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Is Phenomenal Pain the Primary Intension of ‘Pain’?*

David Chalmers, in his recent book *The Conscious Mind*,¹ presents an argument for property dualism, which mobilizes the two-dimensional modal framework introduced by Evans² and developed by Davies and Humberstone.³ This framework provides Chalmers with a powerful tool for handling the most serious objection to conceivability arguments for dualism: the problem of *a posteriori* necessity. But in order to solve the problem of a posteriori necessity in this way, he needs to appropriately imbed his argument within the two-dimensional framework. And to do this he needs to make substantial assumptions linking thought and talk with elements of the framework. My project in this paper is to identify and critically evaluate the assumptions along these lines Chalmers makes in order to facilitate his argument.

A central assumption of Chalmers’ argument is that conscious sensations serve as both the “primary intensions” and “secondary intensions” of sensation terms. And what I want to argue is that not only Chalmers has offered no good reason to think this is true, there are grounds to be suspicious of this thesis. This paper consists of four parts. First, I present a simple version of the conceivability argument for dualism and explain the problem posed for it by *a posteriori* necessities. Second, I introduce the two-dimensional modal framework and show how Chalmers attempts to utilize it to rescue the conceivability argument. Third, I engage in an examination of the putative general link between thought and talk on the one hand and primary intensions on the other. And fourth, I argue that the assumptions Chalmers requires to make his argument for dualism go through are untenable. There is no good reason to think that phenomenal pain is the primary intension of ‘pain’.

¹ Chalmers, D., *The Conscious Mind*, Oxford: Oxford University Press, 1996.

² Evans, G., “Reference and Contingency”, *The Monist*, 62:161-89, 1979.

³ Davies, M. K., and I. L. Humberstone, “Two Notions of Necessity”, *Philosophical Studies*, 38:1-30, 1980.

I: Conceivability Arguments and A Posteriori Necessity

The conceivability defense of dualism proceeds roughly as follows: (i) circumstances physically indiscernible from our own but differing in some mental respect are judged to be conceivable; (ii) the possibility of such circumstances is inferred from their conceivability; and (iii) the independence (in some sense) of the aspect of mentality in question from the physical domain is inferred from this possibility. One version of this argument might proceed in terms of “Pain-Zombies”. Pain-Zombies are physical duplicates of us whose states of psychological pain occur unaccompanied by phenomenal pain. (I am going to simply assume here that, ordinarily, phenomenal pain is a property of brain states/ events that occupy the functional role of psychological pain). Let ‘pain_{ps}’ denote psychological pain and ‘pain_{ph}’ denote phenomenal pain. On this version of the conceivability argument, what is of interest are circumstances in which pain-zombies exist, that is, circumstances in the sentence ‘There exist physical duplicates of us whose pain_{ps} states lack pain_{ph}’ is true.⁴ And the argument in question invokes such circumstances as follows:

- 1) The existence of pain-zombies is conceivable.
- 2) Conceivability is sufficient for metaphysical possibility.
- 3) The existence of pain-zombies is metaphysically possible.
- 4) If phenomenal pain is a physical property then the existence of pain-zombies is not metaphysically possible.⁵
- C) Phenomenal pain is not a physical property.

The problem of *a posteriori* necessity undermines this argument by establishing the falsity of (2). A judgement concerning identity or supervenience relations between a pair of properties is *a posteriori* just in case the criteria of application of the property terms used to express the judgement—or the corresponding concepts, if you prefer—are not “conceptually linked.” That is to say, the criteria for applying the terms in question are not so related that the application of one term either requires or precludes the application of the other. Consider, for example, the judgement that water is H₂O. The term ‘water’ is (or, perhaps, was)

⁴ This sentence can be represented more formally as ‘ $(\exists x)(Dx \ \& \ (\forall y)[(P_{ps}y \ \& \ Syx) \supset \sim P_{ph}y]$ ’ (where ‘ Syx ’ abbreviates ‘ y is a state of x ’).

⁵ This is, of course, because of the supervenience relations required by physicalism.

correctly applied to a certain liquid on the basis of its surface characteristics, whereas 'H₂O' is correctly applied on the basis of the chemical structure of its constituent molecules. Because these criteria are not conceptually linked, the judgement in question is *a posteriori*. Moreover, this fact suffices for the conceivability of circumstances in which the judgement obtains, *as well as those in which its negation obtains*. But some such *a posteriori* judgements are true, and if the terms used in its expression are rigid designators, the judgement will be a metaphysically necessary truth. The judgement that water is H₂O is a case in point. It is metaphysically necessary that water is H₂O, despite the fact that circumstances in which water is not H₂O are conceivable. As a result, the metaphysical possibility of the existence of pain-zombies cannot be inferred straight away from its conceivability.

II: Two-Dimensional Modal Logic

Chalmers' attempts to rescue the conceivability argument from this problem by mobilizing the framework of two-dimensional modal logic. Central to this framework is the notion of an intension. The intension of a semantically evaluable item is a function from worlds (and, perhaps, other indices) to appropriate extensions at those worlds. So, for example, the intension of a singular referring expression is a function from worlds to individuals, and the intension of an n-place predicate is a function from worlds to sets of n-tuples. According to the two-dimensional modal framework Chalmers deploys, expressions (and other semantically evaluable items) have two intensions, not one: a primary intension and a secondary intension. This distinction maps reasonable well onto Kripke's distinction between a theory of referring and a theory of meaning, as well as Kaplan's character/ content distinction.⁶ The primary intension of an expression plays the following role: for any *context* in which the expression is (or could be) used, it determines the (actual) extension of the expression. So, for example, the primary intension of 'I' is a function

⁶ Kripke, S., *Naming and Necessity*, Cambridge, Mass.: Harvard University Press, 1980; Kaplan, D., "Demonstratives", in *Themes from Kaplan*, J. Almog, J. Perry, and H. Wettstein, eds., New York: Oxford university Press, 1989. In more recent work, Chalmers severs the link between primary intension and linguistic meaning in favour of a more epistemic conception of the former notion. See, e.g., "Does Conceivability Entail Possibility?" in *Imagination, Conceivability, and Possibility*, T. Gendler & J. Hawthorne, eds., Oxford University Press, forthcoming.

whose value in a context is the speaker in that context. And the primary intension of ‘water’ is the function whose value in a context is roughly the dominant clear, drinkable liquid in the oceans and lakes (or “watery stuff”) in the vicinity. This notion differs from that of character in the following respect: non-actual contexts are included in the argument-range of an expression’s primary intension, but not its character.

The secondary intension of an expression is its *content*, in Kaplan’s sense. Unlike its primary intension, the secondary intension of an expression can vary with the context of utterance. It is, perhaps, helpful to think of the secondary intension of a *sentence* as the proposition expressed by the sentence. A proposition is (or determines) a function from worlds to truth-values, and exactly which proposition a sentence expresses varies with the context of utterance.⁷ More generally, the secondary intension of an expression in a (actual) context of utterance will depend on such things as the value of the primary intension in said context and whether the expression is rigid or non-rigid in Kripke’s sense. So, for example, given that ‘I’ is a rigid designator, the secondary intension of ‘I’ in a context in which Mary is the speaker is the function whose value at a world (in which Mary exists) is Mary. And, in a context in which H₂O is the watery stuff in the vicinity, the secondary intension of ‘water’ is the function whose value at a world is H₂O. (Of course, in Twin-Earth contexts in which a different substance is the watery stuff in the vicinity, ‘water’ has a different secondary intension).⁸

Slightly more formally, both the primary and secondary intension of an expression can be defined in terms of a function— $F(w_1, w_2)$ —from pairs of worlds to an appropriate extension. The first member of the pair corresponds to the context of utterance and the second to the circumstances of evaluation. (Strictly speaking, it is a function from a pair consisting of a world + other contextual features, and a world). The primary extension— $f_1(x)$ —can be defined as follows:

$$f_1(x) = F(x, x)$$

while the secondary intension— $f_2(x)$ —can be defined as

$$f_2(x) = F(a, x),$$

⁷ A terminological note: the proposition expressed by a sentence in some context counts as the (or a) secondary intension of the expression only if the context in question is an actual world context.

⁸ Putnam, H., “The Meaning of “Meaning””, in *Mind, Language, and Knowledge*, K. Gunderson, ed., Minneapolis: University of Minnesota Press, 1975.

where ‘a’ denotes the actual world. Characterizing things in this way helps to clarify the distinction between *deep* and *superficial* necessity and possibility that Chalmers (borrowing from Evans, and Davies and Humberstone) makes so much of. A sentence is deeply necessary just in case the value of the primary intension is T in (every context in) every world,

$$(\forall x)(f_1(x) [= F(x, x)] = T),$$

and a sentence is deeply possible just in case the value of the primary intension is T in at least one world,

$$(\exists x)(f_1(x) = T).$$

So, for example, ‘water is watery stuff’ is necessary in this “deep” sense, while ‘water is not H₂O’ is deeply possible. And a sentence is superficially necessary just in case the value of the secondary intension is T in every world,

$$(\forall x) (f_2(x) [=F(a, x)] = T),$$

and a sentence is superficially possible just in case the value of the secondary intension is T in at least one world,

$$(\exists x)(f_2(x) = T).$$

So, in a context in which H₂O is the watery stuff in the vicinity, ‘water is H₂O’ would be superficially necessary and ‘water is not watery’ would be superficially possible.

Underpinning Chalmers’ use of this formalism to resuscitate the conceivability argument are the following three assumptions:

- (a) The primary intension of a property term is (or is determined by) its criterion of application (or the corresponding concept).
- (b) The secondary intension of a property term is the property denoted by the term.
- (c) The primary and secondary intensions of phenomenal property terms coincide.

These assumptions enable Chalmers to argue from the conceivability of the existence of pain-zombies to its metaphysical possibility as follows:

- i) Circumstances in which ‘There exist pain-zombies’ is true are conceivable.
- ii) ‘There exist pain-zombies’ is deeply possible.⁹ [from (a)]

⁹ It is worth noting that Chalmers casts things here as the failure of consciousness to be *reductively explained* by physical phenomena. He justifies this claim as follows: “...for a concept of a natural phenomenon, it is the primary intension that captures what needs explaining. If someone says, “Explain water”, long before we know that

iii) ‘There exist pain-zombies’ is superficially possible. [from (c)]

iv) Circumstances in which ‘There exist pain-zombies’ is true are metaphysically possible. [from (b)]

Note: one can move from (i) and (iv) above to (1) and (3) in the original argument and *vice versa* using the relevant instances of the T-schema. It is also worth noting that Chalmers does not rest his case entirely on assumption (c). In addition, he says, “...whether or not the primary and secondary intensions coincide, the primary intension determines a perfectly good property of objects in possible worlds. ... If we can show that there are possible worlds physically identical to ours but in which the property introduced by the primary intension is lacking, dualism will follow.”¹⁰ I will address this line of argument, along with the central line, below.

III: Primary Intensions Revisited

Before tackling the issue of the primary intensions of sensation terms in particular, it is worth pausing for a moment to reflect in general upon assumption (a): the link Chalmers posits between thought and talk on the one hand and primary intensions on the other. There are three interrelated questions I wish to take up in this regard. First, what exactly are the bearers of primary intensions? Second, what is the nature of the relation between the bearers in question and their primary intensions, that is, what is it that determines exactly what the primary intension of a given bearer is? And third, does this relation in general yield a determinate primary intension for a given bearer?

There are (at least) two bearers of primary intensions at issue: concepts and linguistic expressions.¹¹ Chalmers’ focus is on the former. He says that concepts “determine” doubly indexed functions from pairs of worlds to extensions of the requisite sort and, hence, determine their primary intensions.¹² Chalmers does not explicitly discuss the relation between the intensions of expressions and concepts, but the most obvious approach would be to suppose that expressions get their primary intensions

water is in fact H₂O, what they are asking for is more or less an explanation of the clear, drinkable liquid in their environment.” (Chalmers, 1996, p. 57).

¹⁰ Chalmers (1996), p. 132.

¹¹ Presumably both public language expressions as well as expressions in a private “language of thought” could have primary intensions.

¹² Chalmers (1996), p. 61.

derivatively via their association with concepts. For simplicity, I will usually just assume this to be the case, but nothing I say will depend on it.

A first suggestion concerning the relation between primary intensions and their bearers is to take it to be some kind of meaning relation.¹³ We might, for example, take the primary intension of an expression to be determined by the linguistic rules governing its use—rules which govern the interpretation of the expression relative to the contexts in which it is uttered.¹⁴ It is worth noting that insofar as we think of primary intensions in this way, they are first and foremost associated with expression types rather than tokens.

Now on this picture, at least certain expressions will have determinate primary intensions. The linguistic rules governing the use of indexicals, such as ‘I’ and ‘tomorrow’, for example, are robust enough to determine their referents in actual and non-actual contexts.¹⁵ But in the case of other expressions things are less clear. For some terms, proper names and natural kind terms, for example, the extension in given context arguably depends, in part, on causal relations between the uttered token and features of the environment. And there are good grounds for thinking that as a result they lack determinate extensions in non-actual contexts. First, there are serious difficulties for any account of trans-world identity of words. This is especially troublesome if we cannot avail ourselves of some notion of the linguistic meaning of the word in such an account. And since primary intension presupposes trans-world word identity in the cases currently at issue, we cannot so avail ourselves. Second, even if an adequate account of trans-world word identity could be developed, the fact remains that no word occurs in every context of utterance in every possible world. This raises the possibility that there will be innumerable centred worlds for which the primary intensions of proper names and their ilk are undefined.¹⁶

More recently, Chalmers has suggested that the relation between primary intensions and their bearers is epistemological rather than some

¹³ This is in the spirit of Chalmers’ original discussion (1996), pp. 59-65.

¹⁴ We might even go so far as to take concepts to be the meanings of linguistic expressions, on this picture.

¹⁵ For a nice account of such rules, see Nunberg, “Indexicality and Deixis”, *Linguistics and Philosophy*, 16:1-43, 1993.

¹⁶ Stalnaker suggests that the solution to this problem is to determine what the extension of the term would have been had it occurred in the context in question. (Stalnaker, R. “Semantics for Belief”, *Philosophical Topics*, XV:177-90, 1987). But it is far from clear that such counterfactual questions have determinate answers.

kind of meaning relation.¹⁷ The idea is roughly that the primary intension of an expression is determined by the speaker's "mode of presentation" of the extension of the expression.¹⁸ Given that different speakers—and individual speakers at different times—have distinct ways of conceiving of the objects of thought and talk, the primary intension of an expression varies with the context in which it is uttered. Because the link between primary intension and linguistic meaning has been severed, it is expression tokens and not types that are the bearers of primary intensions on this picture.

It is far from clear, however, that the epistemic account of relationship between primary intensions and their bearers avoids the indeterminacy that infected the linguistic account. The reason is that typically the descriptive/inferential aspects of one's modes of presentation—or ways of conceiving—of the objects of thought and reference do not by themselves determine these objects. The speaker/thinker's causal, or more generally, non-conceptual, relations to things in the world often play an essential role in the determination of the objects of thought and reference. This is clearest in the case of singular thought, but arguably is a more general phenomenon.¹⁹ But as a result, for reasons similar to those discussed above, many expression tokens will lack determinate primary intensions. The problem is that there are good grounds for thinking that they will lack determinate extensions in non-actual (and even some actual) contexts. And the reason is that thinker/speaker's simply do not exist in every context in every possible world. As a result, the extension of an expression in some such context will depend on the truth of counterfactuals to effect that were the speaker to be properly situated in said context, s/he would stand in such-and-such relations to such-and-such things. And such counterfactuals are typically false (although the corresponding "might" counterfactuals presumably are often true).

I am not denying here that expression types have linguistic meanings or that speakers, on occasions of use, have modes of presentation or ways of conceiving of the extensions of these expressions. What I want to point out is that this by itself is no guarantee that expressions—tokens or types—have determinate primary intensions. Moreover, I do not want to claim that

¹⁷ See Chalmers's, forthcoming. It is worth noting that this idea is also implicit in his earlier work wherein he claims that deeply necessary statements are knowable *a priori*. Chalmers (1996), p. 64.

¹⁸ Chalmers's used this idiom in correspondence.

¹⁹ See, e.g., Putnam, 1975.

I have shown that no expressions can be assigned determinate primary intensions. My point is simply that we should be suspicious of the notion, especially when it is taken to be a general and elucidating feature of language and thought.

IV: Problems in 2-D Paradise

My focus in this section is going to be on assumption (c)—the thesis that the primary and secondary intensions of phenomenal property terms coincide. My strategy here will be two fold. First, I am going to argue that Chalmers needs assumption (c) in order to rescue the conceivability argument from the problem of *a posteriori* necessities. And second, I am going to argue that there is no good reason to believe that (c) is true and at least some reason to be suspicious. But an important preliminary matter that needs to be addressed is whether or not ‘pain_{ph}’ is rigid in Kripke’s sense. And what I want to suggest is that if we take the extension of this predicate to consist of Davidsonian events—spatio-temporal particulars—then Chalmers ought to suppose that it is non-rigid.

Suppose that ‘pain_{ph}’ is a rigid expression. One way of capturing this idea would be by analyzing ‘x bears pain_{ph}’ as ‘x is one of *dthose* (pain_{ph} things)’, where ‘*dthose* (pain_{ph} things)’ is a version of Kaplan’s *dthat* operator.²⁰ On this analysis, the secondary intension of ‘pain_{ph}’ is a function from worlds to extensions such that an object, **o**, at a world, **w**, falls within the extension of ‘pain_{ph}’ at **w** just in case either (i) **o** is a member of the actual extension of ‘pain_{ph}’ or (ii) **o** is of the same kind as the members of the actual extension. But if the actual extension of ‘pain_{ph}’ consists of Davidsonian events, these events will have functional and other physical properties (such as brain properties) as well. And insofar as the members of the extension form a kind at all, it will presumably be a functional or physical kind. Now the secondary intension of ‘pain_{ph}’ should be identical (or necessarily equivalent) to the property of phenomenal pain; otherwise the sentence under consideration does not assert the existence of pain-zombies. As a result, unless phenomenal pain supervenes on or is identical to the aforementioned functional or physical properties, the secondary intension under consideration just is not equivalent to phenomenal pain. If Chalmers wants to show that phenomenal pain is a non-physical property, he will have to assume that ‘pain_{ph}’ is non-rigid.

²⁰ Kaplan, David, “Dthat”, in *Syntax and Semantics*, P. Cole, ed., New York: Academic Press, 1979.

Now suppose that the primary and secondary intensions of ‘pain_{ph}’ are distinct. There are two relevant possibilities: (i) phenomenal pain is the primary intension of ‘pain_{ph}’; and (ii) phenomenal pain is the secondary intension of ‘pain_{ph}’. And neither possibility is adequate for Chalmers’ purposes. If phenomenal pain is the primary intension of ‘pain_{ph}’, then its secondary intension must be a distinct property. But if this is the case, then our sentence—‘There exists a physical duplicate of us whose pain_{ps} states lack pain_{ph}’—does not assert the existence of pain-zombies. And if phenomenal pain is the secondary intension of ‘pain_{ph}’, then the deep possibility of the aforementioned sentence corresponds not to the conceivability of pain-zombies, but to the conceivability of physical duplicates of us whose states of psychological pain lack whatever property (or properties) we use to correctly apply the term ‘pain_{ph}’, where this is distinct from phenomenal pain. And while this might establish the falsity of materialism, it could do so only on the basis of the irreducibility of perspectival properties, or something of this ilk, and not on the irreducibility of phenomenal properties. Moreover, once the link between such perspectival facts and phenomenal facts has been severed, there seems to be little objection to rescuing materialism by treating the former as a species of run of the mill indexical fact. At least one would be immune from the charge of failing to take consciousness seriously in so doing. Chalmers does claim that “...if someone insists that the primary and secondary intensions differ, however, the argument still goes through.”²¹ But if the considerations raised here are correct, he is just wrong on this point.

So it seems that in order for his argument to succeed, Chalmers must assume that the primary and secondary intensions of ‘pain_{ph}’ coincide (and are both the property of phenomenal pain). The question that remains is whether or not he is entitled to this assumption. Now I simply take it for granted that it is reasonably plausible to suppose that phenomenal pain serves as the secondary intension of ‘pain_{ph}’. What I want to argue is that Chalmers has offered no good reason for thinking that the primary intension of ‘pain_{ph}’ is the very same property. One consideration Chalmers raises in this regard is to suppose that in the case of non-rigid expressions, the primary and secondary intensions of the expression coincide:

“[with] “descriptive” expressions such as “doctor,” “square,” and “watery stuff,” rigid designation plays no special role: they apply to

²¹ See Chalmers (1996), pp. 133-134.

counterfactual worlds independently of how the actual world turns out. In these case, the secondary intension is a simple copy of the primary intension (except for differences due to centering).”²²

So, on Chalmers’ view, all he needs to do is to show (i) that the secondary intensions of mentalistic expressions such as ‘pain_{ph}’ are phenomenal properties and (ii) that these expressions are non-rigid, in order to show that the very same phenomenal properties serve as their primary intensions.²³

The trouble with this suggestion is that it is not, in general, true that the primary and secondary intensions of non-rigid expressions coincide. Consider the following example. Suppose Fred is asked, “What does Mary do for a living?” And suppose Fred replies, “Mary is one of those” while gesturing towards Jane, a doctor. In this context, the demonstrative ‘those’ is a non-rigid expression. After all, the truth-value of (the proposition expressed, in the context under consideration, by) ‘Mary is one of those’ in possible circumstances of evaluation depends not on whether or not Mary does what Jane does in those circumstances, but on whether or not Mary is a doctor in those circumstances. And the primary intension of ‘those’ (or ‘one of those’) is not the property of being a doctor. It is the function from contexts of utterance to the class of objects bearing the intended property of the demonstrated individual in the context at issue. More generally, if an expression is indexical, then its primary and secondary intensions simply cannot coincide. The secondary intension of an indexical expression will vary from context to context. And, so, even if we ignore the “differences due to centering”—that is, the fact that primary intensions are functions whose arguments are not worlds, but ordered n-tuples of contextual features—two (or more) distinct secondary intensions cannot both be copies of a single primary intension.

A rejoinder that could be made on Chalmers’ behalf is that the mentalistic expressions under consideration, such as ‘pain_{ph}’ are not indexical; that is, they have the same secondary intensions in at least all actual contexts of utterance. And, hence, he needs only to establish that the primary and secondary intensions of non-rigid, non-indexical expressions coincide. But even this more modest claim is untenable. There could, after all, be an expression which has the same secondary intension in all actual contexts of utterance but whose secondary intension differs from its

²² Chalmers (1996), p. 62.

²³ And Chalmers engages in exactly this sort of reasoning in his discussion of *a posteriori* necessity (p. 133).

“actual” intension in at least some non-actual contexts. For example, suppose the primary intension of an expression ‘D’ is given by ‘the most respected profession at t in a’, where ‘t’ denotes a specific time and ‘a’ is an indexical whose value in a context of utterance is the world in which the utterance occurs. And suppose that in the actual world at t, doctors are the most respected professionals. In all actual world contexts, the secondary intension of ‘D’ would be the property of being a doctor (and its actual extension would be the class of doctors). But in a world, w, in which the most respected professionals at t were lawyers, or, perish the thought, philosophers, the secondary intension of ‘D’ when used in contexts of w would be the property of being a lawyer, or a philosopher.

Chalmers also offers the following reason for thinking the primary and secondary intensions of sensation terms coincide:

“What it takes for a state to be a conscious experience in the actual world is for it to have a phenomenal feel, and what it takes for something to be a conscious experience in a counterfactual world is for it to have a phenomenal feel. The difference between the primary and secondary intensions for the concept of water reflects the fact that there could be something that looks and feels like water in some counterfactual world that in fact is not water, but merely watery stuff. But if something feels like a conscious experience, even in some counterfactual world, it *is* a conscious experience.”²⁴

It is far from clear, however, what if anything this argument shows. It is reminiscent of Kripke’s argument for the rigidity of sensation terms such as ‘pain_{ph}’, but such considerations hardly seem to the point here.²⁵ The most charitable interpretation of this passage that I can come up with is that Chalmers is trying to establish that, in contrast to terms like ‘water’, the secondary intension of a sensation term—that is, the property denoted by it—is just the property of having a certain phenomenal feel. And he is simply presupposing that the primary intension of the term—its criterion of application—is the having of this very feel. Now I have no complaint with Chalmers’ claim that the secondary intension of ‘pain_{ph}’ is a certain phenomenal feel; in fact, I would have assumed this to be obvious and (relatively) uncontroversial. The trouble is that the presupposition I have

²⁴ Chalmers (1996), p. 133.

²⁵ Kripke (1980), pp. 146-7. Whether or not Kripke’s argument actually does show sensation terms are rigid is, in my view, fairly contentious, especially if, as above, we take the bearers of phenomenal properties to be Davidsonian events.

attributed to him is contentious and cannot be simply taken for granted. This is, after all, exactly what is at issue.

Finally, there is some reason to be suspicious of the hypothesis that the primary and secondary intensions of ‘pain_{ph}’ coincide. First, let’s suppose again that the secondary intension is a certain phenomenal property.²⁶ Insofar as the primary intension of ‘pain_{ph}’ corresponds to criterion of application of the term, this very same phenomenal property could at best serve as its primary intension only in the case of first person ‘pain_{ph}’ ascriptions (and, perhaps, only present tense 1st person ascriptions). The reason for this is that most of us, at least, are rather poorly placed to make ‘pain_{ph}’ ascriptions to others on the basis of our detection of the phenomenal properties of their internal states. If the criterion of application of ‘pain_{ph}’ were the detection of the requisite phenomenal feel, it would never be appropriate to apply the term to other people. In the case of third person attributions of phenomenal properties at least, the primary and secondary intensions of the corresponding terms simply will not coincide. And given that the attributions at issue in the version of the conceivability argument we have been considering are third person attributions—to pain-zombies—Chalmers defense of said argument is inadequate.

V: Conclusion

Chalmers’ argument for dualism has always seemed to me to be something of a conjurer’s trick. The problem of *a posteriori* necessity constrains inferences from conceivability to possibility. Chalmers simply shunts such worries aside, in the first order, by focusing on primary intensions and deep possibility. But then he declares that the primary and secondary intensions of sensation terms coincide; and when the smoke clears, dualism emerges. All conjurers, however, need a bag of tricks: steal their bags and they cannot work their magic. And in Chalmers’ bag we find his two-dimensional modal framework. Consider this paper an attempt to snatch it from him.

²⁶ Presumably a number of distinct phenomenal properties, even relative to a single person, count as pain_{ph}. Moreover, it is worth noting that presumably we learned to apply the term ‘pain_{ph}’ to the property (or properties) in question in virtue of the causal connections between the events which instantiate the property and observable conditions in the world, such as tissue damage.

ABSTRACT

David Chalmers, in his recent book *The Conscious Mind*, defends a conceivability argument for property dualism. In order to avoid the difficulties for such arguments posed by a posteriori necessities, he invokes a two-dimensional modal framework. But in order to do this, he needs to make substantial assumptions linking thought and talk with elements of the framework. In particular, he needs to assume that phenomenal qualities serve as the primary intensions of our sensation terms. In this paper, I argue that this assumption cannot be sustained.