

Misperception

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1. Introduction

In discussions of perception and its provision of knowledge, it is common to distinguish what one comes to believe on the basis of perception from the distinctively perceptual basis of one's belief. The distinction can be drawn in terms of propositional contents: there are the contents that a perceiver would normally come to believe on the basis of her perception, on the one hand; and there are the contents properly attributed to perception itself, on the other. Consider the content:

(#) that Ms. Elfenbein is out of town.

This is the sort of content that it would be normal to believe on the basis of perception. Forming a belief with this content would be normal enough, if one noticed that her curtains were drawn, her mailbox overstuffed, and that repeated ringings of her doorbell went unanswered.

But (#) does not seem to be the sort of content that is ever properly attributable to perception itself. Even if one perceived Ms. Elfenbein, despite her absence--perhaps by talking to her on the telephone--to perceive that she is out of town, one would have to perceive that she has the property of being out of town. And that property doesn't seem to be the sort that one can sensorily perceive someone as having. Contrast the property of being round. This is a property that something can be perceived to have: one can see that a surface is round; one can feel that a surface is round. If one cannot sense that someone is out of town, then (#) is not a content properly attributable to perception. Contents and properties, then, are related in the following straightforward way: if a subject S's perception represents that x is F, then S's perception represents the property of being F.

The purpose of this paper is to explore a thesis about which properties can be represented by a certain kind of perceptual state: *visual experience*.

I will call the thesis to be explored Thesis K. I'm sympathetic to Thesis K. I will not, I regret, be providing a full-blown defense of it. Instead, I'm going to consider what I take to be a powerful argument against Thesis K. Thesis K, I hope to show, is not refuted by the powerful argument against it; nor does that argument give us reason to doubt that Thesis K is true.

Thesis K says this:

Thesis K: Our visual experiences represent kind properties.

The 'we' that defines the 'our' are humans, but the class of experiences of interest includes any visual experiences that are similar in the right ways to ours (though I'm not going to say anything about what the 'right' respects are.). In what follows, I will speak simply of visual experiences, without specifying that our visual experiences are the ones in question.

I take kind properties to include both natural kinds, such as WATER, TIGER and LEMON, as well as artifacts, such as TABLE and BOOK, and kinds that are not individuated by genetic or chemical essences, such as FOOD and POISON (the latter are sometimes called "nominal kinds".¹) The precise definition of "kind", however, will not matter. It would be fine for our purposes if colors turned out be kinds. "Kind property" is just a placeholder for the properties at issue, and these are properties whose representation in experience arguably makes no phenomenal difference. Thesis K says that visual experience represents such properties (though it takes no stand on whether the phenomenal character of visual experience really is indifferent to their representation).

In saying that our visual experiences represent kind properties, Thesis K should be taken to allow that some visual experiences don't represent kind properties. For a natural candidate for such an experience, consider the

¹ This distinction is discussed in S.P. Schwartz, "Natural Kinds and Nominal Kinds" *Mind* 89, 1980, 182-95. For further discussion of these categories see F. Keil, *Concepts, Kinds and Cognitive Development*, MIT Press 1992, ch. 3. It is standard to distinguish between kind properties and non-kind properties, although how exactly this line should be drawn is not entirely clear.

experience of looking at the sky and seeing nothing but an undifferentiated blue expanse.

The argument against Thesis K that I will consider starts with the following idea. Representing kind properties is not perceptual endeavor, but rather a cognitive one, and it is a cognitive endeavor that does not affect the perceptual facts at all.

This idea is illustrated in a bit of reasoning. Suppose you are looking from across the room at a glass of clear fluid and you believe that it is water. It turns out to be gin. Now, it would make a difference to your visual experience's phenomenal character, the reasoning goes, if the property of being gin came to be represented by your visual experience, or if the property of being water ceased to be represented by it. But learning that the fluid is gin and not water will not change the way the glass of fluid looks to you. So neither property (the property of being gin, the property of being water) is represented by your visual experience.

This argument will be spelled out properly later. I'm going to call the argument once its properly spelled out "The learning argument". Until then, the plan of action will be as follows. Section 2 clarifies three notions that play lead roles in the discussion: *visual experience*, its *phenomenal character*, and its *content*. Section 3 makes explicit what the main issue surrounding Thesis K is and why it matters. [Section 3.5 makes the point that informational theories of content offer no verdict on Thesis K or, more, generally, on what counts as a misperception.] In section 4, I return to the Learning Argument, and show that Thesis K survives it unscathed. I conclude the discussion in section 5.

2. Visual experience and related notions

Before proceeding any further, some terminology needs to be clarified: *visual experience*, its *phenomenal character*, and its *contents*.

As I will use it here, "experience" is not a technical term. At a given time, one has exactly one experience. It may be, for example, simultaneously an experience of feeling cheerful, sitting cross-legged, and facing a garden.

I will follow standard usage in taking *visual experiences* to be mental properties of the sort one typically has when seeing, in virtue of which things look the way they do. This much is stipulative. Substantive questions then arise in determining what the meaning of "look" is in this stipulation.² We cannot discern which aspects of experience are the visual ones simply by determining which English sentences of the form *It looks to S as if...* are true. You could speak truly when you say "It looks to me as if Ms. Elfenbein is out of town," yet not be reporting the contents of your visual experience.³

Visual experiences have *phenomenal character*. The phenomenal character of visual experience is what it is like to have that visual experience. But what is like to have a visual experience is easy to confuse with what it is like to have the overall experience of which the visual experience is a part. Suppose you see a golden pentagon while sitting cross-legged in a garden, feeling cheerful. "What it is like to see the golden pentagon" could reasonably be taken to pick out either the phenomenal character of the overall experience, or the phenomenal character of the visual experience of which it is a part.

² [Why neither Dretske's doxastic nor phenomenal sense of "look" will work]

³ One might question whether there is *any* use of "looks" that is appropriate for this stipulation. As J. L. Austin pointed out in *Sense and Sensibility* (London: Oxford University Press, p. 43), gasoline looks like water. This seems to be a fact about gasoline—not a fact about anyone's mental states. Inspired by Austin, one might conclude that there is *no* mental property we have while seeing, in virtue of which things look the way they do; and therefore, the working definition offered is a non-starter, since it says that visual experience is just such a mental property.

The Austin-inspired point brings out that there are multiple uses of "looks". Even if its use in "gasoline looks like water" does not tell us about any particular perceiver's mental state, there are other uses of "looks" that do tell us about this, as when we say "it looks to S as if there is something red and white over there." It could look this way to S even if there is nothing red and white over there, whereas (worries about fiction aside) "gasoline looks like water" could not be true if there were no such thing as gasoline. This is relevant use of "looks". Since "looks" has such a use, our working definition of visual experience is not doomed from the start: the Austinian use of "looks" is not the only use available.

What it is like to see a golden pentagon differs from what it is like to see a rocky hillside. More generally, a visual experience E counts as phenomenally the same as a visual experience E' just in case E and E' have the same phenomenal character. E and E' could be phenomenally same, even though the subject of E feels cheerful while the subject of E' feels gloomy.

What needs clarification next is the notion that visual experiences have contents. The contents of visual experience are, by stipulation, the right sort of thing to be true or false: they are truth-apt. If a visual experience has the content that there is a golden pentagon in front of one, then this content is true just in case there is a golden pentagon in front of one. This leaves much about the nature of the content of visual experience unsettled: for example, whether they are structured in something like the way sentences are; and if so, what elements fill in the structure.

Some philosophers have denied that visual experiences have contents, even in this minimal sense. If a visual experience is nothing but a 'raw feel', for instance, then it has no contents.⁴ In assuming that visual experiences have contents, I am assuming that they are not *merely* raw feels. This leaves open, however, that visual experiences can *also* have intrinsic, non-representational features of some sort, where these are not themselves truth-apt, and are also not parts of contents. So I am not assuming anything about the existence of such non-representational features, one way or the other.⁵

So visual experiences have a phenomenal character, and they also have contents. Saying this much leaves open in what relation the phenomenal character of a visual experience stands to its content. For all we've said, two experiences may differ in contents while having the same

⁴ For example, visual experience is nothing but a raw feel according to some sense-datum theories. For two defenses of sense-datum theory, see H. Robinson *Perception* London: Routledge, 1994; and F. Jackson, *Perception*, Cambridge University Press, 1977.

⁵ Intrinsic, non-representational features of experience are often called "qualia". I have avoided using this term since "qualia" are also sometimes taken to be phenomenal character of visual experience itself (e.g., Tye, "An Adverbial Approach to Visual Experience", 1984, *Philosophical Review* 93).

phenomenal character.⁶ Or they may differ in phenomenal character while having the same content. Or there may be no change in either aspect of visual experience without a change in the other. What's been said so far is thus neutral on the thesis known as Intentionalism: any two visual experiences that differ in phenomenal character differ in content as well.⁷

When experiences have content, they represent--perhaps falsely-- that such-and-such is the case. They represent that certain things have certain properties. For example, when you see a ripe tomato under normal circumstances, your experience represents the tomato surface as being red. In general (as I suggested at the start), when experiences represent that a thing *x* has property *F*, it is representing the property *F*. So, visual experiences represent properties.

3. Why it matters whether Thesis K is true

Which properties can be represented by visual experience will determine what shall be counted as a *misperception*. This point can be further clarified by an example.

Suppose you and your brother come across a bowl full of wax fruit. As fakes, the wax fruits are very convincing: they fool your brother into thinking that there are ripe juicy peaches and pears in the bowl. More exactly, he *believes* that there are peaches and pears in the bowl, and this belief of his is false. The scene doesn't fool you, but only because you

⁶ One type of case in which this is supposed to happen considers two perceivers *spectrally inverted* relative to one another: with respect to color, the way rubies look to one perceiver is the way grass looks to the other. For discussion see S. Shoemaker, "The Inverted Spectrum", in *Identity, Cause and Mind*, New York: Cambridge University Press, 1984.

⁷ Defenders of Intentionalism include Michael Tye, *Ten Problems of Consciousness* Cambridge: MIT Press, 1992, and more recently *Consciousness, Color and Content*, Cambridge: MIT Press, 2000 and Alex Byrne, "Intentionalism Defended" *Philosophical Review* vol. N, 2001; detractors include Ned Block, "Mental Paint and Mental Latex", in *Philosophical Issues 7: Perception*, ed. Enrique Villanueva. Ridgeview: Atascadero. 1996.

already believed on some non-perceptual basis--for instance, from reading your daily horoscope's predictions--that you would see some fake fruits today. Because you have this background belief, you suspect trickery, and unlike your brother, you don't end up *believing* that there are peaches and pears in the bowl.

Might there be in such a case some sort of error in your visual experience, even if not in your belief? A *perceptual* error would be one from which not even your suspicion protects you: if you misperceive, then your visual experience's content is false: your visual experience tells you that there are peaches and pears on the table, and that is incorrect. In contrast, if no perceptual error is involved in this case, then the contents of your visual experience are less committal, but correct: they tell you, for instance, that the contents of the bowl have certain colors and shapes.

So if you misperceived, then in suspecting that things were not as they looked, you corrected for an error at the level of visual experience. Whereas if your visual experience told you something less committal about what you each saw in the bowl (as it would, for instance, if Thesis K were false), then your suspicion merely saved you from making an error at the level of belief in the first place. These two descriptions of the situation assume different accounts of what contents visual experience has. The less committal the contents of visual experience, the less misperception there is. Asking what shall count as a misperception is a way of making vivid the issue surrounding Thesis K, which is what properties visual experience can represent.

Why does this issue matter? It matters for three reasons.

First, there may be general skeptical worries that get going only if these contents of visual experience turn out to be informationally impoverished. Suppose, for example, that veridical experiences could only provide information about the colors and facing surfaces of objects, and not about which facing surfaces belong to the same object, or whether or not they continue out of view. Someone might reasonably challenge the claim that even with contents like these, visual experiences can play the

justificatory role claimed for them by a theory of justification. Settling on what contents visual experiences have will determine whether such a challenge is worth attempting to formulate.

Second, a verdict on what may count as a misperception places a constraint on accounts of how it is possible for there to be contentful visual experiences in the first place. If visual experience cannot represent that there are peaches on the table, then whatever makes it the case that a visual experience has the content it does had better not allow that visual experiences represent the property of being a peach.

The problem of intentionality is sometimes posed as the problem of how it is possible for a subject to be in a contentful state. A verdict on what counts as a misperception would constrain the explanandum. That is the second reason why what counts as a misperception matters.⁸

Finally, there is a third reason why it matters what counts as a misperception. This relates to the role of experiences in justification.

Let a w-world be a world with the actual laws of nature, in which subjects have the same perceptual equipment as we do. Consider the following claim:

(+) If two visual experiences in a w-world differ in which properties they represent and all other factors relevant to justification are the same, then they differ in which propositions they provide justification for believing.

Suppose that visual experiences provide *immediate justification* for believing a proposition p, where this means that the justification provided by visual experience does not depend on any other factors. Assuming that experience provides immediate justification in virtue of the properties it

⁸ I've been discussing why having a verdict matters. An argument for the verdict from premises about what makes a visual experience represent what it does would shed light on the problem of intentionality for visual experiences--not just constrain the explanandum.

represents, claim (+) will be true if any difference in properties represented makes a difference to justification provided.⁹

Even theories that deny that there is such a thing as immediate justification can accept (+). Suppose that visual experiences provide evidential support for propositions only with the addition of certain special background beliefs on the part of the subject. According to claim (+), if two subjects in a w-world have exactly the same background beliefs (which themselves have the same epistemic status) and their visual experiences differ in what properties they represent, then different propositions will be evidentially supported by the visual experience combined with the background beliefs.

Let us take another example. Suppose that which propositions visual experiences provide justification for believing depends on the environmental conditions in which the visual experiences are had. For example, suppose that which propositions the subject is justified in believing depends on whether the belief-forming process, of which the experience is a part, is reliable. According to claim (+), if such mechanisms in two subjects in a w-world are equally reliable and their visual experiences differ in what properties they represent, then different propositions will be such that the visual experience combined with the environmental conditions justify the subject in believing them.

If claim (+) is true, then what propositions one's visual experience contributes to providing justification for will depend on which properties visual experience represents.

But is claim (+) true?

Claim (+) is very strong. It says that in any w-world, *every* difference in properties represented by experience matters for what an experience, combined with other factors relevant for justification, provides justification for believing.

⁹ Indeed, on this assumption, if visual experience provides immediate justification, then a stronger claim is true: *any* two visual experiences that differ in what properties they represent will differ in what propositions they provide justification for believing.

A claim at the opposite extreme says that in any w-world, *no* difference in properties represented by experience makes a difference for what an experience, combined with other factors relevant for justification, provides justification for believing.

This latter claim seems false. It would be odd if, in a w-world, what contents visual experiences had was totally irrelevant to what propositions the experience (together with any other epistemically relevant factors) provided justification for believing. For example, holding environmental conditions constant, compare two visual experiences, one of an undifferentiated blue expanse, the other of a dairy farm. Now consider the claim that the propositions that the experience together with these conditions provide justification for believing are exactly the same. This claim seems not to respect the basic point that what one sees makes a difference to what one is justified in believing.

The falsity of *this* claim is enough to make the general issue of what shall count as a misperception matter. But this is compatible with the denial of (+).

I'm not sure whether a claim as strong as (+) is true. But I think something is true that's stronger than the basic point that what one sees makes a difference to what one is justified in believing. I want to argue for this by considering a sort of case that we will meet again when we turn to the Learning Argument.

Consider two entirely veridical w-world experiences had by Boring and Rich. Boring and Rich are facing a fruit bowl. Boring's experience represents colored shapes, whereas Rich's represents that there is a bowl of fruit on the table.

Now, Boring's experience supports invariances that Rich's experience doesn't. Both experiences represent properties that some rubber balls can look to have, as well as representing properties that peaches can look to have. But consider the result of combining each experience with the belief that rubber balls look to have certain texture and shape properties--properties that both experiences represent. Arguably, combining this belief with

Boring's experience yields *some* sort of evidence that there are rubber balls in the bowl: visual experience represents that there are certain colored volumes; the background belief is that some rubber balls look to have the property of being spherical and (let's say) orangey-pink.

In contrast, combining Rich's experience with the belief that rubber balls look to have certain color and shape properties does not seem to yield the same evidence. Rich's experience represents that there is fruit in the bowl (along with representing the color and shape properties that Boring's experience represents). If the color and shape properties matter for justification just in virtue of being represented by visual experience, then the property of being fruit ought to matter in the same way. But nothing is both a rubber ball and a piece of fruit. So the fact that Rich's experience represents the property of being fruit weakens the evidence for there being rubber balls the bowl.

I think this sort of case shows that the justificatory role of experiences is not indifferent to whether it represents kind properties or not. I haven't tried to defend the claim that Boring and Rich -- the subjects -- are justified in believing different propositions. But I have given a reason to think that factors in justification, the experiences of Boring and Rich are not interchangeable.

I've been considering only one type of factor besides experience that is relevant to justification--namely, background beliefs. But I suspect you could make a similar argument using different other factors (though I haven't tried to do it).

I want to end the discussion of the third reason why it matters what properties visual experience represents by considering briefly the claim that there is no fact of the matter about which properties these are. If claim (+) is correct, and there is no fact of the matter about which properties visual experience represents, then there is also no fact of the matter about *which* propositions visual experience provides justification for believing. Similarly, if the justificatory role of experiences is not indifferent to whether

experience represents kind properties, then there will be no fact of the matter about whether a given experience is playing this role.

I've given some reasons to care about any view concerning what will count as a misperception. Although these general reasons apply to Thesis K, Thesis K is interesting in its own right as well, for two reasons.

First, there is an immediacy to judgments about the kinds that are based on perception, and this immediacy sits well with Thesis K. When I form a belief about what is around me--that there is a table, people, pens, doors, windows, and so on in front of me--these are judgments I form immediately, and they feel immediate. They do not seem to be any more the result of inferences than do beliefs about the colors, shapes and patterns of light that I confront. And they seem markedly less inferential than some other perceptually-based judgments, such as the one with which we began--that Ms. Elfenbein is out of town.

Now, empirical psychology tells us that there are quite different mechanisms underlying perception of color on the one hand, and categorization on the other. (Agnosia, for instance, is a deficit in which there is supposedly "perception" without "recognition": an agnosic can perfectly trace a figure of a bucket, but has no idea what it is.)¹⁰ But that does not affect the phenomenology of such judgments. Thesis K, if true, would vindicate this immediacy. And if Thesis K turns out to be false, then some explanation of the phenomenological immediacy of perceptual judgments is in order.

Second, there is evidence that infants as young as 12 months parse layouts of stationary, adjacent objects, such as a duck on top of a shoe, in the way adults do, and that this ability relies on some sort of information about kinds.¹¹ According to one experimenter who reaches this conclusion--Elisabeth Spelke--it is not clear exactly what the role of kind information is.

¹⁰ See e.g., M. Farah, *Visual Agnosia*, MIT Press, 1990

¹¹ F. Xu, S. Carey and J. Welch, "Infants' ability to use kind information for object individuation", *Cognition* 70 (1999); E. Spelke "Gestalt Relations and object Perception: A developmental study" *Perception* 22: 1483-1501, 1993.

One possibility is that infants who succeed in parsing layouts as adults do are relying on kind information, categorizing (and perhaps *miscategorizing*) the very objects they see.¹² Another possibility is that simply being familiar with such kinds makes the infants sensitive to object boundaries. Such sensitivity would not necessarily have to rely on kind information; it could arise from infants' becoming familiar with certain volumetric shapes.

Thesis K sits well with the first result, given an additional assumption. The assumption is this: visual experience is not consigned to representing a mosaic of colored shapes, devoid of any information (or misinformation) about which surfaces belong to the same object. If a perceiver can visually represent such a layout only by categorizing (perhaps *miscategorizing*) the very objects represented by visual experience, then Thesis K will be true. The additional assumption seems quite plausible. So if Thesis K is false, then either the plausible assumption is too, or despite the data from developmental psychology, the first account of the relation between kind-familiarity and parsing abilities is not correct.

4. The Learning Argument

The Learning Argument starts with the claim that learning what kind of thing one is seeing does not change the phenomenal character of visual experience. The burden of the argument is to fill in the move from that claim to the conclusion that visual experience does not represent that property. This will amount to an attack, of sorts, on Thesis K.

The Learning argument can be introduced by considering a scenario described by Robert Stalnaker in "What Might Non-conceptual Content Be?". In the scenario Stalnaker describes, a perceiver, O'Leary, who has never heard of Eucalyptus trees under any name, is in a garden, looking straight at one:

Eucalyptus trees, let us suppose, have a quite distinctive look. If the tree in the garden were of any other kind, then things would look

¹² Xu et al. , op cit., claim that their data support this possibility.

differently to O'Leary than they do... O'Leary doesn't come to know, or believe, that there is a Eucalyptus tree in the garden...(349).¹³

Now suppose that O'Leary, while gazing at the garden, forms the following belief on the basis of testimony from a fellow garden-gazer: that the tree they are looking at *is* a Eucalyptus tree. And suppose that before and after he forms this belief, nothing else about the situation changes. In particular, the tree itself does not change, nor does O'Leary's orientation to it, or the lighting conditions, or any other feature of the scene before O'Leary's eyes.

By reference to this story, we can distinguish between two of O'Leary's visual experiences:

Experience 1 (E1): O'Leary sees the Eucalyptus tree, *before* forming any belief attributing to it the property of being a Eucalyptus tree.

Experience 2 (E2): O'Leary sees the Eucalyptus tree, *after* forming a belief attributing to it the property of being a Eucalyptus tree.

This pair of visual experiences figures in the following argument:

(1) E1 and E2 have the same phenomenal character

(2) E1 does not represent the property of being a Eucalyptus tree

So (3) E2 does not represent the property of being a Eucalyptus tree.

As stated, the argument is pretty clearly invalid. What it needs is an additional premise linking sameness of phenomenal character to sameness with respect to failing to represent the property of being a Eucalyptus tree.

Before finding an additional premise, two comments are in order. The first, on the significance of the (supposed) fact that Eucalyptus trees have a *distinctive* look; the second, on how this argument's conclusion relates to Thesis K.

Given a kind, objects or samples of that kind may have an *invariant* look, a *distinctive* look, or neither. Gin has an invariant look: how it looks does not vary across samples. But gin does not have a *distinctive* look, in Stalnaker's sense, because kinds other than gin--vinegar, vodka, some perfume--look the way gin does. For a kind to have a distinctive look is for

¹³ Robert Stalnaker, op. cit.

there to be a look that is unique to that kind. Eucalyptus trees, in contrast, do have a distinctive look. The property of a being a Eucalyptus tree is like the color properties in having a unique look: for each color, nothing else looks like it.

Some kinds have neither a distinctive nor an invariant look. Consider philosophers. There is neither invariance among the ways philosophers look, nor is there a distinctive look of philosophers. For these kinds, Thesis K seems quite implausible.

Second, a comment on how the conclusion of this argument relates to Thesis K.

Consider the conclusion of the argument: O'Leary's experience E2 does not represent the property of being a Eucalyptus tree. Suppose we find an argument for this conclusion that works, and suppose the argument can be generalized to draw conclusions about other kind properties as well. This still would not defeat Thesis K. There could, after all, be other ways, besides learning to recognize kinds, that visual experience could come to represent kind properties.

But that doesn't mean that Learning Argument poses no threat at all to Thesis-K. On the contrary, if *any* visual experiences seem offhand to be good candidate witnesses for Thesis K, it is the visual experience of someone familiar with the kind properties in question: expert botanists, or Australians born and bred under Eucalyptus trees' shade. So the O'Leary scenario, focused as it is on a perceiver newly familiar with a kind property that has a distinctive look, gives Thesis K a good run for its money. If it could be shown that even in this scenario, the kind properties that are most plausibly supposed to be represented by visual experience are not, this would count against Thesis K. Even though the Learning Argument would not defeat Thesis K, then, it would nevertheless pose a formidable threat.

Let us return to the task of finding a premise that will make the 2-step argument mentioned earlier valid. It is this attempt that will give us the Learning Argument itself.

A rather strong-armed assumption that would make the argument valid is this:

(*) Any two visual experiences with the same phenomenal character have the same content.

This claim would make the argument valid, since if two experiences have the same content, then they represent the same properties. According to (*), since E1 and E2 have the same phenomenal character, either both represent the property of being a Eucalyptus tree, or neither does.

Claim (*) is extremely far-reaching. It compares *any* two visual experiences--no matter whether they are had by different subjects or the same, and if the latter, no matter what happens in between the subject's having the first experience and her having the second.

In the argument at issue, however, the experiences are had successively by the same subject, and it is plausible to suppose that they remain much the same with respect to the properties they represent. Not much happens to the scene or the subject between the two experiences: the scene itself does not acquire any new visible properties, and O'Leary does not move, or put on tinted glasses, or do anything else that would greatly change the way the scene looks to him.

The burden of the argument, then, is quite limited. It does not need the industrial-strength claim (*). Instead, the argument's missing link could be replaced by an assumption to the effect that the properties represented by visual experience are limited to those that earn their keep with respect to phenomenal character. The idea is this: if E2 did come to represent the property of being a Eucalyptus tree, then this should show up in a difference in phenomenal character between E1 and E2.

The following assumption, which I will call Thesis P, captures this idea:

Thesis P: For any two immediately successive experiences of a subject E, E', if the properties represented by each experience differ in that one does not represent the property P and the other does, then E and E' differ in their phenomenal character.

According to Thesis P, a subject's coming or ceasing to represent a property in visual experience should bring about a change in the phenomenal character of her visual experience.

Suppose we add Thesis (P) to premises (1) and (2). Then the argument will be valid. So let us take the Learning argument to proceed as follows.

Where E1 and E2 are defined as above, and between E1 and E2 nothing in the garden changes, nor do the conditions of O'Leary's perception change,

(1) E1 and E2 have the same phenomenal character.

(1.5) For any two immediately successive experiences of a subject E, E', if the properties represented by each experience differ in that one does not represent a property P and the other does, then E and E' differ in their phenomenal character. (Thesis P).

(2) E1 does not represent the property of being a Eucalyptus tree.

So (2.5) E1 and E2 do not differ only in that one represents the property of being a Eucalyptus tree and the other does not. (from (1) and (1.5))

So (3) E2 does not represent the property of being a Eucalyptus tree.

I'm not going to say much more than I already have by way of motivating Thesis P. I'm sympathetic to Thesis P, and I don't think that the problem with the Learning Argument lies with it.

Although Thesis P is weaker than (*), both claims are consequences of the controversial thesis in the philosophy of mind that identifies the phenomenal character of perceptual experiences with its content.¹⁴ Much of the aforementioned controversy centers around the claim that any two perceptual experiences that differ in phenomenal character differ in content. This claim goes by many names, but I will call it Intentionalism.¹⁵ Thesis P and claim (*) are independent of Intentionalism Nevertheless, given the nature of some typical arguments for and against Intentionalism, a proponent

¹⁴ See, e.g., Michael Tye (1995), which defends this claim: "Phenomenal character (or what it's like) is one and the same as a certain sort of intentional content." (p. 45).

¹⁵ For further discussion, see A. Byrne, "Intentionalism Defended", *Philosophical Review* 2001.

of the Learning Argument can expect to count many Intentionalists among her allies, and to share with Intentionalists common foes.¹⁶

If we were to consider the pros and cons of Thesis P, then, we would encounter a debate much like the debate over Intentionalism. I will now argue that anti-Intentionalists are not the *only* foes of the Learning Argument. Though premise (1)¹⁷ could reasonably be questioned,¹⁸ I want to

¹⁶ The typical arguments concern the possibility of inverting content and non-representational phenomenal features of experiences. See Byrne, Block, Tye, op. cit.

¹⁷ It seems plausible to suppose that E1 and E2 have at least something phenomenal in common. If they had nothing whatsoever in common, it would be mysterious how learning on the basis of perception could take place. For part of what one learns is that a thing with such-and-such an appearance *is* a Eucalyptus tree. (Cf. Tim Crane, "The Non-Conceptual Content of Experience" in *The Contents of Experience*, ed. T. Crane. Cambridge: Cambridge University Press, 1992, p. 137.)

Now, learning does not demand *exact* sameness of phenomenal character: partial similarity, it seems, would do. But there seems to be a good case for thinking that things do look exactly the same to O'Leary, before and after he learns that he is looking at a Eucalyptus tree. What would make it the case that things looked different? Nothing in the scene before O'Leary's eyes changes. His orientation toward the scene does not change. This much we have stipulated.

¹⁸ Some philosophers have argued that mere changes in *belief* can bring about a change in phenomenal character. John Searle in *Intentionality* discusses a purported example of this:

Consider the difference between looking at the front of a house where one takes it to be the front of a whole house and looking at the front of a house where one takes it to be a mere facade, e.g., as part of a movie set. If one believes one is seeing a whole house, the front of the house actually looks different from the way it looks to one if one believes one is seeing a false facade of a house...this difference in the actual character of the visual experiences is reflected in the differences between the two sets of conditions of satisfaction....In these sorts of cases the character of the visual experience and its conditions of satisfaction will be affected by the content of the beliefs that one has about the perceptual situation. (John Searle, *Intentionality*. Berkeley: University of California Press, 1983, p. 55.)

According to Searle in this passage, whether or not one believes one is seeing a whole house can change the "actual character" of one's experience.

focus on premise (2). If we consider premise (2), we will find reasons to reject the Learning Argument that even an Intentionalist should heed.

Premise (2)

Premise (2) says that O'Leary's experience E1 does not represent the property of being a Eucalyptus tree. In the rest of this section, I will consider and reject two defenses of this premise.

According to the defense of (2) that I will consider, which properties visual experience represents partly depends on what role it can play in subsequent cognitive processes. The properties represented by experience are constrained by the mental states and processes to which visual experience provides *input*. For instance, visual experiences are inputs to processes of belief formation.

An example of a claim about which properties experiences represent goes as follows:

(B1) A subject S's visual experience represents a property P only if S can form a belief (or mental state of some other kind) attributing P to an object.

('B' is for 'belief'). Now, (B1) is controversial. Some philosophers deny that which contents visual experience has depends on the subject's other cognitive capacities. For example, in defending the claim that the contents of visual experience are *non-conceptual*, Michael Tye explains what this comes to as follows: "to say that a mental content is nonconceptual is to say that its subject need not possess any of the concepts that we, as theorists, exercise when we state the correctness conditions for that content."¹⁹ Since the contents of visual experience are exclusively non-conceptual, according to

Searle's claim does not seem to be true in the general case. How things look often remain unaffected by beliefs about them. The classic example are the Müller-Lyer lines, which continue to look as if they differ in length, even to a perceiver who knows that their length is the same.

¹⁹ Tye, 1992, p. 62.

Tye, he would deny that facts about what beliefs a subject can form constrain which properties her visual experience represents.

But it may just end up that the proponent of this defense has to disagree with Tye about non-conceptual content. I will just assume for the sake of argument that Tye is wrong on this point.

To defend premise (2) in the Learning argument--the premise that O'Leary's experience E1 does not represent the property of being a Eucalyptus tree--(B1) needs the help of a premise about O'Leary, namely (B2):

(B2) While having E1, O'Leary cannot form any belief attributing the property of being a Eucalyptus tree to an object.

It seems to me that the first weakness in this defense of premise (2) lies in (B2), the claim about O'Leary, and not in the forward-looking approach itself. Let me explain.

It is built into the description of the scenario involving O'Leary and the garden that O'Leary does not come to the garden equipped with an ability to form beliefs attributing the property of a being Eucalyptus tree to any object.

Stalnaker goes further. According to him, O'Leary's lacking this ability explains the fact that while having the experience we called E1, O'Leary does not come to know or believe that there is a Eucalyptus tree in front of him. "O'Leary doesn't come to know, or believe, that there is a Eucalyptus tree in the garden," Stalnaker writes, "since he doesn't have a concept of a Eucalyptus tree (by that name, or any other)". It seems that Stalnaker, then, would endorse (B2).²⁰

²⁰ Stalnaker seems to endorse (B2) in op. cit., p. 349. He remains neutral on (B1): "One might think that it cannot be right that things seem to someone a certain way unless the person has the capacity to endorse the appearance--to judge that things really are that way. If this is right, then knowledge and beliefs that normally result from perceptual states may constrain the content properly attributed to the kinds of states that are ascribed when one says how things look, appear or seem to be. ... *But whether this is right or*

Claim (B2), however, seems to overlook an ability that even such an ignoramus as O'Leary could perfectly well have: the ability to form a belief attributing the property of being a tree of *that* kind to the Eucalyptus tree that he sees, where the demonstrative "that kind" picks out the kind: Eucalyptus. The property of being a Eucalyptus tree is not distinct from the property of being *that kind* of tree, so long as the demonstrative is picking out the kind: Eucalyptus. Since even a botanical ignoramus can meet (B1), (B1) does not defend premise (2) of the Learning Argument.

How might such an ignoramus be able to form a belief (or mental state of some other kind--but I will speak of belief for the sake of simplicity) attributing the property of being a Eucalyptus tree to an object, even if he has never heard of Eucalyptus trees and does not know what they are?

Such beliefs need not be terribly sophisticated, despite what some linguistic expressions of them suggest. A botanically ignorant philosopher, for example might think to say, "*That is that kind of tree*" or "*that tree is of that kind*", thereby attributing the property of being a Eucalyptus tree to the tree in the garden. What's sophisticated here is not the belief-content itself, but rather its linguistic expression. Simpler utterances could convey (even if they don't literally express) the same belief. A less articulate botanical ignoramus could ask "What's that?", demonstrating the tree, and be asking what kind of tree it is. Some contexts make it clear that the questioner is asking about the kind of tree. In such a context, the question "What's that?" presupposes (though it does not literally express) that the demonstrated tree is of *some kind of other*. From this presupposition it is not much of an inference--certainly not a very sophisticated one--to the proposition that the demonstrated tree is of *that* kind, where the reference is to the kind that the tree actually instantiates. More generally, if a speaker presupposes something of the form $\exists \Psi(o \text{ is } \Psi)$, and makes an inference of the negligible sort just mentioned, she will end up with a mental state attributing a property that the demonstrated object actually has to an object. So any speaker who

not..." (ibid.). Since he remains neutral on (B1), this instance of the forward-looking approach should not be attributed to Stalnaker.

can ask "What's that?" in the right context can easily end up with a mental state of the kind (B1) requires.

Much work is being done by the context here, since on its own, the question "What's that?" is not always a question about kinds, let alone about a specific kind. But there is nothing extraordinary about such contexts. A child wandering through a zoo can wonder what kind of animal she has come upon, even if she doesn't understand the *words* "animal" and "kind", and she can express this wonder by asking "What's that?".

I've spoken of demonstrative presuppositions about kind properties, and one might question whether it is possible for properties of any sort to be demonstrated, either in thought or in language. After all, even when visual experience represents a property--say, the property of being red--there is not a way that the property itself looks to the perceiver. Rather, it is objects, surfaces or other (perhaps only apparently) spatially located things-- that look red.²¹ Since the claim that an ignoramus can have demonstrative mental states about kind properties relied on the idea that such properties could be demonstrated, it is fair to ask what could anchor such demonstrative thoughts to a property.

What appears to be demonstrative reference to a property, when one says "that kind", is in fact deferred ostension. If the ostension involved in using the expression "that kind of tree" is deferred ostension, then a use of the expression means the same as "the kind of tree that *that tree* is".²² So the fact that one doesn't (strictly speaking) perceive properties need not prevent a perceiver from forming demonstrative mental states about them.

²¹ The claim here should not be confused with the principle that if it visually appears to S that p, then there must be something spatially located that is doing the appearing. If S enjoys a red afterimage, then it visually appears to S that there is something red that is oriented in some way in relation to her. Even in cases where there is nothing that is appearing red, it is still not the *property* that appears red. [Mark Johnston denies this]

²² For discussion of deferred reference, see W. V. O. Quine, *Ontological Relativity and Other Essays*, p. 40

Let us take stock. I've argued so far that if the unlearned O'Leary's visual experience fails to represent the property of being a Eucalyptus tree, this is not because O'Leary cannot form mental states attributing that property to an object--because he can. A natural suggestion in defense of premise (2) is that O'Leary's experience fails to represent this property, not simply because he cannot form any mental states attributing it to an object, but rather because he cannot form the *right* such mental states. The general strategy is this. Consider a set of mental states, other than visual experience, of which we're confident that they do represent the property of being a Eucalyptus tree--for instance, a belief that Eucalyptus trees grow in Australia, that Eucalyptus trees have a strong odor, and that some bears live in Eucalyptus trees. Now consider the inferential roles that these beliefs have, in virtue of being beliefs about Eucalyptus trees (putting aside the question of what determines what sort of inferential role is in question). The unlearned O'Leary's visual experience will fail to represent the property of being a Eucalyptus tree, on this suggestion, if it fails to play a role in the O'Leary's cognitive life sufficiently similar to the role played by these beliefs.

There are very many ways to pursue this suggestion, depending on how the notion of inferential role is developed, and depending on what it is for a mental state to play an inferential role *in virtue of* being a belief about Eucalyptus trees. If these notions can be developed into a plausible theory, then such a theory would provide a plausible defense of premise (2).

Despite offering a defense of premise (2), however, such a theory would be a double-edged sword for the fan of the Learning Argument and for a foe of Thesis K. Once she has a theory in hand of the relevant kind of inferential sophistication, she will need to show not only that ignorant O'Leary is unsophisticated in this way, but that learned O'Leary is too. And indeed part of what is compelling about the Learning Argument is the idea that no amount of inferential sophistication gained by O'Leary's through his edification will change the phenomenal character of his visual experience.

What a fan of the Learning Argument needs, then, is a defense of premise (2) that avoids giving sufficient conditions for representing a property that the edified O'Leary's visual experience can meet; but gives necessary conditions for representing a property that ignorant O'Leary's experience doesn't meet.

5. Conclusion

In an effort to show that Thesis K is not threatened by the Learning Argument, I've considered and rejected a defense of a key premise of that argument. The defense I considered denied that a perceiver ignorant of what kind of tree he was seeing could form any mental state attributing that kind property to an object. I tried to present a case in which such a perceiver easily could form such a mental state.

What I haven't done in this paper is to defend Thesis K outright. If representing kind properties in visual experience depended on the perceiver's actually having a specific sort of conversation, then such representation would be significantly limited. A fan of Thesis K, then, should hope that this does not turn out to be a necessary condition for visual experience to represent kind properties.