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Meaning Representationalism: Between Representationalism and Qualia Realism

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Abstract

The purpose of this article is to offer a new view of the key relation between the content and the conscious character of visual experience. The author aims to support the following claims. First, the author rejects the qualia realist claim that conscious character is an intrinsic, nonrepresentational property of visual experience, for example, a pattern of activation of neurons. However, the author also rejects the rival widespread representationalist claim that the conscious character of visual experience is identical to, or supervenes on, any specific property represented by visual experience. The positive proposal is the following. Conscious character is identical with those patterns of activation of neurons that are referentially or representationally alive. Conscious redness, for example, is a pattern of activations of neurons that is created normally only when brains of physical duplicates come in visual contact with some distal property and this pattern of activation is recruited by natural selection to represent that property. This is called *meaning representationalism*.

Keywords

qualia realism – representationalism – meaning representationalism – conscious character – singular content

Introduction

Traditional philosophical reflection on visual experience is focused on two significant features, each of which has been taken as the distinguishing mark of mental states. Some philosophers have taken all visual experiences to involve

both, while others have favored one over the other. These two significant features are phenomenal consciousness and representation or intentionality. Phenomenal consciousness requires just a brief comment: my visual experience is phenomenally conscious when there is something it is *like* for me to undergo that visual experience.

In contrast, representation requires a more extensive comment. Representational states are states that have conditions of satisfaction [to use a convenient label introduced by Searle (Searle 1983)] as a key aspect of their own natures. A satisfaction condition is a condition for being right about a subject matter, a condition that can be or can fail to be satisfied by states of the world. When the conditions are satisfied, the representation is veridical; otherwise, it is falsidical. Conditions of satisfaction come in two varieties: accuracy and truth. I reserve the label 'truth' for satisfaction of conditions that are propositional in kind and the convenient label 'accuracy' for conditions of satisfaction that are picture-like (non-propositional). Following the common usage, I label this widespread position the *content view* (in opposition to the *relational view*). In this article, I take for granted that visual experience is not a simple visual relation (relational view), but rather imposes accuracy conditions (content view). I assume without argument that visual experience is an accurate or inaccurate picture.

Once one recognizes consciousness and intentionality as marks of visual experience, one faces the questions whether those features are related and, if they happen to be, how they are related. Qualia realism is the traditional view that claims that conscious character is an intrinsic nonrepresentational property of visual experience. Qualia realists can be materialists, functionalists, or even dualists. In contrast, representationalism is the opposite view that claims that conscious character is a relational property of experience, that is, the property experience possesses only in virtue of representing some specific representational content. According to so-called 'strong representationalism,' for a visual experience to have a certain conscious character is for it to have a specific representational content.

Representationalism is by far the most popular view of the key relation between consciousness and intentionality among philosophers. It offers obvious attractions. First, representationalism provides a plausible account for the so-called transparency of visual experience (Moore 1903). If one cannot be aware *de re* of the phenomenal aspects of one's own visual experiences as putative phenomenal objects before the mind (according to the so-called act-object model), a plausible hypothesis is that those qualities are properties represented by visual experience (as representationalism predicts) rather than intrinsic properties of experience (qualia realism).

Moreover, representationalism promises to account for the apparent phenomenal similarity between perceptions, illusions, and hallucinations without appealing to dubious mind-dependent entities (sense-data). If, for example, phenomenal yellowness is nothing but the relational property of the visual experience of representing the objective color yellow, then regardless of whether what I am seeing is really yellow in color or not, or whether I hallucinate something yellow, my experiences possess the same conscious character as long as they are all representing the same color.

Even so, representationalism faces an endless list of objections. Those objections take the usual form of putative counterexamples à la Kripke. There is a huge amount of literature trying to show that representationalism is not undermined by those putative counterexamples. However, the details of these philosophical debates will not be the issue of this article. For one thing, my aim here is only to propose and defend an alternative view as an instance of an argument to the best explanation, by arguing that this alternative view can better accommodate these putative counterexamples.

The purpose of this article is to offer and defend a new view of the key relation between the content and the conscious character of visual experience. Based on Block's original graphic coinage (Block 1996, 26), I suggest a threefold distinction between the **mental latex** (intrinsic, nonrepresentational properties of the brain), the **painted features** (the properties represented in the representational content), and the **mental paint** (the representational properties of the brain). This threefold distinction mimics the known threefold distinction between syntax (the vehicle of content), content (what is said) and meaning, that relates the vehicle to the content.

In this framework, my aim is to support the following claims. First, the negative ones: I reject qualia realism, that is, the claim that conscious character is an intrinsic nonrepresentational property of experience. In terms of the graphic coinage, I reject the claim that conscious character is a nonrepresentational property of the **mental latex** (lexical or syntactic aspects of the vehicle of content). Thus, I reject the claim that the conscious character of experience is determined by a cluster of representationally inert properties like *being written in Times Roman script, in black letters, 12 point* (see Papineau's example in 2014, 28). I argue that is metaphysically wrong to identify the conscious character with patterns of activation of neurons alone.

However, I also reject property representationalism (the most simple and uncontroversial form of representationalism), that is, the widespread claim that conscious character of experience is identical to, or supervenes on, distal properties represented by experience. The conscious character is not identical to, nor does it supervene on, any **painted features**. It is not identical to, nor

does it supervene on, some represented wide physical property à la Tye (Tye 2013, 85), or on some represented narrow property, that is, the property that normally causes the relevant token experience à la Chalmers (Chalmers 2004; 2010, 353). My positive proposal is the following. Conscious character is identical with those patterns of activation of neurons that are representationally alive. Conscious redness, for example, is identical with a pattern of activations of neurons that is created in the brains of physical duplicates when they come in visual contact with some distal property and this pattern of activation is recruited by selection to represent some distal property. Yet, it is up to empirical science to identify both this pattern of activation of neurons and the distal property that is actually represented (the objective color red?). This is what I call *meaning representationalism.*

That said, my positive view has similarities with both qualia realism and traditional representationalism. With qualia realism it shares the intuitive view that conscious character is a narrow property ("qualia are in the head"), that is, a property that physical duplicates have in common when they are in the same brain state, regardless of the environment and the community in which they are embedded. In other words, qualia locally supervene on brain states in the sense that any difference of brains states entails a difference of conscious character. Thus, I resolutely reject Dretske's (Dretske 1996) and Tye's (Tye 2009) so-called qualia externalism. Even so, meaning representationalism overlaps with representationalism by claiming that conscious character is a pattern of activations of neurons *that are referentially alive*. According to meaning representationalism, *the phenomenal mind is the representational face of the brain* (Dretske 1995, 1): even though not all phenomenal facts are in fact representational facts, all phenomenal facts are at least facts about representations.

Meaning representationalism is certainly not the default view, neither among neuroscientists (the default view among neuroscientists is qualia realism) nor among philosophers (the default view among philosophers is representationalism). Even so, meaning representationalism strikes me as little more than common sense. Thus, it is odd that it has never been and is not currently viewed as a serious option, either in philosophy or in neuroscience. Nevertheless, I have no knockdown argument against representationalism or against qualia realism. My case is an instance of an argument to the best explanation. Meaning representationalism benefits from all the virtues of both views without suffering from their vices, or so I shall argue.

I proceed as follows. In the first section, I scrutinize all known forms of representationalism and the well-known problems they face. By far the most popular view is Dretske's and Tye's Strong Wide Property Representationalism (SWPR): The conscious character of the visual experience of any physical

duplicates is identical with some wide-property that visual experience represents type-individuated by the environment and the community in which the subject of experience is embedded. However, to the extent that SWPR faces counterexamples à la Kripke, the attractive alternative is represented by Chalmers's narrow property representationalism (NPR): namely, either the weak the claim that visual experiences that are alike with respect to some narrow properties they represent (the properties) that normally are causally responsible for the relevant token experience) are necessarily phenomenally alike. However, Chalmers's proposal faces a serious objection: while the content of the experience of simple-minded creatures is nonconceptual, the representation of Chalmers's narrow properties require highly sophisticated conceptual abilities.

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The second section is entirely dedicated to the qualia realism according to which the conscious character of experience is an intrinsic representationally inert property. As Papineau has recently puts it: 'representationalism is all wrong. (...) I don't think that conscious properties (...) are representational properties' (Papineau 2014, 1–2). Depending on how those intrinsic nonrepresentational properties are understood, qualia realism also comes in different versions. However, regardless of how we understand these intrinsic properties, qualia realism faces a serious problem: doing justice to the persistent intuition that visual experiences of any physical duplicates that are phenomenally alike are also alike with respect to the properties those experiences represent. It is metaphysically incomplete to identify the conscious character with some patterns of activation of neurons without mentioning its etiology, that is, the particular instancings of properties that normally elicit those patterns in the brains of duplicates.

Both these initial sections contain no claim of originality. The idea is just to prepare the ground for what follows. In the third section, I present a new account of the content of visual experience modeled on Kaplan's semantics. The first to express this idea was Tye (Tye 2009, 113), but it was not developed. The basic idea is as follows: Kaplan's theory of demonstratives declares that the semantic value of each particular token of a demonstrative type is a function from the context of demonstration to the object demonstrated in that context. I suggest that the semantic value of each token experience of an experience type is a similar function from the context of visual contact to the particular instances of properties we are in contact with in that context. As this content is non-conceptual and also non-propositional, I do not assume that the property is attributed to the particular that instantiates it.

The next section is by far the most important. It is here that I try to articulate my own view on the conscious character of visual experience. As we have

seen, based on Dretske's teleosemantics, my aim is to show that some patterns of activations of neurons in the brains of duplicates are recruited by selection to represent instances of those properties that in the context of visual experience normally elicit those neural patterns. As a view falling between the rival theories, my claim is to show that it can avoid the usual problems they both face and, at the same time, preserve their positive aspects. That is what I am arguing in the last section of the article.

Representationalism

According to representationalism, conscious character is a representational property of visual experience, that is, the property visual experience possesses in virtue of some *specific* content. Representationalism comes in several varieties. First, concerning the grade of determination of the conscious character by the representational content, two positions are noteworthy: weak and strong representationalism. 'Weak representationalism' is the label of the claim that the conscious character of visual experience supervenes on some types of content:

> **Weak Representationalism (WR):** Necessarily visual experiences that are alike with respect to their content are also alike in their phenomenal character.

In contrast, 'strong representationalism' is the label of the claim that the conscious character of visual experience is the same as some of the experience's representational content. For a visual experience to have a conscious character is just for it to have a specific representational content.

> **Strong Representationalism (SR):** Conscious character is the same as some representational content of visual experience.

A second relevant divide concerns the scope of determination. One might claim that the conscious character of visual experience is fixed either by the full singular content of experience or only by the property represented by experience (partial content). The first claim is known in the literature by the label 'content representationalism,' while the second by the label 'property representationalism.' Property representationalism is the most basic form of representationalism. It is the view Dretske tacitly endorses in his seminal work (1995, 23).

Weak Content Representationalism (WCR): Visual experiences that are alike with respect to their complete content are necessarily phenomenally alike.

Strong Content Representationalism (SCR): Conscious character is the same as the complete singular content of visual experience.

Weak Property Representationalism (WPR): Necessarily, visual experiences that are alike in the properties they represent are alike in their phenomenal character.

Strong Property Representationalism (SPR): Conscious character is the same as some property represented by visual experience.

The third concerns the crucial relation between the property represented by visual experience and the environment (and community) in which the subject is embedded: narrow and wide property representationalism.

Weak Narrow Property Representationalism (WNPR): Necessarily, visual experiences of physical replicas that are alike in the narrow properties they represent are alike in their phenomenal character, regardless of the environment and community in which the subject of experience is embedded.

Strong Narrow Property Representationalism (SNPR): The conscious character of the visual experience of any physical duplicates is the same as some narrow property represented by visual experience, regardless of the environment and community in which the subject of experience is embedded.

Weak Wide Property Representationalism (SWPR): Necessarily, visual experiences of any physical replicas that are alike in the wide properties they represent (type-individuated by the environment and community in which the subject of experience is embedded) are alike in their phenomenal character.

Strong Wide Property Representationalism (SWPR): The conscious character of the visual experience of any physical duplicates is the same as some wide property represented by visual experience type-individuated by the environment and community in which the subject of experience is embedded.

By way of metonymy, we can also say that conscious character has either a narrow or wide representational property: what is meant in the first case is that conscious character is a relational property visual experience has regardless of the environment and community in which the subject is embedded, while in the second that conscious character is a relational property that visual experience can possess only in virtue of the subject's being embedded in a certain environment and community. For physicalists like Tye (Tye 1995, 2009), SWPR is by far the most attractive form of representationalism, for the obvious reason that it promises a plausible solution to the traditional mind-body problem. In contrast, for property or neo-dualists like Chalmers (Chalmers 2004, 2010), WNPR is the most attractive view for the obvious opposite reason.

Since representationalism is an identity-claim, objections to representationalism take the usual form of putative counterexamples à la Kripke. These can be grouped in at least three classes. The first group of counterexamples suggests the metaphysical possibility of visual experiences that are alike in their conscious character but differ with respect to their complete singular contents. They target Content Representationalism (CR). In contrast, the second group of counterexamples suggests the metaphysical possibility of visual experiences that are alike with respect to their conscious character but differ with respect to the properties they represent. This second group targets WPR. Finally, the third group of counterexamples suggests the metaphysical possibility of visual experiences that are alike with respect to the properties they represent but differ phenomenally. Together with the second, this third group targets SPR.

Under the reasonable assumption that the content of experience is singular or object-dependent, CR faces the following counterexamples:

(i)   *Duplication-problem.* Here it is claimed that the visual experiences of qualitatively different objects have the same phenomenal character. Suppose I am contemplating a ripe tomato right in front of me and unbeknownst to me, the tomato is replaced by another, qualitatively identical down to the smallest details. So the contents of my visual experiences are modeled by different singular propositions (containing different objects), but are, however, represented by visual experiences with the same phenomenal character.

(ii)   *Common kind assumption.* Let us suppose now that the ripe tomato in front of me is removed from my visual field and at the same time, I start to hallucinate another ripe tomato qualitatively identical down to the smallest details. Even though my hallucinatory experience has no singular content, as did my first non-hallucinatory experience, they have the same phenomenal character.

Now, the obvious reply to those first counterexamples is to assume Property Representationalism (PR): rather than assuming that the conscious character is fixed by the complete singular content of visual experience, the assumption is that the conscious character is fixed only by the set of properties visual experience represents. Therefore, regardless of whether the ripe tomato is replaced by another qualitatively identical or whether the tomato is removed from my visual field and I start to hallucinate the presence of a qualitatively identical ripe tomato, the phenomenal aspects remain unchanged as long as the same properties are represented by visual experience. In the specific case of visual hallucination, PR assumes the controversial thesis that the phenomenal aspects are fixed by the un-instantiated properties visual hallucination represents.

The aim of the second group of counterexamples is to persuade you that there is more to the properties represented by visual experience than is fixed by their phenomenal character: visual experiences that are phenomenally alike are not necessarily alike with respect to the properties they represent. Here WPR faces at least two counterexamples: the Swampman and the Inverted Earth scenarios. Since the Swampman scenario is highly controversial, I will disregard it here.

(iii) *Inverted Earth.* In Block's original version of the tale (Block 1990), mad scientists insert color-inverting lenses into your eyes and take you to Inverted Earth, where you are substituted for your Inverted Earth twin or doppelganger. Upon awakening, you are aware of no difference, since the inverting lenses invert the inverted colors. You think that you are still where you were before. What it is like for you when you see the sky or anything else is just what it was like on Earth. However, after enough time has passed, after you have become sufficiently embedded in the environment of Inverted Earth, your contents will come to match those of the other inhabitants. You will come to have a visual experience that represents the sky as yellow. Now the properties (colors) represented by your visual experiences before and after your travel to Inverted Earth have changed from blue to yellow, while the phenomenal aspects of your visual experiences remain unchanged. The tacit assumption here is that persons fitted with inverted lenses respond to the yellowness of the sky on Inverted Earth with the same internal physical state that Earthlings respond to the blueness of the sky on Earth.

The aim of the third group is to persuade you that there is more to conscious character than is fixed by the properties visual experience represents: visual

experiences that are alike with respect to the properties they represent are not necessarily alike in their phenomenal character. Together with the previous counterexamples, these scenarios aim to undermine SPR.

(iv) *Inverted Spectrum hypothesis.* Since Locke, countless scenarios of inversion have been proposed. Here is a simple one. Suppose you and I are spectrum-inverted relative to each other so that your experiences of red are just like my experiences of green, and vice versa, and likewise for other pairs of colors. Even though both our experiences of a ripe tomato represent it as red, what it is like for me to undergo a visual experience of the ripe tomato is just what it is like for you to undergo a visual experience of the unripe one and vice versa: what it is like for me to undergo a visual experience of an unripe tomato is just what it is like for you to undergo a visual experience of a ripe one. Therefore, the same colors are represented but by experiences with inverted qualia. The tacit assumption here is that I respond to the color green with the same internal physical state with which you respond to the color red and vice versa.

(v) *Dual-look problem.* The assumption here is that some object is visually represented as having the same objective shape or size, but the phenomenal look changes with the change of the viewer's perspective of the object. Here is a simple scenario. My visual experience represents a bracelet objectively as being circular. However, as I am situated relative to the bracelet, the bracelet also looks to me to be oval. My visual experience is not illusory. Therefore, the same shape is objectively represented as circular by visual experience with different qualia: with circular and oval appearances.

(vi) *Blurry vision.* The assumption here is that the same object is visually represented twice. However, while on the first occasion the subject's vision is clear, on the second it becomes blurry through tiredness or something similar. Once more, the same property is visually represented by experiences with different qualia.

To be sure, all these scenarios are conceivable. However, a few of them raise the question of whether they are also metaphysically possible. There is a huge literature on behalf of representationalism trying to show that they are not. For example, all one needs to challenge the metaphysical possibility of Inverted Earth is to claim that the color-content does not change from Earth to Inverted Earth: on Inverted Earth the traveler remains representing (albeit wrongly) the sky as blue. Likewise, to challenge the metaphysical possibility of

the inverted spectrum scenario, all one needs is to claim that if two people are spectrum-inverted relative to each other, one of them is wrongly representing the colors, and so on. There is no space to go through all these replies on behalf of representationalism. However, our aim here is not to refute either representationalism or qualia realism, but rather to present an alternative view that benefits from their virtues and avoids their problems.

However, there is also a large body of literature trying to show that, even if those scenarios are metaphysically possible, representationalism can accommodate those putative counterexamples. In this regard, it is worth mentioning that, prima facie, none of those scenarios of inversion represent a threat to narrow property representationalism (NPR): neither the weak claim that visual experiences alike with respect to some narrow properties they represent are necessarily phenomenally alike (WNPR), nor the stronger claim that conscious character is one and the same as some narrow property represented by visual experience (SNPR). They cast doubts on WPR, namely either the weak claim that visual experiences that are alike with respect to some wide properties they represent are necessarily phenomenally alike (WWPR), or the stronger claim that conscious character is the same as some wide property represented by visual experience (SWPR).

Given this, the usual representationalist reply is to assume NPR. The first suggestion along those lines is Shoemaker's idea of appearance properties (Shoemaker 1994). Since then, many similar suggestions have been made, such as Thompson (Thompson 2009) and Brogaard (Brogaard 2010). However, here I consider Chalmers contributions (Chalmers 2004, 2010), since, in my judgment, he offers the best account along those lines. In his account, the conscious character of visual experience is to be equated with narrow representational properties (Fregean contents) that represent the identifying conditions of first-order physical properties. For example, the phenomenal redness is not to be equated with the representation of any other particular color (wide property), but rather with the representation of *the color that meets the identifying condition of being the property that normally is causally responsible for tokens of phenomenal red in the mind of certain individuals.* (Chalmers 2010, 361)

On Chalmers's bi-dimensionalism, wide properties are modeled as the so-called secondary intensions, that is, as functions from possible worlds to extensions (the set of objects instantiating the property at the set of worlds). Examples of wide properties are being bachelor, being red, etc. Being red, therefore, is a property that particular objects have or fail to have in possible worlds. In contrast, narrow properties are modeled as the so-called primary intensions, that is, as functions from centered worlds to extensions, where a

centered world is a possible world in which an individual and her spatio-temporal location are marked at the center. Thus, looking phenomenally red is a property objects have or fail to have in centered worlds. Therefore, it does not make sense to ask whether a tomato looks phenomenally red at some possible world period. Rather, it makes sense to ask whether a tomato looks phenomenally red in centered worlds, that is, worlds in which certain individuals occupy the center.

As with Chalmers's narrow representationalism, the representational property locally supervenes on the individual marked at the center of a possible world. You and I might be representing different narrow properties when we both stare at the same color red of a ripe tomato, for example, while I might be representing the identifying property of being the color that normally causes phenomenal redness **in me**, you might be representing the different identifying property of being the color that normally causes phenomenal greenness **in you**. On representationalist grounds, that difference in content is what accounts for the phenomenal difference of our visual experiences.

However, the shortcomings of NPR are even more apparent. First, Chalmers's NPR violates the particularity constraint (Searle 1983, 87). According to this requirement, the conditions of satisfaction of our visual experience are essentially singular, not only object but also property-involving. My visual experience of a ripe tomato represents *this* or *that* color rather than the identifying property of being the color that is normally responsible for my token experience. Suppose my visual experience is illusory: the tomato is green. It only appears to be red either due to the lighting conditions or because, unbeknownst to me, I am using special lenses. The intuition is that I misperceive *that color* rather than *the* color that meets the condition of being the color that normally is causally responsible for tokens of phenomenal red in me. It seems highly counter-intuitive to assume that experience has a general content.

Moreover, it is phenomenologically counterintuitive to assume that simple-minded creatures capable of undergoing visual experiences of ripe tomatoes are also capable of representing the identifying property of being the color that normally would be responsible for tokens of phenomenal red in their mind. While representation of physical properties does not involve any concept, not even the basic concepts of colors, the representation of identifying properties requires highly sophisticated conceptual resources. For example, to represent the property of being the color that normally is responsible for tokens of phenomenal red in me, I need to master several sophisticated concepts: the concept of visual experience, the concept of phenomenal red, and also a concept of myself as the subject undergoing those experiences.

Qualia Realism

Qualia realism is the claim that experiences have intrinsic representational inert properties of which the subject can be directly aware via introspection. Such intrinsic properties are commonly known as qualia. Therefore, according to the qualia realist claim, conscious character is the same as the cluster of such intrinsic nonrepresentational properties of visual experience. Depending on how those intrinsic nonrepresentational properties are understood, qualia realism also comes in different versions. In neo-dualist versions of qualia realism, those intrinsic properties are not reducible either to strict physical properties or to functional causal-role properties. In contrast, in physicalist versions of qualia realism those intrinsic properties are properties of the brain that are reducible to physical or functional properties.

Based on Block's original graphic coinage (Block 1996, 29), we can reformulate the qualia realist claim in terms of the claim that conscious character is an intrinsic nonrepresentational property of the **mental latex** whose function is to convey a **mental picture**. Given this, we can take the analogy further and compare the conscious character to the properties of lexical or syntactic aspects of the vehicle of content. Let us take any phrase, e.g. "**that shade of red**" (Papineau 2014, 18). That phrase has a content that is specified by being part of satisfaction conditions of the complete sentence **that is a shade of red**, which is true if there is a shade of red in front of the subject. Still, it also has vehicle properties, such as being written in Times Roman script, in bold, 12 point, and so on. Now, since the same propositional content can be conveyed by tokens of different sentences and, further, different tokens of the same sentence can also convey different propositional contents in different contexts, in qualia realism the conscious character of the visual experience of a ripe tomato bears no relation to any representational content of visual experience at all.

At first glance, qualia realism seems to offer reasonable attractions. For a start, there is every reason to assume that conscious character locally supervenes on the makeup of the individual undergoing the experience. Regardless of the physical environment in which the subject is embedded and the properties the subject's visual experiences are representing, she undergoes a visual experience with the same conscious character whenever she is in the same internal state (type-individuated either by nonphysical properties, strict physical properties, or function causal-role properties). Moreover, qualia realism promises to overcome the traditional problems raised by representationalism. Since the conscious character is equated with intrinsic rather than relational representational properties of visual experience, counterexamples suggesting that there is more to the representational content than is fixed by conscious

character, as well as counterexamples suggesting that there is more to conscious character than is fixed by the representational content, do not present prima facie objections to qualia realism.

However, qualia realism faces a serious objection: it seems to be inconsistent with transparency. There are different ways of stating and interpreting the transparency thesis. Moore (Moore 1903) was certainly the first who called attention to the phenomenon. According to him, whenever we try to introspect the sensation of blue, we can see nothing but the color blue (Moore 1903, 446). The locus classicus, however, is Harman's recent paper (Harman 1990). Harman claims that whenever you try to turn your attention to the putative intrinsic features of your experience, you end up turning your attention to the features represented by your experience (Harman 1990, 39).

I think that the less controversial way of stating the transparency thesis is as a rejection of the traditional act-object model of introspection, namely a rejection of the assumption that by introspecting we are not *de re* aware of intrinsic features of visual experience (a sort of knowledge by acquaintance of those intrinsic features of visual experience) (Tye 2014). By introspection, we cannot sensorily attend to any phenomenal features of visual experience in a way to enable us to form *de re* cognitive attitudes with respect to those features: 'what is that?' (Tye 2014). Introspective knowledge is a *de dicto* form of fact-awareness rather than a form of object- or property-awareness (Dretske 1999). So we can only become introspectively aware of the fact that our visual experience of phenomenal redness (*de dicto* fact-awareness), but never *de re* aware of the phenomenal redness itself. Now, assuming transparency, it is hard to understand how one could directly (*de re*) be aware of the alleged nonrepresentational features of visual experience via introspection.

The model here is Dretske's displaced perception (Dretske 1995, 41), namely a reliable subliminal process that takes the perception of external physical properties as inputs (object- or property-awareness) and yields non-inferentially awareness-that (fact-awareness), a mental state with a certain phenomenal character, as output (Tye, 2009, 118). For example, the introspective knowledge of phenomenal redness is the fact-awareness (that I am experiencing red) that results as the non-inferential output of a reliable process whose input is the object- and property-awareness of some instance of the color red. Now, assuming transparency and Dretske's displaced perception as the model of introspection, it is hard to see how one could be *de re* aware of the alleged non-representational features of visual experience.

However, according to Papineau, the appeal to the transparency of experience as an argument against qualia realism is quite uncompelling (Papineau 2014, 22). For one thing, for him transparency of experience boils down to the

following simple fact: when I switch my attention from the red object I am experiencing, and instead turn my gaze inward and try to focus introspectively on my experience of red, none of my conscious sensory experiences change. In other words, introspection makes no difference to the conscious nature of our sensory experience. (Papineau 2014, 22)

I disagree. I am on the side of Tye and Dretske. The assumption of a *de re* awareness of the phenomenal character is nothing but the expression of the old metaphorical model of act-subject of introspection, according to which introspection is just the inner perception of an internal object before the inner eye. Qualia Realism supposes a *de re* awareness of the phenomenal character (what is that?) and that seems entirely implausible. Nonetheless, I do not see transparency as a knockdown argument against qualia realism. For one thing, as we saw, the representationalist argument is only a case of inference to the best explanation.

Even so, qualia realism is far from being uncontroversial. To be sure, visual experiences alike with respect to the properties they represent are not necessarily alike phenomenally (as, for example, the inverted spectrum hypothesis suggests against WPR). There is more to the conscious character than is fixed by the properties visual experience represents. Moreover, visual experiences that are phenomenally alike are not necessarily alike with respect to the properties they represent (as, for example, the scenario of Inverted Earth together with the Inverted Earth scenario argues against SPR). There is more to the properties visual experience represents than is fixed by phenomenal character.

Still, in inverted earth scenarios, what makes the difference is the tacit assumption that, fitted with inverted lenses, the visitor coming from Earth responds to the yellowness of the sky with the same internal physical state with which Earthly subjects respond to the blueness. Likewise, in the inverted spectrum scenario, what makes the difference is the tacit assumption that people whose spectrum is inverted relative to normal subjects respond to the color red with the same internal physical state with which those normal subjects respond to the color green and vice versa. Thus, if we leave property dualism aside, it seems fair to assume that visual experiences of any physical replicas (in the same overall physical states) that are alike with respect to their conscious character are necessarily also alike with respect to the properties they represent.

The crux is that if we assume that the phenomenal aspects are intrinsic nonrepresentational properties of the mental latex (qualia realism), we have a problem doing justice to persistent intuition that visual experiences of any physical duplicates that are phenomenally alike are also alike with respects to the properties those experiences represent (under normal conditions).

Conscious character is individuated in part by the relations the brain bears to the properties they represent. Using MRI, I can only individuate a pattern of activation of neurons by exposing the subject to the color red. Therefore, it is metaphysically wrong, or at least incomplete, to identify conscious redness with a pattern of activation of neurons that is representationally inert. Instead, conscious redness is to be identified with *a pattern of activation of neurons that is normally elicited in the brains of duplicates in the contexts where those brains are in visual contact with something red.*

Perceptual Singularism

The key feature of visual experience is that reference has a context-dependent and context-sensitive character. In linguistics, context-dependent expressions are introduced in the following way. We need to account for the fact that different tokens of the same linguistic type (the same syntactic/lexical form, composed of the same words and arranged in the same way) possess different semantic values in different contexts (for example, two tokens of the same sentence 'that is shade of red' possess different semantic values in different demonstrative contexts). Thus, to account for the combination of sameness of linguistic types and difference of semantic values of their tokens in contexts, we characterize those lexical forms as indexicals: the same linguistic type is delivering different contents in different contexts.

However, applying this model to experience is not straightforward. To have a reason to introduce indexicality, we need internal states that display the same combination of sameness and difference. The difference part is easy: visual experiences might possess different contents. The sameness, however, is trickier. In the linguistic case, we could appeal to the sameness of lexical/linguistic type to type-identify the demonstrative. However, unless we hold the 'language-of-thought' thesis, there is nothing in the realm of visual experience that can be counted as the same 'linguistic type.' Moreover, we need to figure out what counts as the 'context' in the case of visual experience.

Based on Tye's insight that what visual experiences fundamentally aim at is to put us in visual contact with the reality outside our brains (Tye 2009, 113), the analogy between the context of demonstration and what he calls *the context of visual contact* is a natural suggestion. The next step is to take visual experiences to be modeled on the Kaplanian meaning of demonstratives. The meaning of a demonstrative is a variable function from tokens of that demonstrative type to objects demonstrated in those contexts of demonstration (Kaplan 1989). Likewise, I want to suggest that visual experiences also be modeled as a variable

function from their particular tokens to the particular objects that instanti-
ate the external properties that elicit those tokens in those contexts of visual
contact. For example, tokens of the same type of visual experience "that color
red" (in the brains of physical duplicates) in contexts of visual contact depict
different objects that instantiate the same color red.

   Given this, we find in the realm of visual experience the same type/token
distinction that is found in the realm of linguistics. First, visual experience
types *per se* do not refer. Only particular tokens of them refer in contexts of
visual contact. Second, there are successful and unsuccessful tokens of the
same visual experience types insofar as they successfully (accurately) and un-
successfully (inaccurately) depict what normally elicits them in contexts of
visual contact. Third, visual reference is direct in Bach's sense, determined *re-
lationally* rather than *satisfactionally* (Bach 1987, 12), by the blind causal token-
reflexive relations between particular tokens of visual experience types (in the
brains of physical duplicates) in contexts of visual contact with the particular
instancings in space and time of the properties outside the brain that normally
elicit those tokens in those contexts (rather than by the viewer's knowledge
that the referent meets some identifying conditions). As this representational
singular content is non-conceptual and also non-propositional, I do not as-
sume that the property is attributed to the particular that instantiates it.

Meaning Representationalism

Nevertheless, the question is: what is the conscious character of visual experi-
ence? My positive proposal is the following. The conscious character is iden-
tical with those patterns of activation of neurons that are representationally
alive. Because they are elicited in the brain by the instantiation of properties
that the brains of duplicates come in visual contact with, they are recruited by
selection to map those instances of properties outside the brain. Conscious
redness, for example, is a pattern of activations of neurons that is created only
when brains of physical duplicates come in visual contact with some color
(red). This is what I call *meaning representationalism*

   Still, it is noteworthy that my account is neutral with respect to any meta-
physics of color or of any other secondary qualities. Thus, meaning represen-
tationalism is not committed to the representationalist view of colors as an
ordered triple of light-reflectance (Tye 1995, 146), or to some mind-depend
property such as Shoemaker's appearance properties or Brogaard's centered
properties. To be sure, on Dretske's teleosemantics, Mother Nature designs
our visual system to track distal features of the environment. Still, in meaning

representationalism, what matters for the activation of neuronal patterns is the proximal stimulation in the retina coming from some distal property of the environment. From there, the information flows to different levels of the visual cortex and is made available to working memory.

As I said in the introduction, meaning representationalism strikes me as little more than common sense. People find it hard to understand, because they do not see an intermediate position between qualia realism and representationalism as possible. On the one hand, I am told that, if I identify conscious character with some pattern of activation of neurons in the brain, I must embrace qualia realism: I do not have to care about what is going on outside the brain anymore. On the other hand, I am told that, if I insist that qualia are relational properties, I must embrace representationalism: I do not need to care about what is going on inside the brain. To be sure, sunburn is a condition of my skin. Still, it is a condition my skin possesses only in virtue of its relation to the sun (a relational property). I can have the cake and eat it too.

It is also noteworthy that local supervenience does not entail a strict mind-brain identity theory. For one thing, even recognizing that brain states fix the phenomenal character of experience (local supervenience), brain states are externally individuated in part by reference to things *they represent* in normal conditions. Thus, meaning representationalism claims that conscious character is a pattern of activation of neurons that are referentially alive. In this sense, meaning representationalism overlaps with the representationalist metaphysical view that the mind is the representational face of the brain: if not all phenomenal facts are representational facts (Dretske 1995, 1), at least all phenomenal facts are facts about representations.

The Argument to the Best Explanation

As I said in the introduction, my case in favor of meaning representationalism is an instance of an argument to the best explanation. My first claim is that meaning representationalism benefits from the virtues of qualia realism, while suffering none of its defects. For a start, in opposition to qualia realism, meaning representationalism has no problem doing justice to the persistent intuition that visual experiences of physical duplicates that are phenomenally alike are also nomically or systematically correlated with the same external properties that they represent under normal conditions.

Second, meaning representationalism has no problem doing justice to the persistent intuition that visual experience is diaphanous or transparent. Here is the place where meaning representationalism departs from a view

widespread in neuroscience, according to which such neural images or neural maps are available to be directly perceived introspectively by the creature itself (see Damasio 2010, 69–70). If conscious character is a certain pattern of activations of neurons that is normally elicited in the brains of duplicates in contexts in which these brains are in experiential contact with some properties, we cannot *de re* attend to it (transparency thesis): the neural pattern in a MRI will not reveal the conscious redness.

Likewise, meaning representationalism benefits from all the virtues of representationalism without suffering from its defects. For a start, there is more to the content than is fixed by the conscious character. As we saw, this intuition is supported by the following putative counterexamples: (i) the phenomenal sameness of veridical, illusory, and hallucinatory experiences, (ii) the phenomenal sameness of visual experiences of qualitatively identical objects, and (iii) Inverted Earth. On reflection, however, they do not present objections to meaning representationalism, because meaning representationalism attributes the sameness of conscious character to the mental paint (that is, a pattern of activation of neurons elicited in the brains of physical duplicates in the contexts in which those brains are in experiential contact with some property) rather than to the painted picture (represented properties).

Let us begin with (i). In opposition to content representationalism, meaning representationalism can account for the intuition that veridical, illusory, and hallucinatory experiences might possess the same conscious character. All we have to assume is that veridical visual experiences, on the one hand, and illusory and hallucinatory experiences, on the other, are just the same pattern of activation of neurons in the brains of duplicates. In the case of falsidical experiences, that pattern of activation of neurons is elicited by properties that are not normally involved in the context of contact. In cases of hallucinations, that pattern of activation of neurons is elicited by causes that are internal to the brain and independent of any physical contact with some external property.

(ii) Again, in opposition to content representationalism, meaning representationalism can do justice to the intuition that there is more to the *complete* singular content of experience than is fixed by phenomenal character. First, complete singular content is broadly individuated, as the value that particular tokens of experiences assume in contexts of visual contact. In contrast, the conscious character is narrowly individuated, as the same pattern of activation of neurons that is normally elicited in contexts in which the brain is in experiential contact with some properties, regardless of the values that token experiences assume in contexts of visual contact. Thus, we can allow that visual experiences of qualitatively identical objects involve different (complete) singular contents, while insisting that they have the same conscious character,

namely the same pattern of activation of neurons narrowly individuated by the brain's nomic causal relation with *any* instancings of the properties that normally elicit that pattern in a context of experiential contact.

(iii) Now, in opposition to PR, meaning representationalism has no difficulty in explaining why in the Inverted Earth scenario there is more even to *partial* content of visual experience than is fixed by phenomenal character. Recall, you wake up on Inverted Earth with inverting lenses that invert the colors of the objects of the physical environment on Inverted Earth. Therefore, when you see the sky or anything else, it is just what it was like on Earth. Now, we assume that, after enough time has passed, your color-contents will come to match those of the other inhabitants, and you will come to have visual experiences that represent the sky as yellow. Briefly, the colors represented by your visual experiences (before and after your travel to Inverted Earth) seem to change from blue to yellow, while the phenomenal aspects of your experiences remain unchanged.

Meaning representationalism bypasses this difficulty, since it does not equate the conscious character with any property represented by visual experience, but rather with the pattern of activation of neurons that is normally elicited in contexts in which the brain is in physical contact with some properties. Thus, regardless of whether the property represented by your visual experience changes once you have acclimated to Inverted Earth (a highly controversial assumption), in meaning representationalism, the conscious character must remain unaltered as long as the pattern of activation of neurons remains unchanged. While inverted lenses invert the colors of the Inverted Earth environment, it is the same neural pattern that is elicited in contexts of visual contact with the color of the sky.

In sum, meaning representationalism can allow the possibility of (visual) experience endowed with different contents (partial or complete) possessing different phenomenal aspects in virtue of the shared mental paint. Given this, in opposition to Dretske's and Tye's SWPR, meaning representationalism can also do justice to the persistent intuition that the conscious character is a narrow rather than a wide property, that is, a property that locally supervenes on the physical makeup of the individual. The reason is the same. As the conscious character is a neural pattern, rather than any property (broadly individuated) represented by visual experience (the painted feature), we can allow that any physical duplicates undergo experiences with the same conscious character, regardless of the physical environment in which they are embedded, provided they are in the same internal state (the same mental paint).

However, to substantiate my second claim, I also have to show that meaning representationalism, in opposition to SWPR, does justice to the opposite

intuition that there is more to the conscious character than is fixed by any content of visual experience. As we saw, that intuition is supported by the following putative counterexamples: (iv) blurry vision, (v) inverted spectrum, and (vi) the dual-looks problem. On reflection, these examples cannot constitute objections against meaning representationalism, since meaning representationalism attributes phenomenal differences to the neural pattern rather than to the painted figure.

Let us start with (iv). If the same scene is represented twice, but the subject's vision is clear in the first case while vision has become blurry in the second, then the content remains the same while the conscious character has changed. Now, to the extent that the conscious character is the pattern of activation of neurons that is normally elicited in the context in which the brain is in experiential contact with some property, there is no problem in accommodating that intuition. In meaning representationalism, blurry vision is just a 'blurry' activation of neurons that is a little different from the pattern.

(v) In opposition to PR, meaning representationalism has no difficulty in explaining why in the inverted spectrum scenario there is more to the conscious character than is fixed by the partial content of visual experience. Recall, you and I are spectrum inverted relative to each other so that your experiences of red are just like my experiences of green, and vice versa, and likewise for other pairs of colors. Nevertheless, both our experiences of a ripe tomato represent it as being red and both our experiences of an unripe tomato represent it as being green. Why is that so? The shared assumption of all proponents of inversion scenarios is this. First, we speak the same language: we learn to use the words "red", taking as samples ripe tomatoes, and "green", taking as samples unripe tomatoes. Second, we are embedded in the same community. Given content-externalism, both our visual experiences of a ripe tomato represent it as red, regardless of the fact that what it is like for me to undergo a visual experience of the ripe tomato is just what it is like for you to undergo a visual experience of an unripe one and vice versa: what it is like for me to undergo a visual experience of an unripe tomato is just what it is like for you to undergo a visual experience of a ripe one. Thus, the same colors are represented by experiences with inverted qualia.

Meaning representationalism diffuses this difficulty since it does not equate the conscious character of visual experience with any feature painted by visual experiences of colors, but rather with the mental paint (a pattern of activation of neurons). If my and your visual experience of the color red represents the same redness with inverted qualia, it is just because we are not physical duplicates in the relevant aspect: you respond to redness with the same internal state (same pattern of activation of neurons) with which I and others respond

to greenness. In sum, we mentally paint the same redness based on different mental paints (different neural patterns).

Now the pressing question is: if, as it seems to be, the same pattern of activation of neurons does all the jobs, why we do have to care about what is going on outside the brain? Why do we have to assume that such patterns of activation of neurons are representations? Metaphysically speaking, the conscious redness is not some pattern of activation of neurons that is representationally inert, *but rather a pattern of activation of neurons that is normally elicited in the brains of duplicates in contexts where they are in visual contact with some properties and represent them.* Furthermore, without assuming that a pattern of activation of neurons (in the brain of duplicates) *represents* the instantiation of physical properties that those brains are in visual contact with in the context of visual contact, we cannot do justice to the persistent intuition that visual experiences of physical duplicates that are phenomenally alike are also nomically correlated with the same external properties that they represent.

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Author Query:

AQ1:   Please check the unpaired parenthesis in the sentence "…relevant token experience"