satisfactoral constraints on object-seeing, nonetheless it is part of what makes it the case that an experience is an experience of seeing a particular object *o*, rather than no object at all.

I defend the phenomenological constraint in Sections II and III, after discussing the notion of object-seeing in Section I.

I. What Is Object-Seeing?

In order to bring into focus the kind of seeing that is at issue, I will first mention three psychological states that fall outside any intuitive notion of seeing, or are at best borderline cases of seeing in any intuitive sense. Then I will further characterize the kind of seeing that is my subject-matter.

The first psychological state is blindsight. In blindsight, although there does not seem to the subject to be anything in her visual field, if forced to guess between certain parameters (e.g., which way a line is oriented), subjects guess correctly more than half the time [Weiskrantz 1986]. Blindsight is at best a borderline case of seeing.

Another borderline case of seeing is illustrated by a familiar sort of situation. Suppose you open the refrigerator to look for the mustard. You take yourself not to have seen it. Then you open the refrigerator again, and there's the mustard, right in front of you. One thing that could have happened the first time you opened the refrigerator is that you saw the mustard, but didn't recognize it as the mustard, because you mistook it for something else. But another thing that could have happened is that the mustard jar just didn't *register* with you at all. Some would want to describe this as a case of *seeing* the mustard jar without *noticing* it, where noticing the mustard is something that can happen even if you don't form any belief about it.¹ Favouring this description is the following idea: if you are looking in direction *D*, *o* is a visible distance from you in direction *D*, and your visual system is working properly under external conditions that are generally conducive to seeing, then you will see *o*. But this idea seems to be false.² In any case, if there is a kind seeing that occurs in mustard-jar type cases, this too is at best a borderline case.

¹Dretske's case of the cufflink is similar [1969: 18].

²Cf. the objects that viewers 'miss' in 'inattentional blindness' experiments [Mack and Rock 1998].

Finally, if a certain controversial thought-experiment is coherent, then there may be a psychological state that is clearly not a case of seeing in any intuitive sense (though it maybe a case of seeing in some extraordinary sense). According to the controversial thought-experiment, we can conceive of such a thing as my *zombie twin*—someone just like me in all functional respects, but lacking all kinds of phenomenology (visual or otherwise) whatsoever. It is controversial whether such a creature is even conceivable. But assuming for the sake of argument that it is, if zombies could see objects, then their kind of seeing would be clearly different from ours.

The claim that zombies, blindsighters, and mustard-missers fail to see what's right in front of them is not one that I will be arguing for (or against).³ I am simply pointing out that none of these cases clearly count as seeing in any intuitive sense.

So far, I have invoked an intuitive notion of seeing, but I haven't said anything about the subject-matter of the discussion, *object-seeing*. Object-seeing is a subclass of seeing in the intuitive sense. The notion of object-seeing operative here thus regiments ordinary usage of the verb 'to see'. Object-seeing involves ordinary objects such as bottles, fish, and bananas. Further positive characterization comes from considering its role in anchoring *de re* attitudes to particulars that they are directly about.⁴ These propositional attitudes are ones we invoke cases of seeing objects to explain. Let me indicate which propositional attitudes I mean by drawing a familiar contrast. Some propositional attitudes are not directly about any particular object at all. The newspapers report an influx of barnacles, and say that no boat will be spared. The editor thinks to herself, 'Even the fastest boat is covered with barnacles'. She does not form this belief by figuring out which boat is fastest, and then determining that it is so covered.

In contrast, other propositional attitudes are directly about particular objects: for instance, Franco's belief, of the boat he saw, that it is covered with barnacles. Franco's belief is a canonical instance of beliefs that are directly about particular objects. It is formed from his having a simple perceptual relation to the boat, for instance by his seeing it. It is the kind of belief that could naturally be expressed by using a demonstrative expression, as in 'That is a boat'. *De re* mental states can also be anchored to their objects by relations other than perception, for instance by memory.

As it happens, ordinary language reports of the form *S sees o* and *S does not see o* are not exact guides to the sort of object-seeing at issue, which is why such uses have to be regimented in order to zero in on the operative notion of object-seeing.

Franco and Ray go down to the docks and stand by a boat wrapped tightly in a tarp, which someone tells them is the renowned Lady Windermere, fastest boat on water. Later on, someone asks Franco what colour the Lady Windermere is, and he answers, 'I don't know, I didn't

³In the case of the mustard-misser, of those things right in front of the perceiver, what is not seen is limited to the mustard jar.

⁴Peacocke [1981: 209] gives a similar characterization.

actually see her'. Now consider a counterfactual situation in which someone asks if anyone knows whether the Lady has anchored yet, and Franco says 'She has: I saw her down by the dock earlier today'. Franco seems to speak truly both times. And if he speaks truly both times, then the truth of reports of the form *S sees o* does not depend only on facts about *o*, the speaker's perceptual workings, and external conditions, since these factors are held constant in the two scenarios. So even if Franco speaks truly when he says, of the Lady Windermere, 'I didn't see her', he might still stand in the object-seeing relation to the boat.⁵

I've said that playing a role in anchoring *de re* mental states to their objects provides a positive characterization of object-seeing. The role is this: if one sees an object *o*, one can form a *de re* mental state about *o*, or demonstratively refer to *o*, just by exercising whatever general apparatus is needed for *de re* mental states or demonstrative reference. No specific background beliefs about *o* are needed. The experience of seeing *o* suffices for forming a *de re* mental state or for making demonstrative reference, so long as the subject has the cognitive apparatus needed for these things.

There are clearly cases in which seeing an object *o* contributes to the subject's forming a *de re* mental state about *o*, when such seeing is supplemented by extra background beliefs. For instance, one might form a *de re* belief about a house in which one is standing in part by seeing only the basement, even when seeing the basement does not suffice for seeing the house. Seeing an object is also not necessary for forming a *de re* belief about *o* that is linked to *o* via perception: for instance, arguably one can form a *de re* belief about a jet by seeing only the vapour stream it is leaving behind, and yet seeing only the vapour stream—without so much as a grey speck at the moving end. In general, a subject can form a *de re* belief about *o* that is linked to *o* via perception, even if it is perception of something other than *o*. But if one does see *o*, and one has and uses the requisite cognitive apparatus, then one can form a *de re* mental state about *o* by seeing it.⁶

The subject-matter of the discussion here, then, is a kind of seeing in the intuitive sense, so that neither mustard-missing, blindsight, nor zombie-seeing (if such there be) count as cases of it. The conclusion of this paper is that there is a phenomenological constraint on object-seeing. There is a specific sort of visual phenomenology that perceivers must have to see objects, and it is that specific sort of phenomenology that plays a role in

⁵There are two other options here. First, one could deny that Franco speaks truly both times, on the grounds that our best theories of object-seeing overrule our intuitive judgments about when ordinary utterances are true (since there's no strong inclination to take either of Franco's utterances as false). The trouble with this stance is that it assumes that speakers are always using a somewhat regimented notion of seeing when they talk about seeing ordinary object, but ordinary usage seems more diverse than that. Second, one could go to the other extreme and hold that the only theoretically useful notion of object-seeing is one that is tracked exactly by ordinary language reports—and hence that whether *S* sees *o* depends on more than the factors held constant in the two examples given in the text. This second option is a threat to the option I favor only if the more restricted notion that I've zeroed in on is not a legitimate subject-matter for theorizing. But far from seeming illegitimate, the subject-matter I've defined is one of the central explananda in the theory of intentionality.

⁶The role of object-seeing in forming other *de re* mental states is meant merely to illustrate the phenomenon. A creature could see objects, even if it lacked the cognitive equipment needed to form *de re* mental states other than object-seeing itself.

making the situation one in which the perceiver sees a particular ordinary object *o*, as opposed to seeing no object at all.

A final note. The question addressed by this paper—“How does [visual] phenomenology constrain object-seeing?”—can be pursued without prejudging the nature of visual phenomenology. Most philosophers deny that the phenomenology of seeing Franco is in any way constituted by Franco himself. One could have an experience with the same phenomenology, they hold, even if Franco didn’t exist. The alternative is *disjunctivism*. Disjunctivism denies that genuine perceptions and events that are subjectively indistinguishable from them are the same kind of mental state.⁷ According to some disjunctivists, the visual phenomenology had in object-seeing consists (in part) in the perceiver’s perceiving an object. The main argument and conclusion of this paper is independent of this dispute. Visual phenomenology constrains object-seeing in a way to be spelled out—whether that relation ever constitutes the phenomenology of object-seeing, as per the disjunctivist, or not.

II. A Phenomenological Constraint

It seems plausible to suppose that object-seeing is unified in the following sense. Suppose you start out with a situation where a perceiver sees an object, then subtract from the situation a putative necessary condition for object-seeing, and the result is a case where there is no object-seeing. If object-seeing is unified, then it is legitimate to conclude from this result that the putative necessary condition is indeed necessary for object-seeing. This conclusion wouldn’t be legitimate if the object-seeing relation were heterogeneous, in the following sense: suppose there were two relations sufficient for object-seeing, call them OS1 and OS2, and no more general relation sufficient for object-seeing, besides the one defined as a disjunction of OS1 and OS2, of which these two were instances or realizations. Then from the fact that some condition was necessary for the relation OS1 to hold between a perceiver and an object, it would not follow that the condition was necessary for object-seeing itself.

I am going to assume that object-seeing is unified, rather than disjunctive in the way just described. This assumption is shared by the proponents of the views that I’ll be criticizing in Section III. In any case the contrary assumption seems *prima facie* implausible. If object-seeing were disjunctive in the way described, then we would expect to generate multiple plausible theories about the nature of the object-seeing relation, with some of them picking up on some kinds of object-seeing, others picking up on different kinds. As it is, however, there are hardly any theories of the object-seeing relation at all.

If object-seeing is unified, then if we could get from an uncontroversial case of object-seeing to a case where there is no object-seeing by subtracting some component, that would show that at least part of the subtracted

⁷Disjunctivism was introduced by Hinton [1967].

component was necessary for object-seeing. This is the strategy I will use to argue that there is a phenomenal constraint on object-seeing. Starting with an uncontroversial case of object-seeing, I will end up with a case where there is no object-seeing by subtracting a component. I will argue that a crucial part of the subtracted component is phenomenal.

Suppose you have a friend, Franco, who likes doing stunts in the sky. He dresses in red, and uses invisible fibres to suspend himself in the air. And there you see him, while you are looking through the window of a skyscraper: he is a figure in red, bobbing and waving.

Now for the subtraction. Once again, consider a subject looking through the window of a skyscraper, call her S (making it a different subject from the first case eliminates irrelevant considerations concerning memory, though it could just as well be the same subject lacking the relevant memories). S seems to see nothing but a uniform bright blue expanse. S's experience is at least partly veridical: this time, Franco has painted his body so that its surfaces look to S to be the exact shade of blue as the sky looks, and he is suspended from invisible fibres in S's line of sight as she looks through the window.⁸ Although Franco is not part of the uniform expanse of bright blue light, the part of the scene before S's eyes where Franco is located appears to be part of such a uniformly bright blue expanse. Call this the Franco case.

In the Franco case, even though S is looking straight at him, S does not see Franco. Perhaps S sees Franco's disguised surfaces. But S is not in a position to form a *de re* belief about Franco on the strength of her visual experience. So S does not see Franco in the sense that matters, given the theoretical purpose of the notion of object-seeing that is at issue.

Franco, in this case, is like a chameleon: he blends in with his surroundings to the point where he is, to S, indistinguishable from them. If Franco were painted a different colour, or if instead of hanging still he moved around, as in the first case, he probably would bring about a change in S's visual phenomenology, and S would be able to see him. But the fact remains: S does not see him in the world in which he is painted blue and hangs still.

What has been subtracted from the first case, in which Franco was seen? What seems to be missing is that S's visual phenomenology does not differentiate Franco from his immediate surroundings. Call this the Differentiation condition on object-seeing.⁹

Differentiation condition: If S sees *o*, then S's visual phenomenology differentiates *o* from its immediate surroundings.

In this condition, 'visual differentiation' is differentiation in visual phenomenology of *o* from its immediate surroundings. It seems to be a

⁸Arguably, the experience's content is neutral on whether or not there is anything else in sky, and the experience is totally veridical. Although one might say the experience is merely partly veridical on the grounds that it falsidically represents Franco's absence, it seems implausible to suppose that Franco's absence is represented in experience, if the subject has not first been primed to see Franco in the sky, and nothing about the case requires that. In any case, whether the experience is totally or only partly veridical is inessential to the objection against pure causal theories.

⁹Dretske argues for the necessity of a similar condition on object-seeing [1969: 18–35].

natural moral to draw from the Franco case that what's missing is visual differentiation in this sense. More exactly, a natural moral to draw is that for object-seeing, not just any phenomenology will do; what's needed is visual phenomenology that suffices for differentiating Franco from his surroundings. It will be useful to have a label for this kind of visual phenomenology; call it 'differentiation phenomenology'.

What makes this a natural moral to draw from the Franco case? A clear case of lacking differentiation phenomenology is the case in which a thing is camouflaged. And when a thing is camouflaged, you can't see it. It is therefore natural to suppose that a necessary condition for seeing something is that the perceiver have differentiation phenomenology.¹⁰

Let me stress that (in this case) the differentiation at issue—that is, the differentiation automatically brought about by visual phenomenology—is differentiation of Franco from his surroundings. The phenomenology as of seeing a uniform expanse is not differentiated at all, but presumably there are some kinds of differentiation within phenomenology that would not count as differentiation phenomenology in our sense. For instance, if one saw an otherwise uniform expanse that was half blue and half green, that would not be phenomenology suitable for seeing Franco. Or if one had the phenomenology of seeing a blue sky with a bit of red in one corner, this might enable one to differentiate a red square from its surroundings, but not Franco from his. So differentiation phenomenology is not a type of phenomenology: one could not divide the phenomenal types into two, the ones that enable differentiation and the ones that don't. Rather, the proposed constraint on object-seeing is that given an object *o*, it is necessary for seeing *o* that one have visual phenomenology that suffices to differentiate *o* from its surroundings.

It is important to distinguish between differentiation of an object *o* from its surroundings, on the one hand, and demonstrative reference to *o* or *de re* mental states about *o*, on the other. In the sense of 'differentiation phenomenology' that is operative in the Differentiation condition, an experience's having differentiation phenomenology is all one needs in order to meet the differentiation condition. In contrast, in order to form a *de re* mental state about *o*, or to refer to *o* demonstratively, more than this is needed. Making linguistic reference to things or forming *de re* mental states is more cognitively sophisticated than mere seeing, so at a minimum further cognitive apparatus is needed to carry out these tasks.

A delicate question arises at this point about whether there can be differentiation phenomenology outside attention. If there could be, then in principle one could meet the differentiation condition with respect to an object *o* without paying attention to *o*. This is an instance of a more general

¹⁰Objection: having seen red-clad Franco, if you 'zoomed in' until you could see nothing but a red expanse of his outfit, would you not then continue to see him? Reply: what determines whether you see him is whether the experience could anchor a *de re* mental state about him, just in virtue of its phenomenology plus the cognitive apparatus needed to form *de re* mental states. The zoomed-in portion of the experience could not do this on its own, any more than the experience in the blue-clad Franco case could. The intuition that you could form a *de re* mental state about Franco when he's dressed in red comes from thinking of the experience as temporally extended to include the initial experience. It's the initial part of this temporally-extended experience, in which the differentiation condition is met, that enables you to form a *de re* mental state about Franco.

question about whether there can be any phenomenology outside attention, and the central claim of this paper is not affected by which stand one takes on this matter. If there can be differentiation phenomenology outside attention, then the case of mustard-misser could well count as a case of object-seeing. The exercise of attention will not be a condition on seeing the mustard, but will be part of the cognitive apparatus needed to form *de re* mental states or to make demonstrative reference.¹¹ If there cannot be differentiation phenomenology outside attention, then the case of the mustard-misser will not count as a case of object-seeing.

There are three main challenges to drawing the moral from the Franco case that differentiation phenomenology is necessary for object-seeing. They all deny that to get from the Franco case back to a case of object-seeing, what's needed (and all that's needed) is suitably caused differentiation phenomenology. The first challenge can be dispensed with quickly. According to it, the differentiation condition is one phenomenological constraint on object-seeing, but it is not the only one. In addition, for each object *o*, there are limits, specific to *o*, concerning which properties *o* can falsely appear to a subject to have if the subject is to see *o*. If such a view were correct, then for each object *o*, there would be some clusters of properties such that if *S*'s experiences represented an object as having those properties, that experience could not be a case of seeing *o*. However, there seem to be no such properties. Given that you see an object, there seem to be ever so many ways that object could look to you, producing experiences that are illusory with respect to its colour, shape, size, location, direction, kind, or combinations of these. Houses routinely appear as dots on a distant horizon; with enough creativity and distortion, a person could be disguised as an elephant, or a plastic chair seen from afar could appear to be a cat. There seems to be no systematic requirement specifying the ways in which an experience must 'match' in an object in order for the subject to see it. This suggests that either the phenomenological constraints on object-seeing will not exceed the modest differentiation condition, or that whatever matching condition there is on object-seeing will be none other than what is incorporated into the differentiation condition itself.¹²

According to the second challenge, instead of differentiation phenomenology, to get from the Franco case to a case of object-seeing, all that's needed is differentiation itself, where (for *S*) this consists in *S*'s having certain sensory-motor dispositions. So this challenge agrees that differentiation of Franco from his surroundings is necessary for object-seeing, but denies that the differentiation must be visual in the sense defined. According to the second challenge, all that's needed is a causal or counterfactual condition, one that does not itself include as a *relatum* the special visual phenomenology. I will consider the second challenge in the rest of this section, and take up the third challenge in the next section.

¹¹Campbell [2002] defends this as a condition on demonstrative reference.

¹²In the Franco case, where the differentiation condition is not met, the experience does not represent Franco as having any properties at all. It does not attribute any properties to Franco.

The second challenge says that what's missing from the Franco case are certain sensory-motor dispositions. The challenge begins with the observation that in the case of Franco in the sky, even if S wants desperately to pat Franco on the back right then, no matter where he is, she will nevertheless not be disposed to take herself into the sky to do it.¹³ It might be thought that in normal cases, if S sees *o*, then S will be disposed to manipulate her position in space relative to *o* in accordance with her intentions. Having such dispositions toward objects, on this line of thought, is necessary for seeing them, and they are what is missing in the case of Franco in the sky.¹⁴

According to this view, nothing about S's visual phenomenology as described in the case would have to change, in order for S to see Franco. All that would have to change is S's sensory-motor dispositions. Suppose S is flying a kite, and discovers by chance that when it is in a certain area of the sky, it collides with Franco, disturbing the flow of the kite while leaving Franco's camouflage intact. After some experimentation, S discovers the exact area in which the kite's flight is disturbed. If she wants to explore further the nature of the disturbance, she now knows where he has to go. She thus seems to acquire the disposition said to be lacking in the original Franco case.

However, there is little temptation to say that finding out about (what are in fact) the boundaries of Franco in this way will make S *see* him. Rather, what we seem to have is a case where S can act as she would if she saw him, even without having any visual phenomenology at all. Suppose S had her eyes closed, and made the same tactile discoveries about where the obstacles to the kite are. There would be no temptation to say in this case that S thereby sees Franco.

III. Pure Causal Theories of Object-Seeing

The third challenge to the moral that the visual differentiation is necessary for object-seeing comes from an influential theory of perception. I will first present the theory, then the challenge it poses to the moral, and finally I will reply to the challenge.

H. P. Grice argued that to be seen, objects must causally influence the perceiver's visual phenomenology. For S to see Franco, on this view, Franco must have some effect on S's visual phenomenology. This isn't the same as the condition that Franco must visually appear to S, since something can cause S's visual phenomenology—for example, a drug—without visually appearing any way to S at all.

Grice went on to add that given (what he took to be) the necessary condition of causal influence on visual phenomenology, sufficient conditions for seeing were not far off. So long as some visual phenomenology is

¹³Assume that S is not akratic, and then she would recognize Franco upon seeing him.

¹⁴Recently some philosophers have argued that such sensory-motor dispositions constitute visual phenomenology, e.g., Noë [2003]. If this were correct, it would refute the first challenge, since the dispositions being considered would themselves suffice for visual phenomenology. Since I think this account of visual phenomenology is incorrect, I will offer a different response to the challenge.

produced in S by o, Grice thought, it would suffice for S to see o that o stand in a kind of causal relation to S's visual phenomenology that obtains in paradigm cases of object-seeing. On this view, the kind of causal relation holding between Franco and S's visual phenomenology suffices for object-seeing. Grice put the point like this:

[f]or an object to be perceived by X, it is sufficient that it should be causally involved in the generation of some sense-impression had by X in the kind of way in which, for example, when I look at my hand in a good light, my hand is causally responsible for its looking to me as if there were a hand before me, or in which... (and so on), *whatever that kind of way may be*; and to be enlightened on that question, one must have recourse to the specialist.

[Grice 1989: 240]

What Grice calls a 'sense-impression' is what I've been calling 'visual phenomenology'. The purportedly sufficient condition for a perceiver S to see an object o that Grice alludes to is that the kind of causal relation that obtains in paradigmatic cases of object-seeing should obtain between S and o.

Grice speaks of *the* kind of causal relation that obtains in a paradigmatic case of object-seeing, but there are bound to be multiple kinds instantiated by this causal relation that differ in their extension. For instance, one kind might be individuated by the specific neurological visual processing system had by S in the paradigmatic case, whereas a relatively more general kind might abstract away from this system, focusing on the functional roles that the neural processes play. These are two kinds of processes, both realized physically (the first is essentially physical, the second is not). At a yet more general level, there might be a kind individuated merely by a pattern of counterfactual dependence between states of o and S's visual phenomenology in the paradigmatic case, without any restrictions on the sort of process, physical or otherwise, by which these changes in phenomenology are effected.¹⁵

Assuming that there really is a kind of causal relation that suffices for an arbitrary perceiver S to see an object o, it is an open question whether this condition also fixes the extension of *S sees o*. Is the kind of causal relation that obtains between S and o in a paradigmatic case of object-seeing instantiated whenever S sees o?

The modest answer is that the condition is merely sufficient, and does not fix the extension of *S sees o*. According to the modest answer, there will be cases of object-seeing that do not instantiate the kind of causal relation present in a paradigmatic case of seeing, though they do instantiate some other kind. Grice himself thought that the kind of causal relation at issue was specific enough to S's biological properties that it would take a 'specialist', as opposed to a philosopher, to specify the kind of causal relation in question. A more robust claim is that the sufficient condition that

¹⁵I've spoken of the counterfactual dependence as a kind of causal relation. One might hold that any case in which the visual phenomenology of a subject S counterfactually depends in the right way on states of o is a case where S sees o, yet deny that causation is any kind of counterfactual dependence. I'll continue to speak of counterfactual dependence as a kind of causal relation, but this is only for the sake of simplicity.

S's visual phenomenology stand in the kind of causal relation to *o* instantiated in the paradigmatic case is also necessary, and so fixes the extension of *S sees o*.

According to one interpretation of Grice, in either the modest or the robust version, it is supposed to suffice that what is caused in *S* be merely *some* visual phenomenology or other. Aside from the causal condition, no further constraint on the sort of visual phenomenology is proposed. The assumption that no further phenomenological constraint is needed is made explicitly by Michael Tye, who offers a causal analysis of *S sees o*. In Tye's proposal [1982], all that is required of visual phenomenology is that it systematically co-vary with certain changes in the object seen.¹⁶

Neither Tye nor Grice discusses whether for them the operative notion of object-seeing is the regimented one tied to *de re* mental states, or the more liberal one tied to ordinary usage (see n. 8). But their actual views does not matter; the target here is a version of those views that takes on the regimented notion. Let a 'pure causal theory of seeing' be any theory according to which it is sufficient for *S* to see *o* (in the sense introduced earlier) that *S* have some visual phenomenology that causally or counterfactually depends on *o*, and no further constraints on *S*'s visual phenomenology are needed. When applied to the notion of object-seeing at issue, Tye's theory provides an example of such a theory, as does Grice's, on one interpretation of it. (I'll introduce a different interpretation shortly.)

Pure causal theories pose the third challenge to the moral I've drawn from the Franco case. According to this challenge, what's missing from the Franco case is the right sort of causal relation, so no phenomenological constraint on object-seeing is needed after all.

As against this challenge, causal relations at all the levels of generality considered above (neurological, functional, counterfactual) seem to obtain in the case of Franco in the sky.

Consider first any pattern of counterfactual dependence of *S*'s visual phenomenology on changes in Franco. This would be the kind of counterfactual dependence that it is plausible to suppose necessary for object-seeing.¹⁷ But there is reason to think that the Franco case is perfectly

¹⁶Tye's proposal [1982: 322] goes as follows. Where *M-properties* are properties representable in visual experience,

P sees *x* = df. (i) There is a causal chain of events *C* which ends with *P*'s having an experience of a visual sensum *S*; (ii) within *C* some event involving *P*'s eyes causally intervenes between some event involving *x* and *P*'s experiencing *S*; (iii) *x*'s position in *C* is such that it is in principle possible to vary each *M-property* of *x*... and thereby produce a systematic variation in the corresponding spatial property of *S*, assuming all other factors are either (a) held fixed, if leaving them alone would result in... significant differences between the way in which *x* brings about *S* is *C* originally and the way in which *x* brings about *S* as the *M-properties* of *x*... are varied, or (b) left alone, if leaving them alone would not have that result.

¹⁷Just what sort of counterfactual dependence is supposed to suffice for object-seeing is a bit hard to pin down. The pattern should not predict that every change in an object *o* is registered by a change in phenomenology. This would in effect require object-seeing to have super-sensitive phenomenology. And that would undergenerate, leaving out cases of object-seeing where some change in the object seen goes unnoticed—even a change in visible properties. Nor should the pattern of counterfactual dependence predict that every change in phenomenology accurately reflects whether there has been a change (of any sort) in *o*, let alone accurately reflecting what the change is. This would in effect require object-seeing to have super-accurate phenomenology. That too would undergenerate, since there are cases of object-seeing where the subject's visual experience mistakenly represents that the object seen has changed in some way.

fine specimen of the counterfactual dependence that is necessary for object-seeing. The reason to think this is that in the Franco case, the camouflage is very fragile. It leaves intact the sensitivity of S's visual phenomenology to changes in Franco. The slightest change in Franco's colour would disrupt it, as would motion that brought new and differently illuminated surfaces into view. Contrast a camouflage that worked by partial occlusion, such as a bird's blending in with foliage of the same colour as its body. The subject's visual phenomenology would not be sensitive to changes in the parts of the bird occluded by the leaves. In contrast, it is exclusively the fault of Franco's surroundings—not of the link between him and S's visual phenomenology—that S cannot see him.¹⁸

Now consider the physical and functional processes between Franco and S. Unless it is built in to the causal process that it results in experience enabling visual differentiation, these causal processes will be just as they would be, if the sky were slightly lighter so that Franco's outlines showed through. It might be thought that by expanding the distal *relatum* to include the immediate surroundings of *o*, the phenomenological constraint could be made to fall out of the causal constraint, and thus no additional phenomenological constraint is needed. Expanding the distal *relatum* in this way might indeed result in a sufficient condition for object-seeing, but only if the distal *relatum* causes the right sort of phenomenology. S's visual phenomenology is caused by both Franco and his immediate surroundings in the original case, yet that is not a case of object-seeing. Merely expanding the *relatum*, while the relation stays the same, will not by itself incorporate the phenomenological constraint into the causal condition.

This brings us to the alternative interpretation of Grice. On the alternative interpretation, the kind of causal relation between *o* and S's visual phenomenology that holds in paradigmatic cases of object-seeing is individuated in part by its mind-side *relatum*. If one stipulates that the relevant causal relation is so individuated, then one recognizes some sort of phenomenological constraint on object-seeing; whether it is differentiation phenomenology depends on which cases one is prepared to take as paradigmatic.

On the first interpretation, the view does challenge the moral drawn earlier from the Franco case, that for object-seeing, differentiation phenomenology is necessary—not just any phenomenology will do. This challenge seems easily met by pointing out that all the candidate causal conditions hold in the Franco case.

If what's missing from the Franco case is differentiation phenomenology, then pure causal theories are mistaken. Assuming (as seems plausible) that some sort of causal or counterfactual dependence of phenomenology on objects seen is necessary for object-seeing, differentiation phenomenology

¹⁸It might be suggested that when S faces Franco in the sky, S sees Franco without noticing him, so that the case is analogous to a sort of situation I said I wanted to set aside—the sort illustrated by the mustard jar case described in Section I. The two cases, however, are not analogous. By the description of the case, no matter how much you attend to the sky when Franco is in it, you won't be able to discern his boundaries. You will be able to discern boundaries of the mustard jar, in contrast, if you look more carefully.

either has to be built in to causal or counterfactual dependence, or must hold in addition to any such relations of dependence.

In conclusion, visual phenomenology is neither a mere accompaniment to object-seeing, nor does it limit how an object may look when it is seen. Instead, when one sees an object, one's visual phenomenology plays a key role in making one's experience connect to the particular object seen. It is a crucial part of the intentionality of perception.

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