In discussions of perception and its relation to 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:

(1) 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 Ms. E's curtains were drawn, that her mailbox was overstuffed, and that repeated ringings of her doorbell went unanswered.

But (1) 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--one still wouldn't perceive her being out of town. If one cannot sense that someone is out of town, then (1) is not a content properly attributable to perception.

The same point can be put in terms of the properties that are represented in visual experience. Consider the property of being round. This is a property that something can be seen to have. And if one can perceive that a surface is round, roundness, the property, can be represented in visual experience. Contents and properties, then, are related in the following straightforward way: if a subject S's visual experience has the content that a thing x is F, then S's visual experience represents the property of being F.

It is relatively uncontroversial that color and shape properties of some sort are represented in visual experience. Being orange and being spherical, for example, are

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1 There has been much discussion recently about which properties in the natural world (if any) are the colors, and about whether any of those properties are the very same as the properties represented in color experiences. (See essays in Byrne and Hilbert 1997). Though hardly anyone denies that colors are represented in color experience (though see Thau 2002), some have proposed that visual experience represents properties easily mistaken for the colors. (Defenders of this last view include Shoemaker 1997). Neither of
properties that we can sensorily perceive a basketball to have. (I'm assuming that if shape properties are represented in experience, then so are some depth properties). I'll also be assuming, somewhat more controversially, that in experience we also represent the property of being an object. The property of being 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 infants have. And plenty examples of ordinary objects can be given—cats, keys, tables and the like.

The main question addressed in this paper is whether any properties are represented in visual experience, besides the ones standardly taken to be so represented. Do any sensory experiences represent any properties other than color, shape, illumination, motion, and the property of being an object? I will focus on visual experiences, and argue that some visual experiences do represent properties other than these. Although the properties other than these do not form a natural class, it will be useful to have a label for them. Because they include, though are not limited to, natural kind properties, and because one of my examples will involve such a property, and finally because ‘kind’ begins with ‘k’, I'm going to call the rest of the properties K-properties. The thesis I will defend is

Thesis K: In some visual experiences, some K-properties are represented.

Defining K-properties in the way I have brings into focus some alternatives to Thesis K. Consider the following extreme view about the properties represented in visual experience: visual experience is akin to what David Marr called the 2 1/2-D sketch. Roughly, the 2 1/2-D sketch represents color, shape, and illumination properties of facing surfaces, but does not represent which surfaces belong to the same object, or how those surfaces continue out of view. (That's what the ‘1/2’ is for: some facing surfaces are represented as farther away than others; but the sketch does not represent full volumetric information).

A slightly more permissive view is that visual experience represents that some surfaces and edges—for example, those making up a cup's handle and the rest of the cup—are grouped together into fully volumetric (3D) units. More permissive still is the view that visual experience represents colors, shapes, volumetric groupings, and objects.

these positions departs very far from the intuition that properties very much like colors are paradigms of what is presented in visual experience.

2 K-properties also exclude some properties that one might think of as kinds, such as the property of being an object, or being red.
Thesis K is even more extreme: it allows that in addition to all these properties, visual experience represents properties such as being a house, and being a tree.³

The views I've just mentioned differ on what the veridicality conditions of visual experience are. The less committal the contents of visual experience, the less misperception there is. For instance, suppose you and your brother come across a bowl full of expertly designed wax fruits. Your brother is fooled into thinking that there are ripe juicy peaches and pears in the bowl: he believes that there are peaches and pears in the bowl, and this belief of his is false. The scene doesn't fool you, let's suppose, but only because you 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.

My defense of Thesis K goes as follows. First, I will discuss some cases in which a perceiver is disposed to recognize a K-property on the basis of visual experience. I'll argue in each sort of case that such sensitivity makes a difference to the phenomenology

³ Though I have assumed here that experiences have contents, in the sense introduced in the text, the main question of the paper can be posed without assuming that they do. Experience may represent properties, even if it consists in a relation to a perceived particular object and its property instances, as some disjunctivists about visual perception hold (see Martin, forthcoming). An analogous question would then arise: which properties can property instances can (partially) constitute experiences? Similarly, if experience is the having of sense-data, where these are sensory afflictions that are not assessable for accuracy, the analogous question is what properties sense-data can have.
of visual experience. Furthermore, I'll suggest, its making a difference to visual phenomenology is a reason to think that visual experiences represent the K-property to which the subject is sensitive. The discussion will proceed with preliminary clarifications in section 1, a discussion of why it matters whether thesis K is true in section 2, and the case involving recognitional dispositions in section 3. I conclude in section 4 by considering some implications of Thesis K

1. Preliminaries

Before proceeding any further, some terminology needs to be clarified: visual experience, its phenomenology and contents, and what it is for visual experience to represent a property.

Visual experiences are mental events of the sort that typically occur when a subject is seeing. These events determine the way things look to the subject. Substantive questions arise in determining what the relevant meaning of "look" is. 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.  

Visual experiences have phenomenal character, or more simply a phenomenology. The phenomenal character of a visual experience is what it is like to have that visual experience. In general, I will say that events of sensing, such as seeing,

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4 One might question whether there is any use of "looks" that is appropriate for this stipulation. As J. L. Austin pointed out in his 1957 (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.
have a sensory phenomenology. Using terminology in this way, blindsight is not a form of sensing.5

What it is like to have a visual experience is easy to confuse with what it is like to have the overall experience—including kinaesthetic, emotional and perhaps imaginative components--of which the sensory 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. 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 V counts as phenomenally the same as a visual experience V' just in case V and V' have the same phenomenal character. V and V' could be phenomenally same, even though the subject of V feels cheerful while the subject of V' feels gloomy.

What needs clarification next is the notion that visual experiences have contents. The contents of visual experience are the sort of things that have accuracy conditions. If a visual experience has the content that there is a golden pentagon in front of one, then this content is accurate just in case there is a golden pentagon in front of one.

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. In assuming that visual experiences have contents, I am assuming that they are not merely raw feels.6

When experiences have content, they represent--perhaps inaccurately--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.

Thesis K says that some K-properties are sometimes represented in visual experience. Being represented in visual experience is one way in which properties can be represented. Some visual processes represent properties, where such representation has

5 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.

6 This leaves open 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.
no associated phenomenology. In contrast, when a property is represented in experience, its being so represented has an associated phenomenology.

Now, it is a theoretical question, with many competing candidate answers, exactly what relation being represented in experience has to sensory phenomenology. The notion of being represented in experience that figures in Thesis K leaves open whether there is any explanatory relation between property-representation and sensory phenomenology, and whether either of these constitutes the other. Given what's built in to the notion of being represented in experience, Thesis K amounts to this: in whatever sense the representation of color and shape properties can have an associated sensory phenomenology, the representation of K-properties can too.

Finally, for all I've said about being represented in experience, a property can be represented in experience, even if the subject of the experience possesses no concept of that property. According to some philosophers, subjects can sensorily represent a determinate hue, even when they are not disposed to recognize that hue on subsequent occasions. Experiences of colors are supposed to be the paradigm case of non-conceptual sensory representation. I don't know of any discussion of the topic that presents a K-property as an example of a property that can figure in what have come to be called "non-conceptual contents" of experience. The arguments for thesis K in this paper won't challenge the implicit assumption that K-properties, perhaps unlike some color properties, can be represented in experience only if the subject has some sort of disposition to recognize their instances (assuming that they have multiple instances). But this assumption will not be built into the very notion of property representation in experience. That notion is neutral on what it takes for a property to be represented in experience.

2. Why it matters whether Thesis K is true

I said earlier that asking what shall count as a misperception is a way of making vivid the issue surrounding Thesis K. Why does it matter whether Thesis K is true, and what counts as a misperception? It matters for at least four reasons.

First, 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 for the case of visual experience. That is, 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.

7 For discussion, see the articles in Gunther 2003.
Second, there may be general skeptical worries that get going only if the 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.

A third reason why the truth of Thesis K matters has to do with recent research on pathological conditions known as delusions of belief, such as those found in Capgras syndrome, which is a condition in which patients seem to believe that people close to them have been replaced by impostors. An important empirical question for psychiatry is what the nature of the delusion is: roughly, whether it is a partly reasonable response to an unusual experience, or whether it is instead it is an unreasonable response to a normal experience. In forming empirically testable hypotheses about delusions of belief, it is useful to have independent support from the philosophy of perception about what sorts of contents experiences can have.

The fourth reason why it matters whether Thesis K is true 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:

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

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

\[\text{8 For discussion, see M. Davies and M. Coltheart 2000. More generally, Davies, Coltheart and colleagues agree with Maher 1974 and 1999 that in the case of several delusions in addition to Capgras (which they consider to be beliefs), part of the pathology is an experiential component in response to which the subject forms the delusional belief, and one task for future research is to develop and test hypotheses about the nature of the experience.}\]
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.

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.
Consider two entirely veridical w-world experiences had by Boring and Rich. Boring and Rich are facing a fruit bowl. Boring's experience represents only 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 shape and surface-shape (texture) 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). Now, 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 K-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 as factors in justification, the experiences of Boring and Rich are not interchangeable.9

I now turn to the case for Thesis K from recognitional dispositions.

3. Recognitional sensitivity to K-properties

My case for Thesis K involves experiences in which the subject's beliefs about what she is seeing seem to affect visual phenomenology. Changes in beliefs about what one is seeing don't always bring about changes in one's visual phenomenology. A case in point is the Müller-Lyer lines, which continue to look as if they differ in length, even after one learns that they don't. But there seem to be other cases in which changes elsewhere in the cognitive system do bring about phenomenal changes. The argument for Thesis K depends crucially on intuitions about these examples, or others like it. Before turning to examples of such changes, some remarks about methodology are in order.

9 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).
It is often best to avoid arguments that rest ultimately on intuition, since there can be at most a stand-off between a proponent of the argument and someone who does not share the intuition. In this case, however, appeals to intuition of some sort are unavoidable. Perhaps this is why other defenders of Thesis K have not tried to offer arguments for it at all, but have opted instead simply to give convincing descriptions of the phenomenology.\textsuperscript{10} The discussion here is an attempt to split the difference between description and argument, by starting with a minimal intuition, and then mapping out exactly what an opponent of Thesis K would have to deny someone if she accepts the initial intuition.

What about the initial minimal intuition? What happens if someone doesn’t share it? It seems reasonable to expect there to be some intuitions that elicit broad agreement, since visual experience is something to which one has first-person access. The exact nature and limits of such access is a topic unto itself. But the intuitions on which the case for Thesis K rests are simple and modest: they are intuitions about whether there is a change in phenomenology between two sorts of situation. It would be quite a radical view that denied that there were any such cases in which first-person access could detect a change in phenomenology. The case for Thesis K counts on there being first-person access to the fact that there is this sort of change, even if we don’t have unproblematic access to more subtle questions about the exact contents of visual experience.

Let me turn to two examples of changes in the cognitive system that seem to bring about phenomenal changes. Both involve the gradual development of properly grounded recognitional dispositions.

The first example involves the disposition to recognize semantic properties of a bit of text, grounded in knowledge of how to read it. Although Thesis K concerns only visual experience, it is useful to begin with an auditory example. Almost everyone has experienced hearing others speak in a foreign language that one doesn't understand, and that one can't parse into words and sentences. The phenomenology of hearing the same speech when one does understand is markedly different.

This contrast has a visual analog: consider a page of Cyrillic text. The way it looks to someone before and after she learns to read Russian seems to bring about a phenomenological difference in how the text looks. (Christopher Peacocke makes a similar phenomenological claim in ch. 3 of \textit{A Study of Concepts}\textsuperscript{11}. When you are first

\textsuperscript{10} A contemporary example of such a writer is Charles Siewert, who offers excellent descriptions of the phenomenon in Chapter 7 of his 1998).

\textsuperscript{11} "Once a thinker has acquired a perceptually individuated concept, his possession of that concept can causally influence what contents his experiences possess. If this were not so, we would be unable to account for differences which manifestly exist. One such difference, for example, is that between the experience of a perceiver completely
learning to read the script of a language that is new to you, you have to attend to each word, and perhaps to each letter, separately. In contrast, once you can easily read it, it takes a special effort to attend to the shapes of the script separately from its semantic properties. You become visually sensitive to semantic properties of the text, not just to orthographic ones.

The second example involves a different recognitional disposition. Suppose you have never seen a pine tree before, and are hired to cut down all the pine trees in a grove containing trees of many different sorts. Someone points out to you which trees are pine trees. Some weeks pass, and your disposition to distinguish the pine trees from the others improves. Eventually, you can spot the pine trees immediately: they become visually salient to you. Like the recognitional disposition you gain, the salience of the trees emerges gradually. Gaining this recognitional disposition is reflected in a phenomenological difference between the visual experiences had before and after the recognitional disposition was fully developed.

The argument for Thesis K from these cases has three substantial premises, plus a starting premise that rests ultimately on intuition. Let E1 be the sensory experience had by a subject S who is seeing the pine trees before learning to recognize them, and let E2 be the sensory experience had by S when S sees the pine trees after learning to recognize them. E1 and E2 are sensory parts of S's overall experiences at each of these times. I'm going to call the premise that rests ultimately on intuition premise (0):

(0) The overall experiences of which E1 and E2 are a part differ in their phenomenology.

(1) If overall experiences of which E1 and E2 are a part differ in their phenomenology, then there is a phenomenological difference between the sensory experiences E1 and E2.

(2) If there is a difference in sensory phenomenology between E1 and E2, then E1 and E2 differ in content.

(3) If there is a difference in content between E1 and E2, it is a difference with respect to K-properties represented in E1 and E2.

If no experiences represent K-properties, then there will be no difference between E1 and E2 with respect to K-properties represented in them. So if (3) is true, then Thesis K is too. An analogous argument could be made for the case of the Cyrillic text.

unfamiliar with Cyrillic script seeing a sentence in that script and the experience of one who understands a language written in that script. These two perceivers see the same shapes at the same positions…The experiences differ in that the second perceiver recognizes the symbols as of particular orthographic kinds, and sequences of the symbols as of particular semantic kinds." Peacocke 1992, p. 89.
Premise (1) entails that there is a phenomenological difference between the overall experiences of which E1 and E2 are parts. It specifies that it is a difference in sensory phenomenology (the phenomenology of sensing). Premise (0), in contrast, allows that the phenomenological difference is not a difference in sensory phenomenology, but in phenomenology of some other sort.

Given premise (0), there are three ways to block the inference from these cases of recognitional dispositions to Thesis K. First, one could deny that the phenomenological changes are sensory. This would be to deny (1). Second, one could grant that they are sensory, but deny that there is any accompanying representational difference. This would be to deny (2). Finally, one could grant that the phenomenological changes are accompanied by a representational change, but deny that the change involves any representation of K-properties. This would be to deny (3). I will consider each of these moves in turn.

**Premise (1): Non-sensory phenomenology?**

Let me start with the first way of attempting to block the inference to Thesis K. There are various kinds of phenomenology besides sensory phenomenology: there is the phenomenology associated with imagination; with emotions; with bodily sensation; with background phenomenology; and perhaps with some non-sensory cognitive functions. If the phenomenological change described in the two cases is non-sensory, the two most plausible suggestions seem to be that it is a change in some sort of cognitive phenomenology, or in background phenomenology. Someone might be tempted to re-describe the text and tree cases so that as far as sensory phenomenology is concerned, the experiences had with and without recognitional dispositions are the same; but that the difference in phenomenology of overall experiences is due to a non-sensory cognitive factor. If these descriptions were correct, then the examples would not bear on what properties sensory experience represents at all, hence would not bear at all on Thesis K.

The strategy of the opponent I’m considering, then, is to re-describe the text and tree cases by invoking non-sensory phenomenology in lieu of Thesis K. Let’s consider cognitive phenomenology first.

What structure would such re-descriptions have to have? Well, first, there would have to be an event in the stream of consciousness, other than the event of sensing (seeing, hearing, etc.), that allegedly has the phenomenology. Just as events of sensing have an associated phenomenology, and just as events of imagining and having (some) emotions have an associated phenomenology, so too if there is cognitive phenomenology, there have to be events in the stream of consciousness that have it.12 Second, assuming

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12 To say that an event of sensing has an associated phenomenology leaves open whether there is any phenomenological commonality to all such events. This seems implausible.
that the mental event involves a propositional attitude of some sort, a plausible account would have to be given of the *attitude* involved in the event, and of the *content* of that attitude. Finally, some reason would have to be given to think that the phenomenology involved is cognitive, rather than sensory. So, for the strategy to succeed, plausible accounts are needed of four things: the *event* in the stream of consciousness that has the (alleged) non-sensory phenomenology; the mental *attitude* it involves; the *content* of that attitude; and the factors that make the phenomenology cognitive rather than sensory.

The general idea behind the strategy is that the *familiarity* that one gains in gaining a recognitional disposition is reflected in cognitive phenomenology. I now want to list some of the options for the event types, attitudes and contents that an opponent of Thesis K who followed this strategy might invoke, in accounting for this feeling of familiarity. Once these are on the table, it will be easier to assess the case against Thesis K.

It is natural to list the events and attitudes together. They include:

(i) Forming a judgment 
(ii) Dwelling on a belief 
(iii) Entertaining a hunch or intuition. 
(iv) Entertaining a proposition by having it pass through your mind, without committing to its truth

These are four sorts of events that can occur in the stream of consciousness. Entries (i)-(iii) are *commitment-involving*: the attitudes are all related to belief, and its accompanying commitment to the truth of the thing believed. Hunches and intuitions share with beliefs that the subject accepts the content for the sake of certain purposes, for instance, reasons as if it were true in testing a hypothesis. Entry (iv), in contrast, does not involve any such commitment. This distinction will be useful shortly.

What about the content of the attitudes involved in the event? Since the events are supposed to be brought about in part by gaining a recognitional disposition, the contents for sensing as such, though perhaps more plausible within each of the modalities. It seems even more plausible for imaginings, if those always have a voluntary feel to them. But in any case, the demand on the denier of (1) is merely to show that there is an event that is not sensory and has an associated phenomenology, not to show that there is a phenomenological common element to all events, or to all events involving the same attitude, that are both cognitive and have an associated phenomenology.

13 When I discuss the strategy of denying (2), I will consider a version of this strategy that allows cognitive phenomenology to be had by an event that does not involve any propositional attitudes, or contents thereof.
should reflect this gain in some way. Some reasonable options include these (I'll stick to
the case of the trees):

(a) That is a pine tree (mentally demonstrating a tree).
(b) I've seen trees with that look before
(c) I recognize that kind of tree
(d) That kind of tree is familiar.

These are supposed to be contents of mental states, rather than contents expressed by
actual uses of sentences. As such, the proposal that there are attitudes that have (a) - (d)
as contents involve a notion of a demonstrative thought, independent of the notion of
what is expressed by an actual use of a demonstrative. The contents are analogs for
thought of contents expressed by uses of sentences.

Suppose we combine any of these contents into any of the attitudes and events in
the first list. Then we will have a candidate for an event with phenomenology. The denier
of (1) will still owe some account, however, of what makes the event that has the
phenomenology (and so the phenomenology itself non-sensory).

Let me now examine one instance of the strategy I've outlined for denying (1). In
the tree case, the suggestion comes to this: how the tree looks before and after you
become disposed to recognize pine trees is exactly the same: it looks to have certain color
and shape properties. But at the moments when you recognize the tree, you experience a
feeling of familiarity, and this feeling accounts for the phenomenological change before
and after you gain the disposition. So on this suggestion, the way the tree looks stays the
same, before and after you become disposed to recognize it; but the phenomenology of
"taking" the tree to be familiar contributes to the phenomenal change accompanying E2.
For the purpose of discussion, I'll select the event and attitude of dwelling on a belief, and
content that that kind of tree is familiar (so, (ii) and (d)).

I'm going to raise two objections to the view that the phenomenological change
in the tree case consists exclusively in a change in cognitive phenomenology, where the
cognitive phenomenology is had by event and attitude (ii) with content (d). The first
objection would also apply, if the event and attitude were (i) or (iii), and if it had any of
the four contents listed. My second objection is more general: it would apply to any
combination of the events, attitudes and contents listed.

The first objection focuses on the events with commitment-involving attitudes.
Suppose that you're an expert pine-spotter looking at some pine trees in the forest. Then
someone tells you that the forest has been replaced by an elaborate hologram, causing
you to cease to dwell on the belief that you're looking at a familiar tree. If an event such
as (ii)(d) were what contributed to the phenomenological change before and after
acquiring the disposition to recognize pine trees, then we would expect your acceptance
of the hologram story to make the hologram look as the forest looked to you before you knew how to recognize pine trees. But intuitively, the hologram could look exactly the same as the forest looked to you after you became an expert. So the familiarity with pine trees does not seem to have its phenomenological effects at the level of belief.

The case against the proposal that the feeling of familiarity is conferred by a belief holds equally well against the proposal that substitutes any of the commitment-involving events/attitudes for the one I chose for purposes of discussion. Hunches and intuitions, like beliefs, seem to be attitudes that one could lose by accepting the testimony described above. If anything, hunches and intuitions are less resistant than beliefs are to counter-evidence—if the belief wouldn't survive accepting hologram testimony, then neither would hunches or intuitions.

The objection I've just made would not threaten a version of the strategy that invoked a non-commitment-involving attitude, such as entertaining a proposition without committing to its truth. So let us focus on a version of the proposal that appeals to an event of this sort. On this version of the proposal, in the tree case, when you look at the tree after having gained the recognitional disposition, you undergo a mental event, distinct from sensing, that has a phenomenology of its own. This is an event (we're supposing) of entertaining the proposition that That kind of tree is familiar, where this proposition passes through your mind, without your committing to its truth.

Here it is important to keep in view the aspect of the proposal that posits an event (supposedly a 'cognitive' event) occurring in the stream of consciousness. This proposal predicts that there will be a phenomenological difference between your experiences of seeing the pine tree before and after you learn to recognize trees, only to the extent that such an event is occurring. If no such event is occurring, then, this proposal predicts, there will be no phenomenological change of the sort invoked in the original example.

The second objection targets this aspect of the proposal. An event's occurring in the stream of consciousness is not akin to having a tacit recognition (or misrecognition) of something as a tree. It is something explicit, rather than tacit. But the phenomenological change in the original tree example seems to be the sort that does not always involve an explicit entertaining of a proposition such as (d). Consider a comparable thought from Charles Siewert:

[t]hink of how individual people look different to you after you have gotten to know them than they did when you first met. Notice how different your neighborhood looks to you now that you have lived there for a while, than it did on the day you first arrived. (Charles Siewert, The Significance of Consciousness. Princeton, 1998, p. 257-8.)

What can happen with a neighborhood, it seems, can happen with trees as well. The phenomenological change is the sort that we can infer by remembering how different
things looked before we became familiar with them. Becoming aware of the phenomenon involves thinking of something--a person, a neighborhood, or a kind of object, such as tree--as familiar. But simply undergoing the phenomenon does not have to involve this. There need not be, it seems, an extra event, beyond sensing, for the phenomenological change to take effect.

I've raised this objection against the proposal that invokes a non-commitment-involving attitude. But it works equally well, if it works at all, against the proposal invoking a commitment-involving attitude.

At this point, the denier of premise (1) might reply to the objection by claiming that the event in question could have a content such as (d) explicitly, without the event being the sort I've described. After all, the denier might point out, sensory experience has its content explicitly, without involving something analogous to saying to oneself something like (d) (e.g., "well how about that, that's a tree", etc.).

This reply, however, will succeed only if the denier has something to say about what makes the sort of event she is invoking a cognitive, non-sensory event, as opposed to simply a re-description of sensory experience itself. That was the fourth thing that I claimed the defender of this strategy needed to account for: she needs to say what makes the event in question cognitive, and phenomenology attached to that event cognitive phenomenology, instead of sensory. There could be an ongoing event that lasts exactly as long as the sensing lasts, has phenomenology of the sort under discussion, but is cognitive rather than sensory. But then something independent of the denial of Thesis K should corroborate the nature of this event as cognitive. I've argued that nothing in the phenomenology recommends it. If the denier of (1) can meet this challenge, then, it will have to be, it seems, on the basis of further theoretical considerations.

One proposal on behalf of the denier of (1) is this: the content (d) can be entertained even if there is no sensory phenomenology, and so the event of entertaining it (in some non-commitment-involving way, presumably) is not sensory. One problem with this proposal, though, is that sensory experience will be needed to come to entertain the demonstrative contents. So the proposal does not help in the case at hand. To deny (1) by appealing to cognitive phenomenology, one has to divide the phenomenology distinctive of pine-tree seeing into a sensory and a cognitive component. This division seems artificial.

Let me now consider the proposal that the phenomenal change is a change in background phenomenology, rather than a change in cognitive phenomenology attached to an occurrent event. Someone who denied premise (1) might claim that although the phenomenological difference between E1 and E2 is not sensory, neither does it belong to a specific cognitive event in the stream of consciousness.

Drunkenness and depression may be two examples of standing, background states that affect overall phenomenology. As against premise (1), someone might claim that
recognitional dispositions are like drunkenness and depression in the crucial respect: they
too are standing states of a subject that can affect overall phenomenology—and indeed,
the objector will claim, that is just what happens in the text and the tree cases.

Now, to defeat premise (1) in this way, what the objector would need is a reason
to think that changes in standing states can affect overall phenomenology in some way
other than by causing changes in sensory phenomenology. Depression and drunkenness
may involve at least some such changes: depression causes things to look grey;
drunkenness causes them to look blurry. The relevant analogy has to be between changes
in overall phenomenology that are not the result of changes in sensory phenomenology.
The changes must be akin to changes in mood.

Having a recognitional disposition, however, is not phenomenologically like
being in a mood at all. Moods have relatively non-local effects on phenomenology:
almost nothing seems exciting during depression; nearly everything seems exciting
during drunkenness. In contrast, being disposed to recognize pine trees does not have
such overall phenomenological effects. So although it should be granted that standing
states, as well as specific events, can affect phenomenology, it is implausible to suppose
that having recognitional dispositions of the sort at work in the text and tree cases do.

Let me now consider how the text example fares, if (1) is false and the
phenomenological difference in how text looks before and after one learns to read it is a
difference in cognitive, as opposed to sensory phenomenology.

A fan of premise (1) can grant that there are some cases in which reading a text
does involve undergoing events that have a phenomenology, and that are arguably non-
sensory. Lingering on a sentence while deliberating about whether it is true has a
phenomenology, and arguably such an event is non-sensory. It could happen, for
instance, if you weren't perceiving anything at all, but simply entertaining the proposition
expressed by the sentence.

Contrast this phenomenology with that of being bombarded by pictures and
captions on billboards along the highway. This seems a visual analog of the blare of a
loud television, or a fellow passenger's cell-phone conversation: understanding the text
on the billboard as you drive by isn't a deliberate affair; rather (if the billboards have been
positioned correctly), it just happens. The advertisers would doubtless be happy if you
lingered over every billboard's message, but no such event need occur in order for you to
have 'taken in' the semantic properties of the text as you whiz by. This suggests that the
"taking in" can be merely sensory.14

14 According to some neuropsychologists, the face recognition system has at least two
components: an affective component that registers when a face is familiar, and a semantic
component devoted to recognizing faces. See Young 1998. These elements seem to come
apart in prosopagnosics, who have the same differential affective reactions as normal
perceivers do to pictures of familiar famous people, on the one hand, and to pictures of
Premise (2): A non-representational phenomenological change?

I now turn to the strategy of denying premise (2) of the argument for Thesis K. The denier of (2) tries to block the inference from the examples of phenomenological change to Thesis K, by claiming that phenomenological changes are unaccompanied by any representational change at all.

Premise (2) is a consequence of a more general claim, one that is controversial in philosophy of mind. This is the claim that with any change in the sensory phenomenology, there is a change in content of sensory experience. Premise (2) is much more limited. It just makes a claim about phenomenology of the sort at issue in the two cases.

If (2) is false, then there is such a thing as a non-representational feeling of familiarity. This could be part of sensory experience, or part of some sort of cognitive event. Either way, it would be a feeling of familiarity that could be had even in the absence of perceiving, or seeming to perceive, anything as being familiar. It would not represent anything as being familiar, but rather would be akin to a sensory affliction. It would be a raw feel. The proposal is not that there is merely a non-representational aspect to a representation of familiarity. Rather, the proposal is that the feeling of familiarity is entirely non-representational.15

Against this idea, my defense of (2) is that familiarity does not seem to be the sort of thing that could be felt without any representation of something as familiar. What sorts of examples that might lead someone to posit such a feeling? One would expect a raw feeling of familiarity, if there was such a thing, to leave one with a sense of confusion, since if it was clear to the subject what was being felt to be familiar, then this would seem to make the feeling representational after all. Suppose, for example, you see someone complete strangers, on the other (as measured by skin conductance tests), but who claim not to know who any of the people pictured are. Even if there is a mechanism devoted to affect of familiarity, however, that does not show that there are non-representational phenomenology of familiarity. The structure of underlying mechanisms of face recognition may not be mirrored by phenomenology: for us to have the phenomenology of seeing a familiar face, it may be that more than positive skin-conductance reaction is needed. (Indeed, it seems that more is needed, since otherwise we would expect the prosopagnosics’ reports to be more equivocal than they are, to the effect that the person pictured seems familiar, yet cannot be named).

15 Contrast the case of color, where some philosophers argue that there are both non-representational and representational features of color experience: color properties are represented in experience, but color experiences also have non-representational features. (E.g., N. Block 1996).
who acts toward you as a stranger would, and this seems inappropriate to you, but you can't at first figure out why. In response to this feeling of strangeness, you might think to ask the person whether you have met before. But the feeling you have that leads you to ask it, someone might suggest, is a raw feeling of familiarity. It is a variety of "deja-vu".

I think this case, like other cases of deja-vu, can be re-described in a way that does not invoke a raw feeling of familiarity. In the case above, when it occurs to you to ask the person whether you have met before, you are realizing that you are taking them to be familiar. The sense of confusion comes from the fact that though you take them to be familiar, you don't recognize who they are. There are two aspects to this experience: you represent something as familiar without recognizing it; and you represent something as familiar, without at first realizing that it is so represented. The first aspect is definitive of deja-vu: a place, or a sound, or a situation strikes you as familiar, without your being able to discern what is familiar about it. This is simply a less specific representation of familiarity; it is not a case of a feeling that does not represent anything as familiar.

**Premise (3): Exclusively non-K representation?**

I now consider the third response to the argument for Thesis K, which is to reject premise (3). Premise (3) says that the difference in content between E1 and E2 is a difference with respect to K-properties represented in E1 and E2. As before, I'm considering opposition to thesis K that grants premise (0), that there is some sort of phenomenological difference between E1 and E2.

Both the tree and the text examples involve a gain in recognitional dispositions, and it will be useful to keep in mind what sort of structure recognition has. A perceiver who can recognize trees by sight seems to have some sort of memory representation, and some sort of perceptual input, such that the input "matches" the memory representation, and the cognitive system of the perceiver registers that this is so. Empirical theories of object recognition are supposed to explain the nature of each of these components (the memory, the input, and the matching), and the mechanisms that underlie them. Part of what's at issue in the debate about thesis K is whether visual experience is an input to such processes of recognition, or an output of such processes. Whichever empirical and philosophical theories turn out to be correct, some structure such as this seems built in to the very notion of recognition.

One sort of proposal about the contents of E2 that a denier of premise (3) might invoke would involve the notion of a pine tree shape-gestalt. Suppose that when you learn to recognize pine trees by sight, your experience comes to represent a complex of shapes--leaf shapes, trunk shapes, branch shape, and overall pine tree shape. This complex is an overall pine tree gestalt. The pine-tree-shape gestalt is not so specific that it cannot be shared by differently looking pine trees. But it is specific enough to capture the
look shared by exemplary pine trees. The pine-tree-shape gestalt is invariant across
differences in shape of particular pine trees.

For an experience of seeing a tree to represent a pine-tree-shape gestalt, it need
not be part of the content of experience that the tree seen is similar to other trees with
respect to such-and-such shapes. It is enough simply to represent the respects in which
various pine trees are in fact similar. A pine-tree-shape gestalt, then, is not by definition
something that can be represented in experience, only if the subject is disposed to believe
that the different things instantiating it are the same shape. But all things that have it have
a complex shape property in common.

It seems plausible to suppose that pine trees share a pine-tree-shape gestalt, to the
extent that pine trees, varied though they may be in size and other features, have some
quite general shape properties in common. If there were such a thing as a tree-shape
gestalt, then the denier of (3) could invoke this as the non-K property that E2 represents
and E1 doesn't. I'm going to call this proposal for denying (3) Anti-K.

Anti-K: E1 and E2 differ with respect to the pine-tree-shape-gestalt properties
they represent, and neither represents any K-properties.

In the tree case, as Anti-K would describe it, the perceiver's experiences come to
represent the tree-shape-gestalt as part of the same process by which the perceiver comes
to have a memory representation "matching" that shape gestalt.

I don't know of a knock-down argument against Anti-K. But the strategy of
invoking the representation invariant color-shape complexes to underpin
phenomenological changes does not seem generally available. Consider, for example, the
property someone's face can have of expressing doubt. One could learn to recognize
when the face of someone, call him X, was expressing doubt. X might even belong to a
group of people whose faces all express the doubt in the same way. Initially, one might
not know that X and his kin are expressing doubt when they look that way. But this is
something one could learn to recognize by observing them. In this sort of case, it seems
implausible to suppose that there must be a change in which color and shape properties
are represented before and after one learns that it is doubt that the face so contorted
expresses. One could initially wonder what the contortion of the face meant, and come to
believe that it is an expression of doubt only after repeated sightings of it and interaction
with the person. This change in interpretation seems to be one that could be accompanied
by a phenomenological change as well.

Once they are adjusted to be about the face case, the other two premises of the
argument still seem to go through. Exactly the same considerations apply in the case of
premise (2). In premise (1), the argument for ruling out non-sensory phenomenology also
seems to go through as before, but in the face case another alternative to sensory
phenomenology seems relevant—namely, emotional phenomenology. Here, it seems possible in principle that A could learn to detect a look of doubt on B’s face without A’s having any emotional response—B might not be anyone significant for A, e.g., B might be a talking head on television.

As for premise (3), an opponent who granted the initial intuition that there is some phenomenal change accompanying the gain of a recognitional disposition might say that the phenomenal change is sensory, but that the novel phenomenology is associated merely with coming to represent the property of being a familiar expression. This option, seems to be ruled out by considering a variant of the face case involving two subjects. Consider a counterfactual situation in which X contorts his face in exactly the same way, but in which that contortion expresses bemusement rather than doubt. One could come to learn that it expresses bemusement in the same way as in the first case, by extended observation and interaction. But it seems plausible to suppose that the phenomenal change in each case would be different: one sort of phenomenology for recognizing the doubtful expression, and another sort for recognizing bemusement.

Finally, return to the text example to see how it fares with respect to premise (3). The original intuition was that before and after you learn to read Russian, the same page of Cyrillic text will look differently to you. You might love the look of Cyrillic script, keep a page nearby at all times, and study its shapes carefully. Then, after learning to read Russian, you see by reading it that it is a page of insults. Even if you attended to colors and shapes of the Cyrillic script as thoroughly as possible before learning to read it, you would still experience the page differently once it became intelligible to you.

I’ve argued that gaining a disposition to recognize K-properties can make a difference to visual phenomenology, and that this difference is accompanied by a representation of K-properties in visual experience. In the next section, I consider why it matters whether Thesis K is true.

Section 4. Some implications of thesis K

I will conclude by discussing some implications of Thesis K, and of the considerations I’ve appealed to in support of it.

First, if Thesis K is true for reasons of the sort given here, then visual perception as a whole is at most partly informationally encapsulated: which contents visual experiences have can be influenced by other cognitive processing. It suggests that even if visual experiential representations of some properties cannot be influenced by what happens in other parts of the cognitive system, visual experiential representations of other properties can be. If the argument here is sound, our perceptual systems may include
modular “input systems” of the sort described by Fodor in *The Modularity of Mind*, but these systems will not be ones with which visual *phenomenology* is exclusively associated.

Second, if Thesis K is made true by visual experience representing kind properties, such as the property of being a pine tree, then it is natural to ask whether *externalism about the contents of experience* follows. Externalism is the view that physical duplicates can differ in the contents of experience. Why might something think that the representation of kind properties implies externalism about experiential contents? Suppose Sandy’s experience represents the property of being a pine tree. Now consider Cindy, Sandy’s duplicate, who lives in an environment where there are no pine trees. If having experiences that are caused by pine trees is necessary for having experiences that represent the property of being a pine tree, then Cindy has no chance of having an experience that represents that property—despite being Sandy’s duplicate.

Furthermore, if Cindy and Sandy, by virtue of being duplicates, have the same phenomenology, then externalism about content implies that there will be pairs of experiences that have the same phenomenology but differ in content. This runs contrary to a stronger version of intentionalism, according to which specific phenomenal properties are identical with the property of having certain contents.

Externalism about experience content is compatible with Thesis K. For instance, one could hold, compatibly with Thesis K, that any two experiences with the same content have the same phenomenology, but deny the converse, allowing that experiences with the same phenomenology will differ in their contents, perhaps depending on the relations between experiences and the environment. This view would hold that the different experiential content can be realized in the same phenomenology.

There are also at least two ways in which one might consistently hold Thesis K for kind properties, without embracing externalism about experiential contents. First, one could hold that the kind properties represented in experience are more general kind properties that are shared by pine trees and non-pine trees that look just like them. These might not be biological kinds, but they could be kind properties nonetheless. This option is compatible with a key premise of standard arguments for externalism about content generally (experiential content or not), that one cannot have a mental state that represents a property F without having stood in causal relations to instances of F. Second, one could deny this key premise, and hold that there are K-properties (perhaps such as expressive features of faces) that can be represented by visual experience, even if the subject of experience has not stood in causal relations to instances of that property. So although

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16 Fodor 1983.
17 For a defense of this position, see Tye 1995 and 2000.
Thesis K is compatible with externalism about the contents of experience, it does not require it.

Finally, if Thesis K is true, then it seems reasonable to expect that K-properties other than the property of being a pine tree and semantic properties of texts are represented in visual experience. There are two routes to generalizing the conclusion beyond the two specific properties used as examples in the argument. One route is to run exactly analogous argument for other cases in which becoming sensitive to property instances has an effect on overall phenomenology. The argument structure leaves open, however, whether analogous considerations will always be available—and to that extent, the first route to generalizing the conclusion may turn out to be somewhat limited.

There is, however, a second route to generalizing the conclusion. Thesis K has some prima facie plausibility. One role of the argument given here is to provide positive reason to think that at least some K-properties are represented in visual experience. And if some such properties are, then it is plausible to think that others are as well. The role of the argument given here is thus to provide license of holding on to a view that seems prima facie plausible at the outset.
Works Cited.


