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Transparency and the Unity of Experience

Abstract

If we assume that the operation of each sense modality constitutes a different experience – a visual experience, an auditory experience, etc – we are faced with the problem of how those distinct experiences come together to form a unified perceptual encounter with the world. Michael Tye has recently argued that the best way to get around this problem is to deny altogether that there are such things as purely visual (and so forth) experiences. Here I aim to show not simply that Tye's proposed solution fails, but that its failure is highly instructive because it allows us to see that the transparency thesis, which lies at the heart of the case against qualia, and of most representationalist theories of experience, is more problematic than is often supposed.

The target of this paper is Michael Tye's theory of phenomenal unity. I will argue that Tye's theory is not consistent with clear facts about perceptual experience. My aim is not so much to arrive at a better account of the unity of experience, but rather to suggest that Tye's approach to the unity issue reveals an important problem with his version of the representational theory of mind itself. Tye's theory of phenomenal unity cannot account for the different ways that properties are linked together in perception. Further, the main reason for this is that the transparency thesis, one of the bedrocks of Tye's Representationalism, is not itself consistent with one of these ways.

Tye's Representationalism

Tye is a representationalist, a view according to which phenomenal properties are intentional objects; they are the way external objects are represented in perception¹. To see red, on this view, is a matter of being in a perceptual state that represents part of the world as being red. The phenomenal quality associated with redness is a component of one's (perceptual) awareness of the redness of objects 'out there' in the world. Being aware of the feeling of redness is nothing more

than being perceptually aware of objects as red. There is no mental quality—in this sense no *qualia*—of which one need be aware, only qualities of the objects of perception.

The argument to which Tye continually returns is the argument from transparency (Tye, 1995, 2000, forthcoming and many other places), which goes like this: when you focus your attention on what your experience is of – on what it is that you are experiencing – you will simply notice in more detail the qualities of whatever it is that is the object of your experience. In particular, you will not become aware of any qualities of the experience itself distinct from its content. So, for example, were you to look at a blue sky and focus your attention on that experience, you would only become more aware of blueness (or perhaps a more complicated pattern of colours). It would not strike you that there is, in addition, a character of your experience that is over and above the blueness. Since the main reason for believing in nonrepresentational phenomenal character, or qualia, is our alleged direct awareness of it in experience, if there is no such direct awareness, as transparency suggests, then there is little reason to posit qualia.

The problem, and Tye's solution

It has been a commonplace within philosophy of mind to use the notions of visual experiences, auditory experiences, tactile experiences, and so on. But it is also widely believed that we are perceptually presented with a unified representation of the world. In two recent publications Tye attempts to clarify and then to solve a problem that arises from the combination of these two ideas. The problem in a nutshell is this: how do we get *several* experiences to come together in *one* experience? Here is the way Tye describes the problem in his *Consciousness and Persons* (Tye, 2003: 17-18):

[A]ccording to the received view, if I am using all five of my senses at a given time, I undergo five different simultaneous perceptual experiences at that time, each with its own distinctive sense-specific phenomenal character. This generates one version of the problem of the unity of consciousness. How is it that if I am undergoing five different simultaneous perceptual experiences, it is phenomenologically as if I were undergoing one? How is it that the five experiences are phenomenologically unified?

In another paper, “The Problem of the Common Sensibles” (Tye, forthcoming), Tye begins his solution by elaborating a point similar to Kant's famous dictum that a succession of experiences does not amount to an experience

of succession. Tye's version is that the fact that one has an experience of hearing something and an experience of seeing that same thing does not mean that one has *an* experience of *seeing and hearing* it. This fact is important because if we start from the idea that each sense modality constitutes a different experience, we are faced with the problem of how those distinct experiences come together to form a unified perceptual encounter with the world. The best way to get around this problem, Tye argues, is to deny altogether that there is such a thing as a "visual experience", or "auditory experience", etc. Instead, there is an "experienced togetherness": 'On this view, there really are no such entities as purely visual experiences or purely auditory experiences or purely olfactory experiences, etc in normal, everyday consciousness. Where there is experienced togetherness across modalities, sense-specific experiences do not exist. They are figments of philosophers' and psychologists' imagination.' This view apparently defeats the problem of the senses for representationalism because there is, in a sense, no such thing as the visual experience of a property—there is only a *perceptual* experience of shape, or colour, or movement, etc.

Tye's solution follows from his representationalism, according to which perceptual experience, including introspection thereof, does not include awareness of any *psychological* fact. Because if not, then the following chain of reasoning suggests itself (Tye, 2003: 25): 'If we are not aware of our experiences via introspection, we are not aware of them as unified. The unity relation is not given to us introspectively as a relation connecting experiences. Why, then, suppose that there is such a relation at all?' Furthermore, if we are not aware of our experiences via introspection, we are also not aware of them as *disunified*. So, why suppose that there is any *need* for a unifying relation? This suggests a simpler scenario, namely (Tye, 2003: 36):

Consider, for example, the case in which I experience a loud noise and a bright flash of light. The loudness *of the noise* is unified phenomenally with the brightness *of the flash*. Phenomenal unity is a relation between qualities *represented* in experience, not qualities *of* experiences.

Specifically, perceptual unity is a matter of simultaneously experienced perceptual qualities entering into to same *perceptual content*. The perceptual experience a normal perceiver undergoes has an enormously rich, multimodal representational content.

I think that this is not a convincing solution to the problem. Here I will give two related reasons to not be convinced by it. They have, I think, some interest beyond this particular context because they also present a challenge to the sort of

representationalism Tye embraces.

The Gricean Epistemological Problem

In his 1962 paper, “Some Remarks on the Senses”, H.P. Grice considers the proposition that the sense modalities are distinguished from one another by virtue of the respective contents. In the course of his rejection of this idea, he presents the following thought experiment. Imagine one is resting a coin in the outstretched palm of each hand. The coins feel the same size on one’s palms, but when one gazes down onto the coins, they *look* to be different sizes. A list of the properties that one is (directly) perceptually aware of in this case might look something like this: the coins are silver, the coins are cool, the coins are the same sizes, the coins are different sizes, the coin are round, and so on. The problem, is that contrary to the idea that content alone distinguishes the modalities, ‘...there is nothing in [these] facts to tell us whether the coins *look* different in size but *feel* the same size, or alternatively *feel* different in size but *look* the same size.’ (Grice, 1962: 136)

The problem that Grice thinks is brought out by this thought experiment is an *epistemological* one. The person looking at and feeling the coins *knows*, Grice is assuming, that the coins do indeed feel, but not look, the same size. But there is no way they *could* know that purely on the basis of the properties the coins seem to have. There must therefore be, so the logic goes, something *other* than those properties which carry the information on the basis of which a person comes to be aware of which modality is being employed in a particular case.

Note that the difficulty Grice brings out with the “two coins” thought experiment is in some respects a very general difficulty. For when we both see and touch the circularity of a coin, “circularity” does seem to enter twice into the contents of our experience. If we were to write the contents of both senses in a list it might look something like: silver, cold, circular, circular. The question immediately arises, How does one know which “circular” is felt and which is seen? There is no easier answer to this question than to the corresponding one in the “two coins” case, but it is not obviously less important, nor less clear that the person in this case *does know* which “circular” is seen and which felt.

But the question is also peculiar. It is misleading to say *simply* that “circular” appears twice on the list of properties perceived of a coin that is both seen and touched. When we describe the contents of a perceptual experience, we leave something out if we describe just the properties we are aware of and not also the connections between them. For example, to describe a visual experience of a red square as simply an experience of an object as red and as square is to miss out something crucial, namely that it is the redness that we are aware of that we

are experiencing as square-shaped. It is not the case that we see an *object* which is square *and* which is red—it is the *squareness* which is red and the *redness* which is square. This link is constitutive of the experience itself. In the case of seeing and touching a coin, then, although “circular” is in the perceptual experience twice, it is there in two different *ways*: one perceives the object in one’s hand as a *silver circle* and as a *cold circle*.

Why is this a problem for Tye? Well, it means that the apparent disunity brought about by the fact that we experience the world through different modalities is much more closely tied to the *contents* of experience than Tye supposes. The size of things that we see *and* feel are represented distinctly in experience, and yet we are not perceptually aware of things having *two* size properties. This disunity problem cannot be dissolved by denying that there are visual *experiences* distinct from tactile *experiences* in some strong phenomenal sense.

It cannot be solved this way because it is not created by the assumption that the different sense modalities instantiate phenomenally different experiences. Rather, it arises simply out of the attempt to accurately capture the *contents* of experience. What is worse, however, it may imply the falsity of representationalism as Tye defends it. And here we come to the second problem, which I will call the Binding Objection.

The Binding Objection

Here I will argue that Tye’s view is false because it cannot account for the difference between intra-modal and inter-modal *binding*. In order to account for that difference, we need to allow that properties can be *doubly* represented, and that is inconsistent with the “experienced togetherness” that Tye proposes.

The process by which different properties in perception are represented as holding of the same object is generally known in psychology as “feature integration”, and in the neurosciences as “binding”. The problem—or rather *problems*—of discovering how this is achieved is generally known simply as “the binding problem”. From the evidence currently available, it is fairly clear that it is achieved differently within a modality as compared with between modalities. For example, there is some evidence for “polymodal” neurons (or cortical areas) whose specific function is to integrate the different modalities, but virtually none for neurons whose function is to integrate representations of different features within a modality.

In addition, intra-modal binding is more closely linked to attentional mechanisms than cross-modal binding. The most well known illustration of this is the following sort of case: if one looks at an array of “+” signs, all of which are

composed of a green horizontal line intersected by a blue vertical line except one, which is the other way around, the anomalous “+” sign will not be visible as such (that is, as anomalous) until one is actually looking attentively at it. In comparison, faced with a single green “+” sign surrounded by an array of entirely blue ones, one’s attention will actually be *drawn* to the anomaly—the green “+” will “pop out”. In contrast, cross-modal binding appears to take place outside of attention (Vroomen et al, 2004), as does synaesthetic binding (e.g. of colours to numerals in people with synaesthesia; Robertson 2003; Ramachandran 2001; Palmeri 2002). This is illustrated in the former case by the fact that the so-called “ventriloquist effect”, where a sound is heard to coming from (i.e., is bound to) the most likely *visible* source, can occur outside of attention, and in the latter case by the fact that synaesthesia is also evident outside attention. Moreover, there is evidence that less attentional resources are available within a modality than across modalities, which suggests that insofar as the intra-modal binding mechanism is also an attentional mechanism (as Triesman proposes), it cannot be *that* mechanism which is responsible for cross-modal binding.

Of most interest to me here, though, is the different (as they seem to me) *logical* structures of intra- and cross-modal binding.

Austin Clarke (2001) argues that what is required for binding is that the features in question be taken to share a common *subject matter*. It requires that what is taken to be green is *the same thing as* what is taken to be vertical, or what have you. Or, alternatively, that “green” and “vertical” are true of the same *place*. Clarke’s purpose is to show that mere conjunctions of representations is insufficient for binding (Tye would agree with this much). In addition, the representations must be taken as referring to the same sets of things, or the same coordinates in space.

This certainly seems true of cross-modal binding. However, in the case of intra-modal binding, something stronger seems to be needed. It is difficult to spell out precisely what that “something” is, but here is one way. W.V.O. Quine (quoted in Clarke, 2001: 12) objected to the idea that in the perception of a blue pebble, the binding of “blue” and “pebble” could be satisfied by the mere conjunction of those properties in perception, since the conjunction is satisfied by the perception of ‘a white pebble here, a blue flower there.’ Rather than conjunction, in order to correctly describe the *way* “blue” and “pebble” are conjoined in perception we need an operation ‘requiring them to coincide or amply overlap. The blue must encompass the pebble.’

Now there seems to me a substantial difference between the idea of coinciding and the idea of encompassing. In the case of the blue pebble, it seems apt to say that the blue encompasses the pebble—or perhaps even more aptly, that it *infuses* the pebble. Or, more strictly, that the blue infuses the pebble-*shape*; it is

not the pebble merely, but in particular its *shape* which is blue—which is infused by blue. This contrasts markedly, it seems to me, with the situation in which, for example, the pebble drops to the ground and makes a clicking sound. In this case the *click* is heard to come from the pebble, and indeed to be made by a blue, pebble-shaped object. Unlike the colour, however, the sound does not infuse the shape. Although the shape is, in perception, a *blue* shape it is not—or not in anything like the same way—a *clicking* shape. This seems to be the crucial difference between the cases.² To describe it in an intuitive way, within one modality properties are bound to *each other*, while across modalities properties are bound to *the same object* (or, for that matter, location).

To illustrate this point in a different way, when one sees an object that is making a sound, one can imagine it losing all of its visible properties without affecting its audible properties. However, one cannot imagine an object losing all of its *colour* properties (intended broadly to include brightness, etc), without affecting its visible *shape* properties; the shape of an object is simply *not visible* unless its colour is visible. This tight relation may be asymmetric—it may be that colour is visible without shape being visible—but it is a relation that simply doesn't hold across modalities.³ Within vision, the visual representation of an object's shape does not merely have the same perceived *referent* as the representation of that object's colour. In addition, one is tempted to say that the representation of the shape is *partly constituted by* the representation of the colour. This is not true of the tactile representation of the object's shape. In this latter case, sameness of referent may well be sufficient to account for the link between the tactile representation of the shape of an object and the representation of that object's colour.

If I am right about a sort of “infusing” relation holding between properties represented by one modality, but never inter-modally, then it must be the case that within a perceptual experience a property can be represented twice. When I see a square and also touch it, the squareness that I *see* will be infused by the square's apparent colour (at least) *and not its texture*, while the squareness that I *touch* will be infused by its apparent texture *and not its colour*. These two instances of squareness falsify Tye's thesis of experienced togetherness, it seems to me, but this is simply to reiterate the conclusion of the first part of this paper.

The further problem, then, is this. If we accept that binding plays a part in the distinction between the senses, it is an interesting question whether what we are left with is still a version of Representationalism. For although it does seem to be part of the *content* of perception that visible shapes are infused by colour but not in the same way by temperature, within the object perceived there seems no way to draw this distinction. When I feel the shape of an object and thereby its temperature, and *see* the shape and thereby its colour, nevertheless the object has

only one shape, which in itself has neither temperature nor colour. Although when I see an object making a noise, its shape is infused by the colour but not by the sound, in reality the shape and the noise are as closely bound to one another as the shape and the colour.

In other words the differential binding of objects in perception is a *psychological fact* about the act of perception rather than a fact about the object perceived. However, according to standard accounts of representationalism, and certainly Tye's account, the content of the perception of an object consists of purported facts about the object itself *as opposed to* facts about the act of perception. The content of a perception depicts the world as being some way; but whether shape is more tightly bound to colour than to sound, or the other way around, does not seem to alter the way the world is being represented *to be*.

This apparently psychological fact is part of what we are aware of when we are having a perceptual experience. This means that perceptual experience cannot be quite as transparent as Tye supposes, and if transparency is in trouble then Tye's representationalism is also in trouble, since the alleged fact of transparency is generally taken (it is so taken by Tye) to underwrite representationalism.

Conclusion

Tye's version of representationalism is quite a strong one, and I have given no argument here against the weaker versions; that is to say, versions which are consistent with a partial rejection of the transparency thesis. Some representationalists, for example, insist on a difference between the sense modalities that goes beyond any difference in the objects of the modalities.⁴ On the other hand it is important to note that this objection to the transparency thesis does not involve any allusion to a nonrepresentational "what it feels like" quality in perceptual experience. It does not, therefore, give straightforward support to any version of anti-representationalism centred around the supposed direct awareness of such a quality. There is obviously a strong connection between the contents of an experience and the way those contents are bound together in the experience in the way I have been discussing. The considerations put forward here do provide the basis of a case for qualia, but more theoretical work is required to bridge the gap between the apparent failure of complete transparency and the existence of qualia in any positive sense.

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1. See Tye (1995) for his original elucidation of this thesis, which as far as I know he has not changed in any substantive way.

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2. In this connection see also Wright (1990).
 3. This should be distinguished from the phenomenon of “super-adding”, whereby the perception of a very faint auditory stimulus is enhanced by an equally faint congruent visual stimulus, such as a point of light at the same location (cf Lalanne and Lorenceau, 2004). In these cases it is true that without the visual stimulus, the auditory stimulus would be too faint to be detected, but this is a mere causal relation rather than part of the structure of the respective representational contents. Incidentally the opposite effect has also been discovered; simultaneous incongruent visual and auditory stimuli (e.g. a faint ‘beep’ on the left and a faint point of light on the right) are harder to detect than the same visual or auditory stimuli presented separately.
 4. See W. Lycan 1996.