



Successful Intuition vs. Intellectual Hallucination: How We Non-Accidentally Grasp the Third Realm

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Abstract

In his influential paper “Grasping the Third Realm,” John Bengson raises the question of how we can non-accidentally grasp abstract facts. What distinguishes successful intuition from hallucinatory intuition? Bengson answers his “non-accidental relation question” by arguing for a *constitutive* relationship: The intuited object is a literal constituent of the respective intuition. Now, the problem my contribution centers around is that Bengson’s answer cannot be the end of the story. This is because, as Bar Luzon and Preston Werner have recently pointed out, this answer leads to the follow-up question of *why* certain intuitional experiences are constituted by the facts, but others are not. My objective is to answer this question by specifying precisely what is epistemically defective about intellectual hallucinations. My result is that, in stark contrast to perception, intellectual hallucinations are epistemically defective in the sense that something is overlooked. In successful intuition, by contrast, all relevant possibilities/scenarios are considered/imagined. This has crucial epistemological implications. In particular, I argue that intuitions exhibiting a certain phenomenology cannot fail to successfully grasp abstract facts. I call this the non-accidental correctness thesis, which constitutes the main thesis of this paper.

1 Introduction

In his influential paper “Grasping the Third Realm,” John Bengson raises the question of how we can non-accidentally grasp abstract facts. What is the relation between the subject’s intuition and the abstract fact that explains how the intuition can successfully grasp this fact such that it constitutes a source of knowledge of this fact? What distinguishes successful intuition from hallucinatory intuition? In Bengson’s terminology, intuitions are mental states, namely a type of experience, and abstract facts are facts about mind-independent abstract entities. I adopt this terminology and subscribe to this conception of intuition. Bengson’s question

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is motivated by the fact that the analogous question makes much sense and is widely discussed in the case of perceptual experience. It is reasonable to assume that in successful perception there is a relation between the experience and the experienced object that explains how the experience can grasp the object such that it constitutes a source of knowledge concerning this object and that this relation is missing in the case of unsuccessful perception.

So what distinguishes successful perception from hallucination? One might expect that the simple answer to this question is truth or veridicality. Successful perception is veridical, hallucination is not. However, making use of the concept of veridical perceptual hallucination, Bengson argues that this cannot be the distinguishing factor. Analogously, Bengson introduces the concept of veridical intellectual hallucination, arguing that also in the case of intuition we need a more elaborate answer. Finally, Bengson answers his “non-accidental relation question” as follows: The relation that holds between successful perception/intuition and the experienced object, which is lacking in the case of hallucination, is a *constitutive* relationship: “*a thinker’s intuition that p is non-accidentally correct, hence able to serve as a source of knowledge that p , because it is partly constituted by the fact that p* ” (Bengson, 2015a, 27). The analogous answer is provided with respect to perception. This means that Bengson subscribes to a form of naïve realism with respect to perception as well as intuition: The experienced object is a literal constituent of the respective experience. Although, of course, naïve realism is a controversial thesis, it has been pointed out that it has many intriguing features (see Pritchard & Ranalli, [forthcoming](#); Luzon & Werner, 2022). One such feature is that it provides an answer to Bengson’s non-accidental relation question.

The problem this paper centers around is that the constitutive relation answer that Bengson gives to the non-accidental relation question cannot be the end of the story. This is because this answer leads to a follow-up question raised by Luzon & Werner:

“The Non-Arbitrary Constitution Question: What makes it the case that some intellectual experiences are constituted by the facts, while others are not?” (Luzon & Werner, 2022, 6)

Luzon and Werner insist that the answer to this question cannot be that it is a brute fact that successful intuition is constituted by the respective fact, while hallucinatory intuition is not. They demand an “explanation of why” this is so (Luzon & Werner, 2022, 6). The main conclusion of their paper is that the naïve intuitional realist cannot provide a satisfying answer to this question. This, so their argument goes, is in stark contrast to the perceptual naïve realist. The perceptual naïve realist can answer the analogous non-arbitrary constitution question as follows: What makes it the case that successful perceptions are constituted by the facts while hallucinations are not is that there is a *causal* relation between the perceiving subject and the perceived fact. In their argument against naïve intuitional realism, Luzon and Werner heavily draw on Bengson’s conception of veridical intellectual hallucination. This is because if there indeed are veridical intellectual hallucinations, then the intuitionist must find a criterion different from veridicality to distinguish successful intuition from hallucinatory intuition.

I want to point out that I neither agree with the details of Luzon and Werner's argument, nor do I subscribe to their conclusion. Mainly, this is because I believe that their conception of intuition is problematic. This being said, I do agree with Luzon and Werner that as intuitionists we owe our critics an answer to the question of what distinguishes successful from hallucinatory intuition. As Luzon and Werner rightly note, in the perceptual case we have a seemingly straightforward understanding of this distinction that rests upon the conception of causation. However, abstract objects are generally considered to be causally inert. So where does this leave us? In this paper, I argue that a closer analysis of the *phenomenology*¹ of intuition is key to answering our question.

In Section 2, I show how phenomenology matters when it comes to the justificatory force of perceptual experiences. In Section 3, I introduce the main thesis of this paper, namely my non-accidental correctness thesis, according to which for two intuitional experiences that are exactly alike phenomenally it is impossible that one is non-accidentally correct (and thus a source of knowledge) but the other one is not. In Section 4, I clarify the main differences between successful and hallucinatory intuition. In Section 5, I specify my answer to Bengson's non-accidental relation question.

2 The Non-Accidental Relation Question

2.1 The Question

At the center of Bengson's work is the distinction "between accidentally correct and non-accidentally correct conscious mental states" (Bengson, 2015a, 4). In the case of perceptual experiences, Bengson's prime examples of accidentally correct experiences are *veridical hallucinations* such as when "a capricious brain lesion might cause one to hallucinate that there is a red apple present; by a sheer coincidence, there is a red apple present: one got lucky" (Bengson, 2015a, 5). This is a veridical hallucination in the straightforward sense that the experience qualifies as a hallucination but its content is, accidentally, true. Bengson draws the following lesson from such examples:

In order for one's mental state, whether perceptual experience or intuition, to be able to serve as a source of knowledge, *it must not be an accident that one's experience or intuition is correct*. In both cases, correctness (truth, accuracy,

¹ By "phenomenology," I understand the *phenomenal character* of an experience. "It is definitional of experience, as the term is used here, that they have some phenomenal character, or more briefly, some phenomenology. The phenomenology of an experience is what it is like for the subject to have it" (Siegel, 2016; see also Tye, 2015). This means that this paper presupposes the view that intuitions are rational experiences that cannot be reduced to judgments, beliefs, or inclinations to believe. This view is controversial but recently has gained significant momentum. In the context of the present paper, adopting this view is natural because it is the one Bengson subscribes to. I provide more details on the diverse views on intuition in footnote 4.

veridicality) is not enough for success, which requires in addition that one's mental state be connected or related to the fact in question in such a way as to rule out accidentality. (Bengson, 2015a, 7)

To get a better understanding of what Bengson means when he says that accidentality must be ruled out, it is instructive to address a distinction he makes between source accidentality and doxastic accidentality (Bengson, 2015a, 7, fn. 10). Source accidentality is the kind of accidentality Bengson and I are interested in. It concerns the accidentality of a possible *source of belief* such as perceptual and intuitional experiences. Doxastic accidentality, by contrast, concerns the *subsequent belief*. For instance, as Bengson illustrates, in Goldman's well-known Barn County case, what is accidentally correct is not the experience of the barn but the subsequent belief that this is a barn. This is because the experience itself is just a normal experience, exemplifying the sort of causal relation between the object and the subject that typically holds in veridical perception. Experiences that manifest such a causal relation are typically correct (veridical), and thus there is nothing accidental about this experience being veridical. However, the belief that this is a barn is accidentally correct in the sense that it is sheer coincidence that the subject is referring to the only real barn and not to the many fake barns. Having made these clarifications, we now turn to the question at the center of Bengson's work:

The Non-accidental Relation Question: What relation does a thinker's mental state – her intuition – bear to an abstract fact that explains how the state can be non-accidentally correct with respect to that fact, hence able to serve as a source of knowledge of it? (Bengson, 2015a, 8)

For the sake of the argument, in Sections 3 and 4 I will agree with Bengson that veridical hallucinations cannot constitute a source of knowledge because they are only accidentally correct and that also in the case of intuitional experiences there can be accidentally correct veridical hallucinations. However, since the non-accidental relation question plays such a central role in this paper, I want to briefly elaborate on why I believe that Bengson overestimates non-accidentality. I do so in the following subsection.

2.2 Non-Accidentality is Not Sufficient for Knowledge: The Epistemological Significance of Phenomenology

The way Bengson formulates his non-accidental relation question and the significance he assigns to this question suggest that non-accidentality (in the sense of source non-accidentality) is necessary and perhaps even sufficient for an experience being a source of knowledge. However, if you share certain internalist intuitions and commitments, then non-accidentality is certainly not sufficient. In epistemology, "internalism" can mean many different things so I need to briefly elaborate on what I have in mind here. Most often this label is associated with a form of *access internalism*. However, I prefer the version of internalism introduced and defended by Conee and Feldman whose basic idea has been expressed as follows: "internalism is the view that a person's beliefs are justified by the things that are internal

to the person's mental life" (Conee & Feldman, 2004, 55). In particular, when it comes to experiential justification, I subscribe to what has been labeled "phenomenological internalism" (Berghofer, 2022, 7). Phenomenological internalism implies that for two experiences that are exactly alike phenomenally, it is impossible that one experience is a source of *justification* but the other one is not. This paper goes beyond such claims by arguing that for two intuitional experiences that are exactly alike phenomenally, it is impossible that one is non-accidentally correct (and thus a source not only of justification but of knowledge) but the other one is not. This is my non-accidental correctness thesis discussed in the next section, but first things first.²

Now, the first thing to note is that internalists should certainly reject the idea that non-accidentality might be necessary or sufficient for an experience to be a source of *justification*. Non-accidentality is not necessary for an experience to be a justifier because internalists typically hold that hallucinations (whether veridical or not) can be justifiers. Non-accidentality is not sufficient for an experience to be a justifier because internalists typically deny that blindsight seemings are justifiers. (More on this shortly.) At this point we note two things. First, if you believe that justification (and not knowledge) is the central notion in epistemology, then non-accidentality loses much of its significance. Second, if I am right that non-accidentality is not sufficient for justification, then, of course, it is also not sufficient for knowledge.

Let us take a closer look at how the phenomenon of blindsight undermines the idea that non-accidentality is sufficient for justification/knowledge. We speak of blindsight if a person, due to a damaged visual cortex, suffers from conscious blindness but is nevertheless able to correctly respond to visual stimuli that the person is not consciously aware of. Often, the conscious blindness is restricted to a region of the person's visual field, the person's blind field. Experimental research shows that in certain scenarios a blindsight patient would report that she does not see anything that is going on in her blind field but when forced to guess, she correctly identifies the stimulus.

After a lesion to the primary visual area, these patients report a lack of perceptual consciousness in the affected region of the visual field. However, when forced to guess the identity or presence of certain stimuli, they can perform well above chance level, sometimes to an impressive range of 80–90% correct. (Lau, 2008, 249)

Lawrence Weiskrantz, who discovered and thoroughly investigated the phenomenon of blindsight, defines blindsight as "visual capacity in the *absence* of acknowledged awareness" (Weiskrantz, 1998, p. x). Obviously, such experimental research has important implications for the nature of visual consciousness and philosophy of mind. However, it also has significant *epistemological* implications (see Berghofer, 2022; Ghijssen, 2016; Smithies, 2014; Tucker, 2010). For instance, the phenomenon of blindsight puts pressure on reliabilist conceptions of perceptual justification. This can best be demonstrated by introducing the notion of blindsight seemings. In my terminology,

² As a side note, since it is plausible to assume that the phenomenology of an experience happens to be internally accessible, I take it that my version of internalism is consistent with access internalism.

a blindsight seeming is an experience that results from blindsight, pushes one to believe that p , but has no presentational phenomenology with respect to p .³ Furthermore, by stipulation, blindsight seemings are mostly veridical, which means that the unconscious perceptual processes that produce the respective beliefs are highly reliable. Importantly, however, at least according to certain internalists, these blindsight seemings are *not* a source of immediate justification. If you have the blindsight seeming that p , but your experience does not have any presentational phenomenology with respect to p , then this experience does not immediately justify you in believing that p .⁴

If this is correct, then reliability is not sufficient for justification, which is precisely why it is often argued that the phenomenon of blindsight puts pressure on reliabilism (see, e.g., Berghofer, 2022; Ghijzen, 2016; Smithies, 2014, 2019). I take it that it is plausible and in agreement with common sense to say that a typical perceptual experience that has a presentational phenomenology regarding its contents has more justificatory force than a blindsight seeming that lacks such a phenomenology typical of perception. If so, then it is straightforward to assume that this epistemological difference is grounded in the phenomenological difference (as argued in Smithies, 2014, 2019; Berghofer, 2022). It would go beyond the scope of this paper to argue for this in detail. For our purpose, it is only relevant that this provides us with some motivation to assume that phenomenology plays an important epistemic role. More precisely, it suggests that justification-conferring experiences have a kind of presentational phenomenology.

Above I said that according to *certain* internalists, blindsight seemings do not provide immediate justification. Epistemic internalism comes in many flavors and according to one prominent version, phenomenal conservatism, *every* seeming is a source of immediate prima facie justification (Huemer, 2001, 2013; Tucker, 2010). Accordingly, phenomenal conservatism implies that even blindsight seemings provide immediate justification. And indeed, Huemer and Tucker suggest that blindsight patients have seemings about what is happening in their blind spots and that these seemings provide “very weak prima facie justification that, for example, there is movement in the area corresponding to the blindspot” (Tucker, 2010, 543). Of course, what Huemer and Tucker have in mind here are real-world cases of blindsight in which patients might have very weak seemings. However, we can stipulate that hypothetical blindsight seemings are very strong seemings. This would mean that to the blindsighted person it seems very strongly that p although it doesn't seem

³ Please note that blindsight seemings are *hypothetical* mental states. The idea of introducing them the way I do is based on the real-world phenomenon of blindsight, which is the phenomenon that in forced-choice tests blindsight patients make surprisingly accurate guesses about what is going on in their blind spots. From this, however, it does not follow that these patients are undergoing experiences that have a phenomenology of pushiness that is distinctive of seemings. Introducing blindsight seemings allows me to criticize not only reliabilism but also phenomenal conservatism, i.e., dogmatism (see below). In this context, it is to be noted (i) that prominent phenomenal conservatives such as Huemer and Tucker speak of seemings in the context of blindsight (Huemer, 2013, 333 and Tucker, 2010, 531, 543) and (ii) that we can easily imagine that blindsight seemings exist. Since I will argue that intuitions are different and phenomenologically much richer than mere seemings, it is helpful to note already here that my approach is different from phenomenal conservatism.

⁴ Of course, if you know that your blindsight seemings are reliable, you may have inferential justification for believing p .

to them that they are visually aware of p , i.e., their experience does not have any presentational phenomenology regarding p .

This brings us to one of the main objections against phenomenal conservatism. Internalists such as Chudnoff (2013), Smithies (2019), or Berghofer (2022) assume that phenomenal conservatism is on the right track but insist that it is too permissive in declaring any seeming to be a source of immediate justification. In this picture, blindsight seemings lack presentational phenomenology and thus cannot be considered a source of immediate justification. What is more, the phenomenology of perceptual experiences cannot be reduced to simply making it seem to one that p , or pushing one toward believing that p ; their phenomenology is much richer than that. Analogously, intuitional experiences have a kind of presentational phenomenology that also is richer and goes beyond making it seem to one that p . The phenomenology of intuitional experiences will be discussed in the next section.

Now, returning to the proper subject of this subsection, if we assume that blindsight seemings do not constitute a source of knowledge, all we need to do to show that non-accidentality is not sufficient for justification/knowledge is to stipulate that blindsight seemings have a similar causal structure as successful perceptions: There is an external object X that physically affects my sense organs such that the reliable experience with the content “there is X ” is formed. By stipulation, there is nothing about these blindsight seemings that makes them more or less accidentally correct than successful perceptions. However, there is the epistemologically crucial difference that perceptual experiences are a source of immediate justification but blindsight seemings are not. According to the approach pursued in this paper, this epistemological difference is grounded in the *phenomenological* difference that perceptual experiences have a presentational phenomenology but blindsight seemings do not.

Having argued that non-accidentality is not sufficient for knowledge, non-accidentality still seems to be necessary. However, we note that it is *not* necessary for *inferential* knowledge. If all your life you have been having accidentally correct veridical hallucinations and you know that so far your perceptual experiences have been mostly correct (but, by stipulation, you only know that they have been mostly correct, you do *not* know that they have been *accidentally* correct), then it is plausible to assume that when you have the perceptual experience that p , and p is true, at least you know inferentially that p . Whether non-accidentally correct experiences, or veridical hallucinations more specifically, can be a source of immediate knowledge seems doubtful but here I remain neutral on this question. What is important to me is that non-accidentality is not sufficient for justification/knowledge and that there is a close relationship between the epistemic force of an experience and its phenomenology.⁵

⁵ It is an underlying premise of Bengson (2015a) and Luzon & Werner 2022 that the concept of causality can be straightforwardly used to distinguish successful from unsuccessful perception. However, while a causality-based distinction between successful perception and hallucination may seem straightforward, it is not so clear how, based on the concept of causation, one may distinguish successful perception from *illusion*. For in illusion there typically *is* a causal relationship between an outer object and the experiencing subject. In the case of the Müller-Lyer illusion, for instance, there really are these arrows that physically affect the sense organs of the experiencing subject. So, what distinguishes the causal relation in the case of successful perception from the causal relation in the case of illusion? It is not obvious what such an answer could look like that is not forced to make use of the concept of veridicality, which seems to be a shortcoming.

3 The Phenomenology of Successful Intuition

3.1 Intuitional Experiences

In this paper, I adopt an understanding of intuition⁶ as it has been developed by Chudnoff (2013), Bengson (2015b), and Berghofer (2022): Intuitions constitute a sui generis type of pre-doxastic experiences that exhibit a distinctive phenomenology. This distinctive phenomenology is often referred to as being “presentational.” In accordance with what we discussed in the previous section, this is meant to emphasize that an intuition is not a mere seeming. The phenomenology of an intuition that p is not exhausted by making it seem that p or by pushing one toward believing its content. Here is how Chudnoff characterizes the presentational phenomenology of justification-conferring experiences:

The relation that seems to me to best illuminate what presentational phenomenology is like is truth-making. So: What it is for an experience of yours to have presentational phenomenology with respect to p is for it to both make it seem to you that p and make it seem to you as if this experience makes you aware of a truth-maker for p . (Chudnoff, 2013, 37)

This means that Chudnoff characterizes the phenomenology of intuitions in terms of seemings but clarifies that the phenomenology goes beyond making it seem to the subject that some proposition is true. More precisely, he says that there are two seemings: the seeming that p and the seeming that the experience makes you aware of a truth-maker for p . However, I want to abstain from the truth-maker terminology because it would be an overintellectualization of intuition to say that the intuiting subject experiences something *as* a truth-maker.⁷ Furthermore, Chudnoff assumes that the above characterization captures the presentational character of any type of justification-conferring experience, including perception and intuition. However, I believe that the phenomenological characterizations of different types of experiences need to be more fine-grained and that there is a phenomenological difference between intuiting a necessary truth and perceiving a contingent fact. Here is how I characterize the presentational phenomenology of intuitional experiences.

The phenomenology of intuitional experiences: By undergoing an intuitional experience that p , the experience makes it seem to you that you can see why p must be true.

⁶ Broadly speaking, the two main competing views regarding the nature of intuition are sui generism and reductivism. According to sui generism, intuitions are sui generis mental states that cannot be reduced to other more fundamental types of mental states. Reductivism, on the other hand, is usually introduced as a form of doxasticism, according to which intuitions can be reduced to doxastic states such as judgments (Williamson, 2007), beliefs or opinions (Lewis, 1983), or inclinations to believe (Van Inwagen, 1997; Sosa, 2009, 54). While reductionism is the more traditional view, recently, sui generism has gained a lot of momentum thanks to works such as Bealer 2002, Bengson (2015b), Berghofer (2022), BonJour (2014), Chudnoff (2013), Church (2013), Huemer (2001), Koksvik (2021), and Pust (2000).

⁷ I do not want to say that Chudnoff is guilty of such an overintellectualization and, of course, he clarifies that it is not required that the subject possesses the *concept* of a truth-maker (Chudnoff, 2013, 37).

If you have the intuition that $2 + 3 = 5$, the phenomenology of this mental state is not exhausted by simply making it seem to you that this is the case. When asked why you believe that $2 + 3 = 5$, it would be misleading to respond: “This is just how it seems to me.” Instead, I suggest, it seems to you that you can see how $2 + 3$ adds up to 5, and it is part of the overall phenomenology of this experience that you can see that the sum of $2 + 3$ could not be greater or smaller than 5. Similarly, when intuiting the law of noncontradiction, i.e., that $\neg(p \wedge \neg p)$, it doesn’t just seem to you that this law holds, as it might seem to you that tomorrow will be a productive day. I suggest that it is part of the overall phenomenology of your intuition that you try to imagine counterexamples, and by doing so, it seems to you that there couldn’t be one. In this sense, it seems to you that you can see why it must be true. The problem with examples like “ $2 + 3 = 5$ ” or the law of noncontradiction is that they are so well-known that you may undergo a number of different mental states when contemplating them. You may *remember* that you have learned that the law of noncontradiction applies, you may strongly *believe* that it applies, or you may intuit it, but the danger is that these different mental states become conflated. In order to distill what is phenomenally characteristic about intuition, it might be helpful to contemplate a statement that can be intuited but is less often discussed.

Consider the statement that 2 is the only even prime number. Let us assume that, when first confronted with this statement, you cannot “see” or intuit that it obtains. After some time of contemplation you realize that since every even number can be divided by 2 without leaving a remainder, 2 must be the only even prime number. When I intuit this theorem, the theorem does not simply strike me as true. It is not an empty seeming that simply pushes me toward believing its content. This experience has a pronounced phenomenology and it seems to make me aware of *why its content must be true*.⁸

Of course, in the literature intuitions are often simply characterized as mental states that make it seem that some proposition is true. This is, at least partly, due to the prominence of phenomenal conservatism. I do not deny that such seemings exist. What I do deny is that we should consider such “empty” seemings a source of immediate justification. It would go beyond the scope of this paper to elaborate on the benefits of the phenomenologically more demanding conception of intuition that is adopted here. Importantly, all that is required for the purpose of this paper is that the reader agrees that intuitions in my sense of the term exist.

In what follows in this paper, I will show that for those mental states that I call intuitional experiences, it cannot be that a successful intuition and a (veridical) intellectual hallucination have the same phenomenology. This is my non-accidental correctness thesis introduced in the next subsection. This constitutes an important distinction to perceptual experiences, since a successful perception and a hallucination

⁸ Here one might object that intuitions are always psychologically immediate and cannot be a consequence of reasoning. I deny this. All that matters is that at some point you are undergoing an experience with the phenomenology specified in this subsection. This experience, then, is an intuitional experience no matter how it was formed. For approaches similar to mine, see Chudnoff’s account of “hard-won intuitions” (Chudnoff, 2020) and Koksvik’s argument that “contrary to popular opinion, intuition can result from conscious reasoning” (Koksvik, 2013, 710).

can have the exactly same phenomenology. As we will see, the non-accidental correctness thesis is the key to answering the question of how in successful intuition we can non-accidentally grasp an abstract fact. A crucial note on terminology is in order: the distinction between intuitional experiences, successful intuition, and intellectual hallucination can be understood analogously to the distinction between perceptual experiences, perception, and hallucination. Successful intuitions and intellectual hallucinations are intuitional experiences and have the presentational phenomenology described in this subsection. In Subsections 3.3 and 3.4, I will elaborate on what is epistemically defective about intellectual hallucinations and how this manifests in the phenomenology.

Finally, one important clarification is in order. As pointed out, my approach to intuition is different from the most common ones according to which intuitions are simply intellectual seemings. On the one hand, this has a number of advantages. For instance, it is one of the most common and forceful objections against Hume's phenomenal conservatism that it is too permissive in saying that every seeming can be a source of immediate justification. If Peter contemplates the number 2 and thereby it seems to him that the number two is the coolest number and the answer to most questions in life, we should be hesitant in saying that Peter thereby is justified to believe this. More importantly, I take it that my characterization is phenomenologically more adequate for the examples I'm interested in: When we contemplate and then intuit that $2 + 3 = 5$ or that 2 is the only even prime number, these intuitions go beyond simply making it seem to us that they are true. On the downside, however, it seems that my approach cannot account for or does not apply to all the examples where we would typically speak of intuitions. Most notably, epistemic intuitions such as Gettier intuitions are closer to mere seemings than experiences in which it seems to us that we can see why their contents must be true. However, Chudnoff (2013) argues that "philosophical intuitions are phenomenally like logical and mathematical intuitions" (76). For instance, according to Chudnoff, if we assume that the content of a Gettier intuition is not a statement like "In the story: Smith has a justified true belief that P , but does not know that P " (78) but a modal claim such as "Possibly: One can have a justified true belief that P that is true as a matter of luck" (79), then this epistemic intuition can have presentational phenomenology. In this context, Chudnoff argues that imagining possible scenarios is part of the overall presentational phenomenology of the intuitional experience (77f.). I stay neutral on the question of whether epistemic intuitions have a presentational phenomenology. We need to keep in mind, however, that the results of this paper are restricted to mental states to which the phenomenological characterization provided in this subsection applies.⁹

⁹ An anonymous reviewer of this journal suggested that instead of calling such mental states intuitional experiences, I should call them grasping experiences. However, since I believe that (i) phenomenal conservatism suffers from some general problems and that in particular (ii) it is problematic to refer to something like the intuition that $2 + 3 = 5$ as a mere seeming, I would like to stick to my terminology.

3.2 Non-Accidental Correctness

When Bengson discusses whether there are intellectual hallucinations, he mentions two views that might deny this.

Cartesian Rationalism: Intuitions are infallible. (There cannot be a non-veridical intuition).

Lewis Phenomenologized: An intuition exhibiting a presentational phenomenology is non-accidentally correct, if correct. (Intuitions that exhibit a presentational phenomenology cannot be veridical hallucinations.)

Since “an intuition exhibiting a presentational phenomenology” is redundant in my terminology, we may restate *Lewis Phenomenologized* as follows:

No Veridical Hallucinations: If an intuition is veridical, it cannot be accidentally correct. (There cannot be veridical intellectual hallucinations.)

Bengson rightfully dismisses both Cartesian Rationalism and No Veridical Hallucination. He emphasizes the various analogies between perception and intuition and based on the insight that there can be veridical intellectual hallucinations, he believes that the non-accidental relation question poses a serious problem for the intuitionist. However, I believe that Bengson and most past and current epistemologists have overlooked a massive disanalogy between perception and intuition. In this section, I argue for the following claim:

The Non-Accidental Correctness Thesis (NACT): If two subjects have a phenomenally identical intuitional experience, it is impossible that one experience is a successful intuition but the other experience is a veridical hallucination.

NACT is the main thesis of this paper. It says that if an intuitional experience qualifies as a successful intuition, then any other experience that has the same phenomenology necessarily also qualifies as successful intuition (and cannot merely be a [veridical] hallucination). NACT has several crucial epistemological implications. In particular, it suggests that there is a substantial disanalogy between perception and intuition. In the case of perception, what makes veridical hallucinations so epistemologically interesting is that they can have the identical phenomenology as successful perceptions. Since they can be phenomenologically identical, we are in need of a non-internalist criterion that distinguishes one from the other. Causation, or so the story goes, does the trick. But if NACT is true, then the situation may be quite different in the case of intuition. Perhaps a purely phenomenological-internalist analysis is sufficient to distinguish between successful and hallucinatory intuition. Indeed, in what follows I offer such an analysis.

It is to be noted that NACT does *not* say that intuition is infallible or that there cannot be veridical intellectual hallucinations. In the following subsection, I clarify why I dismiss these claims. In Subsection 3.4, I shed further light on the phenomenology of successful intuitions. In Section 4, I specify what is epistemically defective about unsuccessful intuition.

3.3 Veridical Intellectual Hallucinations

Cartesian rationalism, as I use the term here, is the view that intuition is infallible. This is to say that an intuitional experience cannot fail to be veridical. For a significant part of the history of philosophy this might have been the received view but in current debates it is widely considered untenable. There are several reasons for rejecting Cartesian rationalism. Perhaps the strongest reason stems from the fact that most likely we all know that sometimes we err with respect to our non-inferential a priori judgments. That may happen in our professional work when we commit a logical fallacy or in our daily lives when we miscount (for instance when playing cards). The most prominent reason stems from historical examples: Propositions that seem intuitively obvious, have been believed by (generations of) important mathematicians, but are, in fact, false. Such propositions are:

H1: The sum of angles of any triangle equals 180° .

H2: There is a set S defined as the set of all sets that are not members of themselves.

H3: There are more natural numbers than even numbers.

When Euclid¹⁰ has the intuitional experience that the sum of angles of any triangle equals 180° , he overlooks that, e.g., on a sphere the sum of the angles of a triangle is always greater than 180° . When Frege¹¹ has the intuitional experience that for any well-defined property (such as not being a member of itself) there is a set that contains all and only the objects that satisfy this property, he overlooks the contradictions this implies (Russell's antinomy). When I have the intuitional experience that there are more natural numbers than even numbers, I overlook how the bijection $f(x) = 2x$ puts both sets into a one-to-one correspondence.

This means that there can be non-veridical intuitional experiences, which is to say that Cartesian rationalism is false. Now we turn to the question of whether there can be veridical intellectual hallucinations. By an intellectual hallucination, I understand an intuitional experience that is in a sense to be specified epistemically defective such that it cannot constitute a source of knowledge. Above, I have already motivated the idea that intellectual hallucinations are epistemically defective in the sense that something has been overlooked: not all relevant possibilities/scenarios have been considered/imagined. In what follows, I reinforce this notion. Consider again our prime example.

P: There is no even prime number greater than 2.

Lucky John contemplates this theorem, realizes that every even number can be divided by 2, and thereby has an intuitional experience that presents the following proposition as necessarily true:

¹⁰ "Euclid" here is a name for a subject that has an intuitional experience regarding proposition H1. The real Euclid may have introduced this axiom simply to show what is comprised by his axiomatic system.

¹¹ "Frege" here is a name for a subject that has an intuitional experience regarding proposition H2. The real Frege may not have thought in terms of sets.

P*: There is no even prime number.

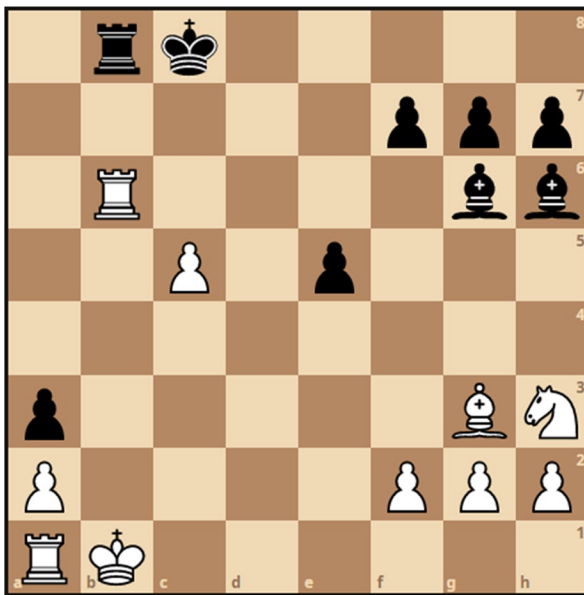
P*, unbeknownst to John, is false. Let's say that John intuitively grasps that P follows from P* and that in further consequence he has the intuitional experience that P. (In the sense that it seems to him that he can see why P must be true.) John's intuitional experience that P is a veridical intellectual hallucination. It is veridical because the proposition is true. It is intuitional because by contemplating the theorem it seems to him that he can see why it must be true. It is hallucinatory because John has overlooked something. In fact, John has overlooked two things. He overlooked that 2 is an even number and he overlooked that 2 is a prime number. Since 2 is an even prime number, P*, unbeknownst to John, is false. However, although John overlooked that 2 is an even prime number, P is still true. In a sense, John was lucky.

Now imagine that Successful Claudia also contemplates prime numbers. She intuitively grasps that 2 is an even prime number and thereby has an intuitional experience that presents the following proposition as necessarily true:

P': There is an even prime number.

The difference between Successful Claudia and Lucky John is that Claudia has considered all relevant cases. I submit that any experience that has the same phenomenology as Claudia's intuition cannot fail to be a successful intuition.

Let us turn to the following chess position:



By contemplating this chess position, Lucky John has the intuitional experience that white is checkmated. This experience is due to John realizing that the King is in check, has nowhere to move, and that the check cannot be blocked by moving a white piece between the king and the checking bishop. However, John overlooks that one way to get out of check is by capturing the checking piece. He overlooks that checkmate would be avoided if the white rook could capture the bishop. As a matter of fact, however, the rook cannot capture the bishop because this would put white in check (because of the black rook on b8). What is hallucinatory about John's intellectual experiences is that he is overlooking a couple of things. Still, his intuitive experience that white is checkmate is veridical.

Now imagine that Successful Claudia also contemplates the above chess position. Her intuition is exactly like John's except for the fact that in addition she also sees that checkmate would be avoided if the white rook could capture the bishop but that the rook cannot capture the bishop because this would put white in check. The difference between Successful Claudia and Lucky John is that Claudia has considered all relevant cases. I submit that any experience that has the same phenomenology as Claudia's intuition cannot fail to be a successful intuition.

3.4 Successful Intuitions

Given the above, the phenomenology of successful intuitions can be illuminated as follows: Intuitional experiences are mental states in which it seems to the subject that they can see why an abstract fact must be true. But such intuitional experiences can be hallucinatory. In non-veridical intellectual hallucinations, it seems to the subject that they can see why p must be true, but p is false. In veridical intellectual hallucinations, it seems to the subject that they can see why p must be true, p is true, but the subject has overlooked relevant scenarios/possibilities. In successful intuition, by contrast, the subject has considered the relevant scenarios/possibilities. Importantly, according to my approach, this must manifest in the phenomenology. For instance, if a subject considers all relevant possibilities at t_1 but then forgets or ignores these considerations, then this does not imply that her intuitional experience at t_2 qualifies as a successful intuition. Consider the following case: Steven is obsessed with the number two. One day he contemplates whether two is the only even prime number. He realizes that two is an even prime number, realizes that every even number greater than two can be divided by two, but his subsequent seeming that two is the only even prime number is phenomenally exhausted by making it seem to him that the number 2 has this feature because it is the coolest number. Avoiding such cases, here is how I characterize the phenomenology of successful intuition:

The phenomenology of successful intuition: An experience E qualifies as a successful intuition of p iff (i) E has a presentational phenomenology with respect to p in the sense that E makes it seem to the intuiting subject S that they can see why p must be true, and (ii) the scenarios/possibilities that are relevant for whether or not p must be true have been adequately considered by S , which

(iii) manifests in the overall phenomenology of E in the sense that the facts that actually constitute why p must be true are adequately represented in the overall phenomenology of E .

(i) simply says that the experience qualifies as an intuitional experience as characterized in Section 3.1. (ii) says that the subject has adequately considered the relevant scenarios/possibilities, which is to say that the subject has not overlooked anything substantial. (iii) says that this adequately manifests in the overall phenomenology of the intuitional experience. Of course, what “relevant” and “adequately considered/represented” mean depends on the details of the respective intuited statement. If the statement is “There is an even prime number,” the relevant case is the number 2 being a prime number. This is adequately considered and represented if it is part of the overall phenomenology that the statement must be true because 2 is an even prime number. It is not adequately considered/represented if it seems to the subject that 2 is the only even prime number because 2 is the only number sufficiently cool to have such a feature.

Importantly, this is not to say that the intuiting subject is intuitively aware of a full-fledged proof or that she, qua having this intuition, would be able to give a proof. It is also not required that the content “I haven’t overlooked anything” is an explicit part of the overall phenomenology. However, it seems to the subject that she can see why p must be true and, de facto, the subject has considered all relevant scenarios. This manifests in the phenomenology. In particular, if she had overlooked something, the overall phenomenology would have been different. Regarding this aspect of “overlooking” relevant scenarios, an anonymous reviewer of this journal raised the following worry:

“But why think that overlooking that something is so is properly part of the intuitional experience? [...] It rather looks like an external element; something an agent does in addition to having an intuition. Now, this additional element of having/not overlooked that such-and-such might explain what is epistemically problematic with hallucinatory illusions, but it doesn’t seem to be buried in the phenomenal character of the intuitional experience.”

Here it might be helpful to stress an analogy to perceptual experience. Say John is looking for a pudding in the fridge. He opens the fridge, looks carefully, but overlooks the pudding. The experience presents him with two bottles of milk, three cans of cola, a wheel of cheese, but no pudding. The pudding is right next to the cheese, but John overlooked it. Sad and hungry, John closes the fridge and wants to leave for work. Then he remembers that he put the pudding next to the cheese. He opens the fridge again, and this time he immediately spots the pudding. In this empirical case, it is clear how overlooking/not overlooking something can manifest in the respective phenomenology. The second time John opens the fridge, his experience of what is in the fridge is clearly different from the previous one. Similarly, when John contemplates a position in chess and it seems to him that black is not checkmate because black could capture the checking piece, this intellectual experience is phenomenologically different from Mary’s experience who contemplates the same chess position but realizes that black cannot capture the checking piece. Of course, there are

also many important dissimilarities between perceptual and intuitional experiences, but I take it that it is plausible that overlooking something in the senses specified here has an impact on the phenomenology of the respective experience.

4 Successful Intuition vs. Intellectual Hallucination

Imagine a mathematician who wonders whether a theorem T is true and attempts to prove it. Unfortunately, in her “proof” the mathematician makes two mistakes. However, by sheer luck, the two mistakes cancel each other out such that she arrives at the correct conclusion T . In this story, we would deny that the mathematician knows that T . After all, in her deductive reasoning she made two mistakes. Something similar is true with respect to veridical intellectual hallucinations. In the cases discussed in the previous section, the subject that undergoes a veridical intellectual hallucination has overlooked something, failed to imagine/consider relevant scenarios/possibilities. By sheer luck, the experience happens to be veridical. Thus, it seems reasonable to deny that (veridical) intellectual hallucinations can be a source of knowledge. What is epistemically defective about intellectual hallucinations is precisely that relevant scenarios/possibilities have been overlooked. In successful intuition, by contrast, since all relevant scenarios/possibilities have been imagined/considered such that this adequately manifests in the phenomenology, the intuition cannot help but be veridical. There is nothing accidental about a successful intuition being correct. This culminates in the main thesis of this paper introduced in Section 3.1:

The Non-Accidental Correctness Thesis: If two subjects have a phenomenally identical intuitional experience, it is impossible that one experience is a successful intuition but the other experience is a veridical hallucination.

If I have a clear and distinct intuitional experience that “ $1 < 2$,” or that “ $1 + 1 = 2$,” or that “2 is the only even prime number,” any other subject that has an intuitional experience with the same phenomenology also has a successful intuition concerning the respective proposition. This is not to say that I can internally discern whether my intuition is successful or hallucinatory but it means that my internal twins have the same successful/hallucinatory intuitions as I do. As mentioned above and discussed in further detail in Section 5, this constitutes a massive disanalogy to the case of perception.

In this section, I specify the difference between successful and hallucinatory intuition according to three dimensions: epistemic success, epistemic virtue, and phenomenology:

The difference regarding epistemic success:

Intuitional experience: It seems to S that she can see why p must be true.

Hallucinatory intuition: It mistakenly seems to S that she can see why p must be true.

Successful intuition: S truly sees why p must be true.

The difference regarding epistemic virtue:

Hallucinatory intuition: The subject fails to imagine/consider the relevant scenarios/possibilities.

Successful intuition: The subject succeeds in imagining/considering the relevant scenarios/possibilities.

The difference regarding the phenomenology:

Hallucinatory intuition: It is not a constitutive part of the overall phenomenology of the intuitional experience that the relevant scenarios/possibilities have been imagined/considered.

Successful intuition: It is a constitutive part of the overall phenomenology of the intuitional experience that the relevant scenarios/possibilities have been imagined/considered.

One important clarification is in order. I do not want to suggest that hallucinatory intuitions are epistemically defective in the sense that they cannot constitute a source of *justification*. They are only epistemically defective in the sense that they cannot constitute a source of *knowledge*. In the picture adopted here, every intuitional experience is a source of immediate justification simply by virtue of its distinctive presentational phenomenology.¹² This can be stated more precisely as follows:

Intuitive justification: If S is undergoing an intuitional experience with respect to *p* such that it seems to S that she can see why *p* must be true, then S is immediately a priori justified in believing that *p*.

However, if the intuitional experience is a (non-)veridical intellectual hallucination, then this experience does not constitute a source of knowledge and S does not know that *p*. So, when is a subject in a position to intuitively know that an abstract fact obtains? Our results suggest the following analysis:

¹² An anonymous reviewer of this journal raised the objection that it is not plausible to consider (veridical) intellectual hallucinations a source of justification. This is because, in my view, if one has an intellectual hallucination, then one has overlooked something, which is to say that the subject is in some sense epistemically blameworthy. Addressing this objection is particularly important because it is often assumed that internalists in particular are committed to a deontological conception of justification according to which blameworthiness is inconsistent with justification. Here I wish to emphasize three points. First, prominent internalists such as Conee and Feldman explicitly “deny that internalism depends on a deontological conception of justification” (Conee & Feldman, 2004, 61f.). In fact, they insist that “justified beliefs are not always blameless” (63), and in a similar context they argue that “[j]ustified beliefs can result from epistemically irresponsible actions” (90). Second, also phenomenal conservatives insist “that justification and blameworthiness are compatible” (Tucker, 2010, 541). Third, even internalists such as Smithies, who oppose phenomenal conservatism for being too permissive, say, for instance, that a mathematician making subtle errors can still be justified (Smithies, 2019, 403). In agreement with this internalist tradition, I assume that an epistemically blameworthy subject can have justified beliefs.

Intuitive knowledge: If S is undergoing an intuitional experience with respect to p such that it seems to S that she can see why p must be true, and this phenomenology is a manifestation of the fact that the relevant scenarios/possibilities have been imagined/considered, then S non-accidentally grasps the abstract fact that p which means that the experience constitutes a source of knowledge and S is in a position to know that p .

5 How We Non-Accidentally Grasp the Third Realm

The above suggests the following answer to the non-accidental relation question: In successful intuition we non-accidentally grasp an abstract fact because intuition-ally experiencing cannot fail to be veridical if it is performed in a way such that its presentational phenomenology is a manifestation of the fact that all relevant scenarios/possibilities have been imagined/considered. This answer is consistent with but not committed to naïve realism.¹³ As pointed out above, this means that we have revealed an important disanalogy between perception and intuition. In this section, I exemplify this disanalogy and introduce a terminology suitable to precisely capture this phenomenon. Consider the following scenario:

Mary Goodeye has been married to her husband Robert for ten years. Mary knows exactly what Robert looks like. Mary's sensory organs work perfectly fine. One morning she enters the living room and has a perceptual experience as of her husband reading the newspaper. In fact, however, this is not her husband. Unbeknownst to Mary, Robert has been replaced the night before by a robot that looks exactly like Robert. Robo-Robert and Robert are qualitatively identical, visually indistinguishable by stipulation. This means that no matter how carefully Mary looks, she will not be able to realize that this is not her husband. Importantly, everything is fine with the agent. Mary looks carefully and her sight is good. Also, neither is she deceived by a demon nor is she a brain in a vat. Nevertheless, when she looks at the robot, her experience non-veridically presents the robot to be her husband and she mistakenly believes the robot to be her husband.

One may object that this example presupposes that experiences can have high-level contents and present high-level properties such as "this is my husband." But, of course, the example can be modified such that it is about a low-level property like "this is red." My point is simply that it is possible that the agent performs the

¹³ Regarding the relationship between epistemic internalism and naïve realism, an anonymous reviewer of this journal pointed out that in the context of perception "[a]t least traditionally, there is a tension between naïve realism and epistemic internalism" in the sense that "[u]sually, naïve realists are radical externalists about both content and epistemology." It is interesting that when it comes to naïve realism about *intuition*, the two main proponents, i.e., Bengson and Chudnoff, are both epistemic internalists. They are internalists in the sense that they argue that intuitional experiences gain their justificatory force by virtue of their presentational phenomenology (Bengson, 2015b; Chudnoff, 2013). This is also the kind of internalism promoted in this paper. It is to be noted that it is not the main objective of this paper to defend naïve realism but to answer the question of how we can non-accidentally grasp abstract facts.

method of visually experiencing perfectly well but the outcome is still a non-veridical experience. In the terminology I am about to introduce, the method of visually experiencing is *method-fallible* concerning the desired outcome of veridicality.

I say that a method is method-infallible if the desired outcome is guaranteed when the method is performed correctly. The method of deduction is method-infallible concerning the desired outcome of validity. You cannot execute the method correctly but arrive at a conclusion that does not follow from its premises. A method is method-fallible if correct execution does not guarantee the desired outcome. The method of induction is method-fallible concerning the desired outcome of truth. Even if you perform the method correctly, your conclusions may not be true. We see that the method of visually experiencing is method-fallible. (For instance, in our example, Mary Goodeye performs the method of visually experiencing perfectly well but the outcome is not a veridical experience.) The above suggests that the method of intuitionally experiencing is method-infallible.

Reconsider our prime example. If your intuitional experience presents the proposition “there are no even prime numbers” as (necessarily) true, then you made a mistake. You overlooked that 2 is an even prime number. However, if you consider the number 2, intuitively grasp that it is an even prime number such that the proposition “there is one even prime number” is presented as necessarily true, then this intuition cannot be incorrect. All relevant scenarios are considered. This manifests in the phenomenology. An experience that has exactly the phenomenology of this successful intuition cannot be non-veridical or hallucinatory. Similarly, if black is checkmate, but you have the intuition that black is not checkmate, then you are overlooking something. However, if you have considered all relevant scenarios such that it is presented to you as necessarily true that black is checkmate, this intuition cannot be incorrect. Your chess intuition can only be incorrect if something has been overlooked. In general, assuming that intuitionally experiencing is method-infallible, we can say: If the method has been performed adequately, without any mistake by the intuiting subject, then the intuitional experience must be veridical. This has various epistemologically significant implications. In particular, it allowed us to clarify how successful intuitions non-accidentally grasp abstract facts and to specify what is epistemically defective about hallucinatory intuition. In fact, I believe that our intuitionist answer to the non-accidental relation question is a better answer than the causal story that is typically told to explain perceptual knowledge. Here, again, is our answer.

The Answer: In successful intuition we non-accidentally grasp an abstract fact because intuitionally experiencing cannot fail to be veridical if it is performed in a way such that its presentational phenomenology is a manifestation of the fact that all relevant scenarios/possibilities have been imagined/considered.¹⁴

¹⁴ Alternatively, employing the terminology introduced in this section, we can say: In successful intuition we non-accidentally grasp an abstract fact because intuitionally experiencing cannot fail to be veridical if it is performed adequately, i.e., without any mistake by the intuiting subject.

I say that this is a better answer than the causal story typically told in the case of perception because, as briefly mentioned in footnote 5, it remains unclear how the difference between successful perception and *illusion* can be spelled out in causal terms. Furthermore, the notion of non-accidentality may not be as clear as it is typically assumed. For instance, if I am constantly hallucinating but God ensures that my hallucinations are veridical, are these divine experiences accidentally or non-accidentally correct? In the case of perception, an experience exhibiting the same phenomenology as some successful perception may be a successful perception, a non-veridical hallucination, or a veridical hallucination. This forces us to spell out non-phenomenological criteria to distinguish between these kinds of experiences and to clarify non-accidentality in non-phenomenological terms. In the case of intuition, by contrast, if an intuitional experience is a successful intuition, any experience that has the same phenomenology is also a successful intuition. This allows precise distinctions between successful and unsuccessful intuition as put forward in Section 4.

Finally, I briefly want to address a possible objection. One might argue that my examples of intuitional experiences are hand-picked and do not exemplify all the experiences that we call intuitions. So, while my chess intuitions and prime number intuitions may satisfy Non-Accidental Correctness Thesis, what about moral intuitions such as that it is wrong to set a cat on fire? Here it is to be remembered that I use intuition (or more precisely: intuitional experience) in the sense of experiencing why some proposition must be true. I believe that my analysis applies to all experiences that satisfy this phenomenology. If you have the intuition that it is morally wrong to set a cat on fire, this intuition is mistaken because there might be cats that are immune to fire and enjoy being set on fire. Just as in our chess examples and mathematical examples, you failed to imagine/consider a relevant scenario/possibility. However, I suspect that it might be necessary to make a distinction between the type of intuitions that I have been concerned with here (experiences that seem to reveal why some proposition must be true) and “intuitions” that concern concrete (real or hypothetical) cases and have an evaluative phenomenology (it has been wrong/cruel of X to set *this* cat on fire). I hope to address this in future research.

6 Conclusion

While it is true that intuition is fallible and plausible that there are veridical intellectual hallucinations, there is one substantial disanalogy between perception and intuition: If an intuitional experience amounts to a successful intuition, any other experience that has precisely the same phenomenology also is a successful intuition. Intellectual hallucinations, by contrast, are intuitional experiences that are epistemically defective in the sense that the experiencing subject has failed to imagine/consider a relevant scenario/possibility. Accordingly, I answer Bengson’s non-accidental relation question as follows: In successful intuition we non-accidentally grasp an abstract fact because intuitionally experiencing cannot fail to be veridical if it is performed in a way such that its presentational phenomenology is a manifestation of the fact that all relevant scenarios/possibilities have been imagined/considered.

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References

- Bealer, G. (2002). Modal epistemology and the rationalist renaissance. In T. Gendler & J. Hawthorne (Eds.), *Conceivability and possibility* (pp. 71–125). Oxford University Press.
- Bengson, J. (2015a). Grasping the third realm. In Tamar Szabó Gendler & John Hawthorne (Eds.), *Oxford studies in epistemology, Vol. 5*, Oxford University Press.
- Bengson, J. (2015b). The intellectual given. *Mind*, 124(495), 707–760.
- Berghofer, P. (2022). *The Justificatory force of experiences*, Synthese Library.
- BonJour, L. (2014). In defense of the a priori. In M. Steup, J. Turri, & E. Sosa (Eds.), *Contemporary debates in epistemology* (2nd ed., pp. 177–184). Wiley.
- Chudnoff, E. (2013). *Intuition*. Oxford University Press.
- Chudnoff, E. (2020). In search of intuition. *Australasian Journal of Philosophy*, 98, 465–480.
- Church, J. (2013). *Possibilities of perception*. Oxford University Press.
- Conce, E., & Feldman, R. (2004). *Evidentialism*. Oxford University Press.
- Ghijsen, H. (2016). *The puzzle of perceptual justification*. Springer.
- Huemer, M. (2001). *Skepticism and the veil of perception*. Rowman & Littlefield Publishers.
- Huemer, M. (2013). Phenomenal conservatism über alles. In C. Tucker (Ed.), *Seemings and justification* (pp. 328–350). Oxford University Press.
- Koksvik, O. (2013). Intuition and conscious reasoning. *The Philosophical Quarterly*, 63, 709–715.
- Koksvik, O. (2021). *Intuition as conscious experience*. Routledge.
- Lau, H. (2008). Are we studying consciousness yet? In Lawrence Weiskrantz & Martin Davies (eds.): *Frontiers of Consciousness*. Oxford University, 245–258.
- Lewis, D. (1983). *Philosophical papers* (Vol. I). Oxford University Press.
- Luzon, B., Werner, P. (2022). Losing grip on the third realm: Against naive realism for intuitions. *Analysis*, 82(3), 435–444. <https://doi.org/10.1093/analysis/anab087>
- Pritchard, D., Ranalli, C. (forthcoming). Disjunctivism and Skepticism. In D. Machuca & B. Reed (eds.), *Skepticism: From antiquity to the present*, Bloomsbury.
- Pust, J. (2000). *Intuitions as evidence*. Routledge.
- Siegel, S. (2016). The contents of perception. In Edward N. Zalta (Ed.), *The Stanford Encyclopedia of Philosophy* (Spring 2016 Edition), URL = <<http://plato.stanford.edu/archives/spr2016/entries/perception-contents/>>
- Smithies, D. (2014). The Phenomenal basis of epistemic justification. In M. Sprevak & J. Kallestrup (Eds.), *New waves in philosophy of mind* (pp. 98–124). Palgrave Macmillan.
- Smithies, D. (2019). *The epistemic role of consciousness*. Oxford University Press.
- Sosa, E. (2009). *A virtue epistemology: Apt belief and reflective knowledge* (Vol. I). Oxford University Press.
- Tucker, C. (2010). Why open-minded people should endorse dogmatism. *Philosophical Perspectives*, 24, 529–545.
- Tye, M. (2015). Qualia. In Edward N. Zalta (ed.), *The stanford encyclopedia of philosophy* (Fall 2015 Edition), URL = <<http://plato.stanford.edu/archives/fall2015/entries/qualia/>>.

- Van Inwagen, P. (1997). Materialism and the psychological-continuity account of personal identity. *Philosophical Perspectives*, 11, 305–319.
- Weiskrantz, L. (1998). *Blindsight: A case study and implications*. Oxford University Press.
- Williamson, T. (2007). *The philosophy of philosophy*. Blackwell.

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