

The Indexical Nature of Sensory Concepts

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Abstract: This paper advances the thesis that sensory concepts have as a semantic component the first-person indexical. It is argued that the private nature of our access to our own sensations forces, in our talking about them, an indexical reference to the inner states of the speaker in lieu of publicly accessible properties by which reference is usually fixed. Indexicals, such as 'here', can be understood despite ignorance of their referent. Such is the case with sensory terms. Furthermore, the thesis that sensory terms are indexical has considerable explanatory power. I give two examples: firstly, I argue that clashes of intuition over Block's 'inverted spectrum' thought experiment can be explained by appeal to semantic properties of indexicals. Secondly, I argue that multiple realisability intuitions can be shown to be consistent with the view that sensations are type-identical with brain states.

It is understandable that continual clashes of 'intuition' in philosophy of mind has led to considerable scepticism about the role of thought experiments in philosophical inquiry. 'Inverted Spectrum' and related thought experiments have been a thorn in the side of any analysis of sensory concepts purporting to lead to reduction. But intuitions about such cases, whether or not they are to be respected in the end, tend to structure the flow of argument about the nature of sensory experience and need to be tackled if for no better reason than to avoid the sense that the subject has been changed. If one does not accept the validity of these sorts of intuitions, one must at least explain their force. That is the purpose of this paper. In particular, I will argue that the apparent clashes of intuition and analysis in inverted spectrum and multiple realisability thought experiments can be explained by a semantic fact that is a consequence of the private, first-person access to sensory experiences. The semantic fact is the indispensability of the first-person indexical, *I*, in sensory concepts. I hope to show that this is both plausible and, if true, serves to remove long-standing roadblocks in present day philosophical debates on the nature of sensory experience.

I.

The 'inverted spectrum', is the possibility—or at least *apparent* possibility—that two people (or groups of people) might see the colours of objects in the 'negative' with respect to each other, while they nevertheless both see those objects as *being* the same colour, and are in the same functional state when they do. According to Block (1990, p. 53), it is possible that 'things we agree are red look to you the way that things we agree are green look to me' even if we are in the same functional or representational state. In other words, Block insists that it is possible that two people both see an object *as green*, and yet have different colour sensations with respect to it. A 'purely' representational theory of conscious experience, such as is defended in Harman (1990), does not accept that possibility since, for such a theory, to have a sensation with respect to the colour of an object is *nothing more than* to see that object as being a certain colour. If you and I have different colour sensations when we look at grass, then you and I see the grass as being different colours, full stop; we genuinely disagree about what colour the grass is, though we may not realise it.

It is one thing to explain the force of an intuition, and quite another to expound a position *consistent* with that intuition. The latter may establish that the intuition is right without showing that it was justified. The former may show that the intuition was based on a 'cognitive illusion', as in Tye (1999) with respect to the explanatory gap, and should not be trusted. In discussions of the inverted spectrum, it is reasonably clear that there are conflicting intuitions at work; one pushing us to deny that two perceptions *of green* could be realised by radically different sensations, the other pulling us to accept that *for all we know* two people in the same physical/functional state might have different 'internal' lives. Consequently, there is no straightforward way of expounding a position consistent with both intuitions. Some philosophers, notably Block, Chalmers and Loar, have tried instead to explain the force of the conflicting intuitions by arguing that there are two sorts of sensory concept—a functional or physical concept on the one

hand, and a ‘what it’s like’ concept on the other—which allow conflicting inferences (to Loar (1997) the latter concept is ‘recognitional’, while to Chalmers (1996) and Block (1995a) it is ‘irreducible’).

Naturally, not all philosophers deal with the problem of the inverted spectrum in this way; Michael Tye, for example, while upholding a view similar in many respects to Loar’s view, explains the conflicting intuitions by reference to the distinction between wide and narrow perceptual content.¹ Others simply deny the validity of one or the other intuition. Though these alternatives are interesting in their own right, the ‘dual concept’ view of Block, Chalmers, Loar and others predominates.

It seems to me that the broad strategy of this view—to show that the conflicting intuitions develop from a firm conceptual basis—is sound. The dual concept view does, however, have some serious disadvantages; the main one, to my mind, being that sensory phrases, like ‘the sensation of red’, do not seem at all ambiguous. But rather than argue directly against the dual concept view, in this paper I will propose what I hope is a better alternative that builds on a similar foundation. What I will present and defend is an account of sensory concepts which, firstly, explains how we come to have conflicting intuitions about the inverted spectrum in a way that keeps sensory concepts in one piece; secondly, it shows the alternative to be robust by explaining our intuitions about *other* possibilities such as multiple realisability. If I am right, moreover, the intuitions are in fact compatible and can be upheld without contradiction. It is an account which requires that we see sensory concepts as partly indexical.

To begin to motivate this idea, imagine that you and I look at grass and typically have different sensations. What else must differ between us, and why? Our first attempt at an answer must note that what I have asked you to imagine is not altogether obvious. It is often noted that the social context in which we learn to use concepts, including, for example, concepts like ‘green sensation’, militate that as long as we can visually

¹ I am grateful to an anonymous referee for pointing this out.

distinguish the colours, there is no real test for when to call an inner state a sensation *of green* other than that it is the one we usually have when we look at (say) grass. As long as you and I both agree that grass looks green, and that there is a particular feeling we recognise whenever we look at grass, common sense dictates that both of our feelings equally deserve the name 'green sensation'. And yet, our imagination seems to insist, surely it is possible that, in some sense, grass evokes a different sensation in you compared with me. What are we to say about this apparent possibility, and how are we to describe it?

II.

Three possibilities suggest themselves. The first is that 'green sensation' names a conjunction of kinds of state, in much the same way that 'jade' names a conjunction of kinds of rock (it names both jadeite and nephrite). Now it seems possible that you and I can typically be in different kinds of states when we look at green objects. It is tempting to describe this as the possibility that green sensations are like jade; two kinds of state, rather than one. In that case, 'green sensation' would name both the kind of state you are typically in when you look at green things, and also the kind of state I am typically in when I do that. A particular state then qualifies as being a green sensation if it is *either* of those kinds of state.

But the case of jade is importantly dissimilar to the case we are imagining. Imagine that, according to my lights, when I am in the state that *you* are typically in when you look green objects, I recognise it as a *red* sensation. In the case of jade, the surface properties of jadeite and nephrite are sufficiently similar that they are commonly thought to be the same thing. The 'commonly' is important. If it were the case that half of the population took jadeite to be jade, and the other half took nephrite to be jade, we would be unlikely to say that 'jade' refers both to jadeite and nephrite, as we in fact do. Instead, we would say that there is rampant confusion as to what 'jade' really means. Yet the case we are imagining for 'green sensation' is closer to this than to what is actually

the case for jade. For, as stipulated, it is not the case that there are two states that we are both inclined to call ‘green sensation’—I at least am inclined to call one of them ‘red sensation’. There is a *single* state that you are inclined to call ‘green sensation’, and I am inclined to call something else entirely, with as much authority as you. If only you and I knew which state the other had in mind, we would know that we were disagreeing. And that is very unlike the case of jade.

This suggests a second possibility—that ‘green sensation’ in the case we are imagining fails to have a single meaning; that it is ambiguous. Perhaps, that is, if you and I are typically not in the same kind of state when we look at green things, then we mean different things by it. It would be as though you have always meant by ‘bank’ the financial institution, and I have always meant the edge of the river. Such a state of affairs would certainly make for confusion in discussions about the nature of banks.

There are, however, important considerations weighing against this description, the most important of which is that whatever kind of phrase ‘green sensation’ is, we all learn it in the same way, or roughly the same way. If you and I both learn ‘green sensation’ from looking at grass, trees, and so on, it is hard to see how the *connotation* of ‘green sensation’ could differ between you and me. If we take on board the idea that sense determines reference, it is furthermore difficult to imagine the *referent* of ‘green sensation’ differing between you and me.

But there is a way for that to happen. Notably it happens for indexicals, such as *here*, *now*, and *I*. The referent of an indexical—take *here* as an example—differs according to the specific context of each use. When *here* is spoken, it refers to the place at which that specific token is uttered. Now the meaning of *here* is something like ‘my current location’, but there is an important sense in which, although my current location might not have been Melbourne, it is not quite true to say that *here* might not have been Melbourne—since that is just where I *am* at the moment. It is an indexical conception of phenomenal concepts that I will be arguing for in this paper.

III.

It is common to observe that colour sensations and the colours of objects are standardly conflated. When I look at a rose, my *sensation* is often described as 'red', even though it is only the *rose* that is literally red.² It is not a great stretch to think that the reason for this is that we automatically refer to our colour sensations through properties of the external objects they 'track'. It seems plausible, even, that the way we *learn* the names of colour sensations is parasitic on the way we learn the names of *colours*. When I walk with my young nephew, I may point at the sky and say, 'That colour is called *blue*'. My nephew thereby, in the right context, learns the English word for the colour blue.³ He also, plausibly, learns the English word for the sensation of blue. Certainly, no one is going to point to his sensation and say that in English we call it 'blue'! To learn by ostension that the sky is called 'blue' is to learn by a kind of *indirect* ostension that a certain internal state is 'the sensation of blue'. After our walk, my nephew will no doubt be able to recognise other objects as being 'blue' and do so on the basis of the sensation they elicit in him which he also associates with the word 'blue'.

This story, though pedestrian, explains how we could use words to refer to private states that we are aware of only by our recognition of them and how any analysis of what is *commonly* meant by those words might seem to fail to capture what we each, *individually*, mean by them.

This point is most clearly put using colour sensations as an example, but essentially the same thing can be shown for other sensations, such as pain. When someone reports that they are in pain, it is *prima facie* a report of a sensation, not—as for colour sensations—a report of the external world. When I say to my nephew that the sky looks blue to me, it might be argued that I am simply reporting my temptation to say that the sky *is* blue. But when I report that I am in pain, it is less plausible

2 Some, including 'sense-data' theorists, have argued that our sensation on seeing a rose *is* literally red. The arguments against such a position are many, and not worth repeating here, but see e.g., Ryle (1949), Austin (1964) and Pitcher (1971).

3 On this point see also Lewis (1997).

(though not, I believe, *implausible*) that I am just reporting my temptation to believe that my body is damaged in some way. It seems that I am directly reporting my 'internal' state. Still, when I do report that I am in pain, typically some bodily damage is evident. This much will be obvious to my young nephew. The next time he bumps himself, and finds himself in a particular 'internal' state, he may well have learned to call that state 'pain'. The word 'pain' is likely to mean for him the state people are referring to when they injure themselves. When people act in the same way that he is inclined to act when he injures himself, he will be inclined to think that they are in the state called 'pain'. Exactly *what* state other people are referring to when they say they are in pain my nephew will only ever know through inference from his own experiences of bumps and scratches. Through its typical causes, and perhaps its typical effects and so on, we can name a private sensation, which may be a different sensation in each of us, and simultaneously *pain* in each of us. Nevertheless it is the private sensation, not the typical causes and effects, that are named.

Now compare pain with a somewhat more obvious indexical: *home*, as in *Home is where the heart is*. The simple phrase 'I'm going home' does not lose its meaning if I do not know where its speaker happens to live. I know that the speaker is simply talking about the place he lives *wherever that is*. Similarly, I need not have access to a person's inner mental life to know what he means when he says 'I'm in pain'. I know that he simply means he is in the kind of state that he is usually in when he injures himself, *whatever that is*. The 'whatever that is' is of course only from my perspective, not his. He knows precisely which kind of state he is talking about. My knowledge, if I know, is considerably less direct. This is a standard feature of indexicals—when I read 'Now is the winter of our discontent' I understand it perfectly well even if I am utterly ignorant of the time period 'now' is meant to denote. Indexicals are said to be irreducible for this reason. The irreducibility of sensory terms, then, may be nothing more than a straightforward consequence of their indexicality. If this idea is plausible, I now hope to show that it is useful.

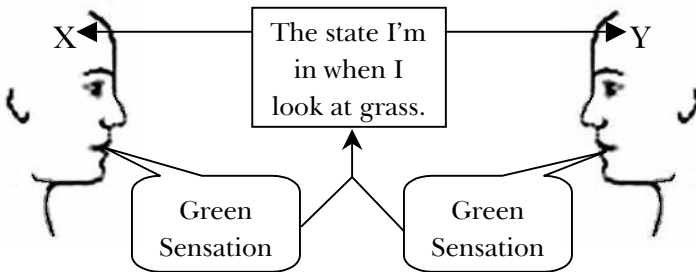
IV.

Sensations are, let us grant, private states, but that does not stop us referring to them. We recognise when we are in them, and through that recognition use external criteria to manufacture a common name. As long as that common name is indexical by nature, it can refer to each person's private state. It can seem to have a private meaning, since it is natural to think only of our own case as the proper referent of the name (as an indexical, it *is* the proper, and only, referent when we use it). It can also seem to have a *general* meaning, such as 'the kind of state I am in when ...', since that is the rule that must be followed in finding the referent in any particular context—for any particular person.

If all of this is plausible, then an explanation for our clashes of intuitions in 'absent qualia' and 'inverted spectrum' thought experiments need not appeal to two distinct kinds of phenomenal concept. A single indexical concept suffices. The two kinds of concept proposed by Chalmers, Block, Loar, etc., are actually mirrored in the two parts of the indexical conception of sensory terms proposed here. Those two parts have analogues in the sense/reference distinction often applied to other words, although the 'sense' of an indexical is not exactly 'sense' as Frege described it. Kaplan (1989) proposed to distinguish the 'content' of an indexical from its 'character'. The *content* of an indexical—what a particular use of it picks out—may be different for each occurrence. If we take 'now' as an example, its content will change depending on when it is uttered. The content of *now* is 11:36am ... while that of *now* is 11:37am. The content of 'now' cannot, as it were, be abstracted away from a particular utterance; it picks out different things at different times. Content can only be applied to tokens. The *character* of an indexical, on the other hand, stays the same across all tokens of a single indexical type. Again taking 'now' as an example, its character is 'the current time'. Indeed, *having* the character 'the current time' is what makes 'now' the type of word it is.

Kaplan's proposal is a useful one in this context, because it allows us to explain many of the conflicting intuitions we have about the various

thought experiments involving consciousness. It is crucial that occurrences of two indexicals may have the same content, yet differ in their character, or agree in their character but differ in content. If words for colour sensations are indexical, then the possibility of inverted spectra may simply be the possibility that the content of colour sensation words spoken by one person is different to the content of colour sensations words spoken by another person—different, moreover, in type as well as token. Schematically, the situation might be like this:



So, in this diagram, ‘green sensation’ is for *both* speakers ‘the state I am in when I look at grass’, but which in turn is state X for one speaker and state Y for the other. Both will be correct in describing green sensations as the state they are in when they look at grass, and in explicating the concept ‘green sensation’ as exactly that, while at the same time differing about the kind of state that ‘green sensation’ refers to in their respective cases. Both speakers recognise when they are occupying state X and state Y respectively; moreover, they recognise it—at least partly—as the state they are typically in when they are looking at grass. ‘Sensation of green’ is the only name that either speaker knows for *that* state—X for one, Y for the other—and so is what they use to talk about it, though what the state is ‘like’, its nature, is in a sense known only to its possessor.

The character of ‘green sensation’ in both cases is ‘the state I am normally in when I look at grass’—that is what makes them two

occurrences of a single type—while the content in one case is state X and in the other state Y. In fact, of course, it is likely that the content of ‘green sensation’ is the same, or at least similar, for all of us, but the logic of ‘green sensation’ allows for it not to be. Character does not, by the nature of indexicals, entail any particular content. That is why, intuitively, inverted spectra are possible. What I have in mind when I talk about green sensations can be described as ‘the state I am normally in when I look at green things’, but what I *really* mean is just *this* state. Similarly, when I use ‘here’ I can be described as talking about ‘my current location’, but what I really have in mind is just *this* place. The two explications differ because my current location might not have been *this* place, and the state I am normally in when I look at green things might not have been *this* state.

So, in a sense, Loar (and others) are right in thinking of phenomenal concepts as partly recognitional; partly, we do know them only in our own case, by recognising when they recur. Block and Chalmers may also be right in thinking that there is an important sense in which there aren’t words able to describe the nature of our sensations, since sensations are in an important way private. But they are *all* right that the sensations have aspects to them that we *can* latch on to with words, namely, at what times they occur, what they tempt us to believe, how they incline us to behave, and so on. It is these aspects of sensations that we *use* to talk about them, though for all we know the same internal state in you and me inclines you and me to believe and act differently, and may accompany various environments in various individuals.⁴

V.

If sensory terms are indexical, in the sense described here, one important consequence is that they are not typical natural kind terms. In particular, indexicals do not admit of type identity claims in the usual

⁴ The connection between indexical conceptions of the mind and our epistemic access to ‘other’ minds is also discussed by Hampshire (1952).

sense. If, as I have just argued, the logic of sensory terms allows that they *might* refer to different kinds of states in different individuals, then there cannot be a bar on, say, non-carbon-based Martians referring to their internal states as ‘pains’ and so on. Therefore, it seems, even if it is *true* that sensations in us are brain processes, the simple possibility that a Martian could nevertheless refer to its internal states using the very words we use, proves that it cannot be *necessary* that sensations are brain processes. Moreover, I am not inclined to deny this possibility.⁵

The indexical analysis deals with this ‘multiple realisability’ problem in the following way. It is reasonably clear that we tend to think of sensations as natural kinds—as things worthy of scientific investigation as to their nature. They are, after all, *actually* being investigated scientifically. What seems to force the indexical analysis of sensory terms is that sensations are also, at least contingently and at the moment, private. But there is nothing preventing our conceiving of those private states as natural kinds—as the *kinds* of states I am in when I do this or that. Furthermore, it is natural to assume, and is empirically very plausible, that *others* are in the same kinds of states as me, in the same kinds of contexts (though no one has ever seen inside my head, for example, the inductive evidence is good that, for example, it contains a brain). The indexical analysis, therefore, has no implications for the ability of brain science to claim to be the study of sensations. With respect to the possibility of Martian pain, the indexicality of sensory terms *preserves* the plausibility of the ‘sensations are brain processes’ hypothesis at this point: since my use of sensory terms refers particularly to the kinds of states that *I* am in, if sensations are in fact brain processes in me then *as I use the terms* sensations are, and could not be anything other than, brain states. Now it is also true, given the indexicality, that as a *Martian* might use the terms, sensations might *not* be brain processes. The reason this poses no problem for the thesis that sensations are brain states is that it is *uninformative* for me to prefix my words with ‘as I use

⁵ That is to say, I agree in this respect with Lewis (1980).

the term'. It is understood. Moreover, since no one in the current language community is a Martian it is plausible that, as we *all* use the terms, sensations are brain processes—and therefore that sensations are brain processes *simpliciter*. It is true that, in a sense, Martians could discover that sensations are something other than brain processes. But that would be sensations *as they use the terms*, not as we use them. A disagreement between Earthlings and Martians on this point would be tantamount to a disagreement over whether Earth is *here* or Mars is *here*—or whether, to force the analogy, 'here' is multiply realisable since both are conceivably true. Both *are* conceivably true, but a person on Earth is still forced to say that *here* is, and could not be anything other than, Earth.⁶ The indexical analysis presented here is thus consistent with the intuition that, in some sense, there could be such a thing as Martian pain. But it does so in a way that remains consistent with, of all things, an identity theory.^{7,8}

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6 'Mad' pain (again, from Lewis (1980)), incidentally, could be treated similarly—people who are in the brain state that I am normally in when I cut myself, when they exercise moderately on an empty stomach, would not call that state pain. Pain would, therefore, not be that state as they use the term. But as most of us use the term, pain is that brain state. If there is too much variety, then of course it becomes confusing to say which brain state pain is—it would perhaps be necessary to talk merely about which brain state my (or your, or their) pain is. Fortunately, it turns out that there is not that much variety.

7 Lewis' (1980) solution is arguably also, in effect, an indexical solution, though he proposes that pain is indexed to a population (a species) rather than, as I propose, an individual. Lewis, in that paper, proposes a theory of *the* concept of pain, though part of his theory allows that it may be an ambiguity in the concept 'pain' that allows it to refer both to Martian pain and to mad pain as pain properly so called. This puts Lewis somewhat in the 'two concept' camp, but where he elected to 'plead ambiguity' (p. 221), it would equally have suited his theory to have pleaded indexicality, as I have done here.

8 I am grateful for the assistance of a Monash University Arts Faculty Postgraduate Publication Award during the writing of this paper.

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