The Blurred Hen

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1. Kevin and Sam

Kevin Mulligan certainly has many interesting ideas about seeing. Like many other philosophers, he claims that seeing, in the simplest cases, does not involve concepts and beliefs. But unlike some of these philosophers, he claims further that seeing, in these simplest cases, may have as its object states of affairs. For example, Sam may not only see a table in a room, but also see the state of affairs that consists of the fact that the table is brown. Seeing, in this latter case, is a case of visual apprehension. Visually apprehending such a state of affairs is unlike *seeing that* the table is brown, because, as we all know, *seeing that* involves beliefs and concepts. In particular, to apprehend visually the state of affairs that consists of the fact that the table is brown (if visual acquaintance is appropriate in some way) is to be acquainted with the table and its brownness.[1]

One of Kevin's most interesting ideas about seeing in the simplest cases is that seeing involves a particular type of certainty that he refers to as "primitive visual certainty". Of course beliefs, too, involve some kind of certainty, but according to Kevin there is a big difference between the type of conviction characterizing critical beliefs, that is, beliefs based on cognitive activity, and his primitive certainty:

"There is a type of belief or conviction that is too primitive to be any sort of cognitive or critical belief, namely primitive certainty. Primitive certainty underlies cognitive belief, disbelief, doubt, etc. The latter typically emerges from primitive certainty. Primitive certainties are what we count on unquestionably, what we take for granted or presuppose. Primitive certainty does not admit of degrees as do the beliefs engendered by our cognitive activity. Primitive certainty has an opposite: primitive uncertainty. One is certain that p or not-p. But one is uncertain whether p or not-p, that is, simply perplexed. Belief too has an opposite, disbelief. But disbelief, like the beliefs distinguished above, is always cognitive, critical. Primitive certainty, unlike cognitive beliefs, is groundless." (Mulligan, 2003: 35)

I find Kevin's primitive visual certainty very useful for understanding something strange that happened to Sam. I will now turn to this strange something.

[1] I presented versions of this paper at workshops in the philosophy departments of Parma and Bergamo. Thanks to the audiences in these workshops and particularly to Andrea Bianchi, Bill Brewer, Tim Crane, Jerome Dokic, Wolfgang Huemer, David Hughes and Alberto Voltolini. Special thanks to Marco Santambrogio.

Sam is mildly short-sighted and wears glasses. One day he was looking at a black hen with white plumage on head and neck. The hen was five meters away from him and he could see it well. In particular, he was seeing sharply where the white plumage ended and the black started. As we might say, Sam was not seeing the boundaries between the white and black plumage as fuzzy. In fact, the boundaries of the white plumage of that hen were quite sharp.

Sadly, Sam suffers from absence epilepsy. During seizures he blacks out and is not responsive. Each spell lasts for ten seconds and ends abruptly, and often he is not aware of anything that has happened during the spell. These episodes can occur several times each day. On one particular day, while he was looking at the hen, he had a seizure, during which his glasses fell off his nose. When he recovered, he looked at the hen again and saw it blurrily. He did not realize that his glasses were no longer on his nose, and he wondered: "This is funny. Am I misremembering? The hen looks different than it did two minutes ago. The white plumage now looks fuzzy, but I was certain it was not".

In what follows, I have two goals: first, I want to account for blurriness; and second, and more importantly, I want to understand in what way Sam went wrong. He was primitively certain about something and then a moment later he was doubtful. In fact, a mistake occurred, but what type of mistake was it? Was this a perceptual illusion, a cognitive illusion or something else?

2. Blurrily seeing x and seeing x as fuzzy

Let me make two preliminary remarks. The first is that "blurrily" is an adverb that modifies the verb "to see" while "fuzzy" is an adjective that refers to an intentional property, that is, a property of what is seen. The second is that, as Kevin also notes, simple seeing can be understood in two versions. In one version, we directly see things in virtue of visual content and visual content is the way we see what we see. In the other version simple seeing involves no content and the way we see what we see is some aspect or feature of what we see. All philosophers I shall discuss adopt the first version of simple seeing.

Some of these philosophers in fact claim that blurrily seeing something is seeing it as fuzzy. They contend that when Sam saw the hen blurrily and hence blurrily saw as well the boundaries of the white plumage, his experience was indistinguishable from the experience of seeing those boundaries as somewhat fuzzy. For others blurriness is a property of the experience of seeing that is unlike any property of what is seen: to see something blurrily is unlike seeing *it* as fuzzy. If this were so, Sam would be able to experience the difference.

A simple idea concerning illusions remains popular among friends of visual content: the idea is that perceptual illusions are mismatches between perceptual content and things out there. Put otherwise: illusions occur only if we perceive things as being a certain way, but they really are a different way. On this count, when Sam saw the white plumage as fuzzy, he was experiencing an illusion: the content of his perceptual experience did not exactly match the way things were. In other words, the conditions of veridicality of Sam's experience were not satisfied and he was making some kind of mistake. Kevin, who is a friend of states of affairs, could maybe assert that on that occasion Sam had non conceptual visual acquaintance of the state of affairs that the hen had white plumage with fuzzy boundaries.

Assuming that illusions are mismatches between perceptual content and external reality, for some philosophers blurriness is a visual illusion (there is mismatch between perceptual content and outer reality), for others it is not (mismatch of the above kind does not occurs). Those who deny that blurriness is an illusion do not generally question the simple idea about illusions. They just deny that blurriness affects perceptual content and, as a result, blurriness is not a perceptual illusion.

I disagree with all of the philosophers described thus far. Blurred vision *can* be a perceptual illusion and hence can involve some kind of perceptual error, without being a case of mismatch between perceptual content and things out there. In fact, I believe that the idea that illusions are mismatches between perceptual content and things out there is seriously flawed. In defending my claim, Kevin's primitive certainty will have a pivotal role.

In what follows, I first present three philosophical theories on blurriness and then address the illusion problem. Let me begin with the theory according to which the experience of seeing things blurrily is unlike the experience of seeing them as fuzzy.

3. Seeing x blurrily is unlike seeing x as fuzzy

For Kent Bach, Sam experiences the difference between blurrily seeing the hen and seeing the boundaries in its plumage as fuzzy:

> … there are some phenomenal properties that really are attributable to experiences themselves … For example, visual experiences can become blurry, as when one removes one's glasses, without their objects appearing to have become fuzzy. The objects look different, of course, but do not look to have changed (K. Bach, 1997: 467)

The question is this: what does it mean for an x to look different to an observer S without appearing to S as if x had changed. To answer this question it is instructive to look at another very common phenomenon that occurs when the focus of our vision

changes. Friends of phenomenal properties like Bach contend that in this case things look different to us though the difference does not concern their visual properties, that is, properties represented in content. Again, things look different without looking as if they have changed. If things *look* different there must be some introspectible difference between the two experiences. Yet these philosophers claim that unfocussed objects that appear blurrily are not represented as being fuzzy. Thus, blur belongs to something else**.**

This something else is the visual field. Paul Boghossian and David Velleman put it this way:

> [By] unfocussing your eyes you can see objects blurrily without being able to see them being blurry [alias fuzzy]. None of these experiences can be adequately described solely in terms of their intentional content. Their description requires reference to areas of colour in a visual field, areas that […] become blurry without anything's being represented to you as blurry [alias fuzzy] (P. Boghossian, D. Velleman, 1989: 94).

The problem concerns the notion of visual field. One could either claim that the visual field is fuzzy or that it appears as fuzzy. To the latter one could object that only what the experience represents, appears one way or another, but the experience does not represent the visual field: it represents its objects. To the former one could object that blurred phenomenology does not even require an un-experienced fuzzy visual field. The latter objection comes from Fred Dretske whose view on the matter we should examine more closely.

4. Blurrily seeing x is seeing x as fuzzy

For Dretske experiences are representations and all representations have two aspects: vehicle and content. More precisely, representations are vehicles expressing or carrying content. If an experience is blurred, either blurriness is a property of the vehicle or a property of its content. If it concerns the vehicle, this means that the vehicle has blurry features, that is, it is fuzzy. If it is a property of the content *it is a property represented in the content*. Contrary to what Boghossian and Velleman assert it is unlikely that blurriness is a property of the vehicle: just as we do not need fuzzy words to express fuzzy ideas – in fact we can express a fuzzy idea with clearly printed words –and we do not need a pink representation in our head to see an object as pink, similarly, so too can we see blurrily without having any blur (i.e. anything with fuzzy boundaries) in our head. Those who claim that blurriness must be a property of experience are confusing the properties of a representation with the properties of what it represents. For Dretske blurriness is a visual feature that those things we are aware may not have. To have it is to be really fuzzy. If the things one

sees do not have such a feature, blurred vision is misperception, that is, an illusion (Dretske, 2003).

One could rejoin that Boghossian and Velleman are not saying that to see blurrily is to have a fuzzy representation in the head: they are just saying that to see blurrily is not reducible to seeing *the perceived object* as fuzzy. This is why there is a difference in Sam's experience between seeing the hen as fuzzy and seeing it blurrily. But we are back to square one: what is this difference, if it is neither a difference in vehicle (no blur in the head) nor a difference in content?

Like Boghossian and Velleman, Dretske may be in trouble. If illusions are mismatches between appearances and reality and blurred vision is an illusion, what mismatches with what? Here is a possible answer: in blurred vision we experience absence of many details. But it is not obvious what it is to experience the absence of something, as opposed to experiencing the presence of something. This is a tricky point that requires us to pause.

Suppose that at some point a fox had chased our hen and the hen remained with only one leg (the right one). Sam wore his glasses and, as a result, saw the hen clearly. He cried out, "Poor hen!" What did he see that made him pity that bird?

There are two possible answers: (1) Sam saw the hen and, on the basis of what he saw, he believed that the hen had only one leg (the right one); (2) Sam simply saw the absence of the left leg. The first answer involves concepts and beliefs and given my focus on simple seeing I am not interested in it; the second does not involve concepts and beliefs. Let me focus on (2). The following further question arise: Is it possible to simply see the absence of something? What would be the difference in content between simply seeing the absence of the left leg (hence representing the absence of that leg) and seeing its presence (hence representing that leg)? Suppose now that the hen was far away from Sam and Sam did not see the *right* leg. Was he seeing the absence of it and in fact the absence of both? Finally, suppose that for various reasons, Sam saw the hen so blurrily that there was nothing he could see about either leg. Again, what is it to see an absence of so many details? These are difficult questions and the third view on blurriness I am about to describe bypasses all of them.

5. Blurrily seeing x is not seeing x well

The third theory says that when we see things blurrily we simply do not see them well enough to ascertain some or most of their surface details; in particular we do not see where their boundaries and contours lie. Michael Tye defends this view (in Tye, 2003). Interestingly enough he takes up something of the first view and something of the second view. Like in the first view, he wants to distinguish the experience of

blurred vision from the experience of fuzziness and as in the second view he wants to account for the difference between the two experiences as a difference in content. Let us see how this works.

In what sense is there an inherent difference in content between, on the one hand, the experience of seeing a precise thing blurrily and, on the other, the experience of seeing a fuzzy thing distinctly? Tye focuses on a special case.

In a watercolour painting executed on wet paper, the edges of the coloured shapes blur. If I view such a painting while wearing my eye glasses, I have a clear impression of a fuzzy representation. Consider now a similar watercolour painting executed on dry paper. This image has sharp edges and viewing it without my glasses, I see it blurrily. This means that I have a blurry impression of a clear representation. There is a difference between the experience of the watercolour on wet paper and the experience of the watercolour on dry paper and observed without glasses. If I look at the fuzzy watercolour with eye glasses on,

> my visual experience represents quite precisely the fuzziness [blurriness in the text] of the edges, that is, it represents (a) that the edges definitely fall between the spatial regions A and B of the paper and (b) that is indefinite exactly where between A and B on the paper the edges fall. With the clear watercolour, seen without my eyeglasses, my visual experience is silent on the precise locus of the edges; that is, my experience represents that the edges of the coloured shapes definitely fall between A and B while failing to represent exactly where it is between A and B [that] the edges lie (Tye, 2003: 83).

For Tye the difference between the experiences of seeing a fuzzy thing distinctly and seeing a precise thing blurrily lies in the fact that in the former situation we have a precise representation of an object that has intrinsically vague boundaries and in the latter we have a representation of an object that does not comment on boundaries enough, or does not comment on them at all.[2]

Thus, in the third view blurriness is *not* an illusion because illusions are misrepresentations, that is, wrong comments on what actually is out there, and blurred experiences are no comment at all, either in the positive or in the negative. The third view says that blurred vision is simply poor vision, to be accounted for in terms of lack of information rather than in terms of misinformation. In this respect the question "what mismatches with what" does not even emerge.

[2] "[…] in the case of seeing sharp objects as fuzzy ["blurry" in the text], one's experience comments innacurately on boundaries. It 'says' that the boundaries themselves are fuzzy when they are not. The the case of seeing blurrily, one's visual experience does not do this. It makes no comment one where exactly the boundaries are. Here there is no inaccuracy" (Tye, 2003: 81)

The third view raises the following objection. Lack of information on relevant features of a visually presented object is not peculiar to blurred vision. For example, seeing things at distance or through dense mist and seeing things that are partially behind other things also involves lack of information. Finally, consider the one-legged hen: is there, leg-wise, any content difference between the visual experience of the one-legged hen and the visual experience of the hen at distance? Both experiences are equally uninformative under that respect. Where then would their difference reside? Tye could respond that the difference always resides in the quantity and quality of information carried by the contents of these experiences. In particular, the hen seen at distance lacks information about texture and details about boundaries, more than the one-legged hen seen in proximity.

6. The three theories

Let me recapitulate. I claimed that in the third theory, given that illusions are mistaken comments on what is out there and given that blurred experiences are no comment at all, either in the positive or in the negative, blurriness is not illusory: it is simply poor vision. Tye admits that we may blurrily see a fuzzy object, but again, this would not be a case of illusion: the content would simply be less informative about the object than the perceptual context allows.[3] No error, and hence no illusion.

Despite accepting Tye's account of blurriness, I reject his idea that blurred vision is not an illusion. In fact, I think that there is room here for a special type of error and hence of illusion. As I suggested at the beginning, Sam could mistake what *really* is lack of information (his glasses having inadvertently fallen from his nose) with a change in the object (no change having in fact occurred). More precisely, he could mistake the blurriness he experiences for some degree of fuzziness in the object (recall that the hen's plumage has sharp boundaries). Here are two variations on Sam's example:

(1) Nora is developing and printing a photo in her lab. She notices some change in what she sees. She is not sure whether the photo has become darker or the light has dimmed.
(2) Sara has lost her balloon, which is floating away. He is not sure whether it is shrinking from deflation or moving away from her.

[3] Of course, it is also possible to have a blurry representation of something with fuzzy edges, that is, to see blurrily a fuzzy thing. Tye remarks that the difference between this experience and seeing clearly a fuzzy thing "has to do with the degree of representational indeterminacy in the experience. If the thing we see is an image (for example a painting), "in seeing the image blurrily, one's experience is less definite about boundaries and surface details than the fuzziness ["blurriness" in the text] of the image warrants. In seeing the same image clearly, one's experience accurately captures the image fuzziness ["blurriness" in the text]." Tye , 2003: 82.

Is it possible for Nora and Sara to establish exactly what is happening on the basis of their visual experience? Similarly, could Sam realize that his glasses had fallen off his nose on the basis of his visual experience of the hen here and now, and no other cues? It may be that there was no experiential difference between what Sam saw when his glasses fell off his nose and what he would have see if the object became fuzzy. These are all situations in which the subject is so uncertain about the details that he does not know what degree of indeterminacy they might have, if any. If Sam, Nora and Sara make the same mistake, can we consider it a perceptual illusion?[4] I think that we can, but before defending my claim, let me sum up the three theories that I have presented so far.

For the first theory blurriness is an experienced property of the visual field. For the second theory blurriness is an experienced property of the object, hence belonging to its content. For the third theory blurriness is lack of information. Dretske's objection to the first theory is that it does not appropriately distinguish between blurriness as a property of content and blurriness as a property of vehicle. Consider now the second theory, which is Dretske's own. I said before that if in blurred vision we experience absence of details, it is not obvious what it is to experience the absence of something, as opposed to experiencing the presence of something. Call this the absence problem. As I said, Tye has a readymade solution to it: absence of details is just a lack of information concerning those details. In other words, absence of details is an absence of comment. This means that absence of details is not a property represented in content, as my formulation of the absence problem suggested, but rather a property of content. Finally, given Tye's acceptance of the thesis that illusions are discrepancies between the way things are and the way they are represented in experience, for him blurriness is not an illusion, since no discrepancy occurs in this case and, hence, no error.

The main difference between the second and third theory follows thus: Dretske thinks that blurred vision is always an illusion, because for him it is a mismatch between perceptual content and outer object. Using Tye's terminology, we would say that it is a mistaken or inaccurate comment on the outer object. Tye, instead, denies that blurred vision is ever an illusion. For him illusions are wrong comments, and blurred vision is not a wrong comment. For him blurriness affects content in that it is a

[4] Tye remarks that "in principle an experimental setup could be devised that would leave one without any way of telling from the phenomenal character of one's experience (without any additional cues) whether one has shifted from seeing a sharp screen image through a blur to seeing a suitably blurred version of the same screen image in at least some cases" (Tye, 2003: 82). This is precisely the situation for Sam, Nora and Sara: for them no phenomenal difference occurs (without additional cues). In fact, if there were such difference, they would not be so ambivalent between the two options or even mistake the one for the other. Curiously, Tye thinks that at least in the watercolour and other similar cases, a phenomenal difference can be detected even in the absence of other cues. I do not see how the watercolour case is in any sense different from these other cases (but I do not want to question him on these grounds).

property *of content* (content is less informative than it could or should be), but it is not a property that the content attributes to the represented object, that is, a property *represented in the content*. Given that for him illusions are inaccurate comments, if in blurred vision there is no inaccuracy, there is no illusion.

Earlier I stated that I disagree with the various philosophical opinions on this matter. My own proposal is this: notwithstanding the fact that some illusions are mismatches between perceptual content and outer reality (which generally they are not), blurred vision may be an illusion, albeit of a different kind. I contend that my analysis explains Sam's uncertainty in a better way than the way Tye and Dretske could explain it.

7. Illusions

Tye notes two kinds of properties concerning content: there are properties *of* content and properties represented *in* content. On the one hand contents can be true, false, vague, informative, not sufficiently informative, thought, believed, visually experienced, experienced in a sequence, etc. These are properties of content. On the other, contents represent properties such as being dark, being red, being five meters long, etc.

I contend that as subjects of a representational state, we can make two kinds of error concerning properties of content:
a) We can attribute to content a property that it does not have. This happens when, for example, we hold false beliefs. In this case the content of our belief has the property of being false despite the fact that we take it as true.
b) We can mistake a property of content for a property represented in content.

Sam, Nora and Sara make the latter type of error. In particular, Sam had the problem of establishing whether the blurriness he experienced was a feature of content or represented in content (the content represents the object as fuzzy) and he got it wrong. This is precisely my point: I contend that if he made this error, he had a perceptual illusion.

My analysis requires departure from a popular account of illusions, according to which illusions are discrepancies between perceptual content and outer object. Let me focus on the weaker claim that discrepancy is a necessary condition for illusion: a perceptual experience is an illusion only if its content represents an object O as having property P, but the object O does not have the property P, an error having occurred at some point in the psychophysical chain. A number of psychologists and a

few philosophers have criticized this definition on several grounds.[5] If I am correct, my blurred hen case outlined above is one more piece of evidence against it.

Those who criticize this definition question the idea that either the appearance (i.e. the content) mismatches with reality and hence there is illusion or the appearance (i.e. the content) corresponds to the way things really are and hence there is no illusion. They argue that both reality and appearances can be different things. In fact, reality can be proximal stimulation, the distal object in certain conditions, what is measured by the photometer, the meter or the scale. The same goes for appearances: there is a sense in which a circle looks elliptical from different viewpoints and there is a sense in which the circle looks as if it were a circle and not a square. It comes as no surprise then that there is wealth of counterexamples to necessary conditions for illusion. Schwarz (forthcoming) invites us to consider the Zoellner drawing, which is traditionally considered an illusion. He remarks that the parallel lines in the lower figure do not match phenomenally, and yet they are the same lines that look parallel in the upper figure. This suggests that there is a conflict between appearance and reality. The objection is that the lines in the upper figure are not exactly like the lines in the lower figure, the difference being the hatch marks. If reality includes the hatch marks, the question arises what is the conflicting appearance.

[5] For further exploration on this topic see Schwartz (forthcoming), Maund (forthcoming), Bruno (forthcoming), Savardy, Kubovy & Bianchi (forthcoming).

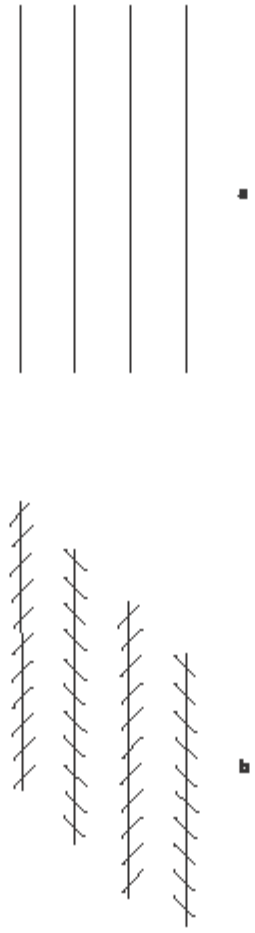

Figure 1

In fact, as Schwartz notes, there is a sense in which we can place the blame on the hatch marks, because they render the two figures not exactly alike. Thus, no illusion occurs. But there is also an obvious sense in which we can claim that in experiencing the lower figure we have an illusion because both figures contain parallel lines. Colour experiences are even more instructive in this respect: if we claim that surfaces with the same reflectance spectra should match phenomenally, mismatch would mean that the experience is illusory. Given that in everyday situations the experience of

colour depends on illumination, background and spatial relations, we will have the undesirable consequence that our colour experience is riddled with illusions.

It is reasonable then to abandon that definition of illusion. However, I am not suggesting that we should entirely abandon the idea that illusions are wrongful perceptions nor should we claim that illusions can never be cases of discrepancy between content and object. In fact, in cases such as the Mueller Lyer Illusion, one can still claim that the measured length of the two lines is exactly the same, yet they appear to be of different length. Thus, something wrongful has occurred. This fact, however, is not evidence for the idea that illusions are departures from an un-experienced reality (this would require stepping outside the experience to compare it with non-experienced facts). In fact, we should seek a more profitable definition of illusion. Given the relation between illusion and error, our definition of illusion should be broad enough to cover all perceptual situations for which we are inclined to think that an error of some kind has occurred, among which we can include the error that I have described.[6]

Let me recapitulate this. Suppose that the content of an experience represents an object with some properties but gives no information relating to other properties. There is a property of the content (the experience being uninformative on the other properties) that is not a property represented in the content. One could mistake one type of property for the other.

Finally, I should underscore that I believe that this error is likewise involved in other perceptual phenomena that are unquestionably marked as illusory. One case in point is stroboscopic movement. In fact, there is an interesting symmetry between blurred vision that occurs when the viewer changes focus (without realizing that she is doing so) and stroboscopic movement. I could even argue that the unsophisticated viewer who experiences the movement is like the person who strangely sees the objects changing when he shifts focus.[7]

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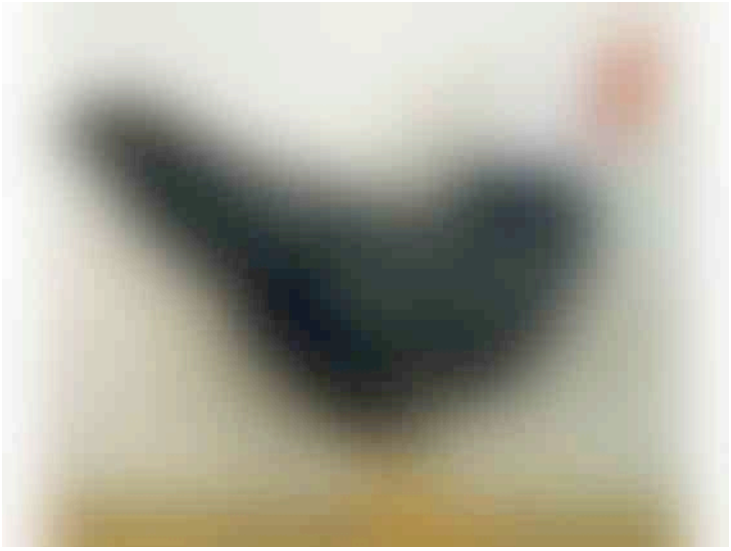
[6] Notice too that given the definition of illusion as discrepancy, the blurred hen would be an illusion only if we endorse Dretske's account of blurriness. I have said, however, that his account requires a solution to the difficult absence problem.

[7] In considering change of focus, Tim Crane suggests that "if you didn't have the appropriate background belief you might think that you have magical powers and that the world is always bending to your intentions, becoming more or less blurred [fuzzy]". Crane's further remarks that: "It is certainly true that subjects need not to take the world to have changed, in the sense that they would judge it to have changed or believe that it has changed. But all this shows, again, is the difference between perception and judgement/belief. So removing your glasses does not change the way you would judge the world to be, in normal cases. But there is still a change in the content of the experience, in what you would put into words. You might say 'things look blurry now, even though I know they are not'. And it makes sense to suppose that someone might come to believe, because of some strange background belief, that things were actually that way […]. There is, then, change in the intentional properties of the experience, despite the fact that normal subjects would not judge the world to have changed" (Crane, 2001: 143-144)

Suppose that Nora at t_n sees x in l_1, that at t_{n+1} she sees y in l_2 and no longer sees x in l_1. Now, x and y are (part of) the contents of her acts of seeing respectively at t_n and at t_{n+1}. Thus, there is a sequence of two representations that Nora mistakes for the representation of the same object moving from l_1 to l_2. The illusion resides in the error of taking a property of content for a property represented in content (that is, part of the content).

The same holds true for Sam's strange experience. Again, when Sam contemplated the white plumage while under the impression that it was fuzzy, he was mistakenly taking a property *of* content (lack of information) as a property represented *in* content.

Let me now return to Kevin's primitive certainty. One objection to my account of Sam's experience is that Sam's mistake actually affected his beliefs rather than his perceptions: he ended up believing that the white plumage was fuzzy based on what he was seeing, and that belief was false. Thus, Sam's illusion was cognitive, instead of perceptual. Here is my reply. Sam's experiences might certainly have produced a wrong belief, of course. But my story is slightly more complicated. Before being stricken by the spell, Sam was primitively uncertain about the scene he was seeing, and while recovering started to nourish primitive certainty that the hen had fuzzy boundaries. In becoming primitively certain of this new state of affairs, he took as a property of the hen, that is, a property represented in its content, what was in fact a property of the content of his experience.



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