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# Vehicle-representationalism and hallucination

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**Abstract** This paper is a new defense of the view that visual hallucinations lack content. The claim is that visual hallucinations are illusory not because their content is nonveridical, but rather because they seem to represent when they fail to represent anything in the first place. What accounts for the phenomenal character of visual experiences is not the content itself (content-representationalism), but rather the vehicle of content (vehicle-representationalism), that is, not the properties represented by visual experience, but rather the relational properties of experience (or of the brain) of representing singular contents, namely particular instantiations of properties. I argue that the Russellian particular-involving proposition is the only appropriate model for the representational content of visual experience and hence that visual hallucinations are just like failed demonstrations.

**Keywords** Generic Hallucination · Content-Representationalism · Vehicle-Representationalism

## 1 The problem of visual hallucination

There are two fundamentally different ways of conceiving visual experience. The first one is this: visual experience is *just* a matter of putting the agent in visual contact with particulars of her perceptual environment. In accordance with Campbell, we can label this the “relational view” (see Campbell 2002). Versions of this view were popular amongst the early 20th-century Oxford Realists, such as Russell (see Russell 1911), but the recent works of Campbell, Travis, Johnston,

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Brewer, Fish, and Martin have brought the proposal back into discussion (see Campbell 2002, 2010, 2011; Johnston 2004, 2006; Brewer 2006, 2007, 2011; Fish 2009; Martin 2002a, b, 2004; Travis 2004). Martin calls his position “naïve realism” (see Martin 2002a, b, 2004); while Brewer calls his the “object view” (see Brewer 2006). Nonetheless, I prefer Campbell’s widely used label: the “relational view” (see Campbell 2002).

The second view is the following. When I see a yellow cube straight ahead, I represent the world as being a certain way, that is, my perceptual states have the so-called conditions of satisfactions (see Searle 1983). When there is a match between how the world is and the way that our experiences reflect it, the content is veridical; otherwise, it is nonveridical. According to Campbell, we can call this “the content view” of experience (see Campbell 2002). Different versions of the “content view” have become popular at least since the work of Dretske (1969).

Suppose that I undergo a sequence of visual experiences, as follows. First, at moment  $t_1$ , I see a yellow cube right in front of me. Let us call it cube1. Second, unbeknownst to me, at  $t_2$ , there is another one, cube2, which is quite similar to the first down to the minimal details, replacing the first. Now, for unknown reasons, I start to visually hallucinate (a generic hallucination) what seems to me to be a yellow cube straight ahead of me. If we make the reasonable assumption that the function of visual experience is to put us in visual contact with particulars (objects, particular space–time locations, particular instances of properties, etc.) (Tye 2009:114), there is no doubt that visual hallucination fails in putting us in contact with anything. Still, my visual hallucination of what seems to me to be a yellow cube straight ahead may be introspectively indistinguishable from my illusory and non-illusory experiences of a yellow cube.

If we assume the relational view, we must endorse the claim that visual experiences and visual hallucinations do not even belong to the same psychological kind. In the literature, this is what is called *the new disjunctivism*. For one thing, while genuine visual experiences put us in visual contact with particulars, hallucination fails to put us in contact with anything. For another, visual experiences and visual hallucinations are not individuated by the same things. Yet, if visual experience and visual hallucination do not even belong to the same psychological kind, the problem is how to account for the fact that, for example, my visual hallucination of what seems to me to be a yellow cube straight ahead may be introspectively indistinguishable from genuine veridical/nonveridical visual experiences of a yellow cube straight ahead of me. Actually, the disjunctivist claim that visual experiences and visual hallucinations do not even belong to the same psychological kind strikes me as unacceptable. Given this, this paper is not concerned with the relational view: I take the content view for granted.<sup>1</sup>

In contrast, if we still assume that the fundamental purpose of visual experience is to put us in visual contact with particulars (Burge 2003; Tye 2009), but endorse the opposite content view, we can *prima facie* recognize that visual experience and

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<sup>1</sup> However, I do not believe that both view are completely contradictory. Indeed, in the last years I defended a *sui generis* combinations of both views. See Pereira (2016, 2017). Be that as it may, in this paper I take the content view for granted.

visual hallucination do belong to the same psychological kind since they both possess a content. Yet, the problem is how to conceive the content of visual hallucination. Indeed, if we assume at least for the sake of argument that the fundamental function of visual experience is to put us in visual contact with particulars, the *only* appropriate model for the content of visual experience is a Russellian particular-involving proposition (I shall argue for this view). Still, if a Russellian particular-involving proposition is the only model for the content of visual experience, in the case of visual hallucinations we are not in visual contact with anything and hence there is no particular involved and hence no content at all.

The problem is: the claim that hallucinations have no content strikes many as being at odds with the content view of experience. Moreover, the fundamental question remains open: if my visual hallucination of what seems to me to be a yellow cube straight ahead has no content, while my visual experience of a yellow cube straight ahead of me has a singular content, what do they have in common? Why are they introspectively indistinguishable? Let me call this *the problem of visual hallucination*.

There are different solutions to the problem of visual hallucination in content view tradition, but all of them have little to recommend them. To be sure, as we are told, the Russellian model might be the *most* appropriate one for the content of visual experience, but it is not the *only* one. Given this, to account for the putative representational content of hallucinations we must take a Fregean proposition as the most appropriate model for the content of visual hallucination (Chalmers 2004) as an additional layer of content. In the same vein, Tye (2014) has suggested that we should take the reflexive proposition as the appropriate model for the content of visual experience in the case of hallucination. Let me call this *the pluralistic content view* of visual experience.

Yet, against Chalmers and Tye, I hold that *the pluralistic content solution* is clearly ad hoc: there is no clear independent motivation for their content-pluralism, that is, for the postulation of a new layer of some general content, except to find a solution to the problem of hallucination and to save content-representationalism, that is, the popular and widespread view that the phenomenal character of experience supervenes on the content of the same experience. Moreover, to appeal to a general content to account for visual hallucination is explanatory overkill because we have a much superior explanation at hand, namely vehicle-representationalism, namely the claim that the phenomenal character of visual experience supervenes not on the representational content of the same visual experience, but rather on the vehicle of the content, that is, on the relational property of visual experience (or of the brain) of representing a singular content.

The second solution to the problem of hallucination is to assume that there is a minimal content shared by both experience and hallucination: a content-schema. Let me call this *the minimal common content view*. Accordingly, the most appropriate model for the content of a visual hallucination might be a Russellian gappy proposition, that is, a singular proposition with a hole or a gap in place of the missing particular (Tye 2009). Singular contents and gappy contents share the same content-schema: we get a singular content from a content-schema when we fill the hole with a particular. Yet, as Tye argued a few years later (2014), such a gappy

content is anything but a real proposition. Thus, Russellian gappy content is a dead end that I will not consider here.

In a similar vein, Schellenberg (2010, 2013, 2016) also argues for a gappy content to account for visual hallucination. However, her content-model is not a Russellian but rather a Fregean proposition: the gap is in the mode of presentation. Yet, Schellenberg's account fails to meet her own particular desideratum in cases of veridical misperceptions and veridical hallucinations; or so I shall argue.

The third and last alternative is to take the set-theoretical proposition as the model for the content of hallucination (Tye 2014). Tye's new idea is that when we are visually hallucinating, we are not visually experiencing particulars and hence there is no set of worlds in which the particulars picked out by the representational parts of the experience have the relevant properties. Thus, the set of possible worlds associated with a visual hallucination is the empty set, and the content is nonveridical precisely because the actual world cannot be a member of a set that is empty. Against the set-theoretical model, I shall argue that it also cannot accommodate the Grice-like counterexamples (Grice 1961). The only way of accommodating those scenarios is by assuming that the content of experience is best modeled by particular-involving propositions.

This paper is a new defense of the view that visual hallucinations lack content.<sup>2</sup> The claim is that visual hallucinations are illusory not because their content is nonveridical, but rather because they seem to represent something when they fail to represent anything in the first place. What accounts for the phenomenal character of experiences is not the content itself (content-representationalism), but rather the vehicle of content (vehicle-representationalism), that is, not the properties represented by experience, but rather the relational properties of visual experience of representing some singular content. I argue that the Russellian particular-involving proposition is the only appropriate model for the content of visual experience and hence that visual hallucinations are just like failed demonstrations.

The remainder of paper is structured as follows. The next section presents a critical view of the Fregean model for the problem of the content of hallucination. The third section presents a critical view of the set-theoretical model. In the fourth section I argue in favor of the superiority of vehicle-representationalism over traditional qualia realism. The last section is devoted to presenting and defending my view that visual hallucination lacks content, even though it shares a phenomenal character with non-hallucinatory visual experiences, veridical or nonveridical.

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<sup>2</sup> To my knowledge, Alves (2014) is the only philosopher in the field who has defended the "counterintuitive" view that visual hallucinations lack content. We both take Tye's book (2009) and in particular Kaplan's account for demonstratives as the appropriate mode for the content of visual experience as a start-point. However, this is the only similarity between our positions.

## 2 The Fregean model

One way of providing content for visual hallucinations is by taking the Fregean proposition as the appropriate model. The traditional Fregean proposition (*Gedanke*) consists of modes of presentation of particulars (*Sinn*) of particulars themselves (*Bedeutungen*). When there is no particular, we still have content because it is the modes of presentation of the missing particular that constitutes the Fregean proposition rather than particulars themselves. For example, the sentence “Vulcan is the first planet in the solar system” has a content when this content is modeled as a Fregean proposition because the proposition does not consist of Vulcan itself, but rather of some identifying condition, roughly *the planet whose existence was postulated by Le Verrier, the planet that causes disturbances in the orbit of Mercury*, etc.

The extension of the Fregean account of language or thought to experience seems quite natural. If the proposition expressed by a sentence can be accounted for in terms of senses (*Sinn*) that may lack a referent (*Bedeutung*), then it seems plausible to suppose that the representational content of visual experience can also be accounted for in terms of modes of presentation that may fail to refer to particulars. Chalmers (2004), for example, understands the sensory mode of presentation of particulars and properties in this way. Roughly, *the particular that normally causes experiences of such and such a phenomenal kind* in someone at some time and location is marked at the center of some world. Given this, the Fregeans adds a layer of content that is not available for Russellians.

The mark of the Fregean proposition is the assumption that the reference is presented under *de dicto* modes of presentation, that is, the reference is determined *satisfactorily* rather than *relationally* (Bach 1987). Yet, such a *de dicto* mode of presentation does not seem to meet what Schellenberg years ago called *the particularity desideratum*:

One desideratum is to account for the particularity of perceptual experience, that is, to account for the mind-independent object of an experience making a difference to individuating the experience. Let us call this the particularity desideratum. (2010:20)

According to Tye, my visual experience is about *this* particular. What I misperceive is *that* thing (2009). The easiest way of showing that the Fregean model fails to meet the particularity desideratum is substantiated by the Grice-like scenarios.

1. Veridical misperception: Let us suppose that I am looking straight ahead and that there is a mirror in front of me placed at a 45° angle, and even though I am not aware of it, behind it there is a yellow cube. To the right and reflected in the mirror there is a cube but which is white in color. Yet, due to special lighting conditions, this cube appears to be yellow to me. Assuming that the content of experience is best modeled as a Fregean proposition, the content must be accurate; after all, *some and only one* particular meets the condition of causing in me the experience of phenomenal cubicity and phenomenal yellowness and



instantiates the properties of being cubic and of being yellow. Yet, my visual perception is clearly illusory, for I do not see the particular straight ahead of me that meets the first identifying conditions. Rather, what I am now seeing is the image of another cube, white in color, reflected in the mirror, and placed at a 45° angle, which appears to be yellow because of the special lighting conditions.

2. Veridical hallucination: There is a cube in front of me that is yellow. However, unbeknownst to me, this information is reflected by the light of the cube and reaches my retina, but is processed no further. An evil neuroscientist has blocked the signals of my retina from reaching the optic nerve, while simultaneously activating the visual cortex by means of electrical probes that work in the same way as neurological signals. Under the Fregean model, it would be adequate to say that the content of my experience is accurate; after all, *some and only one* particular meets the condition of causing in me the experience of phenomenal cubicity and phenomenal yellowness and instantiates the properties of being cubic and of being yellow. However, the experience is a hallucination.<sup>3</sup> Something has gone wrong again.

What these scenarios show is a clear mismatch between the illusory character of visual experience and the veridicality of the content when this is modeled as a Fregean or existential proposition: while the experiences in both cases are unequivocally illusory, the Fregean content is veridical; after all, there is a particular outside my visual field causing in me the experience of phenomenal cubicity and of phenomenal yellowness that instantiates the properties of being cubic and of being yellow. Indeed, any view in which perceptual content is constituted by *de dicto* modes of presentation fails to meet what Schellenberg calls the particularity desideratum (see Bach 1997).

Chalmers's expected reply is to go for his bi-dimensionalism: we may have a content that best reflects the phenomenal character of visual perception, the Fregean content, but also another content, the Russellian one, that best captures the accuracy or veridicality conditions of visual experience. The underlying assumption is that there is no such thing as *the* model for the representational content of visual perception. According to Chalmers's content-pluralism, we are free to choose the appropriate model regarding what we want to capture with the content of visual experience.

To be sure, I have nothing to object to Chalmers's content-pluralism (agreed, there is no such thing as *the* appropriate model for the representational content of visual perception).<sup>4</sup> Yet, according to Tye: "one immediate objection to the Existential Thesis, then, is that, as yet, it lacks a clear motivation" (2009:79). Indeed, I see no clear motivation for the postulation of different layers of content here except to save representationalism (Fregean content) and to meet the particularity desideratum (Russellian content). Chalmers is explicit about this:

<sup>3</sup> Both examples are adapted from Tye (2009:79).

<sup>4</sup> The prominent defender of content-pluralism is certainly Perry since 1977.



Fregean content is supposed to be a sort of phenomenal content, such that, necessarily, an experience with the same phenomenology has the same Fregean content. (2006:99)

However, it is explanatory overkill to appeal to an additional Fregean model content when we have a far easier explanation, namely vehicle-representationalism. As I am going to argue in the last section, what by far best accounts for the phenomenal character of experience is not the properties represented by visual experience, but rather the relational properties of visual experience of representing particular instantiations of properties (Thompson 2008). Thus, what veridical, nonveridical, and hallucinatory experiences with exactly the same phenomenal character share is not a general content, but rather the relational property of representing singular contents.

In contrast to Chalmers, Schellenberg has formulated a new Fregean model (2010, 2013, 2018). Again, the Fregean content is composed of “modes of presentation” that specify the way in which a subject conceives of an object when she perceptually refers to it. *Mutatis mutandis*, the Fregean content of visual experience is also supposed to be composed of “modes of presentation”, however, in this case, specifying the way in which the subject sees the particular. To be sure, mental states of visual experiences represent particulars, but always under a certain guise.

Schellenberg's notion of mode of presentation has to be understood in a specific way. It cannot arguably be understood as *de dicto*. As Schellenberg characterizes it, a *de dicto* mode of presentation “lays down a condition that something must satisfy to be the object determined by the content” (2010:36). Accordingly, the relation between content and object is one of semantic satisfaction: content lays down some identifying condition, and whatever satisfies this condition is the particular determined by the Fregean content. Put in Bach's words, under *de dicto* modes of presentation, the reference is determined *satisfactionally* rather than *relationally* (1987:12). This view cannot meet the particularity desideratum because *de dicto* modes of presentations are radically object-independent. If the content of visual experience is composed of *de dicto* modes of presentation, then the fact that a visual experience is of *this* particular rather than of any particular that meets some identifying condition remains unexplained. More importantly, according to Schellenberg (2016), this conception of modes of presentation as *de dicto* makes the Fregean account fail in Gricean scenarios.

To circumvent the problem, Schellenberg conceives the modes of presentation of particulars in visual experience as *de re* rather than as *de dicto* (see 2010:36). However, if the content of visual experience is conceived as object-dependent in the traditional *de re* way suggested by Evans and McDowell (1984), we end up endorsing the view (that this paper defends) that visual hallucination has no content: since there is no *res* there cannot be a *de re* mode of presentation in the first place.

Instead of this object-involving notion of *de re* modes of presentation, Schellenberg proposes that *de re* modes of presentation are only “partly object-dependent” (2013:37). She claims that a *de re* mode of presentation can be

understood as an object-related *concept* (see 2013:38) where this notion of concept is analyzed in terms of possession conditions. Roughly speaking, the possession condition of a concept consists of the ability to refer to whatever the concept is of, which supposedly involves the ability *to discriminate between the things that fall under the concept and those that do not*.

Schellenberg spells out her theory as follows:

1. The content of any two subjectively indistinguishable experiences  $e_1$  and  $e_2$  in which a subject  $s$  is perceptually related to the same object  $o$  in the same way will include  $\text{MOPr}(o)$ , where  $\text{MOPr}(o)$  is the output of employing a perceptual capacity that takes objects as inputs.
2. A hallucination that is subjectively indistinguishable from  $e_1$  is a matter of employing the same perceptual capacity, but since there is no object present, the perceptual capacity remains baseless. The ensuing content is  $\text{MOPr}(\_)$ . Modes of presentation of properties can be specified in an analogous way. If I perceive a white cup  $o$ , the content of my perceptual experience will be  $\langle \text{MOPr}(o), \text{MOPr}(P) \rangle$  where  $\text{MOPr}(o)$  is a *de re* mode of presentation of the cup  $o$ , and  $\text{MOPr}(P)$  is a *de re* mode of presentation of the property that this object instantiates. If I hallucinate a white cup and thus am not related to any white cup, the content of my hallucination will be  $\text{MOP1r}(\_), \text{MOP2r}(\_) >$  (2013:303).

Schellenberg is employing another notion of the *de re* mode of presentation that traces back to Sosa (1970), Perry (1977), Peacocke (1981), Bach (1987, 1994), Recanati (1993), and Jeshion (2002). However, by far the most lucid presentation of this notion is Bach's (1987). Evan's and McDowell's *de re* modes of presentations are what they call *de re* senses that determine an object as their reference: differences of reference entailing differences of senses. From this emerges their distinctive radical object-dependency: they would not exist if their reference did not exist. In contrast, Bach's *de re* modes of presentation do not determine reference alone, but only in respect to a given context. Bach's *de re* modes of presentation are context-independent (1987:12). The key difference is the following: while Bach's *de re* modes of presentation are *types*, Evans and McDowell's *de re* senses are *tokens of a given type*. Therefore, if I see a yellow cube straight ahead of me, the *de re* way that this particular is presented to my vision is the same regardless of whether the particular that I see is  $\text{cube}_1$  or  $\text{cube}_2$ , or even whether I am visually hallucinating what seems to me to be a yellow cube, provided they are qualitatively indistinguishable. That is what Schellenberg claims:

Although *token* modes of presentation covary with the environment in which the subject experiences, the mode of presentation *types* remain the same across subjectively indistinguishable experiences. (2013:304)

The content of visual experience is composed of *de re* modes of presentation that have possession conditions determined by mental types. Types, which are schematically represented as  $\text{MOPr}()$ , take particulars as inputs and give contents as outputs with respect to a context. Two phenomenally identical but numerically

distinct token experiences  $e_1$  and  $e_2$  in which the subject is visually related to the same object  $o_1$  will have the same mental type  $\text{MOPr}()$  and the same content  $\text{MOPr}(o_1)$ , where the content is the output of type  $\text{MOPr}()$  when it takes the particular  $o_1$  as input. Two phenomenally identical experiences  $e_1$  and  $e_2$ , each one related to numerically distinct particulars  $o_1$  and  $o_2$ , respectively, exemplify the same mental type  $\text{MOPr}()$  but different contents, namely  $\text{MOPr}(o_1)$  and  $\text{MOPr}(o_2)$ , respectively. Finally, a hallucination that is phenomenally identical to  $e_1$  will also have mental type  $\text{MOPr}()$ , but since the type takes no particular as input, its output will be the gappy content  $\text{MOPr}()$ .

In this way, Schellenberg's account seems to nicely handle cases of generic hallucinations: the experience is clearly illusory and so the content is nonveridical (or at least neither veridical nor nonveridical) because no particular is singled out. Can Schellenberg's account circumvent the problem raised by the scenario of veridical hallucination? The answer is negative. Let me recap.

3. Veridical hallucination: There is a cube in front of me that is yellow. However, unbeknownst to me, this information is reflected by the light of the cube and reaches my retina, but is processed no further. An evil neuroscientist has blocked the signals of my retina from reaching the optic nerve, while simultaneously activating the visual cortex by means of electrical probes that work in the same way as neurological signals.

Again, we have a clear mismatch here between the veridicality of content and the illusory character of veridical hallucination. The experience is clearly illusory merely because I do not see the yellow cube straight ahead of me. What I see is some image created by the activation of my visual cortex by means of electrical probes. In contrast, the content is veridical; after all, the mental types, which are schematically represented as  $\text{MOPr}()$ , take particular  $o_1$  as inputs and deliver the content  $\text{MOPr}(o_1)$  as outputs. As  $o_1$  instantiates the properties of cubicity and yellowness, the content is veridical:  $\langle \text{MOPr}(o_1), \text{MOPr}(P) \rangle$ , where  $\text{MOPr}(o_1)$  is a *de re* mode of presentation of  $o_1$ , and  $\text{MOPr}(P)$  is a *de re* mode of presentation of both properties that  $o_1$  instantiates. The only way to solve the Grice-like problems (such as veridical hallucination) is by assuming that the seen particular must belong to the singular content of visual experience. As the yellow cube straight ahead of me is not seen, my hallucination fails to pick it out, regardless of whether it is straight ahead of me. Thus, my hallucinatory experience is illusory and I am under the illusion of representing something particular.

Again, what motivates Schellenberg's account is representationalism:

In contrast to so-called strong representationalist views, according to which the sensory character of experience covaries with its content, I will argue that sensory character merely supervenes on content. More specifically, I will argue that the sensory character is constituted by the perceptual capacities employed in a sensory mode, but the content ensuing from employing perceptual capacities differs depending on the environment of the experiencing subject. (2013:301)

Again, it is explanatory overkill to evoke this Fregean gappy mode of presentation MOPr() when we have a much simpler explanation at hand, namely vehicle representationalism. The most natural and intuitive way of solving the puzzles created by veridical hallucination is by disentangling once and for all the content from the phenomenal character of visual experience. First, we assume that the only appropriate model for the content of visual perception is a Russellian particular-involving proposition because it is only based on this Russellian model that we can meet the particularity desideratum and solve the puzzle. In veridical hallucination, the experience is illusory and creates the illusion of a nonveridical content because the particular straight ahead of me is not incorporated as a constituent of the Russellian proposition. Thus, there is no proposition and no content in the first place.

And, in addition, this accounts for the fact that visual experience of qualitatively identical particulars and visual hallucinations of what seem to be qualitatively identical particulars are not perceptual capacities employed in a sensory mode. Instead, in all Grice-like scenarios, we have the same phenomenal character precisely *because they share the same vehicle of representation, namely the relational property of the experience (or of the brain) of representing a singular content*. I believe that this provides a unitary and simpler view of the content and the conscious character of experience.

### 3 The set-theoretical account

The insurmountable problems faced by his previous gappy account of the content of visual hallucination moved Tye to adopt a radically different account of it, namely the Set-Theoretical View. Rather than insisting that the Russellian particular-involving proposition is the best model for the content of visual experience and hence for the content of visual hallucination, the idea now is to take the set-theoretical view of propositions as the most appropriate model.

To be sure, visual experience exhibits a rich and fine-grained nature, in contrast to thoughts. In representing one particular, visual experience represents many and our visual representation of the world displays a fine-grained texture. Still, this has misled many into thinking that the content of this experience must be equally rich. However, this is a mistake. Tye claims, correctly, that: “it falsely assumes that a property of the vehicle of representation (the experience) must be a property of its content. Structure in a representation need not be mirrored in structure in its content” (2014:10).

Visual experiences display complex structures, which have various representational parts standing for the different things represented. If, for instance, I veridically see a yellow cube straight ahead, a part of my experience represents the particular, and another part represents the property of being cubic and the property of being yellow. The picture-like richness of my experience is then captured by its representational parts, which are integrated into a complex structure. In this way, visual experiences are like maps whereas thoughts are like sentences.

Yet, we can still hold that the content of experience is basically unstructured, that is, it has no parts corresponding to the represented items. The view of propositions that best captures this nature is the set-theoretic conception of propositions:

Experiences, whether they are veridical, illusory, or hallucinatory, have associated with them an appropriate set of possible worlds. An experience, thus, is accurate, if and only if the actual world belongs to the appropriate set of possible worlds. Which is the appropriate set? Answer: the set of worlds at which the objects picked out by representational parts of the experience have the properties the experience aims to attribute to those objects (however this is further cashed out). (2014:10)

Accordingly, my visual experience of a yellow cube straight ahead is veridical *iff* the actual world is a member of the set of possible worlds in which the particular picked out straight ahead of me is a yellow cube, that is, it instantiates the attributed properties of being cubic and of being yellow. Interestingly, though the content is “specified by reference” to the particular that I see, the particular does not belong to the content:

Of course, the set of possible worlds at which an experience that is about *O* is accurate has members, namely possible worlds, each of which has *O* as a component part (whether one supposes that worlds are maximal states of affairs or (implausibly) concrete configurations of objects). But *O* is not a component part of that set, any more than my heart is a component part of the set whose members are me and my mother. So, *O* is not a part of the content of the experience. (2014:11)

The veridicality conditions of my experience necessarily depend on it being the case that that particular there has the relevant properties: worlds in which some other identical-looking yellow cubes do not make my visual experience veridical. Replacing the particular with another qualitatively identical one necessarily changes the veridicality conditions of my visual experience. Tye believes that this is enough to cash out the direct realist intuition. But what about when I hallucinate a yellow cube straight ahead?

Where there are no seen objects, as in a hallucination, there are no possible worlds at which the objects picked out by the representational parts of the experience have the experienced properties. So, the set of worlds associated with a hallucinatory experience is the empty set. (2014:10–11)

According to the set-theoretical model, the content of visual experience is the set of possible worlds in which the particular has the relevant properties of being yellow and of being cubic. However, there is no seen particular. Since my visual hallucination does not pick out any particular, it follows that there is no world in which this particular has the relevant properties. The set of possible worlds in which the hallucinated particular is a yellow cube is the empty set. Thus, the actual world is not a member of the empty set. Therefore, visual hallucinations are necessarily nonveridical.

According to Tye's content-representationalism, the phenomenal character of visual experience is one and the same as the represented content of the same experience. Yet, this does not seem to work when we take the set-theoretical proposition as the appropriate model for the content of visual experience. According to this view, any two hallucinations have the same content: namely, the empty set. To be sure, if I first hallucinate a yellow cube straight ahead and later hallucinate a bulgy tomato, these visual hallucinations have quite distinct phenomenal characters. Moreover, my visual hallucination of a yellow cube straight ahead and my veridical visual experience of a yellow cube straight ahead can look exactly alike, even though the content of my visual hallucination is the empty set, and the content of my veridical visual experience is a set of worlds that includes the actual world.

Hence, instead of using the entire content to fix the phenomenology of experience, Tye explains phenomenal character in terms of the properties represented by the experience. According to Tye: "necessarily, visual experiences that predicatively represent the same property complex have the same phenomenal character" (2014). My veridical experience of a yellow cube, for instance, represents the property complex <being cubic & being yellow>. But if it is hallucinatory, it also represents the same property complex. Veridical and hallucinatory experiences can share exactly the same property complex, which supposedly explains why they can have the same phenomenology.

The set-theoretical approach has little to recommend it. To start with, as Tye claims, the vehicle of representation is rich and fine-grained and we should resist the temptation to infer from this that the content of visual experience must be correspondingly rich. However, the phenomenal character of visual experience is also rich and fine-grained. That is a good reason that undermines Tye's representationalism and supports the rival vehicle representationalist account of the phenomenal character of visual experience. If, as Tye claims, the vehicle of content is rich and fine-grained, while the content itself does not mirror the structure of the vehicle, Tye provides us an additional reason to assume that the phenomenal properties are the relational properties of the visual experience of representing a singular content rather than the properties represented in the content itself. The phenomenal character of my visual experience of a yellow cube is far richer than the property complex <being cubic & being yellow>. The last section of this paper is devoted to presenting a new defense of vehicle representationalism.

Be that as it may. Tye's set-theoretical approach also fails in Grice-like veridical hallucination scenarios. Let me rephrase the scenario with a change:

4. Veridical hallucination: There is a cube in front of me that is yellow. However, unbeknownst to me, this information is reflected by the light of the cube and reaches my retina, but is processed no further. An evil neuroscientist has blocked the signals of my retina from reaching the optic nerve, while simultaneously activating the visual cortex by means of electrical probes that work in the same way as neurological signals.

Here we have a clear mismatch between the veridicality of content and the illusory character of veridical hallucination. Intuitively, my visual experience is

illusory; after all, I am visually hallucinating what seems to be a yellow cube straight ahead of me because the evil scientist has blocked the signals of my retina from reaching the optic nerve while simultaneously activating the visual cortex by means of electrical probes that work in the same way as neurological signals. Yet, the putative content is veridical; after all, the particular, which specifies the content, is the yellow cube straight ahead of me. The information coming from that particular has been blocked, preventing it from reaching my optic nerve. Even so, it is the only seen object, namely the yellow cube straight ahead of me. My visual hallucination is associated with the set of possible worlds in which this particular is a yellow cube and as a matter of fact the actual world is a member of this appropriate set.

The only way of avoiding all these scenarios is by taking the Russellian particular-involving proposition as the only appropriate model for the content of visual experience. In this case, the seen particular is a constituent of the content, which is only veridical if the particular in question instantiates the relevant properties. Thus, we have a perfect match in cases of veridical hallucinations: the experience is illusory and there is no content because the particular (instantiating relevant properties) is not represented.

#### 4 From Qualia realism to vehicle representationalism

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 2003), 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 is inconsistent with transparency. There are different ways of stating and interpreting the transparency thesis. 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 unconvincing (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 in favor of content-representationalism and against qualia realism.

To be sure, visual experiences alike with respect to the properties they represent are not necessarily alike phenomenally. There is more to the conscious character than is fixed by the properties visual experience represents. Still, 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 respect to the properties those experiences represent (under normal conditions). Why is that? Because conscious character is individuated in part by the relations the brain bears to the properties they normally 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 to identify conscious redness with a pattern of activation of neurons that is *representationally inert*. Instead, the conscious redness of visual experience is better 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. In other words, the phenomenal character is better identified to relational property of visual experience (or of the brain) of representing particular instantiations of the color red under normal conditions.

Given this, transparency is entirely compatible with vehicle-representationalism. To be sure, we are not able to pick out the phenomenal redness by looking inwardly, so to speak. The more you try, the more you end up seeing the color red of something outside that your visual experience represents. Still, that does not mean that the phenomenal red and the physical red are one and the same property, but only that you cannot identify the phenomenal red without the help of the physical red.

## 5 The Kaplanian model

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 possess different semantic values in different contexts (for example, two tokens of the same phrase “that particular instancing of yellowness” possess different semantic values in different demonstrative contexts). Thus, to account for the combination of the sameness of linguistic types and the difference between the semantic values of their tokens in different contexts, we characterize those lexical forms as *indexicals*: the same linguistic type is delivering different contents in different contexts.

Yet, applying this indexical model to experience is not straightforward. To have a reason to introduce indexicality, we need perceptual states that display the same combination of sameness and difference. The difference part is easy, as we have seen: visual experiences might possess different contents. Yet, the sameness is trickier. In linguistics, we could appeal to the lexical type to type-identify something as a “demonstrative.” However, 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.

In this regard, Tye has an insightful suggestion: “what visual experiences fundamentally aim at is to put us in visual contact with objects around us” (2009:114). Thus, the analogy between the context of demonstration and what we may call the context of visual contact is natural. Now, under the crucial assumption of the content view of visual experience, we may also take “mental demonstratives” as the mental analog of demonstratives.<sup>5</sup> Given this, we find in the realm of visual experience the same key distinction between token and type that is found in language. First, mental demonstratives per se do not refer. Only tokens of them refer in the context of visual contact with particulars. Second, there are successful and unsuccessful tokens of mental demonstratives in exactly the same way that there are successful and unsuccessful tokens of demonstratives.

That said, what I am proposing is an account of visual experience that takes Kaplan’s account of demonstratives as the most appropriate theoretical model. My first step is to present a new account of the singular content of visual experience, which takes Kaplan’s account of the content of demonstratives as the model that meets the particularity desideratum. According to Kaplan’s theory (1989), the meaning of demonstrative is construed in a function-theoretic way, namely as a variable function that maps a demonstrative context onto a singular proposition (content, i.e., “what is said”). Kaplan calls this function *character*. Consider the term “now.” Its character is a variable function, whose argument is a particular token of that indexical in some context of the utterance and whose value is the time at which that utterance is made. Likewise, the character of a demonstrative expression “that yellow cube straight ahead of me” is a function whose argument is

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<sup>5</sup> The idea is far from being original. According to Burge: “Thus the content must include context-dependent singular representational elements, analogs of singular demonstratives.” (2003:523).

a token of that demonstrative-type in some context of demonstration and whose value is the contextually variable content.

Now, assuming the analogy, visual experience can also be modeled as a variable function and properties, roughly  $[f(x), G]$ , where  $f(x)$  stands for a variable function that takes tokens of experience types in contexts in which the subject is in visual contact with particulars as arguments, and delivers as values those very particulars with which we are in visual contact. In contrast,  $G$  stands for the properties attributed to the particular singled out by the variable function  $f(x)$ . Similarly to the Kaplanian character,  $[f(x), G]$  is not content.  $[F(x), G]$  is what I want to call here *the vehicle of content*. Why is this so? For one thing, without replacing the free variable with a particular,  $[f(x), G]$  has no semantic dimension, and it represents nothing in the world.

Let me illustrate the point by recapitulating our example. I am undergoing the visual experience of a yellow cube straight ahead of me. According to my proposal, the vehicle of content is (1) conceived as a function that takes tokens of experience in the context of experiential contact with particulars as arguments and delivers as values the particulars with which we are in visual contact, and (2) instantiated in the properties of yellowness and of cubicity represented by the relational property  $G$ . (I) The content of my visual experience is determined by the function that picks out the particular I am seeing and attributes to it both relevant properties of cubicity and of yellowness. If in a given context I am in visual contact with, say particular1, the function takes particular1 as its value. (II) Yet, the content is also determined by the properties of cubicity and yellowness represented by the constant  $G$  (the relational property of visual experience). Thus, the content can be described as the sequence:  $\langle 1; \text{yellowness}; \text{cubicity} \rangle$ , where the properties in question are attributed to particular1. Now, if in another context I am in visual contact with another particular2, the content can be described as  $\langle 2; \text{yellowness}, \text{cubicity} \rangle$ , where the properties are attributed to particular2.

Suppose, again, that I am visually hallucinating what seems to me to be a yellow cube straight ahead of me. Considering my proposal, my visual hallucination exemplifies the same vehicle of content as the relational property of visual experience of representing a singular content, instantiated in the two cases above of veridical and nonveridical experiences. However, as I am not in visual contact with any particular, no particular is picked out by the function  $f(x)$ . This function, therefore, provides us with no value since a function without argument cannot deliver any outcome. Now, since no particular is singled out, no property is attributed to whatsoever. The moral is that hallucination has no content. The case is analogue to Kripke's treatment of empty names. What is illusory is not the representation of a nonveridical content. Rather, we are under the illusion of representing particulars when we in fact represent nothing in the first place.

The question is: why does it happen? Let me recap. Because the phenomenal character of visual experience is individuated in part by the relations the brain bears to the properties they normally 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 to identify conscious redness with a pattern of activation of neurons that is *representationally inert*. Instead, the conscious redness of visual

experience is better 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. In other words, the phenomenal character is better identified to relational property of visual experience (or of the brain) of representing particular instantiations of the color red under normal conditions.

Is this view mandatory? Tye believes it is not:

It seems to me not unnatural to think of Kaplanian characters as contents of a special sort. Intuitively, the sentence “I am hot”, in having the meaning it does, has a certain representational content: it represents that the speaker is hot. This content is not specified by giving the truth-conditions of the sentence in any particular context. So, it is not content of the sort we have been concerned with so far. Rather character is something that determines truth-conditions relative to contexts. For a given context, character has, as its value, content, as we have understood it in previous sections. To avoid confusion, I shall call content of this sort “content\*”. I turn next to the relevance of content\* to visual experience. To bring this out, it is useful to reflect upon the case of demonstratives used in failed demonstrations. (2013:13)

The key point is the following. Even if the demonstrative ‘that’ fails to refer, it still has a linguistic meaning (Kaplan’s character) and thus an additional content\*. This is what Perry has been calling *reflexive content* in opposition to *referential content* for decades: roughly, the object demonstrative by the relevant tokens of the relevant demonstrative “that” in a context of demonstration; the speaker employing the relevant token of “I”, etc. But what about visual hallucinations? As we have seen, visual hallucinations are like cases of failed demonstration. Thus, by way of analogy, just as the word ‘this’ lacks a referential content when uttered in a failed demonstration but still has a reflexive content\*, visual hallucinations that lack a referential content, when tokened in the context in which the subject is in visual contact with nothing, have a reflexive content\*, roughly the particular with which we are in visual contact by a relevant token of the mental demonstrative “that” in the context of visual contact.

But as the reflexive content is general rather than singular, it cannot meet the particularity desideratum, which means that it fails in appropriately capturing the veridicality conditions of visual experience: in cases of generic hallucination, there is no referential content but the token-reflexive content is veridical. Thus, to handle the problem we have to assume Perry’s content-pluralism as before in Chalmers’s case: one content to capture the veridicality conditions of visual experience and another to handle the problems of cognitive significance.

To be sure, when we are dealing with the problem of cognitive significance in a communicative exchange with someone else, it seems to be quite appealing to evoke reflexive contents to make sense of the speaker’s utterances when we are unable to identify any referential content. Suppose someone utters “that is a yellow cube” and I fail to identify the particular that instantiates the relevant properties. To make sense of what the speaker is saying, I naturally attribute to her a reflexive content, roughly the particular demonstrated by the relevant token of the demonstrative “that” (whatever it is) having the properties of being cubic and of being yellow.

But here the analogy between language and visual experience breaks down: when I visually hallucinate what seems to be a yellow cube straight ahead of me, I am not communicating anything to anyone. Thus, the postulation of a reflexive content for visual hallucination lacks any clear motivation except to provide a representational content for visual hallucination and to save representationalism.

Now let me return to my proposal. It has no problem in explaining why visual experience and visual hallucination are introspectively indistinguishable. To be sure, visual hallucinations cannot be individuated in terms of their contents, for they have none. Given this, the only thing left to individuate this state is its vehicle of content. If I first visually experience a yellow cube straight ahead of me and for unknown reasons start to hallucinate what seems to be the same yellow cube straight ahead of me, I cannot notice any difference introspectively precisely because both experiences share the same vehicle:  $[f(x), G]$  where  $f(x)$  stands for the particular straight ahead of me and  $G$  for the relational properties of representing the external properties of cubicity and yellowness that are attributed to the particular.

Likewise, my proposal has no problem in explaining how *different* visual hallucinations are type-individuated even though they lack content. Again, visual hallucinations cannot be individuated in terms of their representational contents, for they have none. Given this, the only thing left to individuate this state is its syntactic vehicle of content. If I first visually hallucinate what seems to me to be a yellow cube straight ahead of me, and later visually hallucinate what seems to me to be a green cube in front of me, even though these two visual hallucinations represent nothing, they have different vehicles of content. The vehicle of my first hallucination has a function that acquires no value and both properties of cubicity and yellowness are attributed to nothing. But the vehicle of my second visual hallucination in the second case has a function that acquires no value and both properties of squareness and greenness are attributed to nothing.

Now, if visual experiences are type-individuated by the vehicle of the content in the brain, they are also token-individuated by the particulars the representations are about. If I experience a sequence of yellow cubes, my visual experiences are token-different because they are about different particulars, which means that they are also different mental episodes of the same vehicle type. But what about the token-individuation of hallucinations? Although they are about nothing, they are token-individuated by being different mental episodes of exactly the same vehicle of content, namely the relational property of visual experience of representing some singular content. I have different hallucinations of what seems to be a yellow cube *iff* those type-identical mental states with the same phenomenal character correspond to different mental episodes of the same vehicle of representational content in my brain.

According to the disjunctivism defended by relationalists, visual experiences and visual hallucinations do not belong to the same psychological kind because while visual experiences put us in visual contact with particulars along with their properties, visual hallucinations fail to put us in contact with anything at all. Thus, while the first are metaphysically individuated by the particulars they are about, the second are not. The classical way out of disjunctivism is to appeal to a shared content and according to my proposal visual hallucinations have no content in the

first place. The question is whether my account is in anyway committed to disjunctivism.

The answer is clearly negative. Even though visual hallucinations and visual experience do not share the same content, they certainly share the same vehicle of content. Given this, they are metaphysically type-identified by the vehicle they share. The only difference between them is that visual experiences are token-individuated by the particulars they are about, while visual hallucinations are by different mental episodes of the same vehicle of content. Yet, considering that visual experiences and visual hallucinations share the same vehicle of content, it is reasonable to conjecture that visual hallucinations are derivative of visual experiences: a visual hallucination is just a case of visual experience in which reference fails:  $f(x)$  has no argument and therefore returns no value. What token elicits the vehicle of content in the brain is something other than the particular that *in normal conditions* would be the argument and the value of the function  $f(x)$ . My proposal gives no support to the disjunctivist claim that visual experiences and visual hallucinations do not even belong to the same psychological kind.

As we have seen, the view that visual hallucination lacks content seems unacceptable for the defenders of the content view. According to Schellenberg, for example:

The problem with such a view is that it downplays the cognitive significance of content that is independent of the particular object present. If the content of experience is, among other things, supposed to ground the sensory character of the experience, and hallucinations involve conscious mental states, then such a radical view of object-dependent content will not serve our purposes. (2013:301)

Two reasons militate against the view that visual hallucinations lack content. The first is the assumption that the lack of content seems to deprive hallucinatory states of their cognitive significance; after all, under hallucination we intentionally act and think in the same or in a similar way as we do when we are undergoing visual experiences. The second reason is content-representationalism, namely the intuitive assumption that the representational content of visual experience is supposed to *ground* (in Schellenberg's words) the phenomenal character of visual experience: phenomenal duplicates are necessarily representational duplicates of some sort.<sup>6</sup> Indeed, if the view that visual hallucinations lack representational content is right, we must assume that when we hallucinate, relational properties of representing something, say, of "G" are tokened in our brains without the tokening of any represented properties. In other words, even the weak version of content-representationalism fails. Yet, if the phenomenal character fails to supervene on the properties represented of visual experience, it supervenes on the relational properties of visual experience of representing particular instantiation of properties by particular in singular content.

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<sup>6</sup> This is what Tye has called weak representationalism, namely a supervenience claim. See Tye (2009:112).



Let me now address the problem of cognitive significance. To be sure, since Frege we have been willing to attribute different contents to the same person either to avoid what otherwise would be a blatant contradiction (Venus is not Venus) or to make sense of sentences about nonexistent things such as Vulcan, Sherlock Homes etc. Still, as we have seen, visual hallucinations cannot have particular-involving contents since they fundamentally fail in their main function, which is to put us in contact with some particulars. Moreover, they cannot have a general content for several reasons. First, because when we visually hallucinate what seems to be a yellow cube straight ahead our mental states seem to be of *this* or *that* particular rather than of *a* particular that meets some identifying conditions. Second, in cases of so-called veridical hallucination the experience is illusory while the general content is veridical. Third, as general content cannot handle the particularity desideratum, we must assume that visual experience has different layers of content, which clearly sounds like an ad hoc postulation made without any motivation except to provide content for visual hallucination. Finally, it is explanatory overkill to appeal to a fully-fledged content in cases of visual hallucination when we have a much superior explanation at hand, namely qualia realism. When we visually hallucinate what seems to be a yellow cube straight ahead, a vehicle is elicited in the brain but does not succeed in representing. Given this, when we assume that, for example, the visual hallucination of what seems to be a yellow cube straight ahead has no content whatsoever, how can we account for the subject acting in the same (or similar) way as a person who is actually seeing a yellow cube straight ahead?

I believe that we find an answer in what Schellenberg has called *phenomenological particularity*. Schellenberg distinguishes between two different senses of particularity. A mental state instantiates what she calls relational particularity “if and only if the experiencing subject is perceptually related to the particular object perceived” (2010:22). And a mental state instantiates phenomenological particularity “if it seems (perceptually) to the subject as if there is a particular object in the environment”. Patently, if phenomenological particularity can be instantiated without there being any particular perceived by the subject, as seems to happen in visual hallucinatory experiences, then these two senses of particularity must be accounted for separately. Whatever grounds phenomenological particularity should be kept relatively autonomous from what grounds relational particularity. Schellenberg proposes, just as I do, that “perceptual experience has both a component that grounds phenomenology and a component that accounts for relational particularity without affecting phenomenology” (2010:31).

The idea is that a mental state manifests phenomenological particularity if the particularity is in the scope of how *things seem* to the subject. Thus, phenomenological particularity does not require that there be a particular that seems to the subject to be present, just that it seems to the subject that there is a particular present. In other words, all that is required is the existence of some mental states, which has the relational property of representing a singular content. Now, when undergoing a visual hallucination of what seems to me to be an American Beauty straight ahead of me, I am representing nothing whatsoever, but I am under the illusion of representing *this* or *that* particular flower. As I am a person who loves flowers, I reach out my hand to caress the flower and sense its peculiar aroma, just as

I would if I were really representing that American Beauty. Given this, no content is needed to account for the cognitive significance of my actions and mental states, but only the vehicle of content.

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