
Solely Generic Phenomenology

A Reply to Sascha Benjamin Fink

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If representationism is true, phenomenal precision is given by representational precision. But what if representationism is false as I claim? Can we make sense of phenomenal precision? Fink argues that there is a danger of trivialization of phenomenal precision and that the one way out may be incompatible with my view that consciousness overflows cognition. I try to say more about how to clarify phenomenal precision and its relation to my views on overflow.

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1 Introduction

I am grateful to Sascha Benjamin Fink for a thoughtful and insightful critique ([Fink 2015](#)) of my article ([Block 2015](#)). Fink's critique is full of novel and interesting ideas, formulations and proposals but is far too rich for me to respond to everything. I will focus on Fink's arguments to the effect that the concept of phenomenal precision is defective because there will be no unique precision to a phenomenal experience, specifically that phenomenal precision is either contradictory or trivialized by a "minimal" or "maximal" interpretation. I think Fink is right to focus on the concept of phenomenal precision since as he says

it is the aspect of my paper that most needs clarification. I argue that the key to solving the problem that Fink raises is to ask what the representationist should say about it. I then argue that the anti-representationist can make a similar move. In the last section I consider some variants of Fink's proposal for how to clarify phenomenal precision.

2 The thesis of solely generic phenomenology

I will start with the SGP thesis in Fink's terminology—the thesis that there can be "solely

generic phenomenology”. An example would be the experience of something as red without an experience as of any specific shade of red. Fink says I am forced to accept solely generic phenomenology but that it “has been introduced to argue *against* Block” (p. 10).

Fink is talking about my “overflow” arguments. These arguments are based partly on an experiment by George Sperling (Sperling 1960) that is covered in all respectable introductory psychology courses and on experiments from Victor Lamme’s lab in Amsterdam that combine Sperling with “change blindness” (Lamme 2003). The upshot of these lines of research is that there is more “capacity” in phenomenology than in cognition—or so I have argued. In the Sperling experiment, subjects are presented briefly with an array of letters, for example, 3 rows of 4 letters. Subjects say they see all or almost all of the letters but when asked to name the letters they saw after the stimulus has disappeared they can name only 3 or 4. Sperling’s innovation was to “cue” subjects to report one specific row after the offset of the stimulus, using a tone to indicate the row. The finding is that subjects can report 3 or 4 items from any given row, supporting the idea that their phenomenal “iconic” representation really did include information about the specific shapes of all or almost all the letters in the array.

In Lamme’s experiments the subject is briefly shown an array of, for example, 8 oriented rectangles. After the array is turned off, the screen goes dark for up to 4 seconds, then there is a second array of 8 rectangles in which one of the rectangles may have a different orientation (e.g., vertical rather than horizontal). A cue—a line pointing to the location of one of the rectangles—can occur when the screen is dark or, alternatively, when the second array appears. The subject’s task is to say whether the rectangle in the cued location has changed orientation. If there is no cue or if the cue comes after the new array has overwritten the iconic representation of the first array, subjects have a capacity of about 4 items. But subjects say they have a kind of image of the array in the dark period after the stimulus has gone off. When the cue is presented in the dark period

(up to 4 seconds later in some versions) after the stimulus has gone off they have a capacity of up to 7 of 8 items. I have argued that this pattern of results indicates that subjects have a persisting conscious mental iconic or imagistic representation of 7 of the 8 rectangles of sufficient specificity to compare orientations of the initial rectangles with the final display of rectangles even though they can “cognize” only about 4 of them—in the sense of storing them briefly in “working memory”. The upshot according to me is that there is more capacity in the phenomenal iconic representation than in cognition and thus that phenomenology “overflows” cognition.¹

The subjects report seeing all or almost all of the items and the cuing experiments—showing as they do “partial report superiority”—appear to back up what the subjects say. However, as Fink notes, my opponents² criticize my appeal to what the subjects say about their experience (Byrne et al. 2007). What is in the subjects’ consciousness might be just a generic representation—e.g., indicating that there is a circle of rectangles or array of letters without indicating the specific orientations of the rectangles or specific shapes of the letters. After all, we can’t expect naïve subjects to have a grip on the distinction between generic and specific phenomenology. Subjects say they have an image of all or almost all the items because they have a solely generic representation i.e., a representation that specifies the location of the items and their abstract category (letters, rectangles) but without the specific details (letter identity, orientation).

How do my opponents explain the fact that the subjects can get 7 of 8 rectangles right and 3 to 4 letters from any cued row if their phenomenal icons do not contain the specific information needed to do these tasks? According

1 For experiments from the Lamme lab, see (Sligte et al. 2008, 2010, 2011; Vandembroucke et al. 2011). This result has been replicated by other labs. See for example, (Freeman & Pelli 2007). My discussions of these experiments appear in (Block 2007a, 2007b, 2008). See also (Jacobson 2014) for a discussion of a different relationship between the dissociation between access and phenomenal consciousness and the dissociation between phenomenal character and representational content.

2 He references (Grush 2007) but the point is also made in other critiques (Kouider et al. 2007; Papineau 2007; Van Gulick 2007)

to these opponents, the specific details of the shapes are registered unconsciously. And when subjects think they are reading details off of an already present conscious image, what they are really doing is making unconscious details conscious (Phillips 2011). Fink concludes that “Allowing SGP thus blocks Block.” (p. 10)

My response to Fink consists of three points: (1) my argument for “overflow” does not require any blanket rejection of solely generic phenomenology. (2) I have not issued any such blanket rejection and I have given qualified endorsement of some kinds of solely generic phenomenology. (3) I think there are some crucial cases—notably some spatial geometry cases in which there is reason to doubt solely generic phenomenology. I will explain these points.³

Why does Fink suppose I cannot accept generic without specific phenomenology? Part of his argument is that for an imagistic representation there cannot be generic without specific phenomenology because images are “concrete”. He says

Imagistic representation... does not allow for such indeterminacy, because images exploit the isomorphisms between concreta....Introspectively, our phenomenal experiences resemble images. If phenomenal experience represents image-like, then there cannot be SGP—and p-precision seems dangerously close to being trivial; if phenomenal experience is non-imagistic,

³ For the record, I used the generic/specific distinction in earlier papers (though not using that terminology including the one that these critics were replying to. For example, in discussing the Lamme experiment in the BBS paper to which all of these opponents were replying (Block 2007a), I said:

This supports what the subjects say, and what William James said, about the phenomenology involved in this kind of case. What is both phenomenal and accessible is that there is a circle of rectangles. What is phenomenal but in a sense not accessible, is all the specific shapes of the rectangles. (p. 488)

The phenomenology as of a circle of rectangles is generic phenomenology; the phenomenology as of the specific shapes is specific phenomenology. Further, in an earlier version of the argument based on the Sperling experiment in 1995 I also appealed to a version of the generic/specific distinction, although somewhat less explicitly (Block 1995, p. 244)

Here is the description I *think* is right and that I need for my case: I am P- conscious of all (or almost all - I will omit this qualification) the letters at once, that is, jointly, and *not just as blurry or vague letters*, but as specific letters (or at least specific shapes), but I don't have access to all of them jointly, all at once. [italics added]

then we can allow for SGP and render p-precision non-trivial—but this is in tension with some of Block's other work and our introspective evidence. (p. 10)

A similar argument to his was made by Robert Van Gulick (2007) and in a different form by Rick Grush. Van Gulick says

If one holds a “movie screen of the mind” model of phenomenal consciousness, it may seem impossible that there could be letters that are phenomenally present as letters without being present as specific letter shapes. But such a model is at best problematic, and if one rejects it, then there seems no reason why the characters of which the subjects are aware could not be indeterminate in ways that exactly match their limited cognitive access to those features. (p. 529)

In my 2007 reply to Van Gulick I rejected this argument and—contrary to what Fink says about my argument—I endorsed a version of the SGP. I said

Van Gulick notes that the “movie screen of the mind” view would say that you cannot have generic phenomenology without specific phenomenology, implicitly suggesting that I am relying on the “movie screen of the mind” view, and on the fact of generic phenomenology, to argue for specific phenomenology...I reject the principle – applied by ... Van Gulick – that pictorial representation has to specify the relevant details. I call this principle the “photographic fallacy” (Block 1983). More specifically, the photographic fallacy supposes that pictorial representations have to represent details of anything in view in the manner of a prototypical photograph. To see the fallacy, note that an impressionist painter might represent a hand in broad brush strokes that do not explicitly represent the number of fingers or whether one of them has a ring. (Block 2007b, p. 533)

It may be said that endorsing generic without specific phenomenology on my part is just incoherent since it undermines my own position. Recall that the reason Fink says I cannot endorse generic without specific phenomenology is that my opponents use it to argue that what is in consciousness in the Sperling and Lamme experiments is solely generic, the specific details being perceived unconsciously. My approach has not been to issue a blanket denial of the possibility of solely generic phenomenology but rather to argue against the claim that the highly specific representations in these experiments are unconscious (Block 2007a, 2011, 2014b).⁴

Is solely generic phenomenology possible? There certainly are some intuitively plausible (though not compelling) cases. For example, if one sees a red thing in the distance one may perhaps see it as red without seeing it as having any specific shade of red. (See Stazicker 2011, forthcoming for defenses of solely generic phenomenology.) However, even if there is generic phenomenology, I think it is doubtful in some cases, notably certain spatial cases. In particular, I doubt that there can be generic phenomenology of an oriented rectangle that does not specify the rough orientation of the rectangle.⁵

My rationale for this view is partly introspective and partly a result of informal reports of imagery experiments from Stephen Kosslyn. I have discussed doing experiments on this issue with Kosslyn and Dan Reisberg.

Imagine that you are in a house, going down the stairs and out the front door. In front of you is a picket fence with a gate. You go out through the gate and walk to the corner where you mail a letter.

⁴ If you want to get a brief taste of the kind of argument I have in mind, look at one of: (Block 2014a, 2014b). In one of the articles cited (Bronfman et al. 2014), evidence is provided of specific information about uncued rows in a Sperling-like experiment. What I especially like about this experiment is that the authors provide 3 different tests of the claim that the specific information in the uncued rows is conscious.

⁵ In (Block 2011), I said "...generic conscious representations of non-square rectangles that do not specify between horizontal and vertical orientations is difficult to accept." Note that this is not a blanket denial of the possibility of solely generic phenomenology but rather a denial of one specific kind of solely generic phenomenology. Hilla Jacobson and Hilary Putnam relate this kind of point about imagery to a principle of "cohesiveness" of the various aspects of an image (Jacobson & Putnam forthcoming).

Stop now and answer the question: which way did you turn when you went out through the gate? Kosslyn reports in conversation that when he gives such spatial vignettes to subjects they do not report that there was no particular direction. The experimental challenge is to design an experiment that distinguishes between an answer made up on the fly and an answer based on what was "already there" in the image.

To summarize so far: Fink says "Allowing SGP thus blocks Block." I reply that my argument for "overflow" does not require any blanket rejection of solely generic phenomenology; that I have not issued any such blanket rejection; that I have endorsed the possibility of solely generic phenomenology; and that I think there are some specific cases in which solely generic phenomenology is not very plausible.

3 Is the concept of phenomenal precision incoherent?

According to Fink, if there is no solely generic phenomenology (i.e., generic without specific phenomenology) then the concept of phenomenal precision is threatened by incoherence. What is Fink's argument for this conclusion? Suppose there is no solely generic phenomenology. Then, according to Fink, "...the p -precision of an experience is either contradictory, generally minimal, or generally maximal, which trivializes the notion." (p. 9) And why is that? Because, according to Fink, if you experience the color of his Figure 2 as cayenne₆₆, then if you also experience it as red, then there will be no unique precision to the experience. For red has a much wider precision range (i.e., lower precision) than cayenne₆₆. His solution is to allow for experiencing it as red without experiencing it as any specific shade: generic without specific phenomenology.⁶

Let us approach this issue by asking what *the representationist should say by way of response to Fink's concern that there will be no unique visual precision*. Then we can ask whether some version of that response is available to me.

⁶ Of course uniqueness does not require solely generic or solely specific phenomenology. Any sole level will do.

Recall that representationists must acknowledge phenomenal precision (assuming they acknowledge representational precision) since on their view, if the representational precision of one conscious perceptual representation is greater than the representational precision of another conscious perceptual representation, then the phenomenal precisions must follow suit. Phenomenal precision—on their view—is just the shadow of representational precision. But when we see a cayenne₆₆ object as cayenne₆₆, do we thereby also see it as red? It is often supposed that this is some sort of necessity (Confession: I once thought that). To his credit, Fink points out that this is false. He says (footnote 17):

Conceptual or nomological relations do not necessarily transfer to the realm of experiences. Imagine seeing an animal as a mouse. One does not thereby see it as an owner of a heart, or as a member of the phylum chordata even though all mice belong to each category necessarily.⁷

Certainly Fink is right that seeing something as a mouse does not require seeing it as a chordate. However, he thinks any experience of cayenne₆₆ is “likely” to be an experience of red. He doesn’t say how he knows this.

Here is a tempting but wrong view that I believe may stand behind what Fink says (and is also exemplified I believe in [Begby 2011](#) and in a more complex form in [Siegel 2010](#)). Look at the cayenne₆₆ patch in Fink’s Figure 2. I know what a red thing looks like and I can tell from looking that it is red because...well...it looks red. So I visually represent it as red. Similarly, it looks colored. And a baseball bat looks like a baseball bat, so I visually represent it as a baseball bat.

However, I also know what a 1969 Chevrolet Camaro looks like, as well as what a 1961 Jaguar E-type looks like. Do I thereby visually represent the property of being a 1969 Camaro or a 1961 E-type? I know what my wife looks

like. Do I thereby have a singular visual representation that represents her? Perhaps what I am really visually representing in each of these cases is just constellations of low level properties that are recognitionally equivalent to the property of being a 1961 Jaguar E-type or to the singular property of being my wife.

I have argued that the extent of seeing-as in the sense of visual representation is not a matter for the armchair ([Block 2014c](#)). From the armchair one does not know whether something’s looking like a 1961 Jaguar E-type is a matter of representation of constellations of colors, shapes, textures, illumination, motion and other low level properties as opposed to an actual representation of the property of being a 1961 Jaguar E-type.

For example, I give evidence that we can visually represent facial expressions (high level property) and in addition constellations of colors, shapes, textures, etc. (low-level properties). The evidence is that there are distinct “adaptation” effects for both the low and high-level properties. (Adaptation is the neural “fatigue” effect underlying afterimages.) For example, if you vary the low level properties but keep the face identity (or expression or just faceness) constant, you get smaller adaptation effects, showing an extent of low level perception. And the fact that there is a residual face adaptation effect is one of many items of evidence favoring face-specific perception.

You can experience such an adaptation effect for yourself. Stare at the picture on the right for 1 minute, covering the two pictures on the left with something. Then very briefly look at the center picture asking yourself whether it looks more fearful or more angry. Now cover the two pictures on the right and stare at the picture on the left for one minute. Now look at the center picture very briefly again. It will appear to have a different expression. The center picture is a morph of a fearful face and an angry face. When you adapt to the fearful expression you are more likely to see the morph as angry-looking and conversely for adapting to the angry expression. This doesn’t prove that there is an adaptation effect for facial expression over and above adaptation effects for constellations

⁷ By “owner of a heart” he must mean some sort of biological classification (on a par with chordate) since obviously any individual mouse could lose its heart (even briefly staying alive) and still be a mouse.

of low level properties. The best one can do is form hypotheses about what those low level properties might be and vary those properties keeping expressions constant.

In addition, one can look for other signs of visual representation of faces or facial expressions. For example, faces show “visual popout”. Since typically “conjunctive” properties do not show visual popout, that fact suggests that visual representations of faces are not “conjunctive” properties and hence not conjunctions of low level features. The upshot of this and other work I cannot describe here (Block 2014c) is that it is very likely that there are representations of face-attributes such as facial expressions in addition to representations of low level properties.⁸

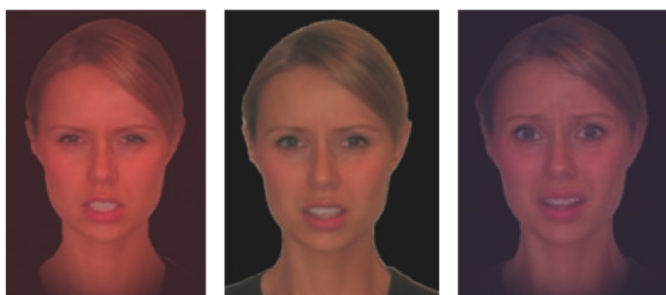


Figure 1: From Butler et al. (2008) with permission of Elsevier

The upshot of all this is that a single visual experience can represent both low level properties and high level properties. So: there can be distinct precisions for the different representations. For example, the precision of the experiential representation of fearfulness could be ascertained by investigating how much variation in the percentage of fearfulness in a morph like the middle one in the figure above is compatible with exactly the same visual representation of fearfulness. And similar methods could be used to ascertain precisions for the low level properties that are represented. There is no reason to expect these precisions to be the same.

An experience that represents cayenne₆₆ could also represent red and there could be dis-

tinct precisions for each of these representations. And what goes for representational precision also works for phenomenal precision. If more than one property is genuinely present in phenomenology then there can be distinct precisions for the distinct properties. So the solution for the representationist works even if representationism is false.

So why is there supposed to be a problem concerning unique precisions? Fink argues as follows

You might think that this color experience has two p-precision values: The first value is for being experienced as red, and the second for being experienced as cayenne₆₆. But this seems contradictory: why should one and the same experience of a color have two p-precision values, but only one for r-precision? And for that matter, why not three values for p-precision? You likely experience the color not only as cayenne₆₆ and as red, but also *as a color*? Why not four, then, if you experience it *as a visual experience*? Or five, if you experience it *as phenomenal*? [NB: p-precision is phenomenal precision; r-precision is representational precision]

The argument is not spelled out but one can guess that it depends on the idea that there is incoherence because there is no end to the number of properties that are present in experience. (Fink seems to suppose that there are not multiple representational precisions but does not say why.) We don't need to see exactly what the argument is supposed to be to see that this premise is wrong. There is absolutely no evidence that experiences of colors present (or represent) colors as colors or as something or as phenomenal. These presentations and representations cannot be simply postulated. The reason that I went through the example of fearfulness was to give the reader a sense of how much work has to be done to show representation of a high level property. The problem in Fink's argument is the assumption that you “likely” experience his Figure 2 not only as cayenne₆₆ but as a

⁸ In his reply to me (2014), Burge is more skeptical than I am about the power of appeals to adaptation, arguing that adaptation needs to be combined with other methods.

color and the insinuation—not explicitly stated—that you experience it as something and as phenomenal. There is simply no reason to believe this.

On my view, color experience—like all perceptual experience—is non-conceptual. But the point is even stronger if color experience is conceptual since then the concept of color and the concept of something would be required to see the cayenne₆₆ patch as colored and as something. Ask yourself whether an animal that can visually represent the color patch in Figure 2 as cayenne₆₆ must also represent it as red or as colored. Must the animal be able to attend to or notice the redness or the coloredness as well as the specific shade? Or consider 4 month old human babies whose color perception is known to be good but who do not appear to notice colors to the extent of being able to use color information to judge whether there is one or two items. Even two year old children are so bad at conceptualizing color that a term was coined in the early 20th Century, “*farbendummeit*” (color stupidity), to describe their cluelessness. Darwin thought his own children were color-blind because they were so poor at learning color names (Bornstein 1985; Campbell 2014).

To conclude this section: uniqueness of precision is not required for coherence. The representationist can reasonably hold that to the extent that there is more than one representational content, there is more than one precision: precision of representation depends on what representation is in question. And the same can be said of what properties are *presented* in perception as opposed to represented in perception, even if as I argue, representationism is false.

4 How not to clarify phenomenal precision

Here is a tempting idea about representational precision. Representational precision is just a matter of how much the stimulus can change without changing the representational content of the subsequent perception. And the same idea extends to phenomenal precision: phenomenal precision is a matter of how much the stimulus can change without changing the phenom-

enal character of the perceptual state. Of course these ideas would not be useful if one included stimulus changes that don’t make a difference when the subjects’ eyes are closed or in the dark or in a dust storm. So the proposal does not get even to first base without specifying that the circumstances of perception must be ideal.

Here is an example: Suppose one is looking at an oriented line. If a change of up to but not beyond plus or minus 1 degree makes no difference in the percept of the orientation in ideal conditions, then the representational precision is plus or minus 1 degree. And the same thought also covers phenomenal precision. If a change of up to but not beyond plus or minus 1 degree makes no difference in the phenomenology of the percept of the orientation in ideal conditions, then the phenomenal precision is plus or minus 1 degree. One advantage of this conception of precision is that representational and phenomenal precisions will be comparable. And representationist ideas can be tested. If phenomenal precisions are smaller, i.e., more precise than representational precisions, then representationism is definitely over.

I like this idea of precision for cases in which it is fairly clear what ideal conditions would consist in. But if one is concerned that phenomenal precision is not a coherent notion, this suggestion will not be of much help. The problem with this suggestion is that the notion of ideal conditions will inevitably smuggle in the ideas that are supposedly being explained. In the case of representational content, the problem has often been called the “problem of error” (Fodor 1987): representational states correlate best—not with their truth conditions—but with conditions that include systematic error. A notion of ideal conditions that avoided this consequence would itself have to distinguish between veridical and falsidical representations (see Adams & Aizawa 2010).

Fink’s proposal about phenomenal precision sometimes sounds like the correlational idea just mentioned—that phenomenal precision is a matter of how much the stimulus can change without changing the phenomenal character of the subsequent perception in ideal cir-

cumstances. However, Fink goes on to explicate the notion of *change in the phenomenology of the percept* in terms of discernability: “for example, the pain caused by 480mc/sec/cm^2 is not reliably discernible from one caused by 640mc/sec/cm^2 .” And he goes on to spell this out in terms of the lower bound on p -precision being the range of cases “one cannot distinguish by experiencing as F under ideal conditions.” (p. 8). In the conclusion of the paper, Fink describes his proposal in terms of the notion of a “just noticeable difference [JND] as a lower bound of p -precision.” (p. 12)

However, what one can distinguish from what is a matter not just of phenomenology but of an interaction between phenomenology and cognition. As I noted (Block 2015, sections 6 & 10), discriminability is neither necessary nor sufficient for phenomenal difference. It is not sufficient because there are sometimes ways of discriminating between percepts that do not depend on a phenomenological difference, such as beats on vibrating strings. And it is not necessary because not all phenomenological differences need be accessible to the cognitive apparatus of the subject. I mentioned phenomenal Sorites cases (Morrison 2015) in connection with this point. As has often been noted, colors A and B may be indistinguishable because the difference between color A and color B is below the JND. And B may be indistinguishable from C for the same reason even though A is distinguishable from C. One way of thinking about this is that A and B may actually look different—i.e., produce percepts with different phenomenologies, but the difference in phenomenologies may be cognitively inaccessible. If so, noticeable differences will not track phenomenal differences.⁹

In short: phenomenal precision can be explicated in terms of the extent to which the stimulus can change in ideal conditions without changing the phenomenology of the resulting percept; but explaining changes in the phenomenology of the percept in terms of noticing or in terms of discrimination brings in an interaction with cognition that ruins the explication.

⁹ Fink seems to acknowledge such points in footnotes 14 and 22 but somehow ignores them in explicating phenomenal precision.

I welcome Fink’s suggestions about how to explicate phenomenal precision so long as the notions of discrimination and noticing are stripped from the explication and it is acknowledged that we have no reductive account of ideal conditions. And I acknowledge the possibility of solely generic phenomenology but I don’t think it creates the problem Fink mentions for my overflow arguments.

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