

The Argument from Illusion and the Uniqueness Assumption

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Abstract

I argue that the mainstream formulation of the argument from illusion is invalid, and the Uniqueness Assumption which makes the argument valid is suspicious because the intuition of the assumption stems from common sense which is challenged by the argument from illusion. I show that even if sense data were admitted as objects in illusions, the subject can still perceive something real; she can perceive a composite. This means that the sense-datum account of illusion need not apply to perception.

Keywords

Illusions, Sense data, The uniqueness assumption, Transparency

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1. Introduction

A necessary condition for an illusion is that the perceived object appears different than it is. For example, the Müller-Lyer illusion exhibits two equal-length straight arrow-like segments that look unequal. The grey strawberries illusion presents a bowl of strawberries that look red but are not red. The checker shadow illusion is also an optical illusion that depicts a checker with light and dark

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squares, shadowed by a green cylinder, but the light and dark squares are actually of identical brightness. In philosophical literature, many illusion examples are not like these but are still supposed to fall into the category of illusion. For example, a straight stick looks bent when half of it is submerged into a tank of water, a white table appears yellowish when it is bathed in yellow light, everything looks blurred when a short-sighted person takes off her glasses, etc.¹

The argument from illusion (Ayer, 1967; Price, 1932; Robinson, 1994) exploits illusory phenomena, arguing that the subject is not (directly) aware of physical items in perception. Instead, she is only aware of some mental entities, dubbed as "sense data".² In this paper, following Paul Snowdon (1992), I argue that the argument from illusion is invalid, and further show that the natural way of fixing it is unsatisfactory.

In section 2, I state Howard Robinson's version of the argument, and following Snowdon, I show that the argument is invalid. I also discuss the most plausible way to make the argument valid, namely, to add the so-called the Uniqueness Assumption (Uniqueness for short): In a particular direction of attention, the subject is only aware of a single kind of object(s), which is either physical mental but not both.³ Section 3 is devoted to a plausible way of defending Uniqueness, namely that the illusory quality will infect other sensible qualities (the sense-datum infection). In section 4, I discuss French and Walters' (2018) objection to the sense-datum infection and Uniqueness based on the assumption that a colour sense datum might be transparent. I demonstrate that the debate concerning the transparency or opacity of a sense datum is moot. Section 5 is concerned with a new argument for the claim that the object of perception can be a composite of a sense datum and a physical object.

2. The argument from illusion stated and its invalidity

I cite Robinson's argument as the target for the sake of convenience, but the

1 For the criticism of the abuse of illusion, see Austin (1962, p. 26). In the paper, I assume the wide notion of illusion.

2 The target of this paper is confined to the sense-datum theory but not representationalism.

3 Also see Paul Snowdon (1992) and French and Walters (2018). I shall explain it in section 2.

invalidity of the formulations of the argument prevails.⁴ Here is Robinson's argument:

1. In some cases of perception, physical objects appear other than they actually are—that is, they appear to possess sensible qualities that they do not actually possess.

2. Whenever something appears to a subject to possess a sensible quality, there is something of which the subject is aware which does possess that quality.

Therefore

3. In some cases of perception there is something of which the subject is aware which possesses sensible qualities which the physical object the subject is purportedly perceiving does not possess.

4. If *a* possesses a sensible quality that *b* lacks, then *a* is not identical to *b*.

Therefore

5. In some cases of perception that of which the subject is aware is something other than the physical object the subject is purportedly perceiving.

6. There is such continuity between those cases in which objects appear other than they actually are and cases of veridical perception that the same analysis of perception must apply to both.

Therefore

7. In all cases of perception that of which the subject is aware is other than the physical object the subject is purportedly perceiving. (1994, pp. 57–58)

Paul Snowdon (1992) points out that the argument from illusion is invalid. Premise 3 states that there is something of which the subject is aware which possesses sensible qualities which the physical object does not possess. Premise 4 asserts that if *a* possesses a sensible quality that *b* lacks, then *a* is not identical to *b*. From premise 3 and premise 4, it only follows (a) that the F object (F stands for the sensible quality and the F object is the one that the subject is aware of) is not the physical object, but not (b) that the subject is not *aware of* the physical object as well. (a) and (b) are not equivalent, since it is logically possible that the subject is aware of both the F object and the physical object. If so, at least one object of which the subject is aware is identical to the physical object, which contradicts proposition 5. Therefore, proposition 5 does not follow premises 3 and 4, and the argument is invalid.

4 Similar arguments can be seen, for instance, in A.D. Smith (2002, pp. 21–28).

To make the argument valid, an additional premise is needed to rule out the possibility that the subject is aware of both the F object and the physical object. Following Snowdon, the hidden assumption is the Uniqueness Assumption: In a particular direction of attention, the subject is only aware of a *single kind* of object(s), which is either physical or mental but not both.⁵ 'A single kind' here only concerns the general mind-and-body distinction; it refers to one kind. For sense-datum theorists, it refers to a mental kind, namely the sense datum. For naïve realists, it refers to a physical kind. 'A single kind' does not mean a single object, because in a particular direction of attention, the subject usually perceives more than one object. For instance, I am perceiving a scene that includes my laptop, my hands, a bunch of flowers, a passing car, etc. So I perceive more than one object. With Uniqueness, in the subject's perceptual awareness there is only one kind of object, which means that the possibility of being aware of two kinds of objects is ruled out. The question is whether sense-datum theorists can defend this assumption.

3. The sense-datum infection view and Uniqueness defended

Admittedly, Uniqueness appears natural, since it seems objectionable to suppose the opposite, namely that when the subject looks at something, she is aware of both a mental object and a physical object, or a combination. For instance, imagine there is a tomato on a table. I direct my attention towards it and see the tomato, a physical object. I would not think that I am aware of something else, unless I detect something unusual, say, I am hallucinating. In general, we rarely doubt that what we see are physical. So, Uniqueness is implied by the common-sense conviction. This is why Uniqueness appears natural and it is objectionable to suppose the opposite.

What if the common-sense conviction of perception or naïve realism is challenged? Does Uniqueness still appear natural if naïve realism is not the default view anymore? It seems that the challenge to the common-sense view of

5 Snowdon's formulation: "there is, in a particular direction of attention, as it were, a unique, single, d-perceivable thing." (1992, p. 74) The term 'd-perceivable' means directly perceivable. French and Walters propose different formulations, but the core idea is the same (2018).

perception (naïve realism) itself casts doubt on Uniqueness. The argument from illusion exactly challenges the deep-rooted common-sense view of perception. So, the accompanying UA presumably is challenged too.

In addition, not all qualities are subject to illusion in an illusory experience. Usually, only one or several sensible qualities are "distorted" by the relevant circumstances. For example, if a red tomato is bathed in the green light, it is presumably only the colour that is subject to illusion. Other (sensible) qualities remain the same as they are under normal circumstances: the tomato's shape and size will look the same. I will call these qualities "surviving qualities" because they are not affected by illusory circumstances. So, even if the distorted qualities are possessed by a mental object, it seems reasonable to hold that the subject is still aware of the physical object which has the surviving qualities. Similarly, for illusions concerning rainbows, shadows, etc., the subject is aware of the surviving physical qualities. Therefore, *prima facie*, Uniqueness is not as plausible as it appears.

Suppose that Uniqueness is plausible. According to sense-datum theory, in illusion, the subject then is aware of only one kind of object, namely, the mental object. It further implies that the subject is not aware of anything objective in illusion. As a result, the distinction between hallucination and illusion disappears, because a hallucination also refers to the phenomenon that the content of hallucination is not in the subject's surroundings. So, if we want to retain our intuition that there are surviving qualities in illusions, and there is a conceptual distinction between hallucination and illusion, then Uniqueness must not be assumed in the argument from illusion. If so, it opens the possibility that in illusion the subject perceives at least some real features of the physical object. That is to say, even though we concede that in illusion the subject is perceptually aware of a mental object (e.g. a sense datum), it is still acceptable to claim that she is aware of the physical object. She is possibly aware of two kinds of objects in illusion.

So far, I have shown that Uniqueness is not as plausible as it initially looks. Sense-datum theorists then must provide strong arguments for it rather than take it for granted. A. D. Smith, though not a sense-datum theorist, proposes the following argument for Uniqueness:

Now although in this situation the shape of the tomato is not, we may suppose, subject to illusion, we cannot maintain that we are directly aware

visually of the tomato's shape, because, simply in virtue of one of the visible features of the tomato being subject to illusion, a sense-datum has replaced the tomato as the object of visual awareness as such. For the shape you see is the shape of something black, and the tomato is not black. (Smith, 2002, p. 26)⁶

Smith refers to this phenomenon as "sense-datum infection". In particular, the colour illusion in question directly influences the subject's awareness of other visual qualities of the tomato such as the shape, size, and so on. The colour sense datum will completely replace the tomato as the object of awareness. This phenomenon can be generalized: any illusory quality can infect other qualities. If the sense-datum infection view is true, then Uniqueness will be true, since in a particular direction of attention, the subject is only aware of one kind of object, namely the sense datum. But why is that? Why are the supposedly surviving qualities not different from the quality which is directly subject to illusion? In the above quote, Smith helps sense-datum theorists answer this question, "for the shape you see is the shape of something black, and the tomato is not black". This reply is not that convincing, since he seems to assume that the shape you see belongs to the sense datum (i. e., something black), which is exactly what I am questioning. But Smith might not only assume this, what is in his mind might be the apparent truism as follows: whenever one is visually aware of a colour, one is aware of it as having a particular shape and size, because colour must be extended, and one cannot be aware of a colour *simpliciter*. In the tomato case, we are aware of something black, so we are also aware of a shape of the black thing. The shape does not belong to the tomato, since it is not black. If the "sense-datum infection" view is plausible, then Uniqueness is plausible too.

4. Against the sense-datum infection view, part 1

I argue that the "sense-datum infection" view is false. It is true that one cannot be aware of colour *simpliciter*, but this does not entail that the shape (or the size) of the colour must also belong to the colour sense datum. The shape might

6 The tomato's colour that we shall see when lit by green light is an effect of mixtures of various factors and is hard to predict given only the lighting condition. So, my example of the tomato is somewhat of a simplification. I thank an anonymous referee for pointing this out.

be the shape of the surface of the physical object, or it might be the shape shared by both the colour sense datum and the physical object. If we accept either possibility, then besides the sense datum we also perceive the physical object. We can legitimately claim that the tomato is not black, but the shape we see is still the shape of the tomato. That is, we might be aware of two sensible qualities, colour and shape, which belong to different kinds of objects, one belongs to the colour sense datum and the other belongs to the physical object. This possibility contradicts Uniqueness.

French and Walters (2018) also propose a similar objection to Uniqueness, namely that we might be aware of a composite. They think that if a colour sense datum is transparent as a pane of coloured glass or a hologram, then the subject can see the physical object through the sense datum. More precisely, the subject sees the sense datum as a transparent medium and sees the physical object as the object behind it. They believe that sense-datum theorists need additionally assume that the nature of a colour sense datum is opaque. Only with this assumption can they secure the claim that the subject is unable to see the physical object in tomato-like examples since one cannot see an object which is behind an opaque object.

I agree with French and Walters that it is hard for sense-datum theorists to rule out the possibility that the subject can be aware of a composite. But their conception of composite is problematic. They write,

Compare the Wall Case [similar to the tomato case] to a case where we see a white wall covered with a piece of yellow film. In this latter case, we see something yellow, the film, but this does not preclude us from seeing the wall as well... We see a yellow sense-datum, but we see the wall through this sense-datum. (French & Walters, 2018)

So, the composite is comprised of a transparent medium and an object behind the medium. Usually, there is a phenomenological difference between seeing a thing through a pane and seeing the wall through a sense datum. In the former case, the subject sees two things, a pane and the object behind the pane. By contrast, in the latter case, the subject (seems to) see only one thing, namely, a yellow wall. The analogy is therefore problematic. For example, the subject is not supposed to see the edges of the pane. So, either the edges are out of the subject's visual field (imagine you look through a clean and large pane), or the pane exactly coincides with and sticks to the seen object. If the subject is

actually aware of a composite, as French and Walters suggest, then the spatial relation between the colour sense datum and the physical object should be that of a clean pane sticking to the matching physical object.

To argue against French and Walter's proposal, sense-datum theorists need to insist that a colour sense datum can independently explain why the object which the subject is aware of is opaque. They may contend that the colour sense datum itself is opaque to the extent that the subject can see no other qualities through it. But this contention is equivalent to Uniqueness.

However, French and Walters' transparency assumption is equally unjustifiable. The visual phenomenon in the tomato case is silent on which assumption is more congenial to how things look. Therefore, the debate is moot if we only consider it from a phenomenological perspective.

Beyond phenomenology, the composite possibility is still preferable, but the composite is not as French and Walters conceive of. Think of a general question: why is something opaque? The natural answer is that light cannot get through it. Transparency is determined by the material constitution of an object. If the object is made of wood, then no matter what colour it is, it is opaque. In contrast to wood, water is transparent under normal conditions. But when you gradually drop ink into a cup of water, the transparency of water gradually decreases. This is because the density of the ink increases, and it prevents light from getting through. The colour of the ink is irrelevant to the transparency, although the colour is also related to the constitution of the ink. Hence, it seems wrong to ascribe opacity to a colour or a colour sense datum, unless it is constituted by an appropriate material, which is incompatible with the immaterial nature of a sense datum.

The above observation also falsifies French and Walters' initial assumption that a colour sense datum is transparent. For, if the property of transparency is essentially related to the material constitution, it is inappropriate to ascribe transparency to an immaterial sense datum. So, the whole debate of whether a colour sense datum is opaque or transparent is misguided.

Can't we define the transparency of something without mentioning light, but in terms of whether the subject can see an object behind that thing? Such an operational definition cannot answer the question of why the subject can see the object behind the transparent medium; it leaves the nature of transparency unanswered. Regarding a colour sense datum, without an explanation of why it

is transparent or opaque, to ascribe transparency or opacity to it is too *ad hoc*.

5. Against the sense-datum infection view, part 2

I think that sense-datum theorists have a reason for Uniqueness that is independent of the assumption of opacity. They can argue that phenomenologically the subject is not aware of the shape of the physical object. If she were aware of it, she should have been aware of the colour of that shape. For it seems impossible to be aware of the shape of something without being aware of its colour; we cannot be aware of a shape *simpliciter*. In the tomato case, the subject is aware of a shape, but the colour of which she is aware is not the colour of the tomato. Accordingly, sense-datum theorists conclude that the shape that the subject is aware of is also not the shape of the tomato. Therefore, we should accept the sense-datum infection view.

The above reason for Uniqueness is still insufficient. I shall explain the insufficiency through an analogy. Suppose that there is a red round table covered by a green tablecloth. When we look at this table in normal circumstances, we will see something green which is not the colour of the table. Do we only see the shape of the green tablecloth but not the shape of the table? I am inclined to say no. When we look at the table, we know why the green tablecloth looks to be table shaped. Its shape is determined by the shape of the tabletop or is just identical to the shape of the tabletop. If we see one, we should see the other. Imagine that you punch a piece of soft clay. The shape of your fist leaves an impression on the clay. No one will deny in this case that part of the shape of the clay (the punched part) is just the shape of your fist. Likewise, the shape of the tablecloth is just the shape of the tabletop. Thus, if we see the shape of the tablecloth, we see the shape of the tabletop.

One might question that: with a tablecloth on the tabletop, I cannot see the top; how then can I see its shape? It is true that the tablecloth covers the tabletop, so I cannot see many qualities of the top such as its colour, texture, etc. But these hidden qualities do not include the top's size and shape.

In many cases, we see an object by seeing its shape. Imagine that there are ten tables in a hall, and only one of them is covered by a tablecloth. Your friend, on the phone, asks you how many tables you can see in the hall. You will

definitely answer "ten". But let us pretend that someone objects to your answer: "No, you literally only saw nine tables, since one *thing* is covered by a tablecloth, how could you say 'ten'?" You will find the objection strange because a tablecloth does not prevent you from seeing the table. Likewise, even though I cannot see many qualities of the tabletop in the original case, I still can see its shape, by which I see the table.

One might retort that I do not directly see the table or the shape of the tabletop; I at best know it through *inference*. However, if we knew it through an inference, we should have been aware of this inference. What is the inference? Perhaps we have the following two premises: (1) the shape of the tablecloth is such and such; (2) the shape of the tablecloth is the shape of the tabletop; from these two premises, I infer that the shape of the tabletop is such and such. This response is perhaps dependent on some specific conception of inference, namely that when a person makes an inference, she must be conscious of the inferring. The memory may not preserve the results and processes of previous similar inferences, so it might not be necessary for the subject to notice the inference. I cannot give a satisfactory account of inference in this paper, but I shall use another analogy to show that in this particular example, I *see* rather than *infer* the shape of the tabletop.

Replace the tablecloth with a layer of oil paint. If the above contention makes sense, then similarly, the contender can claim that I do not see the shape of the tabletop if it is painted with a layer of oil paint, and I only see the shape of the layer of oil paint. It implies that a painted table cannot be seen—we only see the visual qualities of oil paint. One might object that the layer of oil paint is part of the table, but the tablecloth is not. So, I do see the shape of the table by seeing the shape of the layer of oil paint. But it is not obvious that there is this difference between a tablecloth and a layer of oil paint. Why must we think the layer of oil paint is part of the table while the tablecloth is not? Is it because the tablecloth can be easily removed? This difference seems insignificant because the tablecloth can also be permanently glued to the table. Therefore, the objection does not really work; the two cases are essentially the same. Both show that we do *see* the shape of the tabletop no matter whether it is painted or covered by a tablecloth, and that no inference is involved.

The relation between the shape of a colour sense datum and that of the corresponding physical object is analogous to the relation between the shape of

the tablecloth (or oil paint) and that of the tabletop. In the tomato case, the shape of the colour sense datum is determined by the shape of the tomato or is identical to the shape of the tomato. If the above analogy makes sense, then when we are aware of the shape of a sense datum, we are also aware of the shape of the tomato. This means that Smith's sense-datum infection view is not true, since we are aware of other visual qualities (shape) of the physical object. Hence, admitting the existence of sense data does not exclude physical objects as the objects of perception. Sense-datum theorists fail to defend Uniqueness.

The success of the analogy has another consequence: it shows that even if a colour sense datum is opaque and separated from the physical object, the subject can still see the shape of the physical object. For we do see the shape of the table when it is covered by a tablecloth (or painted by oil paint), and the tablecloth is opaque. Analogously, we will be aware of the shape of the tomato, even if we are aware of a colour and opaque sense datum. This means that even if French and Walters' assumption of transparency were defeated and the assumption of opacity was in place, we still have cogent reasons to reject Uniqueness.

I have argued that the argument from illusion is invalid without Uniqueness. Uniqueness applies to our common-sense view of perception. Once this is challenged, Uniqueness is challenged as well. As I argued, so far there is no satisfactory defence of it. The sense-datum infection view cannot support Uniqueness. Therefore, if Uniqueness is problematic, the argument from illusion is problematic as well.

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