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An Argument against Papineau's Qualitative View of Sensory Experience

Adam Pautz

C14P1 Visual experience is intrinsically spatial…if we do not use spatial properties in characterizing visual [experience], we omit a subjective feature of experience.

C14P2 —Christopher Peacocke (2008)

C14P3 When I see a yellow ball to the left of a red cube the relation that I am aware of is not itself a spatial relation…However it may first seem, what we are aware of when we introspect are properties of ourselves.

C14P4 —David Papineau (2021)

C14P5 In his excellent book *The Metaphysics of Sensory Experience*, David Papineau argues against standard theories of sensory experience: the sense datum view, representationalism, naïve realism, and so on. The only view left standing is his own "qualitative view." On Papineau's physicalist version, all experiences are nothing but neural states, and the only features essentially involved in experience are intrinsic neural properties (2021: 29–30, 95–97).

C14P6 In previous work I have developed an *argument from spatial experience* against this kind of view (Pautz 2010a, 2017, 2021). Here I will elaborate on that argument in the light of Papineau's discussion.

C14S1 1. The Spatial Character of Visual Experience

C14P7 Suppose you experience an orange moving slowing to the right (Figure14.1). Let's say you have the *orange-experience*.

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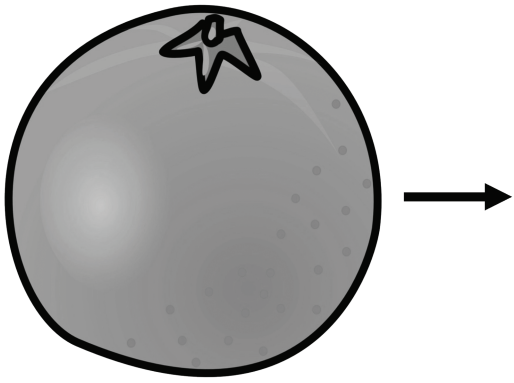


C14F1 **Figure 14.1** The orange-experience.

C14P8 A goal of the philosophy of perception is to arrive at a "real definition" or "identification" of the form: for a subject to have the orange-experience is for the subject to _____ (Pautz 2010a: 255ff; Papineau 2021: 14ff). At the start of the inquiry, we don't know the *full* real definition. Does it involve an *actual* round item, such as a physical object, or perhaps a "visual field region"? Or does it merely involve *representing* a round item, so that such an item *seems* present?

C14P9 But from the start we know *something* about the correct real definition. In particular, we know (or at least we have strong reason to believe) that spatial terms will show up in a correct real definition:

C14P10 *Spatial claim.* Spatial terms such as *round* and *moving to the right* will show up in a correct definition of what it is to have the orange-experience. That is, there is a correct identification of the following form: for person *x* to have the orange-experience is for *x* to . . . *round* . . . *moving to the right*.

C14P11 Here's an analogy. Consider the Japanese flag. From the start we know the following:

C14P12 *Spatial claim.* Spatial terms such as *round* will show up in a correct definition of what it is to be the Japanese flag. For *x* to be the Japanese flag is for *x* to be a rectangular white banner with a *round* and red area at its center, etc.

C14P13 Pretheoretically, the spatial claim about the orange-experience is equally plausible.

C14P14 In fact, all the major theories satisfy this pretheoretical constraint. For example:

C14P15 *Visual field theory.* For you to have the orange-experience is for you to experience an orange and literally *round* and *moving* "sense datum" (Russell, Moore) or "visual field region" (Peacocke) in a private space.

Externalist representationalism. For you to have the orange-experience is for it to experientially seem to you (for you to "experientially represent") that an orange and *round* object is *moving to the right*. And that is for you to be in some internal (e.g. neural) state or other that suitably tracks this type of object in the external environment. The availability of representationalism shows that the spatial claim doesn't require that the orange-experience involve an *actual* round item (a physical object, sense datum, or visual field region).

Internalist representationalism. For you to have the orange-experience is for it to experientially seem to you that an orange and *round* object is *moving to the right*. That is fixed by a neural state regardless of environmental connections; but it is something more than a neural state. In an "illusionist" or "Edenic" version, these color and shape properties are nowhere instantiated, and the orange-experience is a relationship to them.

Naïve Realism. For you to have the orange-experience is *either* for you to see an orange and *round* and *moving* physical object *or* for you to be in a state indiscriminable from seeing such an object. That is enabled by a neural state but it is something more than a neural state.

C14P16 Indeed, it is hard to point to explicit denials of the spatial claim in the writings of *any* philosophers, including "adverbialists" (Pautz 2021: 92, n. 9).

C14P17 By contrast, Papineau's qualitative view is inconsistent with the spatial claim, as we shall now see. This will be the basis of my argument against it.

C14S2 2. The Spatial Argument against the Qualitative View

C14P18 My *spatial argument* against Papineau's qualitative view (Pautz 2010a, 2017, 2021) is simple:

C14P19 1. Papineau's qualitative view is inconsistent with the spatial claim.

C14P20 2. We have an extremely strong pretheoretical reason to accept the spatial claim and there is no sufficiently strong reason to reject it ("defeater").

C14P21 3. *Conclusion*: We should reject Papineau's qualitative view.

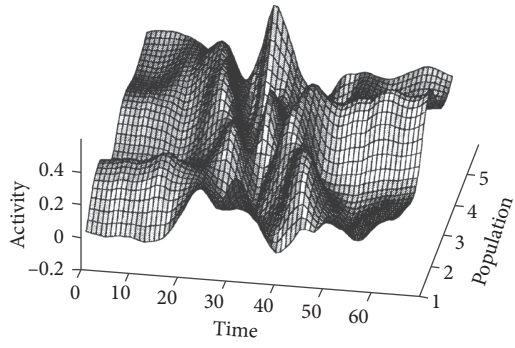
C14P22 Let me explain these two premises in turn. First, why accept premise 1? What is Papineau's qualitative view, and why is it inconsistent with the spatial claim?

C14P23 Papineau's qualitative view is opposed to all views listed in §1 that accommodate the spatial claim. Representationalism accommodates the spatial claim. But a central theme of Papineau's book is that representationalism is metaphysically problematic (more on this in §3). There are anti-representationalist theories that accommodate the spatial claim. For instance, Peacocke (2008) holds that having the orange-experience essentially involves a literally *round* "visual field region," where the visual field is not something to be found in the brain. But Papineau finds this view to be metaphysically weird as well (2021: 95, n. 9).

C14P24 In the end, Papineau opts for the qualitative view. To have the orange-experience is simply to have a certain "intrinsic property." Moreover, the experience does not essentially "relate the subject to objects or properties beyond itself" (2021: 83). Throughout I will focus on Papineau's *physicalist version* of the qualitative view (although nothing will hang on this):

C14P25 *Papineau's qualitative view.* For you to have the orange-experience is simply for you to have a certain neural property (2021: 29–30, 95–97). A *neural property* is one that can be defined in terms of types of neurons and the times, directions, and intensities at which they fire. It doesn't essentially involve representing *round* and *moving to the right*, or a *round* visual field region, or anything like that.

C14P26 Unlike the representational view and the visual field view, Papineau's qualitative view is inconsistent with the spatial claim. The spatial claim says that the spatial terms *round* and *moving to the right* will show up in a definition of what it is to have the orange-experience. By contrast, Papineau's qualitative view implies that what it is for you to have the orange-experience can be defined in terms of *types of neurons* and the *times*, *directions*, and *intensities* at which they fire. And the spatial terms *round* and *moving to the right* will not show up in a definition of any of these things *at any level*. Thus, Papineau must hold, contrary to the spatial claim, that neither *an actual round item*



C14F2 **Figure 14.2** A representation of the temporal pattern of firing of several different neurons in the visual cortex.

(e.g. round visual field region) nor *representing a round item* will show up in the definition of what it is to have the orange-experience.

C14P27 Here is another way of verifying premise 1. *If* we assume the spatial claim, we can construct a Leibniz's law argument against his qualitative view. The spatial claim says that the spatial terms *round* and *moving to the right* show up in a correct definition of what it is to have the orange-experience (Figure 14.1). But, as just argued, this is not true of what it is to have a neural property (Figure 14.2). Therefore, to have the orange-experience is not merely to have a neural property.

C14P28 Given the spatial claim, then, having the orange-experience might *involve* undergoing a neural property, but it is *something more* than undergoing a neural property. For instance, perhaps it is to be presented with a literally round visual field region, *where the visual field is not to be found in the brain* (Peacocke 2008). Or perhaps it is for it to *experientially seem* to you (for you to "experientially represent") that a round thing is present, where this is merely contingently *realized by* a neural property.

C14P29 So much for premise 1. Now you might think: "Ok, Papineau's qualitative view is inconsistent with the spatial claim, but it is consistent with *something close*. In particular, he can say that certain *neural features* show up in a definition of what it is for you to have the orange-experience, and he can call those neural features '*quasi*-roundness' and '*quasi*-moving-to-the-right'. Isn't that close enough?"

C14P30 The trouble is that the spatial claim says that genuine *spatial features*, such as *round* and *moving to the right*, show up in a definition of what it is to have the orange-experience, where those are features that could be

instantiated in the external world. Therefore, they are *evidently nothing like the relevant neural features instantiated in your brain*.[1] Of course, there is nothing like an object moving to the right in your brain when you have the orange-experience! Further, undergoing a mere neural state doesn't essentially involve *representing* a round object moving to the right (2021: 84–85), so it doesn't even essentially involve the *appearance* of such an object. Therefore, Papineau's qualitative view doesn't even *come close* to accommodating the spatial claim about the orange-experience. This is something he appears to concede (2021: 29–30, 95–97).

C14P31 This means that Papineau's view implies a radical error theory about visual phenomenal character. It seems to you that the phenomenal character of your orange-experience is such that spatial terms like *round* and *moving to the right* will show up in its definition (Figure 14.1). Its phenomenal character essentially involves a real or apparent spatial field in which there is a *round* item. Even anti-representationalist theories such as Peacocke's (2008) accommodate this. But Papineau's view does not. It implies that in reality the phenomenal character of your experience can be fully defined without using spatial terms such as *round* and *moving to the right* (Figure 14.2). It does *not* essentially involve a real or apparent spatial field in which there is a *round* item. So Papineau's view implies *your orange-experience doesn't have the phenomenal character it seems to have*. I think that, if you understand Papineau's view, you see that it flies in the face of what is obvious.

C14P32 Now let us turn to premise 2. In §1, I supported the first part of this premise: we have a strong pretheoretical reason to accept the spatial claim. In §§3–4, I will support the second part: there is no sufficiently strong reason to reject it.

C14S3 3. Papineau's Reason for Rejecting the Spatial Claim?

C14P33 In his book, Papineau doesn't directly address my spatial argument against his qualitative view (Pautz 2010a, 2017, 2021). But, given what he says, I think that he would accept premise 1 but reject premise 2. Contrary to

[1] Even if it turns out that the spatial features involved in the orange-experience are not actually instantiated in the external world because some radical quantum ontology is correct (they are "Edenic"), they at least *could be* instantiated in the external world in a basic way (e.g. in a world where space is Newtonian). Therefore, even in that case, they cannot be identified with neural features instantiated in the brain. See Pautz (2021: 92, n. 6).

premise 2, he would say that there is a sufficiently strong reason to reject the spatial claim.

C14P34 But what is that reason? His discussion suggests the following argument:

C14P35 1. If the spatial claim is correct, then one of the theories listed in §1 must be correct: representationalism, the visual field theory, or naïve realism.

C14P36 2. But representationalism fails (ch. 2).

C14P37 3. And the visual field theory (2021: 28–30; 95, n. 9) and naïve realism (2021: 20–22) fail for other reasons.

C14P38 4. *Conclusion*: the spatial claim is false.

C14P39 Call this the *theoretical argument* against the spatial claim because the idea is that we should reject it because there is no good theoretical account of it. If this argument is good, then it would save Papineau's qualitative view from my argument against it based on the spatial claim. But is it good?

C14P40 I agree with premise 3: the visual field theory and naïve realism fail. But I reject premise 2. I defend a representational account of the spatial claim (Pautz 2010a, 2021). Papineau devotes much space to arguing against representationalism but I think that his argument is unconvincing.

C14P41 Here is what Papineau calls his "general" master argument against any form of representationalism (2021: 71–74):

C14P42 A. Representationalism holds that "instantiations of experience properties are instantiations of representational properties."

B. But "instantiations of representational properties constitute abstract facts."

C. If so, then "they cannot feature as causes or effects" because only concrete facts "are eligible to enter into causal relations."

D. So: representationalism implies that instantiations of experience properties cannot have causes and effects.

E. But "the difficulties facing epiphenomenalism are well known."

F. Therefore "conscious sensory properties are not representational properties."

C14P43 Call this the *epiphobia argument* against representationalism. I think that the argument has a couple of questionable steps.

C14P44 To begin with, I question B. I am open to a *nominalist* interpretation of representationalism (for references, see Pautz 2021: 129). To illustrate, let's consider my own favorite form of representationalism, *internalist* representationalism. On this view, there is a neural state that is necessarily sufficient for experientially representing that there is before you a thing that is orange, round, and moving to the right. The nominalist now adds a negative claim: experientially representing that something is round (etc.) is not to be further analyzed. In particular, it is not to be analyzed as a relation to the proposition *that something is round*, or the universal property *being round*, or any other abstract entity. There are no such abstract entities. Therefore, this representational view agrees with Papineau's own qualitative view that "the experience does not essentially relate the subject to external properties" (2021: 83), because it holds that there are no such entities as properties. This view would block Papineau's epiphobia argument at the start by rejecting B.

C14P45 In reply, Papineau might argue that representationalists are *committed to* an "abstract entities" interpretation of their view, but nominalists have found ways of resisting such arguments. Predicates like "is round" can be meaningful even if there don't exist properties understood as abstract entities.[2]

C14P46 Even if we grant B, Papineau's epiphobia argument is unconvincing because there are two problems with C.

C14P47 First, Papineau doesn't give any reason for accepting C. If we grant B, then representationalists hold that your experientially representing that there is before you a thing that is orange, round, and moving to the right is to be analyzed as your standing in a relationship ("experientially representing") to the abstract entity, <being round, being orange, moving to the right>. Now this abstract entity *itself* doesn't have causes and effects. But what is Papineau's reason for thinking that the state of experientially representing this abstract entity cannot have causes and effects, as C implies?

C14P48 And what is the strength of the "cannot" in C? Cannot as a *matter of metaphysical necessity*? That is, are there no possible worlds where relationships to abstract entities have causes and effects? Does Papineau think that this is known through *a priori* intuition?

C14P49 Second, C is inconsistent with all theories of causation and "causal efficacy." In the 1990s there was a general outbreak of epiphobia concerning all macro

[2] I note in passing that the spatial argument against the qualitative view presented in §2 is likewise not committed to the idea that the orange-experience involves spatial properties understood as abstract objects.

properties. A standard solution is that, if macro properties suitably "supervene on" or are "grounded in" physical properties, then they might pass some counterfactual-proportionality test (sufficient condition) for being "causes" or "causally efficacious." Of course, the analysis of causation is tricky, but presumably there is *some* such sufficient condition.

C14P50 Given this solution, representationalists can now co-opt it to undermine C, even if they accept B. For instance, return to the kind of internalist representationalism that I favor, but now assume (in line with B) a "relations to abstract entities" interpretation of it. In a way, this view is like Papineau's: the orange-experience is necessitated by a neural state mediating between stimulus and response. But whereas Papineau holds that the orange-experience is *identical with* the neural state, this view holds that it is a matter of experientially representing <being round, being orange, moving to the right>, where this is distinct from but *grounded in* the neural state. On this internalist representationalism, *even if* the experience is a relationship to an abstract entity, it might (contrary to C) count as a cause of your behavior, thanks to being grounded in the neural state and *satisfying the relevant counterfactual/proportionality sufficient condition*. It is hard to see how Papineau might show that it *couldn't* satisfy the relevant sufficient condition, just because it is a relation to an abstract entity.[3] Papineau may have other objections to internalist representationalism (more on this in §4); but he cannot object that it necessarily implies epiphenomenalism.[4]

C14P51 A final point. The spatial claim is extremely plausible (§1). So even if we were to reject a *representational* account of it (accept premise 2), we should fish around for *another* account of it (that is, question premise 3). For example, Papineau rejects Peacocke's visual field theory in a brief footnote (2021: 95, n. 9), but perhaps this kind of view deserves more discussion (Pautz 2021: 49, 57–58, 134–135).

[3] Even on a "primitivist" theory of causation, Papineau's constraint C is implausible if he intends it as a necessary truth. Why couldn't your standing in a mental relation to an abstract entity stand in a primitive causal necessitation relation to certain of your behaviors?

[4] Papineau has other arguments against representationalism. One concerns the question: (i) what are the contents? (78). I think Papineau neglects a natural response (Pautz 2009: 499). Another challenge (apparently distinct from his epiphobia argument): (ii) why are *having the orange-experience* and *experientially representing a content* "necessarily connected"? (Papineau 2021: 39, 74, 84). My answer is that they are identical, and identities don't call for explanation. The best argument for the identity takes the form of an inference to the best explanation (Pautz 2010a, 2021)—not any of the arguments Papineau criticizes in his book (2021: sect. 2.2).

C14S4 ## 4. Another Potential Reason to Reject the Spatial Claim?

C14P52 So I find Papineau's own reason for rejecting the spatial claim unconvincing. Let me now turn to another potential reason for rejecting the spatial claim not considered by Papineau.

C14P53 In my essay "How do Brain's in Vats Experience Space?" (2019), I developed the following *"brain-in-the-void" (BIV) argument:*

C14P54 1. Phenomenalism internalism is correct: experience is determined by neural states.

C14P55 2. Therefore, a hypothetical BIV duplicate of your brain that formed by chance in an otherwise empty universe could have the same orange-experience as you.

C14P56 3. If the spatial claim is also true, then (assuming realism about properties) you and your BIV duplicate are somehow *perceptually related* to the spatial properties *being round* and *moving to the right*, even though in the case of BIV they are not instantiated in the environment.

C14P57 4. But the BIV stands in no interesting *physical relationship* to these properties: the BIV has never physically interacted with *round* or *moving* objects.

C14P58 5. Therefore, if the spatial claim is true, the orange-experience involves a perceptual relationship to spatial properties that cannot be identified with any physical relationship—an irreducible, non-physical relationship.

C14P59 To illustrate the argument, consider my own internalist representational account of the spatial claim. In particular, I will assume the "relation to abstract entities" version discussed at the end of §3. This view accepts the "internalist" premises 1 and 2. It also accepts a version of premise 3: given the spatial claim, you and your BIV duplicate stand in the dyadic "experiential representation relation" to <being round, being orange, moving to the right>. But the BIV stands in no interesting dyadic physical relationship to these properties. For instance, it doesn't have any states with the *historical function of indicating the instantiation* of these properties. So the experiential representation relation is an irreducible, non-physical relationship. Our brains have an innate capacity to enable us to stand in this relationship to spatial and other basic properties that are not instantiated *in* our brains.[5]

[5] The phenomenal internalist cannot answer the BIV argument by reductively explaining how the BIV experientially represents spatial properties in terms of what spatial properties the

C14P60 In my view, the BIV argument is sound. If so, then the spatial claim has a surprising consequence: it requires rejecting *identification physicalism*. Roughly, this is a strong form of physicalism on which every instantiated property is a physical or functional property definable in terms of a basic list of physicalistically acceptable properties. However, it is compatible with more liberal *ground physicalism* (Schaffer 2013; Pautz 2020). For instance, we might say that there is a neural state *N* such that, necessarily, the fact that one undergoes *N* grounds the fact that one stands in the irreducible experiential representation relation to <being round, being orange, moving to the right>. Perhaps such grounding connections can be systematized (Pautz 2021: 182–184).[6]

C14P61 Now Papineau's arguments in his book don't rely on any form of physicalism (90). But Papineau (2016) does favor a strong identity form of physicalism over more liberal forms. Since the BIV argument shows that the spatial claim is incompatible with identification physicalism, he could therefore argue that the reasonable course is to apply *modus tollens* and reject the spatial claim. As he once said to me in some comments on the BIV argument, "I'd rather drop [the spatial claim] than accept an irreducible experiential representation relation" (personal correspondence, 2014). This would block my spatial argument against his qualitative view.

C14P62 To show that this is indeed reasonable, Papineau would have to show that we should have higher credence in a controversial metaphysical theory (identification physicalism) than in a pretheoretical datum about experience (the spatial claim).

C14P63 But this is not the case. As I said in §1, the reason for accepting the spatial claim is extremely strong—indeed it seems obvious. By contrast, the overall case for identification physicalism is not very strong at all. It may explain the dependence of experience on the physical in a simple way (Pautz 2020: sect. 4). But today many philosophers reject it based on multiple realizability (Schaffer 2013) and other considerations (Pautz 2020: sect. 2.3). They instead

BIV *would* track *were* it embodied (Pautz 2019: 401–402; Papineau 2021: 112–113). Nor would it help her to hold that spatial properties are response-dependent (Pautz 2010b: 48–49, 2021: 167–169; Papineau 2021: 80–82). Of course, we might block the BIV argument at the start by rejecting phenomenal internalism and denying that the BIV could have visual experiences at all. Then we might reductively explain our experiential representation of spatial properties along the lines of "externalist representationalism" (an option listed in §1). But externalist representationalism is empirically implausible (Pautz 2010b; Papineau 2021: 59–60) and violates "phenomenal localism" (Pautz 2014: 172–174; Papineau 2021: 51–52).

[6] Another option for accommodating the spatial claim in the light of the BIV argument would be to say that both you and your BIV duplicate are *presented with* an orange' and literally round visual field region, where this is *grounded in but distinct from* neural goings on (Pautz 2021: 49, 134–135).

favor a form of ground physicalism on which some grounding connections cannot be explained in terms of identities. It's hard to see how Papineau could be certain *a priori* that there cannot be such grounding connections.

C14P64 So if the BIV argument shows that the spatial claim is incompatible with identification physicalism, the reasonable course is to *keep* the spatial claim *and reject* identification physicalism—for identification physicalism is a speculative view that we probably should reject anyway.

C14S5

5. Conclusion

C14P65 Papineau may be unmoved by my spatial argument against his qualitative view. He may reject the spatial claim about the orange-experience. Then he might try to explain why we find it irresistible even though it is mistaken (2021: 91–92, 110–112).

C14P66 But, before giving such an explanation, Papineau must give a sufficiently strong reason to think that the spatial claim is mistaken in the first place.[7] I have raised the following question for Papineau: *isn't our reason for accepting the spatial claim stronger than our reasons for accepting the questionable metaphysical assumptions driving the arguments against it considered in §3 and §4 (viz. the causal constraint C and "identification physicalism")?*

C14P67 After all, don't we have strong (albeit defeasible) reasons to accept *some* things about our experiences? For instance, everyone will agree that we have a strong reason to believe that two reddish color experiences essentially resemble each other more than they resemble the smell of chocolate. No one would give *that* up in the name of a philosophical theory. Isn't our pretheoretical reason to accept the spatial claim about the orange-experience equally strong? (Indeed, if we *know* the spatial claim about the Japanese flag, why not the spatial claim about the orange-experience?) Isn't the spatial claim more than a common opinion? Isn't it something we have

[7] I would also like to know the details of Papineau's psychological explanation of why the spatial claim is irresistible even though in his view it is radically mistaken. Some of his remarks (2021: 92, 95) suggest the following explanation: (i) we know that the orange-experience (in his view, merely a neural pattern) is caused by *round* objects; and (ii) we mistakenly infer from this that *round* shows up the definition of what it is to have the experience (we "confuse causation with constitution"). But this explanation is insufficient. After all, if head-pains were systematically caused by the presence of variously shaped objects, we wouldn't be inclined to mistakenly think that those shapes show up in the *definitions* of what it is to have those head-pains. In my view, the spatial claim about the orange-experience is irresistible because it is true in this case (as in the case of the Japanese flag).

excellent reason to believe on the basis of introspection and reflection? Therefore, isn't our reason for accepting the spatial claim stronger than our reason for accepting the questionable metaphysical assumptions behind Papineau's arguments against it?

C14S6

References

Papineau, D. 2016. Grounds and Gaps. Presentation at the University of Birmingham. Available at https://www.davidpapineau.co.uk/unpublished-talks.html

Papineau, D. 2021. *The Metaphysics of Sensory Experience*. Oxford: Oxford University Press.

Pautz, A. 2009. What Are the Contents of Experiences? *Philosophical Quarterly* 59: 483–507.

Pautz, A. 2010a. Why Explain Experience in Terms of Content? In B. Nanay (ed.), *Perceiving the World*. Oxford: Oxford University Press, 254–309.

Pautz, A. 2010b. A Simple View of Consciousness. In R. C. Koons and G, Bealer (eds.), *The Waning of Materialism*. Oxford: Oxford University Press, 25–66.

Pautz, A. 2014. The Real Trouble for Armchair Arguments against Phenomenal Externalism. In M. Sprevak and J. Kallestrup (eds.), *New Waves in Philosophy of Mind*. London: Palgrave Macmillan, 153–181.

Pautz, A. 2017. Experiences are Representations. In B. Nanay (ed.), *Current Controversies in the Philosophy of Perception*. London: Routledge, 23–42.

Pautz, A. 2019. How Can Brains in Vats Experience a Spatial World? A Puzzle for Internalists. In A. Pautz & D. Stoljar (eds.), *Blockheads! Essays on Ned Block's Philosophy of Mind and Consciousness.* MIT Press, 379–420.

Pautz, A. 2020. How to Achieve the Physicalist Dream: Identity or Grounding? Available at https://philpapers.org/rec/PAUHTA-2

Pautz, A. 2021. *Perception*. London: Routledge.

Peacocke, C. 2008. Sensational Properties: Theses to Accept and Theses to Reject. *Revue Internationale de Philosophie* 62: 7–24.

Schaffer, J. 2013. Metaphysical Semantics Meets Multiple Realizability. *Analysis* 73: 736–751.