

The argument from hallucination debunked

Abstract. In contrast with a widespread belief, this paper defends the view that in hallucination there is *always* a physical object. This paper shows *where, when and what such a physical object is*. Such an object is a *spatiotemporal gerrymandered object* that is *not unlike* everyday objects albeit being less accessible for practical purposes. By showing that hallucinations are cases of actual perception, the argument from hallucination is debunked.

Informally, we may set the ground as follows.

- A. During hallucinations, one feels that one would need an object to underpin one's experience.
- B. Sadly, one cannot locate any obvious physical object thus one draws the conclusion that
- C. During hallucinations,
 - a. there isn't any object (C1)
 - b. while in everyday perception there is an object (C2).
- D. As a result, one tries to find a work-around to C1 either
 - a. trying to get rid of the need of an object (gapping solutions, disjunctivism, eliminativism, delusion) or
 - b. suggesting a special *not physical* object (sense data, qualia, mental entity, phenomenal content, phenomenal character and the like)

Usually the point C goes unscathed (particularly C1). In contrast with the tradition, C1 is challenged. C1 is shown to be false by showing that during hallucinations there is an object and *how, where and when* find such an object. Such an object is *as much physical as any other everyday object*. The strategy is the following:

- 1) **A revision of the notion of hallucination based on empirical evidence** - actual hallucinations are not arbitrary objects, but they are always combinations of previous actual perceptions. There is no positive empirical evidence that one may hallucinate something with which one has had no actual causal commerce.
 - a. The naïve notion of hallucination as arbitrary content – everyone can hallucinate everything – is substituted by the actual notion of hallucination

based on empirical evidence – S hallucinates x iff S has had a causal commerce with x at some point and some time.

- 2) **“Here and now” does not work.** The notion that “in everyday perception there is an object” is based on a naïve notion of “there”=“here and now”) which does not stand against any detailed scrutiny. Here where? Now when? The everyday notion of “there” can be stretched at will in both time and space so to encompass any spatial and temporal distance.
 - a. Nothing is there and now if by there and now one means a punctual there and a punctual now. And if there and now are not punctual, they can be as large as one likes.
- 3) **Wrong belief.** We must distinguish between the belief one has about the spatiotemporal location of one’s perceived object and the actual spatiotemporal location of one’s perceived object. One may be wildly wrong about the former, but such a mistake does not imply necessarily that the perceived object is not actually at some place and some time. In hallucination one may draw wrong inferences as to the location and time of an object
 - a. *Example 1.* Macbeth perceives a dagger reflected on a semitransparent glass in front of his castle. He does not know there is a glass on his visual pathways. He does see a dagger where he knows there is not a dagger. Since he does not know there is a semitransparent glass, he draws the conclusion that he is hallucinating a glass. However, the glass underpins a causal commerce between an actual dagger and his eyes. Thus, in contrast with Macbeth beliefs, he perceives a dagger and there is a dagger, while he believes there isn’t any and thus he is hallucinating – he is not.
 - b. *Example 2.* I perceive my grandmother as though she were in my room at MIT on the 2 Dec 2014. Yet this does not imply that my grandmother is not a real object farther away in time and space like a galaxy. I am just wrong in drawing an inference as to where and when she is.
 - c. *Example 3.* I draw wrong inferences in perception too. I look at the sky and I believe the sky dome to be just a few kilometers above my head. On the other hand, I could believe that a galaxy – say, the Andromeda galaxy – is just a few hundreds of kilometers from where I stand. I could also believe the galaxy to be there now. I would be hugely mistaken in both cases. The galaxy is 2.27 million years far away in time and space. Right now, it is also elsewhere. Like my grandmother.

- 4) **Sorite continuity between perception and hallucination.** We can make a sorite argument that shows that one can pass from perception to hallucination step by step.
- a. There is continuity between what is called perception and what is called hallucination. The difference between hallucination and perception is practical, not ontological. Perception and hallucination are two extremes of the same continuum.
 - i. Major Tom never steps in the past no matter how far he goes
 - ii. An everyday visual field composed of a landscape, the moon, the sun, some stars if more scattered in time and space than most familiar recollections or hallucination.
 - b. Consider gerrymandered objects exploited by artists such as Leo Hurvitz, Bernard Gras, Salvador Dali, and Arcimboldo among the others.
 - c. There is no magic threshold either in space nor in time that singles out perceptual experience against hallucination
- 5) **Positive account of hallucination as perception of spatiotemporally physical objects** tantamount to everyday perception. Perception in terms of spatiotemporally gerrymandered objects – difference between the two cases are just of practical nature, such as the differences between a mountain and a hill. The building blocks of one’s hallucinations are particulars with which one has had actual causal intercourse and which are still the object one perceives, no differently from everyday perception. Whatever the relation between the object and us is in cases of perception, there is no empirical or conceptual reason why such a relation should not obtain in hallucinations too. Surely, not because the object is not there. There object is there as much as it is during perception.

Bottom line: What is the object one perceives in hallucination? *The object is a spatiotemporally gerrymandered object spread in space and time tantamount to the object one perceives during everyday perception. Hallucinations do not add anything to one’s experience but reshuffled combinations of previous perceptions.* A hallucination is a case of perception during which one does not know *how*, *where* and *when* to locate the perceived object. Thus, one assumes that there isn’t any. This is false – from one’s ignorance as to the spatiotemporal location of an object one draws conclusion as to the object ontology.

Appendix. Empirical evidence

It is assumed that human beings may have an experience of x while there is no such a thing as x – it is a gross oversimplification. First one need to *contrast* hallucinations of things that one has met in the past (either as a whole or as a gerrymandered collection

of parts) and hallucinations of things that one has never been in contact with. Based on the available empirical evidence, *the latter case never occurs*. To back up such a crucial claim, one may outline a taxonomy of hallucinations based on the extent to which the hallucinatory event has been part of one’s life. We distinguish between hallucinations whose content has been the object of an actual causal encounter (H1 and hallucinations whose content has never been along one’s path (H2, H3, and H4). The former kind does not pose a threat to the thesis of the paper, since it allows a sorite stretch of the notion of perception. Only the latter kind poses a treat since, if one might hallucinate something that has never been in one’s world, that case of hallucination could not be modelled as a case of perception. However, as we will show, no empirical evidence supports such a case (contra entrenched philosophers’ beliefs). Thus we will conclude that it is a safe bet to maintain that that $H2=H3=H4=\emptyset$. No physical objects, no hallucination. The following table recaps the taxonomy:

Kind	Definition	Example
H1	S hallucinates x and S has previously perceived either x or x ’s components albeit in different times and spaces	1) S hallucinates a frog in her bedroom. S has previously seen a frog. 2) S hallucinates a pink elephant in her bedroom. S has previously seen pink patches and elephants.
H2	S hallucinates x and S has perceived neither x nor all of x ’s components in whatever combinations. Yet, S could have. Only S has not.	S hallucinates a pink frog. By sheer chance, S has never perceived anything pink (akin to Hume’s missing shade of blue)
H3	S hallucinates x and, because of contingent factors, S could not have hallucinated either x or some of x ’s components.	S hallucinates a pink patch. S is congenitally total blind.
H4	S hallucinates x and x is nomologically impossible in this universe.	S hallucinates a Lovecraftesque color

To provide empirical ground for such an empirical claim, a set of cases are considered across the board – direct brain stimulation (a la Penfield), TMS, drug induced hallucination, after images, super saturated red, Benham top, psychotic hallucinations, post traumatic disorder induce hallucinations, dreams, hypnopompic and hypnagogic hallucinations, day dreaming, Martian colors, greenish-red and yellowish-blues, impossible colors, mental imagery in congenitally blinds, synesthesia, aura in migraine, phantom limb, Charles Bonnet’s syndrome, and more. *In all such cases, unless an actual causal intercourse with x has taken place, there is no ensuing hallucination.*

A few further considerations.

So far, the argument from hallucination has been arguably the strongest bulwark in defense of the entrenched prejudice that appearance and reality are indeed separable and, therefore, separate. The consequences of such a prejudice, as is well known, are countless. Philosophers and neuroscientists alike assume customarily that such a division is both empirically sound and conceptually necessary¹. This prejudice is endorsed by the belief that hallucinations offer empirical evidence that one can have an experience of something that does not exist. This is, or so we claim, a wrong interpretation of empirical evidence.

Circularity. The notion that one may hallucinate x without x being real is something that should be grounded on empirical evidence. It is not something that can be taken to be conceivable since it is the very assumption on which the possibility of a distinction between appearance and reality is based. One cannot state that it is conceivable that I have a hallucination of a pink elephant in the total absence of pink elephant in my life. Why should it be conceivable? Because one assumes a difference between what reality is and how the world appears to be. However, the belief in such a difference is grounded on the belief that there are hallucinations. Thus, one must show an example of genuine hallucinations. We will show that such an evidence is lacking.

Common Kind Assumption. Recently, the argument from hallucination has been exploited by what has been dubbed the *common kind assumption*, which is in turn often split in two parts (Macpherson, 2013):

- **Premise 1:** In hallucination, there is no real object
- **Premise 2:** Introspectively, hallucination and perception are the same

¹ I cannot understand why appearances can be considered to be separate from existence. In other words, it may well be that A looks B, because only because A instantiates some B which is, well, B. Thus A looks B only because when I look at A, I actually perceive B, which is B ... whatever B is. Consider this example. I may look blond, B, because I dye my hair while otherwise I would be dark haired, A). Yet, this does not mean that I look different from what I am because, as a result of the dyeing, my hair became actually blond. Thus I look B because I am B. I may draw the inference that I am naturally blond, which is not the case, however this is not the point. I look blond and I am blond. My point is that, no matter where do you put one's experience, if one looks B there has to be something which is B. Then, why do not we locate B in the world? I believe that, in the future and with hindsight, scholars will look with incredulous dismay at the current insistence in keeping appearances separate from the physical world.

Based on these premises, scholars often outline a spreading strategy that aims to show that, since in the case of hallucination there is no external object (premise 1), one experiences something that cannot be the external object. In turn, since there is no difference between perception and hallucination (premise 2), then one must experience something different from the external object *also* in the case of perception.

Usually premise 1 goes undisputed. The real fight begins afterwards. Based on whether premise 2 is held true or false, various possibilities are considered. For instance, to save realism, disjunctivism denies premise 2. Or, one may accept premise 2 and embrace either sense-data, or representationalism, or indirect perception.

This paper paves the way for an altogether different view. The punchline is that premise 1 is false. We believe it is possible to make a strong case – both empirical and conceptual – that in hallucination, contrary to commonsense and widespread beliefs, there is a real object tantamount to cases of perception. As a result, premise 2 can obtain without peril for a realist stance. Perhaps surprisingly, *if premise 1 is false, the common kind assumption comes to the rescue of realism, rejects sense-data, and endorse direct perception*. Is it too good to be true?

Briefly, in everyday perception, when one perceives x , it is easy to point to the spatiotemporal location where x is. When one hallucinates, say, y , it is not that easy. It is not impossible though. It is just more difficult. Thus, the layman had grown the belief that y is not there to be perceived while x is there. We will show that x is neither any more real nor any more ‘there’ than y . Somehow, the layman has translated its epistemic ignorance into an ontological claim.

The common conception about hallucination – namely that one may have an experience of x without x being a real object – is an empirical claim. It is not a conceptual truth. In fact, Descartes himself introduced the notion of hallucination with the aid of empirical cases such as dreams and actual hallucinations. Then, moving from these cases, he generalized. However, it is not a conceptual truth that appearance are separate from reality. Actually, we may have no real cases in which appearance and reality are different. It was an empirical case based on misinterpreted empirical evidence. In the lack of empirical support, one can thus reject the idea that appearance is different from reality.