

BORDERLINE EXPERIENCES ONE CANNOT UNDERGO

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SUMMARY: Representationalism maintains that the phenomenal character of an experience is fully determined by its intentional content. Representationalism is a very attractive theory in the project of naturalizing consciousness, on the assumption that the relation of representation can itself be naturalized. For this purpose, representationalists with naturalistic inclinations typically appeal to teleological theories of mental content.

Not much attention has been paid, however, to the interaction between representationalism and teleological theories of content. This paper will provide reasons to think that such an interaction is not felicitous. In particular, I will argue that those who endorse the conjunction of these two theories are committed to the existence of impossible experiences.

KEY WORDS: vagueness, interindeterminacy, consciousness, representationalism, teleosemantics

RESUMEN: El representacionismo defiende que el carácter fenoménico de la experiencia queda completamente determinado por su contenido intencional. El representacionismo es una teoría muy atractiva dentro del proyecto de naturalizar la consciencia según la hipótesis de que la relación de representación puede a su vez ser naturalizada. Para este propósito, los representacionistas con inquietudes naturalistas acuden normalmente a teorías teleosemánticas del contenido mental.

No se ha prestado, sin embargo, demasiada atención a la interacción entre el representacionismo y las teorías teleosemánticas del contenido mental. Este artículo da razones para pensar que tal interacción no es venturosa. En particular, argumentaré que aquellos que abrazan la conjunción de ambas teorías están comprometidos con la existencia de experiencias imposibles.

PALABRAS CLAVE: vaguedad, interindeterminación, consciencia, representacionismo, teleosemántica

1. *Teleological Representationalism (TR)*

Representationalism is one of the most interesting and popular theories of consciousness. According to it, the phenomenal character of experience is fully determined by its intentional content. Conscious experiences are, therefore, representational states. Representationalism is an appealing theory for materialists, on the assumption that the relation of representation can itself be naturalized.

The virtual majority in the business of naturalizing consciousness by reducing the problem of consciousness to the problem of

representation assumes that teleological theories of mental content can deliver the naturalistic theory their accounts require.¹ Not much attention has been paid, however, to the interaction between representationalism on the one hand and teleosemanticism on the other. This paper will provide reasons to think that the interaction between these two theoretical endeavors is not felicitous.

I call “teleological theory” to any account in which the teleological notion of function plays a constitutive role in the determination of reference. For example, Dretske (1988) defends that the notion of representation is intimately connected to that of indication (carrying information). But we don’t want to maintain that a mental state M represents all the things that it indicates; M represents exclusively those entities that it indicates in normal conditions. This is a normative notion that has to be unpacked and for this purpose teleological theories appeal to the teleological function of M : a representing system is one that has the teleological function of indicating that such-and-such is the case, being such-and-such its intentional content.

Roughly, the teleological function of mental state M is what M was selected for, where selection is understood as natural selection (Wright 1973; Millikan 1984, 1989, and Neander 1991).²

¹ Representationalism is defended, inter alia, by Carruthers (2000); Dretske (1995); Harman (1990); Kriegel (2009); Shoemaker (1994, 2000, 2003), and Tye (1997, 2002). Most representationists who are committed to naturalizing content and have taken a stance on how this is to be done, embrace teleosemantics:

[T]he way an experience represents an object is the way that object would be if the representational system were working right, the way it is supposed to work, the way it was designed to work. (Dretske 1995, p. 73)

Where there is a design, normal conditions are those in which the creature or system was designed to operate. (Tye 2002, p. 121)

A mental representation is a mental state that has been set up to be set o by something. (Prinz 2004, p. 54)

The outlines of a physicalist account of representational content have been developed most fully and convincingly, to my mind, by Fred Dretske (1981, 1986, 1988) [. . .] When a neurophysiological event in the brain is recruited in this way, thanks to the information it carries, it is said to have the function of carrying that information. (Kriegel 2009, pp. 76–77)

For an exception see Carruthers (2000).

² I am considering here, as teleosemanticists typically do, etiological theories of function and not discussing other appeals. Alternative theories of teleological function, according to which the teleological function of a trait does not depend on its causal history are offered, for example, by Schroeder 2004, and Mossio et al. 2009.

A representationalist who embraces teleological theories (henceforth TR) will defend something along the combination of the following two principles:

Representationalism Having an experience with phenomenal character Q is being in a state that represents a certain content C .

Teleological A state M represents C because M has the teleological function of indicating C .³ M has the teleological function of indicating C , because indicating C is what M has been *selected for*.⁴ M has been selected for indicating M for example in the following case:

1. M has indicated C in a sufficient number of S 's ancestors.
2. M indicating C has contributed positively to the fitness of S .

In order to have certain content C , M has to have been *selected for*. It is not only the causal role of the state, but also its history what explains the content that M has.

2. *Interindeterminacy*

In order to present my argument, let me introduce the notion of *interindeterminacy*.

Interindeterminacy Two predicates like “is A ” and “is B ” are interindeterminates if and only if there is an individual x such that it is indeterminate whether x is A and, at the same time, it is indeterminate whether x is B .

These theories are not targeted by this argument. It is an open question whether they can satisfactorily account for the normativity in the relation of representation.

³ I assume that states are individuated by its causal role. This, of course, does not prevent that a finer-grain individuation can be made attending to whether the state has been selected for indicating or not and therefore, according to teleosemanticists, between states that have a content and those that do not.

⁴ Teleosemanticists are aware that not every content can be naturalized this way. The complications they introduce to solve this problem are irrelevant for my current purposes.

For the discussion of the distinction between *selection for* and *selection of* see Sober 1984.

An example of interindeterminate predicates would be “is yellow” and “is green” for there are colors such that it is indeterminate whether they are yellow and, at the same time, indeterminate whether they are green. On the other hand, an example of non-interindeterminate predicates would be “is hairy” and “lacks hair”. “Is hairy” undoubtedly admits borderline cases and arguably also does “lacks hair”; just consider someone who only has fuzz. However, they are not interindeterminates: if it is indeterminate whether someone is hairy then determinately doesn’t lack hair and if it is indeterminate whether someone lacks hair then she is determinately not hairy.

Now, consider the following plausible principle regarding identity statements involving vague predicates, like the one vindicated by TR:

V-identity $\lceil P\text{-ing}=Q\text{-ing} \rceil$ is true only if the corresponding predicates $\lceil \text{has/is } P \rceil$ and $\lceil \text{has/is } Q \rceil$ match in their borderline profiles. Where $\lceil \text{has/is } P \rceil$ and $\lceil \text{has/is } Q \rceil$ match in their borderline profiles just in case every borderline case of $\lceil \text{has/is } P \rceil$ is a borderline case of $\lceil \text{has/is } Q \rceil$ and the other way around.⁵

In the particular case of TR, this principle entails that if *having and experience with phenomenal character* Q is *being in a state that represents* C , then “has an experience with phenomenal character Q ” and “represents C ” (or “is a representation of C ”) match in their borderline profiles: if it is indeterminate whether an experience has phenomenal character Q , then is also indeterminate whether the corresponding mental state represents C and the other way around.

I submit that TR is committed to the claim (i) that it can be indeterminate whether a subject’s state M represents C (is a representation of C) and, at the same time, indeterminate whether it does not represent anything at all —“represents C ” and “does not represent anything at all” are interindeterminates according to TR and, hence, if V-identity is true, (ii) that it can be indeterminate whether a subject’s state M has phenomenal character PC and, at the same time, indeterminate whether there is something it is like to be in M — “has phenomenal character PC” and “lacks phenomenal character” are interindeterminates. I will show that this is not a tenable option. Let’s start with (i).

⁵ The truth of a principle along the lines of this one is assumed in most arguments from vagueness against certain theories of consciousness (Antony 2006a; Everett 1996, and Deutsch 2005).

3. *Interindeterminacy and Representation*

The claim (i) that it can be indeterminate whether a state M represents C and, at the same time, indeterminate whether it does not represent anything at all is a consequence of one of the two principles that TR endorses: *Teleological*. According to *Teleological*, the content of a state depends on what it indicates —what the state carries information about— and on a selection process. The content of a state depends not only on its causal role, broadly understood as to include the environment, but also on its causal history. So, there are, at least, two sources of indeterminacy in this process: it can be indeterminate whether the state indicates/tracks information about C , something that depends (among other things) on the broad causal role of the state; and it can be indeterminate whether the state has been selected for indicating C , independently on whether the state determinately indicates C or not. The problem I would like to present depends on the indeterminacy in the selection process and I will, therefore, ignore the first kind of indeterminacy for the sake of simplicity in the exposition.⁶

According to teleosemantics, states of some individuals along the phylogenetical chain are such that the relation of representation holds between these states and what they carry information about. This is not the case for the states of some ancestors —precisely because a selection process is required for a state to be contentful—, in spite of the fact that they might inhabit the same environment and that their respective states might have identical causal roles, and hence indicate the same property.

If we call “redness character” to the phenomenal character of the experience I undergo while looking at a ripe tomato in the sunlight, representationalists will maintain that *having an experience with redness character is being in a state that represent a certain property*. I will call this property “RED”. Advocates of Teleosemantics are committed to the claim that it may be the case that a state of an

⁶ It is worth stressing also that the problem I want to present in this paper is independent of the well known *indeterminacy problem* (Fodor 1990). Roughly, we can say that a theory has the indeterminacy problem if it license multiple content attributions where common sense license a single one. For a detailed presentation of the indeterminacy problem and a possible solution see, for example, Martínez 2013. According to his proposal, content attribution depends on selection for in evolution and thus (even if it offers a satisfactory reply to the indeterminacy problem), the position of representationalists who were to endorse, for example, Martínez’s theory would be jeopardized by my current argument.

individual represents *RED* whereas a state of the same kind in a structurally identical ancestor that has inhabited the same environment does not represent anything at all. Let me elaborate on this situation.

Imagine an ancestor of mine, *S1*, such that none of her ancestors's states have tracked property *RED*. Assume that a state *M* appears for the first time in the phylogenetical chain in *S1*. *M* is activated whenever she is in front of an object with certain property *RED*. *M* indicates *RED*, but, in *S1*, it (her token thereof) does not represent anything because it has not been selected for. The same is true for *S2* (the direct descendant of *S1*) or *S3* (the direct descendant of *S2*), who inherit this mutation.

On the other hand, in a modern subject, *Sn*, who is a descendant of *S1*, mental state *M* represents *RED* because indicating *RED* is what explains *M* being there. *Sn* and *Sn-1* (the direct ancestor of *Sn*) and *Sn-2* (the direct ancestor of *Sn-1*) can be in a mental state that represents *RED*.⁷

Selection seems to be a matter of degree and to admit borderline cases: there are states of individuals in the phylogenetical chain such that it is indeterminate whether the state has been selected for or not. We can run a soritical series from clear cases in which the subject's mental state has not been selected for, like in the case of *S1*, and clear cases in which it has, like *Sn*. So, the phylogenetical chain contains a soritical series of states of individuals with respect to selection and hence with respect to representation: it can be indeterminate whether a mental state *M* of an individual *S* has been selected for indicating *RED* and therefore whether it represents *RED*. Nothing particularly worrisome rests in this fact. The important point to notice here for my current purposes is that all the individuals in the phylogenetical chain indicate/track information about the very same property *RED*; so, they either represent *RED* (if the state has been selected for) or nothing at all (if the state has not been selected for). Hence, if it is indeterminate whether a state *M* of a subject *S* has been selected for indicating *RED*, then it is not merely indeterminate whether *M* represents *RED*, but it is also indeterminate whether *M* does not represent anything at all.⁸ Consequently, according to

⁷ In this example, I am considering natural selection as the selection process for *M*, where several generations are required for the selection of the trait and, therefore, for the trait to have a teleological function. Some teleosemantic theories defend other selection for processes (Papineau 1984, Dretske 1986). The objection applies also, *mutatis mutandis*, to these theories.

⁸ One might suggest that being indeterminate whether *M* represents, say, *RED* is compatible with *M* determinately representing another property *P*. This might

Teleological, “represents RED” and “does not represent anything at all” are interindeterminates. I do not take this consequence of *Teleological* to be problematic at this point but when combined with *Representationalism* as we are about to see.

4. *Not all Phenomenal Characters Admit such Borderline Cases*

According to TR, experiences are identified with representational states: *having an experience with phenomenal character PC is being in a state that represents a certain content C*. In our example, *having and experience with redness character is being in a state that represents RED*.

We have seen that those who endorse *Teleological* are committed to the claim that “represents RED” and “does not represent anything at all” are interindeterminates: there are individuals in the phylogenetical chain such that it is indeterminate whether their tokens of state type *M* represents RED and indeterminate whether they represent anything at all. When combined with *Representationalism*, this amounts to (ii): the claim that, for some individuals *S* in the phylogenetical chain it is indeterminate whether the experience they undergo when they instantiate *M* has redness character and, at the same time, indeterminate whether there is anything it is like for *S* to be in *M*; i.e. the claim that “has a redness character” and “lacks phenomenal character” are interindeterminates.⁹

be true. However, my aim in this example is merely to call the attention to a commitment that a theory that holds that mental content depends on a selection process has. For this purpose we can assume that the functional description of the individuals and the environment remain fixed during the selection process and hence that there is a unique and common property all the individuals in the phylogenetical chain carry information about, namely RED.

⁹ Representationalists who embrace teleosemantic theories seem to be committed to the idea that Swampman (Davidson 1987) has no phenomenal experiences. Some philosophers, like Dretske (1995), endorse the idea that Swampman would not be conscious. Others, finding this idea unacceptable, might reject such a fanciful thought experiment and claim, following Millikan (1996), that Swampman intuitions cannot show TR wrong because they are not to its point, which is to present a real-nature theory. Alternatively, Tye (2002) resists the commitment that Swampman lacks consciousness by endorsing a hybrid theory — a mixed position between etiological theories (for humans) and non-etiological accounts (for exotica like Swampman) — of mental content (see Block 1998 for discussion). The argument presented in this paper against TR is independent of intuitions and views on the case of Swampman.

In particular, in the case of Tye, he plumps for the view that our mental states are contentful states in virtue of a selection process. When a state appears for the first time in an ancestor of mine it lacks any teleological function, because it has not been

In the first place, this would require that it can be indeterminate whether being in a certain state feels at all and intuitively, phenomenal consciousness is sharp rather than vague in this respect. For every subject *S* and mental state *M* of *S*, either *S* determinately feels something when she is in *M* or she determinately doesn't: either determinately there is something it is like for *S* to be in *M* or determinately there isn't.¹⁰ Namely, "has phenomenal character *PC*" and "lacks phenomenal character" are not interindeterminates.

One can concede that there might be states such that it is indeterminate whether there is something, rather than nothing, it is like to have them. In this case there would be predicates of phenomenal characters that would be interindeterminate with "lacks phenomenal character". This possibility is suggested by Tye (1996):

Suppose you are participating in a psychological experiment and you are listening to quieter and quieter sound through some head-phones. As the process continues, there may come a point at which you are unsure whether you hear anything at all. [...] it could be that there is no fact of the matter about whether there is anything it is like for you to be in the state you are in at that time. In short, it could be that you are undergoing a borderline experience. (p. 682)

selected for anything, and therefore, there is nothing it is like for my ancestor to be in this state. Furthermore, the argument presented here do not appeal to exotica but to real-nature.

¹⁰ Antony (2008) presents an argument in favor of the claim that phenomenal consciousness is precise in the intended sense.

Although Papineau (1993) endorses the above-mentioned intuition:

When we look into ourselves we seem to find a clear line [between conscious and non-conscious states] [...] True, there are half-conscious experiences, such as the first moments of waking, or driving a familiar route without thinking about it. But, on reflection, even these special experiences seem to qualify unequivocally as conscious, in the sense that they are like something, rather than nothing. (p. 125)

and concedes that, in our cases, there seems to be clear line between those states that are phenomenally conscious and those that are not. He claims there will be no way of deciding which states are phenomenally conscious in the case of organisms that are unable to think about their own mental states (like sharks or octopuses). So, we should accept that sometimes it will be a vague matter which states of which beings are conscious (p. 125). (See also Papineau 2002). For discussion see, for example, Tye 1996; Bermudez 2004 and Antony 2006b.

I am happy to concede, at least for the sake of the argument, that very dull experiences, like a very quiet sound or a very weak pain, are borderline experiences, in the sense that it is indeterminate whether there is anything it is like to be in these states.¹¹ This possibility doesn't seem plausible at all in the case of states like my current headache or the color sensation I have when I look at a ripe tomato in the sunlight. For any experience, if it is indeterminate whether it has redness character or the same character as my headache, then it determinately has a phenomenal character and if it is indeterminate whether an experience has a phenomenal character at all then it determinately does not have redness character or the same character as my current headache. In other words, "has redness character" or "has the same character as my current headache" are not interindeterminate with "lacks phenomenal character".¹² This is, however, as we have seen, what TR requires. If this is correct, TR should be rejected.¹³

¹¹ But note that these states are such that it is indeterminate whether they indicate some property.

¹² It is important to be aware that the problem I am presenting is different from a classical problem of vagueness. It does not rest at all on there being any problem in the fact that "having a redness character" admits borderline cases, but on the impossibility of making sense of an experience that at the same time is a borderline cases of "has a redness character" and of "lacks phenomenal character".

¹³ It might be worth stressing that not every theory is committed to the kind of interindeterminacy TR is committed to. Thus, the argument cannot immediately be extrapolated *mutatis mutandi* to argue against other theories. Consider, for example, classical functional theories. According to these theories, having a redness experience would be something like being in a state that satisfies causal role CRRED. Arguably, we can run a sorites on states that satisfy causal role CRRED, by, for example, removing particles (say, neurons or atoms) one after each other from a clear case like the state I am now while looking at a ripe tomato. There is, however, nothing problematic in this. Functional theories might happily accept borderline cases for causal role CRRED without thereby committing themselves to the claim that in any of these cases it is also indeterminate whether the state lacks function; that is, without committing themselves to the claim that "satisfies causal role CRRED" and "lacks a function" are interindeterminates and hence without committing themselves to the claim that "has a redness character" and "lacks phenomenal character" are interindeterminates. In this kind of theories, we could perfectly make sense of the corresponding phenomenal series between, say, the headache I have now and a state that lacks phenomenal character. As we remove particles, the causal role changes slightly and changed functional states correspond to the different experiences in the soritical series (like the series of states I go through as I take a pain killer); a possibility that, as we have seen, is not available for TR.

5. Conclusion

Representationalism, the view that the phenomenal character of experience is fully determined by its intentional content, is a very promising theory in the project of naturalizing consciousness when combined with a naturalistic theory of mental content like Teleosemantics.

Teleosemantics theories typically unpack the normativity in the relation of representation by means of the teleological function of the state, which in turn depends on a *selection for* process. I have argued that teleosemanticists are committed to the claim that there are (token) states such that it is indeterminate whether they represent a property P or nothing at all. Consequently, those who endorse the conjunction of Representationalism and Teleosemantics (TR) are committed to the claim that it can be indeterminate whether a state has phenomenal character PC and, at the same time, indeterminate whether there is anything it is like to be in the state M . This does not seem plausible at all, as the cases under consideration, like my headache or the experience I have while looking at a ripe tomato under the sunlight, illustrate. If this is right, TR should be rejected.¹⁴

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¹⁴ This paper is the result of fruitful discussion with Dan Lopez de Sa about the nature of consciousness and vagueness. I am very grateful to him, this paper would have not been possible without his multiple comments and discussion of previous drafts. For discussion and comments I am also grateful to Marc Artiga, Maite Ezcurdia, Katalin Farkas, Manolo Martínez, Ricardo Mena, David Pineda, Jonathan Simon and Pepa Toribio. Ancestors of this paper were presented at the 13th Annual Philosophy Graduate Conference in the CUNY-Graduate Center, the 2nd LOGOS-LANGCOG meeting and the Tecuemepe. Many thanks to the participants of these events, especially to Axel Barceló, Joao Branquinho, Ángeles Eraña, Eduardo García-Ramírez, Ekain Garmendia, José Martínez, Genoveva Martí, David Rosenthal, Daniel Shargel and Dan Zeman.

Financial support for this work was provided by the Committee for the University and Research of the Department of Innovation, Universities and Company of the Catalunya government and the European Social Fund and also by the DGI, Spanish Government, research project FFI2009–11347, the Consolider-Ingenio project CSD2009–00056, the AGAUR of the Generalitat de Catalunya (2009SGR–1077), the PAPIIT project IA400615 and the postdoctoral fellowship program in the UNAM.

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Received: January 24, 2014; revised: October 18, 2014; accepted: January 22, 2015.