
SENSATIONS, SWATCHES, AND SPECKLED HENS

BY

JEREMY FANTL AND ROBERT HOWELL

Abstract: We argue that there is an interesting connection between the old problem of the Speckled Hen and an argument that can be traced from Russell to Armstrong to Putnam that we call the “gradation argument.” Both arguments have been used to show that there is no “Highest Common Factor” between appearances we judge the same – no such thing as “real” sensations. But, we argue, both only impugn the assumption of epistemic certainty regarding introspective reports.

In recent years a broad attack has been launched upon a traditional, roughly Cartesian view of mind. Advanced by philosophers as prominent as Hilary Putnam, these arguments pit themselves against any “Inner Theater” view of the mental realm by denying that there is any “Highest Common Factor” (HCF) between cognitive acts when they are veridical and when they are misled. It is denied, for example, that when I am hallucinating a red Porsche and when I am actually perceiving such a Porsche that there is necessarily something in common between those states of my mind. The desired upshot of such anti-Cartesianism is that the world is not seen as blocked from cognitive agents by a “veil of ideas” that might or might not correspond to how things are.

Instead of considering the alternative views of perception proposed by anti-Cartesians, we wish to concentrate on one strategy to undermine the notion of a common sensory element between veridical and non-veridical perceptual episodes. According to the “gradation argument,” HCFs do not have coherent identity conditions because HCFs are defined by how they seem, and “seems like” is not a transitive relation. A can seem like B while B seems like C, even without A seeming like C. To shed light on this argument, we consider a separate challenge to traditional foundationalism. The “problem of the

speckled hen” suggests that our introspective reports are fallible with respect to particularly complicated mental images. We maintain that this epistemic distance between subjects and their sensations provides an appealing way out of the gradation argument, and marks the path to a more realistic metaphysics and epistemology of the phenomenal. This would involve a weak realism about phenomenal states – one that is committed to the existence of such states, while denying that we can always make justified judgments about all of their phenomenal properties.

In section I, we try to specify the relevant positions one might take on Highest Common Factors. In section II, we consider an argument that has recently enjoyed resurgence in anti-Cartesian accounts of the mind. In section III we consider a related argument, and in IV the morals that should be drawn from considering both arguments together.

I.

Why believe in Highest Common Factors (hereafter, HCFs)? Traditional philosophers most likely think it is absurd to say that there is nothing at all in common between veridical and non-veridical states because it certainly seems like the same things are there in both cases. John McDowell offers the anti-Cartesian response that “The alternative conception can allow what is given to experience in the two sorts of case to be the same *in so far as* it is an appearance that things are thus and so; that leaves it open that whereas in one kind of case what is given to experience is a mere appearance, in the other it is the fact itself made manifest. So the phenomenological argument is inconclusive.”¹ The alleged problem, then, is in inferring from the fact that two things appear the same to there being one, reified appearance in both instances. This suggests the following principle as a way to focus the anti-Cartesian attack:

NHCF: There is no factor corresponding to “appearances” or “seemings” that is common between cases of veridical and non-veridical perceptions.

The disagreement between the traditionalists and the anti-HCFers really hinges on there being some phenomenal thing that grounds the apparent similarity between the veridical and non-veridical. This one phenomenal thing – be it sense-data, qualia, adverbial qualifications of the mind when perceiving, or what have you is the real target of the anti-Cartesian attacks. As Dennett (obviously, an anti-HCFer) says, “There is no such phenomenon as really seeming – over and above the phenomenon of judging in one way or another that something is the case.”²

In his recent attack on this sort of common factor,³ Putnam sets his sights on a particular sort of sensory HCF: “phenomenal states whose *esse* is *percipi*,

phenomenal states that obey the principle that *if two occasions seem identical to the subject as far as their appearance is concerned, then the subject must be in the same phenomenal state*". [130] Because HCFs were introduced to explain the continuity of semblances despite changing objects of perception, Putnam takes HCF defenders to subscribe to the following principle:

HCF-id: if two appearances seem the same to a subject, there must be one phenomenal state that she has in experiencing the two experiences.⁴

If one is confronted with two red swatches, for example, and one cannot appreciate a difference between them, there must be one phenomenal "look" which is present at both viewings of the swatches. In this article, we defend HCF-id.

II.

In his counterexample to HCF-id, Putnam asks us to imagine a series of a hundred swatches, each painted with a progressively darker mixture of red and white paint. The first card in the series is white, the second card very slightly less white, the third card very slightly more pink, etc., until the hundredth card is very deeply pink. The amount of red pigment in the paint on each card is such that any two sequential cards are indistinguishable, though cards that are well separated can be easily distinguished.

Putnam continues,

Now, consider the following argument (let $C_1, C_2, C_3 \dots C_{100}$ be the hundred cards.) C_1 and C_2 look exactly the same to the subject . . . So the relevant phenomenal state (the relevant "color quale") must be the same, by the highest common factor argument. Call this color quale " $Q_{1/2}$." Similarly, C_2 and C_3 look exactly the same to the subject. So the relevant phenomenal state (the relevant "color quale") must be the same, by the highest common factor argument. Call this color quale " $Q_{2/3}$." Are $Q_{1/2}$ and $Q_{2/3}$ identical or nonidentical? [131]

He concludes that $Q_{1/2}$ and $Q_{2/3}$ can be neither identical nor nonidentical. For, if they are nonidentical, then one card (C_2) appears two different ways ($Q_{1/2}$ and $Q_{2/3}$) at the same time. If, on the other hand, they are identical, then we can run a parallel argument regarding cards C_3 and C_4 , etc., until we end up with the result that C_{100} is indistinguishable from C_1 . This is by hypothesis false, so we must abandon the claim that, if two occasions are indistinguishable to a subject, those occasions must share some one real phenomenal character, state, or "look", which is just to deny HCF-id. Because this claim is essential to the possibility of phenomenal states in the sense that Putnam is denying, we must deny the possibility of those phenomenal states as well.

Call this argument against phenomenal states the “gradation argument.” The gradation argument has also been put forward recently by Kelly Dean Jolley and Michael Watkins,⁵ and earlier by David Armstrong in *A Materialist Theory of the Mind*, where he says:

If A is exactly similar to B in respect X, and B is exactly similar to C in respect X, then it follows of logical necessity, that A is exactly similar to C in respect X. ‘Exact similarity in a particular respect’ is necessarily a transitive relation. Now suppose that we have three samples of cloth, A, B and C, which are exactly alike except that they differ very slightly in colour. Suppose further, however, that A and B are *perceptually* completely indistinguishable in respect of colour and B and C are perceptually completely indistinguishable in respect of colour. Suppose, however, that A and C can be perceptually distinguished from each other in this respect.

Now, consider the situation if we hold a ‘sensory item’ view of perception. If the pieces of cloth A and B are perceptually indistinguishable in colour, it will seem to follow that the two sensory items A_1 and B_1 that we have when we look at the two pieces *actually are identical in colour*. For the sensory items are what are supposed to make a perception the perception it is, and here, by hypothesis, the *perceptions* are identical. In the same way B_1 and C_1 will be sensory items that are identical in colour. Yet, by hypothesis, sensory items A_1 and C_1 are not identical in colour!⁶

Armstrong’s is not the first presentation of this argument, either, but his version was published over 30 years ago.⁷ It was shown invalid over 25 years ago by Jackson and Pinkerton.⁸ In this section our modest goal is to provide a reminder of the fallacy they exposed.

The gradation argument requires the assumption that, if patch A is indistinguishable from patch B (when A and B are compared) and patch B is indistinguishable from patch C (when C and B are compared), then, if there is such a thing as phenomenal “looks,” A must be indistinguishable from C (when A and C are compared). Since it is by hypothesis false that A is indistinguishable from C, there must be no such thing as phenomenal “looks.” The crucial assumption is supposed to follow simply from the transitivity of identity as applied to phenomenal states:

Phenomenal Transitivity: If the look of A is identical to the look of B and the look of B is identical to the look of C, then the look of A must be identical to the look of C.

However, the assumption follows from phenomenal transitivity only if the look of B when B is compared to A is identical to the look of B when B is compared to C. Why believe this? It seems to follow only if one subscribes to a principle such as this:

Phenomenal Invariance: For any object A, the look of A must be invariant across contexts of appearance. That is, for any A, if there is an “appearance” for A, there must be only one of them.

But this is exactly what the friend of phenomenal “looks” will be inclined to deny! It is, in fact, the obvious falsity of this principle that allows appearances to play the role they do in traditional epistemology to explain perceptual error. If A and C look different, but B looks like A when next to A, and B looks like C when next to C, then B must look different when it’s next to A than it looks when it’s next to C.

The problem remains even if patches A, B, and C are not presented to the observer in order, but are assembled within the same visual field. For the gradation argument to work, when A, B, and C are simultaneously presented to the observer, B would have to be judged, simultaneously, to appear the same as A and C, while A and C are simultaneously judged to appear different from each other. It is not clear that this situation is even possible. We can only attend to limited sections of our visual field at once. Though all patches are presented in one visual field, we still attend to them in sequential pairs. Surely what aspects of the surrounding environment we are attending to is part of the context of appearance – relevant, that is, to how something appears to us.

Suppose the patches are small enough and close enough together that we can attend to all three simultaneously. Again, for the gradation argument to work, A would have to appear different from C while B simultaneously appeared to be the same as A and the same as C. This implies that B would simultaneously have to appear two different ways. It wouldn’t be enough for it to oscillate in appearance as we compared it to A and to C. This, again, would be to consider the pairs sequentially. For the gradation argument to work, in this case, B’s two different appearances would have to be manifested simultaneously. This seems, on the surface, incoherent.⁹ Far from being a way for the gradation argument to seem more plausible, the possibility of A, B, and C’s simultaneous presentation exposes the very oddity in thinking the gradation argument works at all.

In Jackson and Pinkerton’s words,

The first occurrence of ‘B₁’ refers to the sensory item corresponding to B which we have when we look at A and B together. The second occurrence of ‘B₁’ refers to the sensory item corresponding to B which we have when we look at B and C together. This mistake is the assumption that the sensory item corresponding to B which we have when we look at A and B is identical in colour to the sensory item corresponding to B when we have when we look at B and C. [270]

The problem, of course, is the same with Putnam’s argument, and any other argument that moves from subjective reactions to graded swatches or anything placed in the external world to claims about intransitivity of phenomenal looks. They illicitly depend upon something like the principle of phenomenal invariance, when it is the denial of that

principle that motivates the traditionalist to posit appearances or sensations in the first place.

III.

Although the gradation problem can be solved by denying phenomenal invariance and positing subtle alterations in appearances depending upon context and attention, another famous example cannot, in our opinion, be as plausibly handled in this way. This example leads us to prefer a solution that denies one interpretation of HCF-id, questioning the authoritative role that sensations have played in the traditional epistemology of introspection.

In the nineteen-thirties and forties sense-data philosophers and their critics debated over an unlikely troublemaker known as The Speckled Hen: suppose you are presented, in clear lighting and otherwise optimal conditions, with a picture of a speckled hen. In this picture, there is a hen with a determinate number of spots. As you see the picture, you have, according to the traditional HCF theorist, a determinate image in your mind. You are asked to hold the image in your mind, and then report how many phenomenal spots there are on the facing side of the hen-image. (It is assumed that there is no trick here: all spots are visible, and you are only responsible for the spots on the side of the hen that you can see.) Now it is certainly the case that if there are only a few spots – say, three – the image in your mind will allow you to report accurately the number of spots (on the image, of course, not the picture). Suppose that there are quite a few, distributed in a random pattern. Chances are good that your report will be mistaken, despite the fact that you are supposedly holding an image in your mind of the hen in question. Even if you gave the correct answer, it would probably be by accident.¹⁰

There are numerous conclusions one could draw from this fact. Let's list a few.

1. **Eliminativism:** There is nothing there to be introspected. If there were an image in one's head, that image must have a determinate number of phenomenal spots, and given the strong epistemic access associated with such images, one must be able to have a highly justified belief about the image. One cannot have such a justified belief because of the accidental nature of any correct belief about the hen, so there must not be such images.

The eliminativist option parallels the conclusion drawn by Putnam and others who criticize HCFs, and unsurprisingly it is the option Armstrong chooses when he considers the speckled hen.¹¹ One is obviously not forced into this position, however, because the premises of the argument include assumptions about HCFs and introspections of them that traditionalists

can deny. This opens the following more traditional positions on the experiment.

2. Introspective Fallibilism: There is a spotted hen image, with a determinate number of spots, but epistemic access to one's images is not so strong as to guarantee an accurate report with respect to all facets of the image.
3. Indeterminate Imaging: One is guaranteed epistemic access to sensations, but there is not a determinate sense image in all cases: there are in some cases indeterminate images. In the speckled hen case, for example, there is no determinate number of speckles on the image of the hen.
4. Image Alteration: Images are not stable and they can change in subtle ways. Thus, the image one contemplates upon closing one's eyes and introspecting may not be the same one as when one is confronted with the picture of the hen. What's more, the image might change as one is counting the phenomenal spots.

The Jackson/Pinkerton solution to the gradation argument is the last option. Is this option as promising a solution to the speckled hen case? We will argue that the preferable option for this case is 2: introspective fallibilism.¹²

A number of people have defended something like option 3 – indeterminate imaging – but we feel that this view cannot ultimately be successful.¹³ Not only does Berkeley's point about determinacy of images still seem to hold (what is an indeterminate image anyway?), it would present the HCF theorist with a dilemma.¹⁴ Either it is the case that when one is presented with the speckled hen one is only presented with an indeterminate image and therefore doesn't really perceive reality (which is determinate), or the HCF is indeterminate while the perception is determinate, and the determinacy is provided by confrontation with the hen itself. The former possibility is infelicitous because it makes the veil of ideas more opaque than anyone would desire. The latter possibility invites the HCF critic to ask why we should say that only the more determinate parts of the perception are provided by the hen itself. Once the hen's spots are let in the door, why not let the entire hen in?

A related further problem seems to confront the defender of vague HCFs. Indeterminate imaging, in this case, is invoked in an attempt to preserve infallibility about introspection of HCFs. It seems that this strategy cannot succeed, however, as fallibility with respect to at least some of the image's properties must still be admitted. After all, the image of the speckled hen appears to be of a hen with a determinate number of spots.¹⁵ Now, either the defender of indeterminate images must admit outright that there is a fallibility here – that the image seems to be determinate

when it is not – or she must hold that its “appearing to be of a hen with a determinate number of spots” is not a feature of the HCF at all. But if it is not the HCF that is responsible for this appearance, one wonders why the HCF is invoked to account for appearances at all. Whatever explanation there is of the appearance of determinateness would seem to be available for all appearances, thus eliminating the need for the HCF. Thus, the indeterminate imagist seems to face another dilemma: either she admits introspective fallibilism, or she undermines the motivation for having HCFs in the first place.

Because it also figured into a plausible solution to the gradation problem, option 4 – the possibility of subtle image variation – would appear to be a good position in this case as well. In fact, however, in the Speckled Hen case, option 4 is not a real alternative to introspective fallibilism, simply because to fully explain the case, fallibilism must be invoked anyway. To see this, consider the case where one is intending to count the speckles on the hen. Now either there is a single image during the counting, or there is not.¹⁶ If there is, then the very fact of counting suggests that one can have epistemic distance from one’s image. After all, counting is something one can do well or badly, and how well one does so dictates how much one knows about the image. One is counting precisely to eliminate the epistemic distance that did exist. Suppose then, as the Jackson/Pinkerton solution would suggest, that in the counting there are new images that match one’s apparent epistemic accomplishment in the counting.¹⁷ In this case, however, one need only look to the image one had when one first started counting. With respect to that image, how many spots were there? Clearly, you don’t know and did not know even at the time. It is likely you would not have even hazarded a guess, provided the image was complicated enough. Image alteration, as a solution to the problem of the speckled hen, is committed to it being the case either that your image had a determinate number of spots that did not register with you (in which case there is introspective fallibility) or that the image had no determinate number of spots (in which case the view is subject to all the problems of indeterminate imaging). In short, there is good reason to prefer introspective fallibilism as an initial solution to the Speckled Hen.

IV.

We have looked at two difficulties for defenders of HCFs: the Speckled Hen argument, and the gradation argument. One plausible solution to the gradation argument – image alteration – seems implausible as a solution to the Problem of the Speckled Hen. Is the preferred solution to the Problem of the Speckled Hen – introspective fallibilism – applicable to the gradation argument?¹⁸ One can imagine being confronted with a series

of hen-pictures, all of which have randomly distributed spots, ranging in quantity from 30 to 50, ordered in increasing spottedness. It is likely that between any two consecutive pictures the difference in spottedness would not be noticed, but between the first and the last the difference would be noticed. If we accept introspective fallibilism, this doesn't even remotely suggest that there is no highest common factor in perceptions. The problem suggested here is epistemic: the HCFs involved do not provide complete guarantees with respect to introspective knowledge.

Does this mean that HCF-id is false? It might seem so. For, the million-spotted hen image and the million-and-one-spotted hen image do not share a phenomenal image and yet they seem the same to us, because we don't have guaranteed epistemic access to all their details. According to HCF-id, if two images seem the same to us, then there must be one phenomenal image in common between them, but this contradicts our supposition that the million-spotted hen image and the million-and-one-spotted hen image do not share a phenomenal image. HCF-id would seem false by *reductio*.

We think that this argument overlooks an ambiguity in HCF-id, and that the version to which the friend of HCFs is committed survives. Recall:

HCF-id: if two appearances seem the same to a subject, there must be one phenomenal state that she has in experiencing the two experiences.

The ambiguity, here, derives from an ambiguity in "seems". There is a phenomenal sense of "seems" and a more cognitive sense. To say that *x* seems *F* to a subject in the phenomenal sense is not necessarily to say that the subject judges, or even could justifiably judge, that *x* is *F*. Rather, it is to say that *x* (say, the subject's image) has a particular phenomenal property (*F*), regardless of whether the subject is disposed or able to make justified judgments that *x* is *F*.¹⁹ To say that *x* seems *F* to a subject in the cognitive sense implies that *x* is disposed or able to make justified judgments that *x* seems *F*. The epistemic distance suggested by the Speckled Hen is between seemings and one's judgments about them. To reintroduce the ambiguity, seemings are not always what they seem.

We can therefore disambiguate HCF-id into two principles:

HCF-phen: If two appearances phenomenologically seem the same to a subject, then there is only one phenomenal state in those two instances.

HCF-epist: If a subject is in the same epistemic state with respect to two appearances, then there is only one phenomenal state in those two instances.²⁰

Because of the Speckled Hen, it seems inevitable that an HCF defender must abandon HCF-epist. But the abandonment of HCF-epist in no way

entails a rejection of HCFs, any more than an acknowledgement of an epistemic gap between the external world and our beliefs is tantamount to a denial of the external world. We can reject HCF-epist while accepting HCF-phen. This is exactly what we propose. The view constitutes a weak realism about phenomenal states, because phenomenal properties can outstrip a subject's ability to make justified judgments about them.²¹

Jackson and Pinkerton's reply to the gradation argument is really a defense of HCF-phen and, as such, it works. It shows that the possibility of a series of gradually progressing images, each of which phenomenologically seems like the next when compared with the next, is consistent with there being one and only one shared phenomenal image between each pair of exactly similar images. It does not show that our judgments about our images will necessarily be justified. That our judgments about our images will not always be justified is demonstrated forcefully by the Speckled Hen.

We are not the first to suggest that epistemic distance is part of the best explanation to the gradation problem. Timothy Williamson maintains similarly that the discriminability of "characters" – those qualitative features of experience that correspond to what we've been calling sensations – are sensitive to the ways in which they are presented. "The discriminability of a pair of characters as presented by a pair of experiences depends upon non-qualitative relations between the experiences . . . which facilitate or hinder discrimination . . ."²² But the Speckled Hen shows that the point Williamson makes with respect to discrimination can be made quite generally: the subjectivity of phenomenal states does not guarantee the success of epistemic judgments about them, whether those states are attempts to discriminate between them, or otherwise.

In both of the thought experiments, the anti-traditionalist brunt is removed by maintaining that HCFs are present, but that they do not confer justified belief with respect to all of their aspects. This is not, of course, to concede that they play no epistemic role whatsoever. Williamson, in fact, is inclined to believe that despite the failures of discrimination offered by the gradation argument, discriminability could even figure into the identity conditions of characters. He suggests that characters "are identical if and only if they are indiscriminable under all presentations."²³ If this principle were true, there would be a clear limit on the epistemic gap we have suggested. The Speckled Hen case, however, suggests that we should not be so sanguine about epistemic access. Hens, after all, can get very speckled. There seems to be no reason to believe that between two minutely different images of extraordinary complexity there must be a discernable difference, unless the operative modality is too unrestricted to be of any interest. As such, we are inclined to think that fallibility with respect to HCFs is significant enough to urge a sort of

“realism” with respect to our sensations, in that our epistemic access to them does not serve to individuate them.

V.

Given all that we have conceded to the Speckled Hen case, and the degree to which we have departed from the traditional conception of the epistemic status of HCFs, one might wonder why we are inclined to posit them. While we are not, in this paper, taking up the task of offering a positive argument for HCF's, it seems fair to ask why, given all we have said, we are not simply anti-HCFers of a different stripe? In answer, we maintain that there are more reasons to invoke HCFs than as indubitable epistemic foundations about which we are infallible in all respects. As long as we are still justified in many of our judgments about a wide range of their facets, they can play an important role in a foundationalist epistemology, they can serve as objects of self-knowledge, and they can serve to explain the similarity in appearances and judgments across veridical and non-veridical contexts. Neither the gradation argument nor the Speckled Hen undermines their ability to play these roles. True, sensations and their like are not cure-alls for our epistemic ills, but that, it seems, is what we should expect.

More starkly, we take ourselves to be committed HCF-ers in virtue of our commitment to HCF-id (by way of HCF-phen). We believe that there are phenomenal feels; we believe that they provide grounding and strong justification for many of our judgments about those feels; and we believe that whenever two experiences phenomenologically seem exactly the same, there is one and only one phenomenal character shared between them. Our only departure is that we deny that it is always entirely clear how these phenomenal states seem to us.²⁴

Expository Writing Program
Harvard University
Department of Philosophy
Southern Methodist University

NOTES

¹ See John McDowell (1998). *Mind, Value, and Reality*. Cambridge: Harvard University Press, p. 389.

² See Daniel Dennett (1991). *Consciousness Explained*. Boston: Little, Brown and Company, p. 364.

³ See Hilary Putnam (1999). *The Threefold Cord: Mind, Body, and World*. New York: Columbia University Press especially section 2, lecture 3, “Psychophysical Correlation”, pp. 109–33.

⁴ By “phenomenal state” Putnam means to denote a state which is phenomenal in the traditionalist’s sense, not a state which embodies a disposition to judge two appearances the same.

⁵ See Kelly Dean Jolley and Michael Watkins (1998). “What is it Like to be a Phenomenologist?,” *Philosophical Quarterly* 48, pp. 204–209. Jolley and Watkins direct their argument against an argument by Diana Raffman in defense of real phenomenal states. See Diana Raffman (1995). “On the Persistence of Phenomenology,” in T. Metzinger (ed.) *Conscious Experience*. Paderborn: Ferdinand Schöningh, pp. 293–308. They note that Raffman herself discusses what we have been calling a gradation argument in an earlier paper. See Diana Raffman (1994). “Vagueness without Paradox,” *Philosophical Review* 103, pp. 41–74.

⁶ See David Armstrong (1968). *A Materialist Theory of the Mind*. London: Routledge and Kegan Paul.

⁷ Chisholm, who himself credits Goodman and Russell with a version of the argument, discusses and rejects it (for reasons to be discussed in Section III) in his 1942 paper “The Problem of the Speckled Hen.”

⁸ See F. C. Jackson and R. J. Pinkerton (1973). “On an Argument Against Sensory Items,” *Mind* 82, pp. 269–272. Jackson repeats the solution in his 1977 book *Perception*. Timothy Williamson also discusses the example and notes its failure in his 1990 book *Identity and Discrimination*, as does Evan Fales in *A Defense of the Given* (1996). Williamson’s discussion is somewhat different, so we will save discussion of his view for the next section.

⁹ Jackson agrees that such a case is impossible, and argues convincingly that denying this impossibility itself entails a rejection of the transitivity principle that gives rise to the paradox in the first place. See F. C. Jackson (1977). *Perception: A Representative Theory*. Cambridge: Cambridge University Press, p. 115.

¹⁰ Another example that has often been mentioned in the literature since Berkeley is the case of the imagined chiliagon. Are you really sure that there are a thousand sides in that image you are imagining?

¹¹ See David Armstrong (1968). *A Materialist Theory of the Mind*. London: Routledge and Kegan Paul, pp. 220–21.

¹² In *Perception*, Jackson seems to prefer this solution to the speckled hen argument in, but he does not seem to recognize the consequences of this solution for the gradation problem, or that it might make his solution to the gradation problem otiose. See pp. 116–17.

¹³ Evan Fales (1996) seems to accept the possibility of indeterminate imaging in his *A Defense of the Given*. Lanham: Rowman and Littlefield, especially pp. 73–75. He says, “‘To be,’ Armstrong says, ‘is to be determinate’. But in defense of the given, I want to explore precisely the possibility of giving up this principle.” (p. 75) He does not consider the arguments we present here, and instead seems to see it as a way to save givenism. If we are right, by accepting indeterminate imaging he abandons givenism to the same degree that we do.

¹⁴ The incoherence of indeterminate images is highlighted in Roderick Chisholm’s (1942), “The Problem of the Speckled Hen,” *Mind* 51, pp. 368–373 by the following argument. When one has such an image, one admits there are more spots than five, but less than a thousand (say). At the same time one doesn’t think there are six, seven, eight . . . or 999. But only by having one of these amounts can the former claim be true. Contradiction.

¹⁵ Now, it may be the case that the hen’s apparent determinate number of spots is exhausted by the fact that we believe that it has a determinate number of spots. We might draw this conclusion from the fact that it appears spotted, and from our further belief that spots only exist in determinate numbers. Nonetheless, this wouldn’t help save infallibilism regarding our sensations. After all, if one accepts that the image is indeterminate, then the belief that the image is determinate will be incorrect. On the other hand, if one wants to

insist that one's beliefs about the hen can be fallible, while we cannot mistakenly feel that the hen is a certain way, then one is committed to an epistemic gap between beliefs and sensations anyway. Why not accept Option 2 (Epistemic Fallibilism), deny Image Indeterminacy, and thus explain what's going on in the Speckled Hen without committing oneself to the odd metaphysical ramifications of actually vague existents?

We extend special thanks to an anonymous referee for *Pacific Philosophical Quarterly* for pointing out this difficulty.

¹⁶ While it is optional for our argument, we are taking sensory images to be defined by their intrinsic properties – thus a change in the number of spots in the image is under our terms the introduction of a new image.

¹⁷ It should be noted that the idea of unnoticed image substitution itself suggests a funny kind of introspective fallibility: suppose that we were infallible with respect to our images at a time. It seems that view 4 must then maintain that we suffer systematic memory problems with our images.

¹⁸ Chisholm suggests that he would opt for this strategy, simply out of consideration for the identity conditions for sense data. See “The Problem of the Speckled Hen,” p. 371.

¹⁹ Our phenomenal sense of “seems” resembles the phenomenal sense of “looks” posited by Jackson in *Perception*, chapter 2.

²⁰ By “one phenomenal state,” we do not mean to say that there is one token phenomenal state shared by the two instances. We mean, rather, that the two instances involve tokens of a single phenomenal type.

²¹ We call this “weak realism” because we do not wish to endorse a view according to which there can be phenomenal states independent of minds, or that are completely isolated from some sort of cognitive access by the subject that has them.

²² See Timothy Williamson's (1990) *Identity and Discrimination*, Oxford: Basil Blackwell, p. 60. He also uses gradation arguments in his (2000) *Knowledge and Its Limits*, Oxford: Oxford University Press, while discussing related difficulties with transitivity of discrimination. See pp. 96–98.

²³ See *Identity and Discrimination*, p. 64. Williamson maintains that the modality involved in this principle can be more or less restrictive. He admits, however, that the principle becomes uninteresting with less restrictive modalities.

²⁴ We would like to thank the participants of the Brown Philosophy Graduate Forum, Lilian O'Brien, and Ernest Sosa for advice with earlier versions of this paper. We would also like to thank an anonymous referee from *Pacific Philosophy Quarterly* for some very helpful comments.