



Disjunctivism and the Causal Conditions of Hallucination

Alex Moran¹

Received: 25 August 2021 / Accepted: 9 February 2022 / Published online: 9 March 2022
© The Author(s) 2022

Abstract

Disjunctivists maintain that perceptual experiences and hallucinatory experiences are distinct kinds of event with different metaphysical natures. Moreover, given their view about the nature of perceptual cases, disjunctivists must deny that the perceptual kind of experience can occur during hallucination. However, it is widely held that disjunctivists must grant the converse claim, to the effect that the hallucinatory kind of experience occurs even during perception. This paper challenges that thought. As we will see, the argument for thinking that the hallucinatory kind of experience is present even in cases of perception depends on prior acceptance of a ‘non-demanding’ conception of hallucination, on which all it takes to produce an hallucinatory experience is to induce in the subject the right kind of neurological condition. On the view developed here, by contrast, there are substantive causal conditions, going beyond the mere occurrence of the right kind of neurological state, that must be met if an experience of the hallucinatory kind is to occur. By drawing on this view, I argue, disjunctivists can deny that the kind of experience involved in hallucination ever occurs during perception. This then allows disjunctivists to avoid certain important problems they would otherwise face. It also leaves them with considerably more freedom when it comes to theorising about the nature of hallucinatory experience.

The point of bringing out the causal difference between vision and hallucination is not to allow us to distinguish states of affairs that were indistinguishable before. Rather, it is to yield a philosophical understanding of the distinction.

Child, W. (1994: 42).

✉ Alex Moran
admin@philosophy.ox.ac.uk; alexander.moran@philosophy.ox.ac.uk
http://www.philosophy.ox.ac.uk

¹ St Cross College, University of Oxford, 61 St Giles', Oxford OX1 3LZ, UK

1 Introduction

The disjunctive theory of perception states that there are two fundamentally different kinds of sense-experience. Perceptual experiences constitutively involve external things. Hallucinatory experiences, by contrast, while being subjectively indistinguishable from perceptions, do not have this kind of nature. Whatever else is true of such experiences, they do not have external objects as constituents.¹

Given the commitments of their view, disjunctivists must deny that the kind of experience involved in perception ever occurs during hallucination.² Notably, however, it is common for disjunctivists to grant that subjects undergo hallucinatory experiences even in perception. That is, it is common for disjunctivists to grant:

Commonality

In every case of genuine perception, the subject undergoes an experience of the (fundamental mental) kind involved in cases of hallucination.

Yet, accepting Commonality leaves disjunctivists facing difficulties they would not otherwise face. For instance, once Commonality is granted, disjunctivists face an important and well-known concern involving explanatory exclusion or ‘screening off’ (cf. Byrne & Logue, 2008; Fish, 2009; Hellie, 2013; Martin, 2004, 2006; Logue, 2013a; Moran, 2019a; Nudds, 2013; Pautz manuscript; Soteriou, 2016). Moreover, accepting Commonality places constraints on the kind of theory of hallucination that disjunctivists can endorse, and, hence, on the overall theory of sense-experience they can accept. After all, Commonality states that whatever kind of experience is involved in hallucination, one has this same kind of experience even in perception. Due to accepting Commonality, therefore, disjunctivists face the challenge of developing an account of hallucination that is compatible with that being so (cf. Fish, 2008, 2009; Hellie, 2013; Johnston, 2004; Logue, 2013a, 2013b; Martin, 2004, 2006; Sethi 2020). Embracing Commonality thus leaves disjunctivists beholden to a serious constraint when theorising about the hallucinatory case.

Accordingly, it is worth asking whether disjunctivists really must accept Commonality. Against prevailing orthodoxy, this paper argues that they need not. As we will see, the argument for thinking that disjunctivists must accept Commonality depends on a particular conception of the ‘instantiation-conditions’ for hallucinatory experience (i.e., the conditions under which hallucinatory experiences can occur), which I refer to as the ‘non-demanding’ conception. On this conception, hallucinatory episodes can occur in any context, so long as the right kinds of neural antecedents are present: nothing else is required for such events to be produced. The non-demanding conception, however, is non-obligatory. In fact, this paper argues that disjunctivists can reject it in favour of a more demanding conception, on which

¹ The most common motivation for disjunctivism is commitment to the naïve realist theory of perception (see e.g., Brewer, 2011; Campbell, 2002; Fish, 2009; Martin, 2004, 2006). However, there is also room for an intentionalist form of disjunctivism, on which perceptual experiences involve object-dependent contents that could not be instantiated in hallucination (see e.g., McDowell, 1994; Logue, 2015; Pautz manuscript; Schellenberg, 2010, 2014; Soteriou, 2016; Tye, 2007, 2009, 2014).

² Here and throughout, I have in mind cases of ‘total’ rather than ‘partial’ hallucination.

substantive causal conditions, going beyond the occurrence of the right kind of proximate brain state, must be satisfied if an experience of the hallucinatory kind is to occur. Given this alternate conception, I argue, disjunctivists can reject Commonality. Furthermore, they can maintain that it is never possible for the hallucinatory kind of experience to occur in perceptual cases.³

On the view to be developed here, then, just as the perceptual kind of experience never occurs during hallucination, so the hallucinatory kind of experience never occurs during perception. The resulting view is thus much more in line with the original formulations of disjunctivism, due to Hinton (1973) Snowdon (1981), and McDowell (1982), than those more recent disjunctivist theories that embrace Commonality. After all, these philosophers insist that undergoing sensory experience is *either* a matter of having the perceptual kind of experience, *or else* a matter of having the hallucinatory kind of experience. This claim, however, is most naturally read as entailing the negation of Commonality. The present paper can thus be read as an attempt to rehabilitate a more traditional form of disjunctivism, on which perception and hallucination involve two fundamentally distinct kinds of experience that are never co-instantiated.⁴

Roadmap Section 2 sets out the central argument for thinking that disjunctivists must accept Commonality, and highlights the way in which that argument depends on the non-demanding conception. Section 3 motivates an alternative to the non-demanding conception, on which hallucinatory experiences can occur only if substantive causal conditions, going beyond the occurrence of the right kind of brain state, are satisfied. It also explains how this alternative conception undermines the argument for Commonality, and delivers the opposing result that experiences of the hallucinatory kind cannot occur in cases of perception. Section 4 concludes by drawing out some general morals for the broader disjunctivism debate.

2 The Reverse Causal Argument

The argument for Commonality turns on a variant form of the traditional causal argument from hallucination.⁵ What the causal argument aims to establish is that, contrary to what disjunctivists must claim, the sort of experience involved in perception might occur even during hallucination. The variant argument, by contrast—namely, the reverse causal argument—aims to establish that the kind of experience involved in hallucinating occurs even during perception. The consensus in the

³ Of course, the resulting view has to make room for ‘partial hallucinations’, i.e., wherein one is perceiving and hallucinating simultaneously. In this connection, cf. endnote 21 below.

⁴ Notably, the idea that Commonality should be rejected also seems implicit in the proto-disjunctivist positions advocated in Austin (1962: 52), Hirst (1959: 50), and Pitcher (1971: 30). More recent rejections of Commonality within a disjunctivist setting include Allen (2015: §7); Foster (2000: 42); Moran (2019a); Snowdon (2005: 303). The present paper constitutes a substantive development and elaboration of the central suggestion put forward in Moran (2019a).

⁵ For classic presentations of this argument see Foster (1986, 2000) and Robinson (1985, 1994).

literature, moreover, is that while disjunctivists can resist the traditional causal argument, they lack the resources to resist the reverse causal argument.

The causal argument turns on two main premises. The first states that for every perceptual experience, there is a possible hallucinatory experience with the same proximate cause:

Proximate Causes

For every perceptual experience, p , there is a nomologically possible hallucinatory experience, h , with the same proximate cause as p .

The second premise is the principle of ‘same cause, same effect’, i.e., the claim that like proximate causes necessarily produce like immediate results:

Same Cause, Same Effect

If an event of kind A is the proximate cause of an event of kind B, then it is nomologically necessary that whenever an event of kind A occurs, it produces an event of kind B as its immediate effect.

Both premises are plausible. Jointly, however, they imply that disjunctivism is false. Again, disjunctivists insist that the perceptual sort of experience cannot occur during hallucination. By Proximate Causes, however, we can imagine a perceptual experience p and an hallucinatory experience h that have the same proximate cause. By Same Cause, Same Effect, therefore, it follows that an experience of the same kind as p will be produced by the very token brain state that produces h . But this is just to suppose that an experience of the perceptual kind will occur in the case of hallucination, contrary to what disjunctivists must claim.

It is standard for disjunctivists to respond to this argument by challenging the second premise. The key idea is that this premise is problematic, since it wrongly rules out the existence of effects that can occur only if substantive background conditions are met, whereby these conditions are not guaranteed to be met just in virtue of the existence of the right kind of proximate cause (Campbell, 2010: §§3–4; Nudds, 2013: 274–275; Langsam, 1997: 42–46; Martin, 2004: 56–58, 2006: 268–371). According to disjunctivists, perceptual experiences essentially have external objects as constituents. Accordingly, a background condition on the occurrence of such an episode is that an appropriate external object exist and be available to be perceived. No mere brain state, however, could guarantee that this condition obtains. On a disjunctivist view, therefore, no mere brain state is sufficient for a perceptual experience to occur. Rather, in order for a given brain state to produce a perceptual experience, a substantive background condition must be met. In particular, an appropriate external object must exist and be available to be perceived.⁶

⁶ While this response undermines the causal argument in its standard form, it leaves disjunctivists vulnerable to a variant form of the argument turning on cases of *veridical* hallucination. Notably, however, disjunctivists can meet this variant argument by appealing to precisely the kinds of causalist considerations set out below (in Sect. 3). See further Moran (2019a: 374–375, 2021).

In short, then, the basic disjunctivist response to the causal argument is to claim that sameness of proximate cause is insufficient for sameness of effect, on the grounds that certain effects have background conditions on their instantiation. Consider, however, a weaker principle that takes this into account:

Same Cause, Same Effect*

If an event of kind A is the proximate cause of an event of kind B, then it is nomologically necessary that if an event of kind A occurs in some context C, such that in C, all of the background conditions {X} on a kind-B effect occurring are satisfied, then the event of kind A will produce an event of kind B as its immediate effect.

This weaker principle is harder to reject. If an event of kind A produces an event of kind B, it seems to follow that events of kind A have the *power* to produce events of type-B as their immediate effects. This might be a conditional power, which can be exercised only when the background conditions on a type-B event occurring are satisfied. However, in cases where those conditions are satisfied, it is hard to see how the type-A event should fail to exercise its power to produce a type-B event. It appears, therefore, that disjunctivists must accept the weaker principle (cf. Martin, 2004: 56–58; Nudds, 2013: 275).

The reverse causal argument depends on this weaker principle, plus the non-demanding conception of hallucination alluded to above. On this conception, hallucinatory experiences, unlike perceptual ones, have no substantive background conditions on their instantiation. Rather, for such an experience to occur, nothing more is required than the relevant sorts of neural antecedents. In other words, hallucinatory experiences have entirely undemanding instantiation-conditions. All it takes to produce an hallucinatory experience is the right proximate cause.

It is common for disjunctivists to accept the non-demanding conception, often with little or no argument (see, e.g., Fish, 2009; Johnston, 2004; Nudds, 2013). However, there are things that can be said for it. According to Martin (2004: 58), for example, the non-demanding conception flows from our intuitive conception of the kind of event that hallucinatory experiences are. Again, given disjunctivism, a perceptual experience can occur only if a suitable external object exists and is available to be perceived. According to Martin, however, we intuitively think of hallucinatory experiences as ‘inner events’, and, therefore, and, therefore, as being such that no further conditions, beyond the subject being in the right kind of antecedent brain state, must be met for such events to be produced (cf. Snowdon, 2005: 288). If this is right, however, then the instantiation-conditions for hallucinatory experience are indeed undemanding. In contrast to the perceptual case, no background conditions will need to be met for an hallucinatory experience to occur.

We can bolster the case for the non-demanding conception with a further comparison to perception. For disjunctivists, there are substantive background conditions on the occurrence of perceptual experience. Moreover, these conditions flow from the disjunctivist’s account of the nature of such events: given that they constitutively involve external things, it follows that no such experience could be generated in the absence of an appropriate object of perception. However, one might reasonably

worry that no plausible account of hallucinatory experience could generate this kind of constraint. After all, the accounts of hallucination that philosophers have traditionally found compelling involve appeals to sense-data, adverbial modifications of consciousness, or the kinds of intentional content that could be entertained in the absence of any suitable external object of perception. Plausibly, however, there is nothing about the nature of hallucinatory experience, when construed on any of these lines, that could restrict the kinds of contexts in which such an event might occur. Certainly, it seems that nothing about the nature of such episodes (construed in any of these ways) could rule out the possibility that such events might occur even in perception.⁷ Accordingly, one might argue for the non-demanding conception as follows. There are background conditions on the occurrence of hallucinatory experience only if this is implied by the nature of these events. However, no plausible account of the nature of hallucinatory experience generates such background conditions. Therefore, there are no background conditions on the occurrence of hallucinatory experience. That is, the non-demanding conception of the instantiation-conditions for such events is true⁸

We return to these considerations in favour of the non-demanding conception below (in Sect. 3). For now, however, it is enough to note that there is an initial case for thinking that disjunctivists should grant it. With that in mind, the reverse causal argument for Commonality goes as follows. By Same Cause, Same Effect*, we know that like proximate causes produce like immediate effects whenever the relevant background conditions on the relevant effect are met. Moreover, given the non-demanding conception, we know that no background conditions need be met for an experience of the hallucinatory kind to occur (or, equivalently, that all conditions on the occurrence of this kind of event are met in every possible situation). Hence, we can infer if some brain state *b* produces an experience of the hallucinatory kind, then any brain state of the same kind as *b* produces an experience of that sort. By Proximate Causes, however, we know that for every perception, *p*, there is an hallucinatory experience *h* with the very same neural antecedents. Accordingly, we can infer that in every case of perception, the proximate brain state also produces an experience of the hallucinatory kind. This, however, implies that Commonality is true.

Can disjunctivists resist this argument? It seems to me that disjunctivists should accept both Proximate Causes and Same Cause, Same Effect*.⁹ To reject the

⁷ After all, it is typical to develop these accounts of hallucination in conjunction with a ‘common factor’ theory of experience. Yet, such accounts would be incoherent if the relevant analyses of hallucination implied that hallucinatory experiences cannot occur in cases of perception as well.

⁸ For a version of this argument, targeted at the account I developed in Moran, 2019a, see Ivanov 2022.

⁹ Some disjunctivists reject Proximate Causes on the grounds that our perceptual experiences are temporally extended events which begin, not with the tokening of some proximate brain state type, but rather with some event involving the perceived object itself, e.g., light leaving the object seen in the case of vision (see Johnston, 2004; Snowdon, 2005, cf. Child, 1992, 1994, 2011). I have criticised this view elsewhere, and won’t repeat those points here (see Moran, 2019b, 2021). Note, however, that even if this view helps to defuse the casual argument (as both Johnston and Snowdon maintain), it does not undermine the reverse causal argument, and so leaves the case for Commonality untouched (cf. Martin 1992: 185–187; Snowdon 2005: 303).

argument, therefore, it would appear that disjunctivists must challenge the non-demanding conception. In turn, this requires locating a suitable background condition on the occurrence of hallucinatory experience; one that could not be met in cases of perception. It can then be argued that, *contra* Commonality, the hallucinatory sort of experience can never occur in perceptual cases.¹⁰

One idea that one might think is worth exploring at this point is that just as perceptual experiences require the presence of the right kind of perceptible object, so hallucinatory experiences require their absence (cf. Martin, 2004: 58). However, this suggestion is quickly undermined by the possibility of ‘veridical hallucination’ (Grice, 1961; Lewis, 1980). I might, for example, hallucinate a clock while in the presence of an actual clock. In such a case, I am hallucinating even though an external object is present. But this entails that the absence of a suitable object of perception is not necessary for undergoing an experience of the hallucinatory kind.¹¹

It does not yet follow, however, that the non-demanding conception must be accepted. For there might be some further background condition on hallucinatory experience that has yet to be discussed. In what follows, I develop a position that exploits precisely this possibility. At the heart of the proposed view is the idea that hallucinatory experiences are essentially caused in a certain way, so that substantive causal conditions must be met if an experience of the hallucinatory kind is to occur. The idea, moreover, is that these causal conditions are not guaranteed to be met just in virtue of the occurrence of the right kind of proximate neural state. In fact, the proposed conditions can never be met in cases of perception, regardless of the sort of brain state that produces the experience. Accordingly, not only does the proposed view undermine the argument for Commonality. Additionally, it leaves disjunctivists with the resources to deny that the hallucinatory kind of event ever occurs in perception.

Notably, while my concern here is primarily with hallucinatory experience, what will emerge below is a general conception of the way in which both kinds of experience recognised by disjunctivists, i.e., both perceptual and hallucinatory experiences, depend for their instantiation on the presence of a distinctive sort of causal chain. On the proposed view, it lies in the nature of these kinds of experience to be produced in certain specific ways. Accordingly, to generate an experience of either of these kinds, inducing the right kind of brain state in the subject is never sufficient by itself. Rather, if either kind of experience is to occur, the brain state that acts as

¹⁰ One might be tempted to reject the non-demanding conception via externalist considerations. For instance, one might be a representationalist who thinks that in order to entertain the kind of intentional content involved in sense-experience, one has to be in the right sort of environment. However, if we want block the reverse causal argument, it is not enough merely to reject the non-demanding conception. In addition, we must argue that there are background conditions on undergoing hallucinatory experience which cannot be met in perceptual cases. Standard content-externalist considerations are therefore insufficient by themselves to refute the reverse causal argument.

¹¹ Notably, this point undermines a recent theory about the nature of hallucinatory experience due to Allen (2015), on which ‘hallucination is a kind of imagination, and [hence] essentially a mode of consciousness of that which is absent’ (ibid: 301), due to the fact that this theory implies that hallucinatory experiences can only occur in the absence of a suitable external object. It therefore also undercuts Allen’s attempt to reject Commonality by rejecting the non-demanding conception.

the proximate cause of the experience must occur within the right type of broader causal setting. The result is a thoroughgoing ‘causalist’ version of disjunctivism, on which causal factors play a crucial role in characterising the respective essences of both the perceptual and the hallucinatory sort of event.

3 The Causal Conditions of Hallucination

This section falls into two parts. I first set out and motivate the proposed view, and then explain how it allows us to answer the reverse causal argument by undermining the non-demanding conception (Sect. 3.1). I then answer an important objection to the view, before revisiting the two arguments for the non-demanding conception set out above, and explaining how these can be defused (Sect. 3.2).

3.1 Causalist Disjunctivism

Consider the main rival conception of experience to the disjunctive one, namely, the common factor conception.¹² Unlike disjunctivists, common factor theorists do not believe that perceptual and hallucinatory cases involve experiences of fundamentally different kinds. Rather, for common factor theorists, there is just one basic sort of experience, which is involved in both perception and hallucination. Accordingly, common factor theorists face an explanatory challenge. Some experiences are perceptions; others are hallucinations. Yet, on a common factor theory, we cannot explain why this is so in terms of the mental natures of the relevant events (for they are all events of the same basic kind). Common factor theorists, therefore, must locate a non-mental difference that can hold between experiences and that can serve to explain why some are perceptual whilst others are hallucinatory.

The so-called ‘causal theory of perception’ helps to answer this challenge.¹³ According to the causal theory, whether an experience is perceptual or hallucinatory is determined, at least in part, by the manner in which it is caused. When an experience is caused in the ‘standard’ way, that is, in the appropriate manner by an external object, the experience is perceptual; specifically, it is a perception of the very external thing that causes it. By contrast, when an experience is not caused in this kind of way, but rather in the ‘deviant’ or ‘non-standard’ manner, it is an hallucination. On the causal theory, then, the difference between perception and hallucination is to be drawn in causal terms. Whether an experience is perceptual or hallucinatory is a function of how it is produced.

To get a better sense of what the causal theory claims, consider the following influential line of argument for it due to Grice (1961). We begin by considering the following scenarios. In the first, the subject faces a clock on the wall, and has a

¹² On the central differences between the disjunctivist and common factor conceptions of experience see Crane (2005), Johnston (2004), Martin (2004), Pautz (2010) and Thau (2004).

¹³ The causal theory was developed first by Grice (1961), though an important precursor is discussed in Price (1932: Ch. 3). See also Lewis (1980), Pears (1976) and Strawson (1974, 1979).

sensory experience as of a clock as a result. In the second, the subject again has a sensory experience as of a clock on a wall, and while facing an actual clock on the wall, but this time due to direct neural stimulation. In the third, the subject has a sensory experience as of a clock on the wall, again while facing a clock, and again due to direct neural stimulation. However, the clock itself is causally responsible for her experience: when striking three, it made a sound that reminded the neurosurgeon to manipulate the subject's brain so as to produce the relevant event.

In all three cases, the subject has an experience as of a clock on the wall in front of her. So, in all three cases, the subject has an experience that 'matches' the perceptible scene before her eyes. Nevertheless, we have the strong intuition that the subject only sees the clock in front of her in the first case. The second two cases, by contrast, involve 'veridical' hallucination: the subject's experience matches the scene before the eyes; however, she is not in perceptual contact with it. The question, therefore, is what explains this. Why is it so plausible to think that whilst, in all three cases, the subject has an experience as of a clock while in the presence of a real clock, nevertheless, she perceives the clock only in one of them?

The causal theory provides a compelling answer. On that view, to perceive is to have an experience that is appropriately caused by an external thing. To hallucinate, by contrast, is to have an experience that is caused in a non-standard or deviant way. Therefore, the causal theory has the resources to explain our intuitions about the above cases. In the first case, the subject has a perceptual experience, since her experience as of a clock is appropriately caused. In the second, the subject has an hallucinatory experience, since her experience is the product of a non-standard or deviant causal chain that fails to include a suitable external object of perception. And in the third, while a suitable external object is causally responsible for the subject's experience, it is responsible in the wrong sort of way. Again, then, the experience is the result of non-standard causation, and is therefore hallucinatory.

One might well wonder at this point whether we have a suitably clear grip on the distinction between standard and deviant causation. For, without an adequate grasp of this distinction, we won't have an adequate grip on the causal theory itself. It seems to me, however, that while we might struggle to provide an analysis of these notions in other terms, we do have a solid grasp of the distinction itself. Indeed, I think that this is part of what explains why the above Gricean examples elicit such strong intuitions in the first place. When faced with these examples, we have the strong sense that the first kind of case involves a distinctive sort of causal chain, whereas the second and third cases involve a causal chain of a quite different sort. And this is part of what leads us to judge that while the first case is one of genuine perception, the second and third cases are cases of veridical hallucination instead. Arguably, then, our pre-theoretical grip on the distinction between perception and hallucination already involves grasping the related distinction between 'standard' causation (of the sort involved in perceiving an object) and 'deviant' or 'non-standard' causation (of the sort involved in hallucinating).¹⁴

¹⁴ Cf. Child (2011), who notes that our thinking about perception and hallucination is already 'a kind of casual thinking'. For an opposing viewpoint here, on which nothing about our pre-theoretical grip on the perception/hallucination distinction involves causation, see Hyman (1992), Johnston (2004) and Snowdon (1981). See also the 'Hume-worlds' objection below in endnote 25. For some important ques-

This point connects with the familiar idea that the causal theory is in some sense a ‘conceptual truth’. The thought is that a sufficient grasp of the concepts of perceiving and hallucinating involves at least a tacit understanding that perceiving something is a matter of being causally affected by it in the appropriate way, while hallucinating involves having a deviantly caused experience. For present purposes, we can sidestep difficult questions concerning the nature of conceptual truths. But we can also insist on the following point, namely, that our ordinary thinking about perception and hallucination already involves the idea that perceiving is, at least in part, a matter of being causally affected in a certain manner by the object sensed, and that, likewise, hallucinating involves being causally affected in a different and non-standard way. As we might put it, echoing Strawson (1979: 103), the idea that perceiving involves being causally affected by an object in a certain way, while hallucinating involves experience in the absence of this kind of causation, is arguably ‘implicit in our pre-theoretical scheme from the very start’. Insofar as we already have a grip on the distinction between perceiving and hallucinating, we understand that this distinction must be understood in causal terms. That we have such strong intuitions in the familiar Gricean cases then bears witness to this fact.¹⁵

I submit that the causal theory captures something important about the distinction between perception and hallucination. Disjunctivists, however, cannot accept this theory as it stands, given its commitment to the common factor conception. The question, then, is whether there is a version of the causal theory that can be held in a disjunctivist setting. In my view, there is. That is, I think that there is a nearby position to the original causal theory that even disjunctivists can accept.¹⁶

This can be articulated as follows. In cases of perception, one undergoes an experience of a distinctive kind. Such experiences, moreover, must be caused in a specific way. In particular, the perceptual sort of experience can be produced only by a

Footnote 14 (continued)

tions about the robustness of the Gricean intuitions I am relying on above (which I unfortunately lack the space to discuss here) are also raised in Roberts et al. (2020).

¹⁵ Of course, tricky cases are still going to arise. Imagine, for example, a person fitted with a device that reliably produces sensory experiences that accurately reflect the external scene (as in Foster, 2000). Such a device, one might think, could well enable a person to genuinely see or sense the world around them. But one might also think that such experiences are non-standardly caused; after all, they are produced by means of an artificially fitted device. My own inclination here is to say that such a person would not in fact be genuinely seeing but rather reliably hallucinating. However, there may also be conceptions of the standard/deviant causation distinction that allow us to insist that the person is seeing and that their experiences are non-deviantly caused (e.g., a teleological conception of standard causation of the sort discussed in Davies, 1983). Fortunately, for present purposes, we don’t need to settle on an answer; but the case nicely illustrates the sorts of difficult questions that a fully worked out causalist theory would need to answer (thanks to an anonymous referee for raising this issue and pressing me to discuss the sort of case outlined above).

¹⁶ In a seminal early paper about disjunctivism, Snowdon (1981) argues that we need not accept the causal theory precisely because we can accept disjunctivism instead. Strictly speaking, however, Snowdon’s target is the view that the traditional causal theory is a conceptual truth (cf. Snowdon, 1990), and his argument leaves open whether or not disjunctivists can accept kind of causal theory that I sketch below. Cf. Child (1992, 1994, 2011), who argues in detail that something very like the traditional causal theory can coherently be accepted even within a disjunctivist framework.

causal chain connecting the subject to an external object of perception in the appropriate manner. For it lies in the nature of such experiences to be produced in the standard way by external things. Similarly, in cases of hallucination, one also undergoes an experience of a distinctive kind. And these experiences, too, must be caused in a specific way. In particular, hallucinatory experiences must be generated by a deviant or non-standard causal chain. For it lies in the nature of such experiences to be produced by a causal chain of just this kind, one that does not connect the subject to an external object in the way involved in perception.

This view, I submit, represents a natural way of accepting something like the traditional causal theory within a disjunctivist setting. There is, however, a crucial difference between the standard causal theory and the above disjunctivist alternative. On the disjunctivist version of the theory, perceptual experiences are caused in a certain way precisely by virtue of being the kinds of experiences they are, and the same is true for experiences of the hallucinatory kind. That is, it lies in the nature, or essence, of experiences of the perceptual kind to be caused in one sort of way, and in the nature, or essence, of experiences of the hallucinatory kind to be caused in another. The traditional causal theory, however, merely specifies the conditions under which instances of one common kind of sensory experience are perceptual or hallucinatory. So, it is no part of this view that any kind of experience must be caused in a specific way just by virtue of being the kind of event it is (i.e., by virtue of having the nature that such events in general have). The disjunctivist version of the causal theory, therefore, goes beyond the traditional version, by making claims about the respective essences of two experiential kinds, namely the kind involved in genuine perception, and the kind involved in hallucination.¹⁷

There is, therefore, a leap involved in moving from the traditional causal theory to the above disjunctivist alternative. Nevertheless, a case can be made for thinking that if one wishes to incorporate the insights of the traditional causal theory within a disjunctivist framework, it is the above view one should accept.

To see this, begin with the case of perception. The causal theory asserts:

- (CP) For an experience to be perceptual is, at least in part, for it to be caused in the standard way (by an appropriate external object).

The causal theory thus offers an (at least partial) real definition of the property *being a perception*. That is, it specifies (at least in part) *what it is* for an event to have that property. The key claim is that part of what it is for an event to have the property of being a perception is for it to be caused in the standard way.

I submit that whilst the traditional causal theory is developed within a common factor framework, there is reason for disjunctivists to accept (CP) as well. For, as

¹⁷ Even on the traditional causal theory, it might be essential to a given token experience that it be caused in just the way it in fact was. This will be so if in general, the causal origins of an event are essential to it. However, it does not follow that any such token experience had to be caused in just the way it was just by virtue of being the kind of event that it is. Yet, that is what would be the case if the stronger, disjunctivist version of the causal theory were true. Cf. Martin (manuscript).

reflection on the above Gricean cases brings out, it is very plausible to think that perceiving an object requires being causally connected to it in the appropriate way.¹⁸ For disjunctivists, however, unlike common factor theorists, perceptual experiences are perceptual by their very natures: to have an experience of the kind involved in perception is *ipso facto* to be in perceptual contact with an external object (cf. Foster, 2000). Accordingly, it would appear that those disjunctivists who accept (CP) should also grant the further, stronger claim that perceptual experiences must be caused in the standard way precisely by virtue of being the kind of events they are, i.e., that it lies in the nature of such events to be produced in just this manner. For if it lies in the nature of perceptual experiences to be perceptions, and if part of what it is to be a perception is to be appropriately caused, it seems to follow that it lies in the nature of perceptual experiences to be appropriately caused. We thus arrive at the following further claim which constitutes the first part of the stronger, disjunctivist version of the casual theory that was sketched above:

(DP) Perceptual experiences are essentially caused in the standard way. That is, it lies in the nature of events of that kind be produced in just this manner.

It is worth working through this reasoning more slowly. Disjunctivists recognise a distinctive kind of experience involved exclusively in perception. Let us say that these events are experiences of kind *Kp*. What (CP) tells us is that any token experience of this kind that is in fact a perception must be caused in the standard way (in order to qualify as such). Accordingly, if there could be an experience of this kind that were not a perception, (CP) would tell us nothing about how it must be caused. (DP), therefore, goes further than (CP). For, given (DP), it is not merely that any token of the kind *Kp* that is a perception must be caused in the standard way. Rather, (DP) implies that every possible token of kind *Kp* has to be caused in just that way, by virtue of being the kind of event it is. The move from (CP) to (DP), therefore, requires argument. My suggestion is that we can defend the move, in a disjunctivist setting, by relying on two main ideas. The first is that for disjunctivists, experiences of the perceptual kind are essentially perceptions. The second is that we can rely on the following general principle concerning essence, namely:

(α) If it lies in the nature of things of kind *K* to be *F*, and if being *F* is partly a matter of being *G*, then it lies in the nature of things of kind *K* to be *G*.

The first claim should be uncontroversial; it falls directly out of the disjunctivist conception of perceptual experience. As for the second, I submit that it is a

¹⁸ Another important argument for this claim, which traces to Evans (1982) and Strawson (1974, 1979), and, arguably, to Kant (1781/87), turns on the idea that perceiving must be a causal process if it is to inform us of the objective world. For discussion of this argument, which I lack space to set out here, see Child (1992, 1994, 2011), Roessler (2011) and Snowdon (1981: §II). One might also appeal to general physicalist considerations: if one wishes to explicate the kind of awareness relation that disjunctivists appeal to in physical terms, a natural way to do so would be to appeal to the idea that being aware of an object at least partly consists in being suitably causally connected to it.

compelling principle that captures an important general feature of the logic of essence.¹⁹ Given both claims, however, we can argue from (CP) to (DP) as follows. By (CP), we know that part of what it is for an experience to be a perception is for it to be caused in the standard way. The essentialist premise then tells us that lies in the nature of *Kp*-experiences to be perceptions. Hence, by drawing on the above principle concerning essence, we can infer that it lies in the nature of *Kp*-experiences in general to be produced in the standard way. But this is exactly what (DP) states.

Let us turn now to the case of hallucination. The standard causal theory states:

- (CH) For an experience to be hallucinatory is, at least in part, for it to be caused in the deviant or non-standard way.

The causal theory thus offers an (at least partial) real definition of the property *being an hallucination*. That is, it specifies (at least in part) of *what it is* for an event to have that property. The key claim is that part of what it is for an event to have the property of being an hallucination is for it to be caused in a non-standard way.

Once again, while the traditional causal theory presupposes a common factor view, there is reason to think even disjunctivists should grant (CH). For, reflection on the Gricean cases strongly suggests that part of what it is for an experience to be hallucinatory is for it to be non-standardly produced. But now consider the following further claim, which constitutes the second core component of the stronger, disjunctivist version of the causal theory sketched above:

- (DH) Hallucinatory experiences are essentially caused in a non-standard way. That is, it lies in the nature of events of that kind to be produced in just this manner.

(DH) is stronger than (CH). To bring this out, let us say that events of the hallucinatory sort are experiences of kind *Kh*. What (CH) tells us is that any experience of this kind that is in fact hallucinatory must have been caused in the non-standard way. Consequently, if there could be an experience of this kind that were not hallucinatory, then (CH) would tell us nothing about how it must be caused. (DH), however, goes further. For, given this claim, it is not merely that those tokens of the kind *Kh* that are in fact hallucinations must be caused in the deviant way (in order to qualify as such). Rather, every possible token of this type of experience just be caused in just that way, by virtue of being the kind of event it is (i.e., by virtue of having the

¹⁹ Note that we could also get by with a weaker principle at this point, to the effect, that if it lies in the nature of things of kind *K* to be *F*, and if being *F* is partly a matter of being *G*, then *necessarily* if *x* is a *K* then *x* is *G*. Using this principle, we could then infer that perceptual experiences are *necessarily*, even if not *essentially*, caused in the standard way, and this would be enough to block the reverse causal argument in the manner outlined below. (Note also that this weaker principle is a straightforward logical consequence of the fact that essential properties are also had necessarily.)

nature that events of this kind share). The question, then, at this juncture, is how we can move from (CH) to the stronger claim (DH).²⁰

To move to (DP) from (CP), we appealed to the idea that experiences of the perceptual kind are essentially perceptions. To get to (DH) from (CH), therefore, I suggest we can appeal to the parallel claim that experiences of the hallucinatory kind are essentially hallucinations. Notably, unlike the parallel claim concerning perception, this claim about hallucination is not a straightforward consequence of disjunctivism. However, I believe it is a claim disjunctivists can plausibly maintain.

To see this, note that hallucinatory episodes are plausibly construed as ‘failure states’. It is often said that perceptual experiences are to be construed as ‘success states’ (Mackie, 1976). Furthermore, disjunctivists can understand this in a distinctive way. Again, disjunctivists maintain that perceptual experiences are perceptual by their very nature. Therefore, disjunctivists can say that perceptual experiences are success states in the precise sense that undergoing such an experience is intrinsically a matter of being in perceptual contact with an external item, i.e., that it is never possible to be in such a state without thereby perceiving something. What then of the idea that hallucinations are failure states? It is often observed that hallucinations are in a certain sense ‘failed experiences’ (Tye, 2014: 303), i.e., events that are, in their natures, ‘failures to [perceive]’ (Thau, 2004: 250; see also Johnston, 2004: 135). What I wish to suggest, moreover, is that to capture this natural claim, disjunctivists can say that hallucinatory episodes are hallucinatory by their very natures. On this conception, just as it lies in the nature of perceptual experiences to be perceptual, and hence to provide cognitive contact with external objects, so it lies in the nature of hallucinatory experiences to be hallucinatory, and hence to *fail* provide such cognitive contact with objects. Disjunctivists can thus maintain that hallucinations should be viewed as failure states in the precise sense that undergoing an hallucinatory experience is intrinsically a matter of failing to perceive.

Consider now the following line of reasoning. By (CH), we know that part of what it is for an experience to be an hallucination is for it to be caused in the non-standard way. Disjunctivists, moreover, can plausibly claim that it lies in the nature of *Kh*-experiences to be hallucinations. Hence, by drawing on principle (α) once more, we can infer that it lies in the nature of *Kh*-experiences to be produced in the deviant way. The core idea is that since lies in the nature of *Kh*-experiences to be hallucinatory, and since being hallucinatory is partly a matter of being deviantly caused, it follows that it lies in the nature of *Kh*-experiences to be so caused.

Of course, not everyone will be persuaded by this line of argument. Consider, in particular, the disjunctivist already wedded to Commonality. Such a theorist might

²⁰ One concern about (DH), which does not arise in the case of (DP), is that the class of hallucinatory experiences do not form a genuine experiential kind, but are rather a heterogenous class of events grouped together only insofar as they are not perceptions. For, if this is right, one might then worry that it is implausible to think that these experiences share a common nature in the way that (DH) implies. My own view, in fact, is that it is just as plausible to view hallucinatory experiences as a genuine, unified kind of mental event as it is to treat perceptual experiences in this way. However, I do not have space to justify this claim here. For relevant discussion see Martin (2004, 2006) and the discussion of Martin’s articles in Byrne and Logue (2008). See also Hellie (2013).

grant that for a *Kh*-experience to be hallucinatory, it must be caused in the deviant way. However, she will resist the thought that *Kh*-experiences are hallucinatory by their very natures. After all, in her view, some such experiences occur in cases of perception, and may in fact *be* genuine perceptions, rather than hallucinations.²¹ Importantly, however, the present aim is not to argue against those already committed to Commonality. Rather, the aim is to explain how those of us not yet committed either way might plausibly resist the argument for Commonality by means of rejecting the non-demanding conception of hallucination on which it turns. Specifically, the key idea is that we can push back against the non-demanding conception by substituting a plausible alternative causalist view. The function of the above argument, therefore, is just to make the case for the claim that the causalist view is indeed a plausible alternative. Accordingly, that argument need not appeal to premises that will be accepted even by those already committed to Commonality. Rather, it is enough to rely on premises that seem plausible independently of the debate about whether Commonality obtains. And what I wish to claim is that the relevant premises are plausible in just this way.

Taken together, (DP) and (DH) constitute a disjunctivist version of the traditional causal theory of perception. What I wish to argue, moreover, is not only that disjunctivists should accept these claims, but that in doing so, they have the resources to challenge the non-demanding conception of hallucination and to block the reverse causal argument for Commonality. I'll now explain just how this goes.

According to the non-demanding conception, all that it takes to produce an hallucinatory experience is the right kind of proximate brain state: no further conditions must be met. Given the disjunctive version of the causal theory sketched above, however, this is not so. On that view, hallucinatory experiences must be produced by a deviant or non-standard causal chain. Therefore, a token brain state can only cause such an experience if it is embedded in the right kind of broader causal context. When such a brain state is part of a deviant causal chain, it will produce an experience of the hallucinatory kind. However, when it is not part of such a chain, it will fail to produce an experience of this kind. It thus emerges that, as against the non-demanding conception, there are substantive causal conditions on the occurrence of hallucinatory experience, going beyond the occurrence of the right sort of proximate neural cause.

Notably, this is already enough to undermine the argument for Commonality. However, we can go further, by using the revised causal theory to argue directly for the negation of Commonality. Again, Commonality states that in perception, one undergoes an experience of the hallucinatory kind. However, the revised causal theory tells us that experiences of the perceptual kind can only be produced by a standard causal chain. But this means that no token brain state producing a perceptual experience could ever produce an hallucinatory experience as well, since on the

²¹ On Martin's (2004, 2006) view, for example, perceiving involves undergoing just one token experience that falls under both the perceptual kind *Kp* and the hallucinatory kind *Kh*. So, Martin's view implies that at least some tokens of the hallucinatory kind are perceptual rather than hallucinatory. Notably, this is a commitment Martin has in common with rival common factor theorists.

revised causal theory, a brain state can only produce an hallucinatory experience if embedded in a deviant causal chain, and this is precisely not true of those brain states involved in perception. The revised causal theory thus entails that, *contra* Commonality, it is not possible to undergo hallucinatory experience in perception.²²

3.2 Objections and Clarifications

As the above brings out, the revised causal theory implies that the kind of experience a given brain state will produce depends on its causal antecedents. But is this a plausible idea? In the literature on the causal argument, it is often said that it is difficult to see how the causal powers of a given brain state could be dependent on its causal embedding in this way. As Snowdon (2005: 292) writes, echoing a widely endorsed line of thought, it seems ‘beyond explanation’ how a brain state could be sensitive to its broader causal context in this manner (cf. Johnston, 2004: 116; Foster, 2000: 28; Robinson, 1994: 157; Sethi, 2019: fn. 46; van Cleve, 2015: 287).

Despite the prevalence of this worry, however, it is not entirely clear what it amounts to. According to Snowdon (*ibid*), the trouble is that the relevant brain state, when it occurs, will not contain ‘any marks or traces of how it was caused’, which, he says, leaves it unclear ‘how [its] product could vary systematically with its causal origins’ (cf. Foster, 2000: 8). This concern, however, has force only if we grant that the causal antecedents of a brain state can be relevant to what it may produce if there is some ‘trace’ or ‘record’ within the brain state itself of how it was causally produced. Yet, it is far from clear why we ought to accept this. Might it not just be a fact about the production of sensory experience that the proximate brain states involved are sensitive to the way in which they are caused, without somehow containing within themselves information about their own causal antecedents? Another strand of this concern is about explanation. Snowdon, for example, explicitly wonders what could explain why a given brain state should be sensitive to its causal origins. On the view I have developed here, however, we can explain why this should be in terms of the essences of the mental events involved. According to the revised causal theory, perceptual experiences and hallucinatory ones must be caused in certain ways by virtue of having the natures that they do. Therefore, the reason that the kind of experience a given brain state will produce depends on its causal embedding traces to a prior claim about the essences of relevant experiential kinds. Because perceptual and hallucinatory experiences must be caused in certain ways by their

²² Of course, one could simultaneously have a perceptual experience and an hallucinatory experience that are phenomenally distinct, as in cases of ‘partial’ hallucination. There is a question, therefore, about how exactly to make sense of this in the present causalist framework. One way to do so is to understand the core claim being made as the thesis that one cannot simultaneously have a perceptual experience and an hallucinatory one that are phenomenally the same. This would then require associating kinds of standard causation with phenomenally individuated kinds of perceptual experience and kinds of deviant causation with phenomenally individuated kinds of hallucinatory experience. The view would be that for any perceptual experience p and any hallucinatory experience h of the same phenomenal kind K , p must be caused in a way that is incompatible with the manner in which h must be caused, meaning that K -type experiences can never be co-instantiated.

very natures, it is entirely unmysterious that the kind of experience a brain state will produce must depend on the broader causal context in which it is embedded. We can thus make perfect sense of how a brain state could be sensitive to its broader causal context in the way that is at issue.

A second strand of thought connected to the present objection involves the idea that on the kind of view that I defend, we end up with some sort of spooky ‘action at distance’ (see Johnston, 2004: 116; Robinson, 1994: 154). This concern, however, is misguided. Action at a distance arises when x_1 immediately causes y despite there being a chain of events x_2, x_3, \dots, x_n that occurs prior to y and which precludes x_1 from being anything but a mere mediate cause of y . Yet, nothing about the present view implies at we have anything like this. To see this, note that on the proposed view, the causal chain that generates an experience effectively plays two different kinds of role. On the one hand, it plays a straightforwardly causal role in bringing the experience about. On the other hand, however, it also plays the role of background condition in determining what kind of experience the proximate brain state (occurring at the end of the long causal chain) is able to produce. In other words, not only does the causal chain generate the relevant experience in the straightforward causal way. In addition, the character of the causal chain plays the further role of a background condition determining what kind of experience the embedded brain state may generate. When the causal chain involved has the property of being standard, this enables the brain state to produce a perceptual experience, and disables it from producing an hallucinatory one. But when the causal chain involved has the property of being deviant, this enables the brain state to produce an hallucinatory experience, and disables it from producing a perceptual one. The kind of experience we end up with is therefore a function of the nature of the causal chain involved. Whether we end up with one kind of experience or the other depends upon whether the broader causal chain is standard or deviant.²³ This view, it seems to me, is no more mysterious than the related idea, which disjunctivists already standardly accept, that that an external object must be present if a brain state is to produce experience of the perceptual kind (cf. Sect. 2). Nor do either of these views seem to commit us to any kind of spooky action at a distance.²⁴

For my own part, I suspect that what really lies at the heart of the oft-voiced concern mentioned above is uneasiness with the idea that *any* background conditions could determine what effects a given brain state or proximate cause might produce. Why be uneasy about this? Well, one might think that it is *intrinsic* to a given proximate cause type that it produces the effects it does. If so, however, then there is no room for background conditions—which will typically be extrinsic to the proximate cause itself—to make a difference to what that cause can produce.

²³ Cf. Dennett (1987) for more general discussion of the way in which causal factors can sometimes play the kind of dual role.

²⁴ Foster (2000: 42) recommends to the disjunctivist a view similar to the one defended here. However, by allowing distal causal factors to be directly causally relevant to the resulting experience, Foster faces a worry about action at a distance that we do not (cf. Martin 2004: n. 15).

What we must resist, then, is the idea that it is intrinsic to a given brain-state-type to produce such-and-such an effect on a given occasion. What is intrinsic to the brain-state-type is the capacity to produce the relevant effect, given that the background conditions are met. The power to produce the effect is thus in an important sense conditional, and while this conditional power may be intrinsic to the brain-state-type, whether or not this power will be exercised in a given case can nonetheless depend on extrinsic factors. For instance, on the revised causal theory, whether a brain state will produce a perceptual experience or else an hallucinatory experience depends on the extrinsic causal context in which it occurs. There is, it seems to me, nothing incoherent about this view. The critics noted above, therefore, may well be wrongly assuming that what kind of effects an event-type will produce on a given occasion must be intrinsic to it. Instead, what is the case is that the conditional causal powers of an event-type are intrinsic to it while the exercise of these powers can depend on extrinsic factors (e.g., causal embedding).

We can conclude, therefore, that by embracing the revised version of the causal theory, disjunctivists are able to reject the non-demanding conception of hallucination, along with the reverse causal argument for Commonality. Below, I draw out some further conclusions from this result for the wider debate about disjunctivism (Sect. 4). First, however, I want to return to the arguments for the non-demanding conception of hallucinatory experience set out earlier (in Sect. 2). Above, we canvassed two main lines of thought in favour of the non-demanding conception. I now explain why they are not decisive.

The first argument turns on the thought that hallucinations are ‘inner experiences’. The idea is that due to being ‘inner’ in this way, it follows that hallucinatory events require nothing more of the world in order to occur than that the subject be in the right kind of local state. However, we can accept that hallucinations are inner experiences without accepting the non-demanding conception. On a disjunctive view of perception, perceptual experiences reach out to, and involve, external objects of sense. Therefore, such experiences are ‘outer events’ in the specific sense that they constitutively involve external entities (cf. [Snowdon, 2005](#)). In contrast to perceptions, however, it is plausible to think that hallucinatory experiences do not, and indeed could not, constitutively involve external items in this way. So, it is plausible to think that such episodes are ‘inner events’, which do not reach out to the external world. Yet, crucially, we can grant all this without granting the non-demanding conception, on which all it takes to produce an hallucinatory experience is the right proximate cause. For, whilst hallucinations may be inner events insofar as they do not constitutively involve external things, we can accept this even while insisting that hallucinations must be caused in a distinctive way. This is because hallucinations might be inner events—that is, events that do not constitutively involve external things—that must also be non-standardly caused.

As for the second line of argument, this turned on two main ideas. First, that if there are any background conditions on the occurrence of hallucinatory experience, then this must be implied by an account of the nature of such events. Second, that no plausible account of the nature of such events has this implication. The trouble here, I want to say, is with the second premise. On the causalist account developed in this section, it lies in the nature of hallucinatory experiences to be deviantly caused.

Accordingly, there is a perfectly good sense in which a full account of the nature of hallucinatory experience implies that background conditions must be met if such an event is to be produced. The second premise can therefore be rejected.

Ultimately, the second argument rests on an impoverished conception of the nature of hallucinatory experience. If we focus only on the mental nature of such events, narrowly construed, there may be nothing to imply that anything else is required for an hallucinatory experience to occur beyond the presence of the right kind of brain state. After all, the causalist view I have developed seems to be compatible with a whole range of options for analysing the mental nature of hallucinatory experience. A full account of the nature of such events, however, which takes into account the distinctive manner in which such experiences must be caused, implies that experiences of the hallucinatory kind, just like experiences of the perceptual kind, can only be produced in a distinctive kind of broader causal setting. Accordingly, if we take into account the full nature of such mental events, including the causal conditions on their insatiation, then we can defuse the present objection on the grounds that premise two is mistaken. That is, we can grant that if there are background conditions on the occurrence of hallucinatory experience, then this must be implied by an account of the nature of such events. However, we can deny that no plausible account of the nature of hallucination has this implication. To maintain otherwise would be precisely to ignore then kind of causalist picture of the nature of hallucinatory experience I have developed here.²⁵

²⁵ Notably, these last remarks help to diffuse a further objection to the revised causal theory. According to some philosophers, we can conceive of a world devoid of causation, a so-called 'Hume-world', in which there are nevertheless perceptual and hallucinatory experiences. If this is so, however, it seems to follow that nothing about causation enters into the essence of perceptual and hallucinatory experience after all (cf. Johnston 2004: 171–172). What we can say in response, however, is that even if such Hume-worlds are conceivable (which is not certain), it does not follow that they are metaphysically possible. To be sure, our ordinary, pre-philosophical concepts of perceiving and hallucinating may allow us to imagine such worlds. But advocates of the casual theory can plausibly insist that a fuller, more adequate conception of the natures of such episodes reveals that such worlds are impossible. (This would imply that our ordinary concepts of such episodes do not fully reveal their respective essences. It seems to me, however, that this is an independently plausible idea.)

There is also another way of going here, which is more concessive. What one might instead hold is that in general, to perceive an object is (in part) to be connected to it in some appropriate way, whereas hallucinating is (in part) to fail to be so connected to such an object. One can then say that in our world, causation is the relevant relation of connection. But one could also add that causation is just one of several such connection-relations, including, perhaps, counter-factual dependence, or even noumenal affection. A revised and more general version of the causal theory could then be stated in terms of the determinable relation R that has these various connection-relations as determinates. We could then allow for Hume-worlds wherein people can perceive and hallucinate by insisting that such worlds must contain instances of some other relevant determinate of R ; perceiving, in such a world, would involve being R^* -related to an object, whereas hallucination would involve not being so related, where R^* is a determinate of R but not a relation of causation. All we would then need to deny is that a Hume-world with no such determinate of R could be a world in which some people genuinely perceive whereas some other people merely hallucinate.

4 Conclusion

It is widely held that disjunctivists must accept the following thesis, namely:

Commonality

In every case of genuine perception, the subject undergoes an experience of the (fundamental mental) kind involved in hallucination.

In this paper, however, I have argued that this is not so. As we have seen, the argument for thinking otherwise depends on the non-demanding conception of hallucination, on which all it takes to produce an experience of the hallucinatory kind is the right proximate cause. What I have shown, however, is that disjunctivists can reject the non-demanding conception, and replace it with a more demanding causalist picture, on which hallucinatory experiences can occur only in the right kind of broader casual setting. Accordingly, rather than thinking that events of the hallucinatory kind occur even in cases of genuine perception, disjunctivists can instead claim that no such event could ever occur in a perceptual case.

What consequences does my argument have for the broader debate about disjunctivism? I close by drawing out some general morals.

One thing to note is that given the present view, disjunctivists no longer face the ‘screening off’ worry alluded to at the outset (see Sect. 1). Driving this concern is the idea that since the hallucinatory kind of experience is present even in the case of perception, it is unclear what explanatory role the distinctively perceptual sort of experience posited by the disjunctivist can play. Obviously, however, this worry does not arise once Commonality is rejected. Accordingly, the position developed in this paper enables the disjunctivist to sidestep entirely what is arguably one of the most fundamental challenges to their view (cf. Moran, 2019a).

A related point relates to extant disjunctivist theories of hallucination. When theorising about hallucination, disjunctivists have mainly been concerned with developing views that enable them to make sense of Commonality being true.²⁶ Yet, many of these views have ended up being rather radical. Martin (2004, 2006), for example, argues that if disjunctivists must endorse a ‘negative epistemic account’ of hallucination, on which hallucinatory experiences are nothing but events that cannot be distinguished by introspection from perceptions. In a similar vein, Fish (2008, 2009) argues that disjunctivists should view hallucinations as nothing but events with the same cognitive upshots as perceptions. Suppose, however, that disjunctivists need not accept Commonality. It follows that disjunctivists will not be forced into accepting radical and unintuitive views of hallucination just in order to have a coherent position. In turn, this means that a common strategy for arguing against the disjunctivist view will no longer appear compelling. In recent literature, a common strategy for arguing against disjunctivism in general has been to target the radical theories

²⁶ Even Johnston’s (2004) ‘property complex’ view, which is advanced on the basis of a whole range of considerations, is motivated at least partly by the perceived need to find an account of hallucinatory experience that is compatible with the assumption that Commonality obtains.

of hallucination it is taken to imply (see e.g., Conduct, 2010; Burge, 2005; Farkas, 2006; Hawthorne & Kovakovich, 2006; Searle, 2015; Siegel, 2004, 2008; Smith, 2008; Pautz, 2011).²⁷ If disjunctivists are not forced to accept any such theory of hallucination, however, then this argumentative strategy is flawed. Even if extant disjunctivist theories of hallucination are problematic, the disjunctive approach itself need not be rejected on those grounds.²⁸

This last points to more general moral, namely, that since disjunctivists can reject Commonality, it follows that they have much more freedom when it comes to theorising about hallucinatory experience than is commonly supposed (by its advocates and adversaries alike). At present, the consensus in the literature is that disjunctivists are severely restricted when it comes to developing a theory of hallucination, precisely due to the need to accept Commonality. On the theory proposed here, however, this orthodox view is mistaken. Instead, Commonality need not be accepted by disjunctivists, and so this claim does not impose any constraints on possible disjunctivist theories of hallucination. Accordingly, it turns out that disjunctivists are free to endorse whatever theory of hallucinatory experience seems to best capture the distinctive features of such episodes.²⁹ Indeed, room even emerges for endorsing a ‘positive’ account of hallucinatory experience, and, hence, for moving beyond the idea that hallucinations must be characterised solely in a ‘negative’ way, e.g. in terms of their subjectively indiscriminability from, or in terms of their shared cognitive effects with, certain corresponding perceptions.³⁰ Since a ‘positive’ theory of hallucination will be much more explanatory than a merely negative account, this should be seen by disjunctivists as a welcome result.

Acknowledgements Versions of this paper were presented at a work in progress seminar in Oxford and at graduate seminars in Oxford and Brown. My thanks to the participants on those occasions. Special thanks to Anita Avramides, Ralf Bader, Umut Baysan, Bill Child, Dominic Alford-Duguid, Philip Goff, Chris Hill, Mark Johnston, Mike Martin, Rory Madden, Adam Pautz, Howard Robinson, and Matt Soteriou.

²⁷ Many of these arguments focus on Martin’s ‘negative epistemic account’ of hallucination, which disjunctivism is widely taken to imply (cf. Dancy 2008: 262–263). For an important recent defence of this account, in light of some of its more seemingly counter-intuitive implications, see Alford-Duguid and Arsenault (2016).

²⁸ There is also a residual question regarding the remaining motivation for extant disjunctivist theories of hallucination. In Moran (2019a: §3), I argue that these theories of hallucination, even if they do help disjunctivists to maintain a coherent position while embracing Commonality, are unattractive in and of themselves. If that is right, however, then there may well be little to recommend acceptance of these theories once we see that Commonality can be rejected.

²⁹ Perhaps the idea that there are causal constraints on hallucination in the way that I have claimed here will rule out certain theories of the mental nature of hallucination that one might want to endorse. Whether that is so remains at this point to be seen. Even if this is the case, however, endorsing the causalist position I have developed here still leaves the disjunctivist with much more freedom than they are generally taken to have in relation to the hallucinatory case.

³⁰ As Dancy (1995: 436) observes, a notable feature of standard disjunctivist accounts of hallucination imply that such episodes are to be characterised solely in terms of how they are ‘like what they are not’, i.e., in terms of their relation to distinct cases of perception. When considering these accounts, it is natural to think it would be better if disjunctivists could offer a more ‘positive’ view of the hallucinatory case, which describes hallucinatory experiences as they are in and of themselves.

The research for this paper was supported by an Early Career Fellowship awarded by the Leverhulme Trust (Grant Number ECF-2019-349).

Open Access This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>.

References

- Alford-Duguid, D., & Aresnault, M. (2016). On the explanatory power of hallucination. *Synthese*, *194*, 1765–1785.
- Allen, K. (2015). Hallucination and imagination. *Australasian Journal of Philosophy*, *93*(1), 287–302.
- Austin, J. L. (1962). Sense and sensibilia. In Warnock, G. (Ed.), Oxford: Clarendon Press.
- Brewer, B. (2011). *Perception and its objects*. Oxford University Press.
- Burge, T. (2005). Disjunctivism and perceptual psychology. *Philosophical Topics*, *33*(1), 3–17.
- Byrne, A., & Logue, H. (2008). Either/or. In A. Haddock & F. Macpherson (Eds.), *Disjunctivism: Perception, action, knowledge* (pp. 58–94). Oxford: Oxford University Press.
- Campbell, J. (2002). *Reference and consciousness*. Oxford University Press.
- Campbell, J. (2010). Demonstrative reference, the relational view of experience, and the proximity principle. In R. Jeshion (Ed.), *New essays on singular thought* (pp. 193–212). Oxford: Oxford University Press.
- Child, W. (1992). Visual experience: The causal theory and the disjunctive conception. *The Philosophical Quarterly*, *42*(168), 297–316.
- Child, W. (1994). *Causality, interpretation and the mind*. Oxford University Press.
- Child, W. (2011). Vision and causal understanding. In J. Roessler, H. Lerman, & N. Eilan (Eds.), *Perception, causation, objectivity* (pp. 161–179). Oxford: Oxford University Press.
- Conduct, M. (2010). Naïve realism and extreme disjunctivism. *Philosophical Explorations*, *13*(3), 201–221.
- Crane, T. (2005). What is the problem of perception? *Synthesis Philosophica*, *20*(40), 237–264.
- Dancy, J. (1995). Arguments from illusion. *The Philosophical Quarterly*, *45*(181), 421–438.
- Dancy, J. (2008). On how to act: Disjunctively. In A. Haddock & F. Macpherson (Eds.), *Disjunctivism: Perception, action, knowledge* (pp. 262–282). Oxford: Oxford University Press.
- Davies, M. (1983). Function in perception. *Australasian Journal of Philosophy*, *61*(4), 409–426.
- Dennett, D. (1987). Three kinds of intentional psychology. In D. Dennett (Ed.), *The intentional stance*. A Bradford Book.
- Evans, G. (1982). *The varieties of reference*. Oxford University Press.
- Farkas, K. (2006). Indiscriminability and the sameness of appearance. *Proceedings of the Aristotelian Society*, *106*(1), 207–227.
- Fish, W. (2008). Disjunctivism, indistinguishability, and the nature of hallucination. In F. MacPherson & A. Haddock (Eds.), *Disjunctivism: Perception, action, knowledge* (pp. 144–167). Oxford: Oxford University Press.
- Fish, W. (2009). *Perception, hallucination, and illusion*. Oxford University Press.
- Foster, J. (1986). *Ayer*. Routledge and Kegan Paul.
- Foster, J. (2000). *The nature of perception*. Oxford University Press.
- Grice, P. (1961). The causal theory of perception. *Proceedings of the Aristotelian Society (supp. Vol.)*, *35*(1), 121–152.
- Hawthorne, J., & Kovakovich, K. (2006). Disjunctivism. *Proceedings of the Aristotelian Society (supp. Vol.)*, *80*(1), 145–183.

- Hellie, B. (2013). The multidisjunctive conception of hallucination. In F. Macpherson & D. Platchia (Eds.), *Hallucination* (pp. 149–174). The MIT Press.
- Hinton, J. M. (1973). *Experiences*. Clarendon Press.
- Hirst, R. (1959). *The problems of perception*. George Allen & Unwin.
- Hyman, J. (1992). The causal theory of perception. *The Philosophical Quarterly*, 42(168), 277–296.
- Ivanov, I. V. (2022). Bad to the bone: Essentially bad perceptual experiences. *Inquiry*. <https://doi.org/10.1080/0020174X.2022.2028672>
- Johnston, M. (2004). The obscure object of hallucination. *Philosophical Studies*, 120(1/3), 113–183.
- Kant, I. (1781/87) Critique of pure reason, translated/edited by P. Guyer and A. Wood. Cambridge: Cambridge University Press (1997).
- Langsam, H. (1997). The theory of appearing defended. *Philosophical Studies*, 87(1), 33–59.
- Lewis, D. (1980). Veridical hallucination and prosthetic vision. *Australasian Journal of Philosophy*, 58(3), 239–249.
- Logue, H. (2013a). What should the Naïve realist say about total hallucinations? *Philosophical Perspectives*, 26(1), 173–199.
- Logue, H. (2013b). Good news for the disjunctivist about (one of) the bad cases. *Philosophy and Phenomenological Research*, 86(1), 105–133.
- Logue, H. (2015). Disjunctivism. In M. Matthen (Ed.), *The Oxford handbook of philosophy of perception* (pp. 198–217). Oxford University Press.
- Mackie, J. L. (1976). *Problems from Locke*. Clarendon Press.
- Martin, M. G. F. (1992). *The content of experience*. University of Oxford.
- Martin, M. G. F. (2004). The limits of self-awareness. *Philosophical Studies*, 120(1/3), 37–89.
- Martin, M. G. F. (2006). On being alienated. In T. Z. Gendler & J. Hawthorne (Eds.), *Perceptual experience* (pp. 355–407). Oxford University Press.
- Martin, M. G. F. (manuscript). Uncovering appearances (unpublished book manuscript).
- McDowell, J. (1982). Criteria, defeasibility and knowledge. *Proceedings of the British Academy*, 61(1), 455–479.
- McDowell, J. (1994). The content of perceptual experience. *The Philosophical Quarterly*, 44(175), 190–205.
- Moran, A. (2019a). Naïve realism, causation and hallucination: A new response to the screening off problem. *Australasian Journal of Philosophy*, 97(2), 368–382.
- Moran, A. (2019b). Naïve realism, seeing stars, and perceiving the past. *Pacific Philosophical Quarterly*, 100(1), 202–232.
- Moran, A. (2021). Memory disjunctivism: Towards a causal theory. *Review of Philosophy and Psychology*. <https://doi.org/10.1007/s13164-021-00569-y>
- Moran, A. (manuscript-a). The selective theory. m.s. draft.
- Nudds, M. (2013). Naïve realism and hallucinations. In F. Macpherson & D. Platchia (Eds.), *Hallucination* (pp. 149–174). The MIT Press.
- Pautz, A. (2010). Why explain visual experience in terms of content? In B. Nanay (Ed.), *Perceiving the world* (pp. 254–309). Oxford University Press.
- Pautz, A. (2011). Can disjunctivists explain our access to the sensible world? *Philosophical Issues*, 21(1), 384–433.
- Pautz, A. (manuscript). How visual experience reaches to the world (m.s. draft).
- Pears, D. (1976). The causal conditions of perception. *Synthese*, 33(1), 25–40.
- Pitcher, G. (1971). *A theory of perception*. Princeton University Press.
- Price, H. H. (1932). Perception, 2nd edn, Revised 1950, Reprinted in 1981. Westport, Connecticut: Greenwood Press.
- Roberts, P., Allen, K., & Schmidtke, K. (2020). Reflective intuitions about the causal theory of perception across sensory modalities. *Review of Philosophy and Psychology*. <https://doi.org/10.1007/s13164-020-00478-6>
- Robinson, H. (1985). In Foster, J. & Robinson, H. (Eds.), *Essays on Berkeley: A tercentennial celebration* (pp. 163–186). Oxford University Press.
- Robinson, H. (1994). *Perception*. Routledge.
- Roessler, J. (2011). Causation in commonsense realism. In J. Roessler, H. Lerman, & N. Eilan (Eds.), *Perception, causation, objectivity* (pp. 106–119). Oxford: Oxford University Press.
- Schellenberg, S. (2010). The particularity and phenomenology of perceptual experience. *Philosophical Studies*, 149(1), 19–48.

- Schellenberg, S. (2014). The relational and representational character of perceptual experience. In B. Brogaard (Ed.), *Does perception have content?* (pp. 199–219). Oxford University Press.
- Searle, J. (2015). *Seeing things as they are: a theory of perception*. Oxford University Press.
- Sethi, U. (2019). Sensible overdetermination. *The Philosophical Quarterly*, 70(280), 588–616.
- Sethi, U. (2020). Over-determination. *The Philosophical Quarterly*, 70(280), 588–616. <https://doi.org/10.1093/pq/pqz077>
- Siegel, S. (2004). Indiscriminability and the phenomenal. *Philosophical Studies*, 120(1/3), 37–89.
- Siegel, S. (2008). The epistemic conception of hallucination. In F. MacPherson & A. Haddock (Eds.), *Disjunctivism: Perception, action, knowledge* (pp. 206–223). Oxford University Press.
- Smith, A. D. (2008). Disjunctivism and discriminability. In F. MacPherson & A. Haddock (Eds.), *Disjunctivism: Perception, action, knowledge* (pp. 182–203). Oxford University Press.
- Soteriou, M. (2016). *Disjunctivism*. Routledge.
- Snowdon, P. F. (1981). Perception, vision and causation. *Proceedings of the Aristotelian Society (new Series)*, 81(1), 175–192.
- Snowdon, P. F. (1990). The objects of perceptual experience. *Proceedings of the Aristotelian Society (supp. Vol.)*, 64(1), 121–166.
- Snowdon, P. F. (2005). Some reflections on an argument from hallucination. *Philosophical Topics*, 33(1), 285–303.
- Strawson, P. F. (1974). Causation in perception. In *Freedom and resentment* (pp. 73–94). London: Methuen.
- Strawson, P. F. (1979). Perception and its objects. In McDonald, G. (Eds.), *Perception and identity: Essays presented to A. J. Ayer* (pp. 41–60). London and Basingstoke: Macmillan. Reprinted in *Perceptual Knowledge*, (ed.) J. Dancy (Oxford: Oxford University Press). (pp. 92–112). References in text match the reprint.
- Thau, M. (2004). What is disjunctivism? *Philosophical Studies*, 120(1/3), 193–253.
- Tye, M. (2007). Intentionalism and the argument from no common content. *Philosophical Perspectives*, 21(1), 589–613.
- Tye, M. (2009). The admissible contents of visual experience. *The Philosophical Quarterly*, 59(263), 541–562.
- Tye, M. (2014). What is the content of a hallucinatory experience? In B. Brogaard (Ed.), *Does perception have content?* (pp. 292–308). Oxford University Press.
- van Cleve, J. (2015). *Problems from Reid*. Oxford University Press.

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.