

Why Are Some Phenomenal Experiences
“Vivid” and Others “Faint”?
Representationalism, Imagery, and Cognitive
Phenomenology*

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Abstract

One central brand of representationalism claims that the specific phenomenal character of an experience is fully determined by its content. A challenge for this view is that cognitive and perceptual experiences sometimes seem to have the same representational content while differing in phenomenal character. For example, it might seem that one can have faint imagery experiences or conscious thoughts with

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the same contents as vivid perceptual experiences. This paper argues that such cases never arise, and that they are probably metaphysically impossible.

1 Introduction

Representationalism aims to explain phenomenal consciousness primarily in terms of representational content.¹ The simplest tenable version of this view, *intermodal representationalism*, states that experiences are representational states that meet a generic “conscious-making” condition, for example, representational states that play functional role F, or, on non-reductive variants of this view, states that represent their contents in some special, irreducible phenomenal way.² An important characteristic of this view is that it accounts for (or aims to account for) all differences in phenomenal character between experiences in terms of differences in content. In this sense, content exhausts phenomenal character on this view. An immediate consequence of intermodal representationalism is that any two possible experiences that have the same content have the same phenomenal character.

A range of alleged counterexamples target this implication of intermodal representationalism. For example, Block (1996) argues that experiences of hearing and seeing something overhead differ in phenomenal character even

¹Representationalism is often combined with the claim that intentionality can be reduced to tracking (c.f. Dretske 1995, Tye 1995, and Lycan 1996). The view that I discuss here does not include this further claim, which I reject. See Mendelovici and Bourget (2014), Bourget and Mendelovici 2014, and Crockett 2014 and for recent discussions of this issue.

²Dretske (1995), Tye (1995), Byrne (2001), and Pautz (2009) are intermodal representationalists.

though they have the same content. Such apparent counterexamples have led some theorists to retreat from intermodal to *intramodal* representationalism.³ On this view, the phenomenal character of an experience is the combined product of its content and its *intentional mode*, where modes are non-representational features that can vary from one experience to another.⁴ Proponents of intramodal representationalism typically take intentional modes to be analogous to, and largely overlapping with, sensory modalities.⁵ If an experience's phenomenal character is determined partly by its intentional mode, experiences in different sensory modalities can have the same content while differing in phenomenal character so long as experiences in different sensory modalities have different intentional modes. This addresses Block's alleged counterexample to intermodal representationalism.

Cognitive experiences, including experiences of imagery, pose an analogous challenge for the intermodal view, and one might think that this challenge also calls for representationalists to recognize a role for intentional modes. In paradigm cases at least, the phenomenology of cognitive experiences is different from the phenomenology of perceptual experiences: the former are "faint" while the latter are "vivid." At the same time, it seems that we can consciously think about and visualize the same scenes (or the same aspects of the same scenes) that we can perceive. As a result, it seems that the difference in vividness between perceptual and cognitive experi-

³Lycan (1996, p. 134), Crane (2003), and Speaks (2009, 2010) are intramodal representationalists. Chalmers (2004) is neutral but takes intramodal representationalism to be a live option.

⁴Crane (2003) introduces the term "intentional mode." Chalmers (2004) refers to modes as "manners of representation."

⁵I argue against this kind of intramodal view in Bourget forthcoming. See also Seager and Bourget 2007.

ences cannot be explained by a difference in content. So, one might think that representationalists need intentional modes to accommodate cognitive experiences.

My aim in this paper is to argue that we *can* account for cognitive experiences without invoking intentional modes. I will focus specifically on the question of whether there are *vividness counterexamples* to intermodal representationalism. A vividness counterexample would be a pair of (possible) experiences that have the same content, one of which has a vivid phenomenal character of the sort we find in perception (e.g. when perceiving a red circle), and one of which has a faint phenomenal character of the sort we find in imagery or cognition. It might be that pairs of perceptual and non-perceptual experiences can challenge representationalism in other ways than by generating vividness counterexamples, but I am not going to worry about such cases here.

Since I am only interested in the choice between intermodal and intramodal representationalism, I will assume that one of these views is correct. This allows me to understand the terms “content” and “represent” as applied to experiences and phenomenal states in a way that presupposes representationalism. On the intermodal or intramodal view, a phenomenal state is identical to a state of representing a certain content either in the generic conscious-making way (on the intermodal view) or in some specific intentional mode (on the intramodal view). Either way, it follows that for any phenomenal state there is some content such that representing this content is an essential component of being in that state. When I talk about *the content* of a phenomenal state or an experience (an instance of a phenomenal state), I

am talking about the content that is an essential constituent of it in that way. Similarly, what a phenomenal state represents, unless stipulated otherwise, is the content that is constitutive of it, its *constitutive content*. It is quite possible that experiences and phenomenal states can be attributed further content-like things besides their constitutive contents. For example, perhaps the information they carry is in some sense a content despite being distinct from their constitutive contents. Nonetheless, for our purposes here, the content of a phenomenal state is its constitutive content. The debate between intermodal and intramodal representationalists is a debate over whether the constitutive contents of experiences determine their phenomenal characters.

Note that the vividness challenge to intermodal representationalism does not arise from far-fetched imaginary cases but from mundane examples. The relevant pairs of experiences at least seem *psychologically possible*, where a mental state is psychologically possible just in case it is possible given the way that we are psychologically constituted. I will be mainly concerned to argue that there are no psychologically possible vividness counterexamples. This does not show that there are no metaphysically possible vividness counterexamples, but this makes a large dent in the extant case against intermodal representationalism as far as non-perceptual phenomenology goes. I will consider a tentative extension of my argument to psychologically impossible cases toward the end of the paper.

2 Psychologically possible color imagery

Imagery is a prominent source of faint experiences that might seem to have the same contents as vivid experiences. In this section, I suggest that psychologically possible color experiences of the kind found in imagery never have the same contents as vivid experiences. I will later generalize the evidence developed here to other imagery contents, other faint experiences, and psychologically impossible cases.

2.1 Perceptual experiences in ideal conditions

Some pairs of perceptible properties are *minimally discriminable for a subject*: were they just a little bit more similar, the subject would be unable to distinguish them. For example, hues that are minimally discriminable for a subject would not be distinguishable by the subject if they were just a little closer in hue space. For ease of exposition, I am going to refer to minimally discriminable colors simply as *precise colors*.⁶ The most familiar examples of vivid color experiences, perceptual experiences of colors in ideal conditions (e.g. objects seen in foveal vision in daylight), plausibly represent precise colors. If vivid perceptual experiences in ideal conditions represent precise colors, we can establish that faint imagery experiences don't have the same contents as these experiences by showing that they don't represent precise colors. This, I suggest, can be shown quite easily.

We can start with a simple experiment. Choose a red object with which

⁶Despite my terminology, I can remain neutral on whether minimally discriminable colors are fully determinate properties or just highly determinate compared to other colors we can experience.

you are familiar, for example, a stop sign near your home. Now lay out a set of color samples containing the precise color of that object and neighboring precise colors. (Paint samples representing all neighboring shades offered by the paint manufacturer are probably close enough to a sample of relevant precise colors.) While looking at these samples, visualize the red object. Now try to pick out the color of the imagined object among the color samples based on your mental image of it. I am quite sure that you will be unable to reliably identify the precise color of the object you are imagining. If the color is red_{212} , you will be able to rule out red_{509} , but you would be hard pressed to pick between red_{212} and red_{213} . This suggests that your imagery experience does not represent a precise color: if it did represent a precise color, you would be able to use the information contained in your experience's content to re-identify this precise color.

This argument assumes that if an imagery experience represents a certain property, the property can be identified on the basis of the imagery experience. This assumption is supported by the fact that, setting aside controversial cases where it is unclear what is the content of imagery (such as the cases presently under dispute), when we can represent a certain content in imagery, we are always able to match this imagined content with perceived contents. For example, if I am visualizing a square or something red and I happen to see a square or something red, it is trivial for me to tell that what I see has the property I am imagining. There seems to be no problem at all connecting the contents of imagery with the contents of simultaneous perceptual experiences—when the contents themselves connect. If, however, I were unable to imagine a precise red and could merely imagine less determinate

properties such as *generic red* or *orangey-red*, we would expect that imagination would not allow me to re-identify the precise red. Given that imagery experiences do not allow us to re-identifying precise colors but can be used to re-identify broad determinables such as *generic red* or *orangey-red*, it seems plausible that they represent the latter rather than precise colors.

A variant on the preceding argument can be made on the basis of controlled experiments that compare our ability to discriminate or match colors that are presented side by side with our ability to discriminate or match colors presented in succession (with varying delays). It has repeatedly been demonstrated that we are unable to reliably identify precise colors over time, even with short delays.⁷ This holds true of variations across all aspects of color (hue, saturation, and brightness).⁸ The experiments that show this are not specifically designed to test re-identification based on imagery; what they es-

⁷Hamwi and Landis (1955), Newhall et al. (1957), Bartleson (1960), Banks and Barber (1977), Nilsson and Nelson (1981) and Uchikawa and Ikeda (1981). See also Raffman (1995). Some studies (e.g. Uchikawa & Ikeda 1981) offer evidence of a very short term memory buffer supporting highly accurate (but imperfect) re-identification for delays of up to approximately 200ms, with progressive degradation in precision thereafter. This might seem to support the view that imagery experiences occurring immediately after exposure to a stimulus can have contents that come very close to those of the preceding perceptual experiences. However, there is reason to doubt that the information stored in the very short term memory buffer is ever part of the contents of imagery: if one begins if one begins visualizing an object immediately after having perceived it, the phenomenal character of one's experience does not seem to change noticeably over the next few seconds. Since the contents of imagery experiences are determined by their phenomenal characters and the information stored in the very short term memory buffer becomes unavailable while the character of imagery remains constant, we can conclude that the contents of imagery experiences don't contain the information stored by this memory buffer.

⁸These observations are familiar from the debates on nonconceptual content. Nonconceptualists about the contents of perception have made roughly this argument: 1) We are unable to reliably re-identify precise colors; 2) In order to have a concept of *X*, one must be able to reliably re-identify *X*s; 3) Perceptual states represent precise colors; Therefore, the contents of perception go beyond the contents for which we have concepts. See Raffman 1995, Peacocke 2001 and Dokic and Pacherie 2001. This debate is related to the argument in the text in that something like (1) and (3) are shared premises, but I am not committed to (2) or nonconceptualism.

establish, without making additional assumptions, is that subjects don't have the ability to memorize and re-identify precise colors, not that they don't have the ability to re-identify such colors *on the basis of imagery*. However, since imagery is a way of recalling and re-identifying colors, it seems safe to conclude that the subjects tested don't have the ability to re-identify precise colors on the basis of imagery: since they were not asked to avoid using imagery, they would have used it if they could have re-identified precise colors on the basis of imagery. Indeed, it is natural to try to hold in mind a mental image of a color if one is asked to remember it for a short time.

It is also possible to make a direct phenomenological case for the claim that imagery experiences don't represent precise colors. Try imagining a precise red again, for example, a precise orangey-red found on a familiar object. Now try imagining a slightly less determinate color, for example, *orangey-red*. When I do this, I seem to obtain phenomenally identical experiences of imagery: my two experiences are instantiations of the same phenomenal state. So their contents must be the same. (Recall that we are only interested in the constitutive contents of phenomenal states and experiences. An experience's constitutive content is the content that is an essential part of the phenomenal state it instantiates. See section 1.) Is their common content the precise orangey-red or just *orangey-red*? Given that imagery experiences targeted at other precise orangey-reds also seem to be instantiations of the same phenomenal state (and so to have the same content), it seems plausible that the content shared by all these experiences is just *orangey-red*. Any choice of one precise orangey-red would be completely arbitrary. So it seems that imagery experiences do not have precise colors as part of their constitutive contents.

So far I have argued that imagery experiences don't represent precise colors. I have suggested that they plausibly represent less determinate color properties, such as *orangey-red*. If vivid perceptual experiences in ideal conditions represent precise colors, it follows that they differ in content from imagery experiences.

Visual perceptual experiences in ideal conditions plausibly represent precise colors, but what about visual perceptual experiences in non-ideal conditions? Several types of vivid perceptual experience might seem not to represent precise colors. For example, perceptual experiences of objects in peripheral vision might seem to have vivid phenomenal characters without representing precise colors. Perhaps foveal experiences in low illumination also represent imprecise colors compared to foveal experiences in good lighting conditions. One might also think that attention plays a role in determining the grain of perception, and so that inattentive experiences should represent less than fully precise colors.⁹ So far, I have only argued that imagery experiences don't represent precise colors, so it is consistent with everything I have said that experiences of the three preceding types sometimes share contents with imagery experiences, generating more vividness counterexamples for the intermodal view.

I agree that factors such as focus, illumination conditions, and attention plausibly affect the grain of represented properties; however, it seems plausible that they affect the representational contents of experiences without generating experiences that have contents identical to those of imagery experiences. Consider first peripheral vision. The degradation of color perception

⁹Thanks to an anonymous referee for this objection.

in peripheral vision is not a general degradation of precision across hues of the kind we seem to find in imagery, but a degradation akin to tritanlike or deutanlike colorblindness.¹⁰ As a result, it does not seem likely that peripheral vision matches imagery in content. Similarly, while attention affects color perception, it affects apparent saturation, not perceived hues.¹¹ Phenomenologically, it seems clear that we have a better grasp of the hues of unattended objects in foveal vision than of those of imagined objects. Low illumination conditions result in experiences that present objects as darker, bluer, and grayer, but we seem to experience fairly determinate gray-blues. In sum, while it seems plausible that imperfect perceptual conditions sometimes generate experiences that fall short of representing minimally discriminable properties, it does not seem likely that they generate experiences with precisely the contents of imagery experiences.

A complementary response applicable to some cases (for example, inattentive experiences) is that it is not always clear that experiences occurring in imperfect perceptual conditions have vivid phenomenal characters. These experiences are highly elusive, and it is sometimes unclear what they are really like (vivid or not). Indeed, some theorists have argued that we systematically misrepresent the nature of such experiences to ourselves (e.g. Dennett 1991, ch. 11). Theories should be assessed primarily based on clear data points, not based on data points that can only be seen clearly in the light of a theory. Consequently, sound methodology suggests that we put little weight on such cases.¹²

¹⁰Boynton et al. (1964) and Gordon and Abramov (1977).

¹¹Fuller and Carrasco (2006).

¹²See Bourget 2015a for discussion of a parallel point in relation to representationalism

2.2 Objections

I will now consider some objections to the preceding arguments.

One might say that the reason we have difficulty re-identifying precise colors based on imagery is that re-identification requires the use of concepts, and our concepts are too coarse-grained.¹³ This might seem to explain the limits of re-identification consistently with the view that imagery experiences represent precise colors.

One problem with this explanation is that it is unclear why concepts would be required for the re-identification task described in 2.1. When comparing two simultaneous perceptual experiences, we are able to match precise colors despite (*ex hypothesi*) our lacking concepts as fine-grained as precise colors. Why could we not do the same with simultaneous imagery and perceptual experiences?

I can think of only one plausible answer to this question: it could be that re-identification of properties between imagery and perceptual experiences depends on concepts (while re-identification between perceptual experiences does not depend on concepts) because imagery itself depends on concepts, in that one can only represent X in imagery if one is able to construct a representation of X out of concepts. The view that imagery depends on concepts is strongly supported by the two main empirical theories of imagery.¹⁴ A role

and imperfect perceptual conditions.

¹³See footnote 8 on concepts.

¹⁴According to propositionalists (e.g. Pylyshyn, 1981), imagery involves propositional representations of the same kind as other forms of reasoning, hence involves concepts. Perhaps surprisingly, Stephen Kosslyn's (1994) opposing view also gives a role to concepts in imagery. On his view, mental images are created by information from associative memory being fed to early, analog processing areas. This associative information is part of concepts.

for concepts in imagery is also suggested by the observation that the features we can visualize seem to be a (strict) subset of the features we can represent in thought. After all, any episode of visualizing X seems to be *ipso facto* an episode of thinking about X .

While the plausible hypothesis that imagery depends on concepts supports the view that concepts are required for re-identification between imagery and perceptual experience, it defeats my objector's purpose, because it implies that imagery experiences have coarse-grained contents as I claim. Conceptualism about imagery is merely a way of fleshing out the view that imagery has coarse-grained contents.

A different objection was suggested to me by an anonymous referee: we know from experiments such as Sperling's (1960) that the contents of experiences often overflow the contents of cognitive processes accessing them. Since cognitive access to the content of an experience is sometimes limited to only part of the content of the experience, the objection goes, we should not infer limitations on the contents of certain experiences based on limitations on cognitive tasks that can be performed on the basis of these experiences. More specifically, it could be that we cannot re-identify fine-grained colors based on imagery experiences because their fine-grained contents "overflow" our cognitive access.

In Sperling's original experiment, subjects are briefly presented with three rows of letters. After the visual stimulus has disappeared, a tone is played to indicate which row the subject should attempt to enumerate. Subjects can reliably do this; however, they cannot enumerate all of the rows despite reporting seeing all of them. According to Block (2007), this shows that

phenomenal experience often contains more information than can be reported or used in cognition.

There are important differences between the content overflow exhibited in the Sperling paradigm and that which the referee is imagining. First, Sperling's subjects have access to the fact that they experience all the letters: it is on the basis of their reports that we conclude that they experience all the letters. The case of imagery is crucially different in that it does not introspectively seem that we experience precise colors in imagery. In the imagery case, we have no immediate introspective evidence for the representational content that is supposed to be cognitively inaccessible. Second, as Block (ibid.) notes, the reason that Sperling's subjects cannot access all features of their experiences seems to have to do with limitations of working memory. In our case, however, it does not seem that our re-identification difficulties are due to memory limitations because we are comparing simultaneous experiences.

Another objection I have heard is that, notwithstanding my arguments to the contrary, it is obvious that we can imagine precise colors: it might seem that you can close your eyes and decide to visualize a specific stop sign, and that, when you do this, you represent a precise color.

In response, we first need to see that it is at least not *always* obvious that we can visualize precise colors. One gets the impression that one is representing a certain precise property in imagery only when one's imagery is accompanied by a certain narrative in thought. For example, if you try visualizing the red of a particular stop sign, you might find yourself visualizing something reddish and simultaneously thinking *this is the color of the stop*

sign. In such a case, it might seem obvious that you succeed in representing the color of the stop sign—after all, this is exactly what you think!

In such a case, your imagery experience is accompanied by a thought that plausibly succeeds in representing the precise red, and perhaps the imagery experience represents this color by stipulation, because you are using it to represent this color, but this does not mean that the imagery experience represents the color in the sense relevant to the representationalist views.¹⁵ As I stress in section 1, the content of an experience, in the sense relevant here, is the content that is constitutive of it. It is a content that necessarily accompanies the experience. In the present case, the content that is supplied by the accompanying thought, if any, does not necessarily accompany the experience: there would be no representation of the precise red without the accompanying thought, which is clearly a further act above and beyond the experience of imagery. So the fact that you can represent precise colors through such accompanying thoughts does not speak against the view that imagery experiences merely represent broad determinables.

3 Other kinds of psychologically possible cognitive experiences

So far, I have focused exclusively on psychologically possible imagery and color experiences. This section considers other potential sources of vividness counterexamples among psychologically possible states.

¹⁵According to some authors (e.g. Peacocke, 1985), accompanying thoughts account for much of the content that we tend to attribute to imagery experiences. Wiltsher (forthcoming) argues against this view.

I have discussed two arguments aiming to show that there are no psychologically possible vividness counterexamples involving color imagery and perceptual experiences. I cannot go into all the details here, but both arguments can plausibly be extended to other perceptible properties and sensory modalities. Generally speaking, it seems plausible that our memory-backed imagery discriminates less finely than perception. This seem to be true of aural imagery, gustatory imagery, and all other kinds of sensory imagery. This suggests that the contents of imagery of all types are generally less determinate than those of perception. It also seems that imagery experiences of broad determinables (such as *being a loud noise*) and imagery experiences aimed at more specific properties often have the same phenomenal characters, which suggests that both represent broad determinables.

We can also consider how my two arguments might extend to non-imagistic experiences with faint phenomenology that might occur as part of cognitive processes. Let us call such experiences *thought experiences*. It is not clear exactly how widespread thought experiences are: some authors claim that there are none, while others claim that thought experiences pervade cognition.¹⁶ If there are no thought experiences, our case against psychologically possible vividness counterexamples is complete. Personally, I believe that there is at least a limited range of thought experiences, so I want to extend the preceding arguments to thought experiences.

Consider first the argument from re-identification. Just like we cannot

¹⁶Authors in favor of thought experiences include Strawson (1994), Siewert (1998), Horgan, Tienson & Graham (2004), Kriegel (2003), Pitt (2004 and 2011), Farkas (2008), Siegel (2010), Mendelovici (2010), Chudnoff (2015), and myself (2010, 2015b; Bourget and Mendelovici 2016). Opponents include Carruthers and Veillet (2011), Prinz (2011), Robinson (2011) and Tye and Wright (2011).

identify minimally discriminable perceptible properties on the basis of imagery, we cannot identify them on the basis of the contents of thought experiences. We can perform the experiment as before: just think consciously about a stop sign. Can you, on the basis of such thoughts, go on to pick the precise color of this stop sign in a paint catalog? Clearly, one can no more do this on the basis of thoughts than one can on the basis of imagery. It is unclear exactly how much cognitive phenomenology there is beyond imagery, but the instances where it seems most plausible that there is non-imagistic phenomenology don't seem to be instances where we are better at color re-identification. Simply put, we are always bad at color re-identification on the basis of non-perceptual states.

Now consider our second argument. Try to think consciously about a precise orangey-red, and compare the phenomenal character of the resulting thought with a thought aimed merely at *orangey-red*. The phenomenal characters are the same. By a reasoning parallel to that above, this strongly suggests that both thought experiences merely represent *orangey-red*.

There is also independent evidence that thought experiences have contents that are less specific than imagery experiences. Suppose for example that you are discussing ceiling heights with a friend. Suppose that your friend doubts that you have a good sense of the standard ceiling height. To help you grasp what a standard ceiling is like, she might invite you to concentrate on your memory of your kitchen ceiling and form as clear and precise a conscious grasp of its height as you can. Please take a moment to do this: try to form as clear and precise a conscious grasp of the height of your kitchen ceiling as you can (without looking at it).

I am almost certain that if you tried to form as clear and precise a conscious grasp of the height of your kitchen ceiling as possible, you visualized your kitchen. Someone asked to form as clear and precise a conscious grasp as possible of a given object without looking at it will almost invariably engage in imagery to supplement whatever thought experiences they might be having (if any).¹⁷ This suggests that thought experiences generally represent less determinate properties than imagery experiences. Since imagery experiences represent less determinate properties than perceptual experiences, it follows that thought experiences represent less determinate properties than perceptual experiences.

One might reply that it is possible to form a perfectly clear and precise conscious grasp of the standard ceiling height simply by thinking *the standard height is eight feet and four inches*. This seems to show that imagery is not always the best way to form a good conscious grasp of a content.¹⁸

This objection arises from conflating the constitutive contents of thought experiences (which they have essentially) with other propositions they might be said to represent in the ordinary sense of “represent.” A thought experience in which one seems to say to oneself “eight feet and four inches” might in some sense represent *eight feet and four inches*, but this is not its constitutive content (this is not what it says constitutively, as part of being the phenomenal experience it is). This is a proposition that the thought experience represents in virtue of the thinker being committed to certain conventions guiding the use of the relevant words. This kind of representation is not in-

¹⁷Unless, of course, one suffers from aphantasia.

¹⁸Thanks to Steve Pearce for helping me articulate this objection.

trinsic to the experience. In case this is not clear, imagine that the relevant conventions were different and a foot was 30 centimeters. The nature of the thought experience (its phenomenal character) would be unchanged, but it would not represent *eight feet and four inches* (it would represent *8.2 feet*). This strongly suggests that whatever cognitive phenomenology the thought has, this phenomenology does not capture the content *eight feet and four inches*.

A related objection is that our conclusion is absurd: surely, if we can talk about precise colors such as red_{212} (as I have above), we can represent them in thought. In response, our conclusion is not that it is impossible to think (or talk about) red_{212} , but that such properties are not part of the constitutive contents of thought experiences. We have many ways of representing precise colors besides the constitutive contents of thought experiences.¹⁹ For example, we can refer to these colors using descriptions such as “color #212 in the paint catalogue”.

4 Beyond empirical adequacy

If the preceding arguments are sound, they show that the intermodal view is free of psychologically possible vividness counterexamples. But one might ask for more than empirical adequacy: if content really does determine phenomenal character and content determinacy is the representational correlate of vividness, there should be an intelligible explanation of how determinacy accounts for vividness. Relatedly, it should be possible to demonstrate that

¹⁹See Bourget 2010, 2015 and Mendelovici & Bourget forthcoming.

there is a necessary connection between vividness and determinacy.

As I said in section 1, my main goal with this paper is to make the case against psychologically possible vividness counterexamples. It seems to me that it is the fact that such cases seem to be not merely possible but obviously actual that poses a real problem for the representationalist view, as mere metaphysical possibilities are much harder to assess, and any position for or against them is inevitably debatable. Still, I think we can address the demand for a genuine explanation and make a case against metaphysically possible vivid counterexamples. The rest of this section tries to make progress towards these aims.

4.1 Explaining vividness

The intermodal representationalist's explanation of differences in vividness between experiences has to be that some contents are vivid while others are not. This does not seem too implausible in the case of precise colors vs generic colors: stop-sign red, a precise color, is a vivid, striking quality; in contrast, generic red is not a vivid, striking property. But what, exactly, makes a content vivid or faint? I think the key observation is that generic red is by its very nature incapable of being instantiated by a concrete object, because it is metaphysically impossible for something to be merely generic red. By the same token, generic red cannot fill a region of space-time in the same way that stop-sign red can. This, it seems to me, can potentially explain why an experience of generic red seems thin and insubstantial compared to an experience of a vivid, concrete object that is stop-sign red all over. It

seems intelligible, or at least potentially intelligible, that the vividness of an experience amounts to nothing more than the vividness of its contents, and that a content is vivid when it involves a concrete combination of properties (a combination of properties whose instantiation would fill a space-time region in a certain way). Since determinable properties do not constitute concrete contents, their representation results in a faint phenomenal character.

Even if the preceding explanation of phenomenal vividness in terms of content determinacy is not entirely obvious, the alternative explanation offered by the intramodal view is even less illuminating, which should make us take the content determinacy explanation seriously. The alternative explanation that the intramodal view offers is that imagery experiences are faint because they have “faint” modes, while perceptual experiences are vivid because they have “vivid” modes. This has the ring of a *virtus dormitiva* explanation. Indeed, any appearance of explanation dissipates once we try to get clearer on the explanatory mechanisms allegedly involved. Consider the following questions:

- Do all imagery experiences have the same intentional mode?
- Do imagery experiences share their intentional mode with other cognitive experiences?

It is very hard to see how one might go about answering these questions and many others that arise along these lines. The reason for this is that we have no real grasp of how the combination of intentional modes and contents is supposed to generate phenomenal character, or of what intentional modes are. All that we can really grasp is that the latter are factors in determining

phenomenal character. We understand the schematic idea that phenomenal character is jointly determined by content and mode, but we have no idea how the combination is supposed to occur.

This obscurity has its roots in the fact that the phenomenal character of an experience does not, as far we can tell in introspection, divide into an intentional mode and a content. One cannot by introspection tell which part of the feel is contributed by the mode and which is contributed by the content. As a result, we have no ability to observe the combination process that is posited, or of contemplating intentional modes in isolation. This makes it hard to see how modes and contents are supposed to combine to yield phenomenal characters.

The fact that the intramodal view offers no genuine explanation is brought out most clearly by asking the view for novel predictions. For example, can the view tell us what it is like to vividly represent democracy, or anything else that we in fact represent only in thought (in a “faint” mode)? I don’t know how to go about answering this question. The question is baffling because we have not been told anything that can enable us to predict what any given combination of content and mode should feel like. This is not obvious in the case of familiar experiences because we already know what the result is supposed to be like (on the assumption that modes are involved in our familiar experiences), but this becomes evident as soon as we consider novel cases.

In contrast with the intramodal view, the intermodal view generates clear predictions (which is why it seems open to counterexamples). The view gives us the following scheme for making predictions: if you experience something

F, then your phenomenal character will be F-y, nothing more, nothing less. We can at least *begin* to see an explanation here.

One might suggest that the intramodal view's lack of an explanation of how modes and contents combine is simply the mental-physical explanatory gap, which is shared by all views.²⁰ But we can see that this is not so by imagining what it would be like to close the mental-physical explanatory gap.²¹ It is not hard to imagine having a complete reductive theory of phenomenal representation and intentional modes. Imagine for example that an internal item phenomenally represents F just in case it tracks F while playing functional role R. We can also imagine that each intentional mode M is reduced to a certain functional role R_M . Such a theory can be imagined to be gapless: we can imagine being able to see how tracking democracy with functional roles R and R_{vivid} would result in an experience of democracy with the vivid mode. However, it is possible to see this without knowing what a vivid experience of democracy would be like. The ability to know what phenomenal characters would result from combinations of modes and contents is something above and beyond the ability to know what modes and phenomenal representations arise from physical facts. So the problem that I raise above is not merely the familiar mental-physical explanatory gap. It is a distinct hard problem unique to the intramodal view.

To summarize, there is a plausible explanation or sketch of an explanation of vividness differences on the intermodal view, but not on the intramodal view. The intramodal view can fit the facts in an *ad hoc* manner by positing

²⁰Thanks to an anonymous referee for this objection.

²¹Alternatively, we can also imagine that modes are irreducible, which is easier to imagine.

as many modes as seem necessary, but it offers no intelligible explanation of phenomenal character. This is not merely the mental-physical explanatory gap: this is a new mental-representational gap.

4.2 Mere possibilities

Even if the explanation of vividness offered by the intermodal view is not entirely convincing at first, there is another way to generalize our conclusions to all metaphysically possible cases: we can apply one of the standard methods for determining whether something (a “scenario”) is metaphysically possible. There are three such methods. I will consider each in turn.

The first method is proof. Clearly, this method is not applicable here.

The second method is to try to imagine, conceive, or intuit the scenario in question (I am going to say “imagine” for ease of exposition).²² If one can imagine the scenario, this provides some evidence that it is a genuine metaphysical possibility. Conversely, if one cannot imagine it, this provides some (not very strong) evidence that it is not a genuine possibility. For the method of imagination to be applicable, a scenario must be described in such a way that the concepts required to understand its description encode all the relevant facts about the natures of the entities involved in the scenario. For example, if I describe the scenario *water is not H₂O* using these very words, it is doubtful that the possibility of the scenario can reliably be assessed using the method of imagination, because one is not required to know that water is H₂O in order to understand my description. In contrast, a scenario such as *some bachelors are married*, described using these very words, seems

²²See Chalmers 2002.

assessable using the method of imagination, because the relevant facts about bachelors and marriage seem to be encoded by the concepts that one has to deploy in order to understand what I said.

On the face of it, the method of imagination is not applicable to the question of whether vivid and faint experiences can have the same contents. Our starting concepts of conscious experience and intentionality are concepts that we learn and introduce quite independently: one is introduced in terms of “what it’s like” and similar terms, whereas the other is introduced in terms of “aboutness”, “directedness”, and cognate terms. We can master these concepts quite independently of each other. If there are necessary connections between consciousness and intentionality, such as the connection between phenomenological vividness and content determinacy I tried to bring out in the preceding subsection, it seems unlikely that they are encoded in our starting concepts of consciousness and intentionality.

Of course, this is not to say that we cannot discover such necessary connections from the armchair by inspecting our mental states and reflecting on what we find (as I purport to have done). It might also be that someone who becomes persuaded that consciousness is essentially intentional can reconstruct their concept of consciousness so as to always see the phenomenon through a representational lens (and something similar can presumably happen to someone who is persuaded of the opposing view). For someone like this, more claims about the relationship between consciousness and intentionality might be assessable *a priori*.²³ This does not make the method of

²³For what it’s worth, I find that I cannot even conceive the possibility of a vividness counterexample; however, I don’t know if this is due to my having reconstructed my concept of consciousness in this way.

imagination more suitable. In fact, this makes it even less applicable to the case at hand: if such enrichment of our concepts is common, the method of imagination will merely expose our theoretical biases.

The third way of assessing possibilities is the empirical method. This is the method that we must use when our concepts don't encode the relevant aspects of the natures of the things about which we are assessing possibilities. For example, that water is necessarily H_2O was learned through the empirical method: we found out that it is part of the nature of water to be composed of H_2O , and this means that it is not possible for water to be otherwise constituted. The first step when using the empirical method to assess whether it is possible for x to be F is to formulate an empirically justified theory of x . Once we know what x really is, we can assess whether it is the kind of thing that can be F .

In the present case, the empirical method dictates that we first determine what is the best theory of consciousness based on empirical facts, then apply this theory to answer our questions about merely possible vividness counterexamples. In other words, the method treats non-actual cases as spoils to the victor in the actual world. In the preceding sections, we saw that the intermodal view is empirically adequate as far as psychologically possible cases go. The intramodal view is also empirically adequate; however, the intermodal view is simpler and more elegant, and it arguably has more explanatory power, so it seems to be our best theory. The empirical method therefore suggests that it is metaphysically impossible for vivid and faint experiences to have identical contents.

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