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Naturalism, introspection, and direct realism about pain

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ABSTRACT. This paper examines pain states (and other intransitive bodily sensations) from the perspective of the problems they pose for pure informational/representational approaches to naturalizing qualia. I start with a comprehensive critical and quasi-historical discussion of so-called Perceptual Theories of Pain (e.g., Armstrong, Pitcher), as these were the natural predecessors of the more modern direct realist views. I describe the theoretical backdrop (indirect realism, sense-data theories) against which the perceptual theories were developed. The conclusion drawn is that pure representationalism about pain in the tradition of direct realist perceptual theories (e.g., Dretske, Tye) leaves out something crucial about the phenomenology of pain experiences, namely, their affective character. I touch upon the role that introspection plays in such representationalist views, and indicate how it contributes to the source of their trouble vis-à-vis bodily sensations. The paper ends by briefly commenting on the relation between the affective/evaluative component of pain and the hedonic valence of emotions.

Keywords: Pain, introspection, affect, sensory/affective distinction, sensation, perception, emotion, qualia, sense-data, representationalism, naturalism, direct realism, perceptual theories of pain.

What can a philosopher of mind say about pain? The answer depends on whether there is anything especially *philosophical* about pain, over and above its being a paradigmatic instance of a phenomenal mental state.[1] Phenomenal states, as everyone knows, pose particularly tough problems for philosophers trying to understand the place and nature of the mind in what appears to be a purely physical world. The problems are many-faceted and have occupied philosophers of mind for a very long time, although the present interest in them seems to be particularly strong and lively. But the problems here are quite general: mainly, what to do with qualia, with the qualitative character of mental states that enjoy a distinctive phenomenology, said to be directly accessible in introspection to the possessor of these states? Examples include having a visual experience of a red apple, having a yellowish-orange afterimage, hearing the sound of a clarinet playing high C, tasting lemon juice, smelling Chanel No. 5, touching and feeling a warm object, experiencing orgasm, having a sudden pricking pain in one's right thumb, undergoing severe depression, having a panic attack, and so on. It is said that there is, for the experiencer, something it is like to undergo these experiences, something qualitatively peculiar and distinctive. If a plausible naturalistic account can be given for one of them, it seems that solving the problem for the others should be a matter of extending that account in obvious ways: the problem of qualia is not to be solved one by one for each type of qualitative state. So, why discuss pain in particular?

In this paper, I would like to take a quasi-historical tour of the controversy surrounding so-called perceptual theories of pain. My aim in this, however, is not really historical, but rather analytical and critical: I want to clarify the main issues, problems, and claims, many of which seem to have been obscured due to the different philosophical agendas of the parties to the debate. I, too, have an agenda: I am a naturalist and therefore have a big stake in seeing what it is about pain that makes it (and some of its relatives) the prime example in discussions of the metaphysics of mind; in particular, I want to find out what it is about pain that seems to make it a trouble maker for naturalism or physicalism about the mind. Perceptual theories of pain have been promoted by direct realists mostly because of ontological worries that seem to arise in addressing the issues about the role and status of qualia in perception. Although my sympathies are with direct realists, I believe that they fail to address the special problems posed by pain and similar bodily sensations. I will also argue that more recent direct realists like Dretske and Tye, who have tried to naturalize (as opposed to eliminate) qualia — advocates of what has been termed representationalism — confront the same problems the early perceptual theorists faced. I will try to show that they fare no better than their predecessors did.

[1] Pain has occupied the attention of value theorists, ethicists, moral psychologists, philosophers of religion for many centuries, and the interest in pain from these perspectives is still very strong. But my interest in pain in this paper is exclusively the interest of a philosopher of mind.

– I –

The debate between the direct (naive) and indirect (representative) realists in the philosophy of perception is usually thought to be an epistemological one, though as we will see, ontological concerns also play a major role in the debate. Both positions agree that there is an external physical reality existing independently of any perceiving subject (hence realism); the issue has to do with epistemic access to this reality. According to direct realism, the perception of physical reality is direct and not mediated by perceived intermediaries. The basic motivation for developing and defending a direct realist position appears to be a desire to avoid skepticism about the external world — the world of ordinary objects and events that the folk think are perceptually available to any normal person. Many direct realists think that this sort of skepticism is an inevitable consequence of the rival position, indirect realism, which posits perceptual intermediaries between external objects and the perceiving subject. On classical formulations, these intermediaries are variously known as sensations, ideas, sense-data, sensa, sense-contents, sense-impressions, or sense-experiences: in perception what is directly perceived are sense-data caused by the corresponding external realities which they represent. If our access to external reality is always through such intermediaries, how can we ever come to know if there is any reality beyond them? The history of modern philosophy and epistemology in particular can be seen as a more or less tortured attempt to give a satisfying answer to this question, so much so that in the name of securing anti-skepticism, some philosophers have even denied the very existence of a perception-independent "external" world, becoming idealists or phenomenalists.

The worry about introducing sense-data was not only epistemological, but also ontological. Sense-data had very strange properties that seemed to make them irreducibly mental. They were thought to be intrinsically private and subjective; apprehended in consciousness immediately and directly, rather than by inference; transitory in the sense that their existence essentially depends on their being sensed, experienced, or perceived; incapable of being other than what they appear to be, and hence the source of incorrigible beliefs about one's own phenomenal states and their properties. Furthermore, the standard arguments for indirect realism — the argument from illusion and the argument from the possibility of perfect hallucination — have encouraged a conception of sense-data as mental *objects* or *particulars*, individual entities with purely phenomenal properties.[2] In visual experiences of afterimages, for instance, what is directly perceived was claimed to be an object that has the properties of being, say, round, yellowish-orange, reddish toward the center, and

[2] This is the so-called 'act/object' analysis of perception. There were others who preferred 'adverbialist' interpretations of sensation reports. But still it was thought that adverbialist accounts would, if successful, at most get rid of mental objects but not the phenomenal properties that one seems to be aware of in experience. Here I am obviously being selective and very sketchy in my reconstruction; the actual history is much more complicated and interesting.

so on. In hallucinating pink rats, what one is directly aware of are objects that are pink, rat-shaped, etc. Since in such cases, it was said, there is no physical object perceived with the relevant properties either in the brain or outside, we must be seeing something non-physical. No physical object can be essentially private and subjective, or can exist only while being perceived. It was claimed that the situation in veridical perception is the same: what we are *directly* and *immediately* aware of are sense-data. What makes such perception veridical, at least in part, is that sense-data are caused by what they represent.[3] These five features made the introduction of sense-data metaphysically very costly indeed. Most direct realists, wishing to avoid this cost, tended to shy away from introducing any phenomenology into (veridical) perceptual "experiences," which they conceived of as direct apprehensions of aspects of reality.

My interest in this debate concerns the role that the notion of sense-data has played in motivating the development of so-called *perceptual theories of pain* and the controversy they generated.[4] We will see later that most of the concerns generated by sense-data remain even after sense-data are eliminated in favor of experiential *qualities*. The rhetorical reply on the part of indirect realists against the ontological worries raised by their rivals was that there is no getting away from such irreducibly mental particulars or qualities anyway, so why not countenance them in the perception of external reality in general — especially if they are needed on independent grounds? The standard examples were what Armstrong (1962, 1968) called "intransitive bodily sensations" like pains, itches, tickles, bodily pleasures (sexual or otherwise), and so on.[5] But the focus was on pain.

The notion of a sense-datum is a term of art introduced by philosophers and used as such. But it is important to realize that not only on the philosophers' conception but on the *common sense* conception as well, pains turn out to have most of the characteristics of the technical notion of sense-data. To wit, pains are thought (i) to be essentially private and subjective, (ii) apprended directly and immediately in consciousness, and (iii) to exist only insofar as they are sensed or perceived. Moreover, (iii) people are said to be incorrigible in their pain perception or reports: necessarily, if one sincerely believes that one is in pain, then one is in pain. The converse is also said to hold. Put differently, it is claimed that the truth conditions of the belief that I am in pain

[3] It was never clear how sense-data were supposed to represent, or indeed whether they intrinsically/essentially represent anything. Opinions have varied greatly. The classical British empiricist view was that sense-data represent what they resemble most. But the issues here are complicated by the controversial distinction between primary and secondary qualities, and the different interpretations of the causation relation. I will return to this issue below.

[4] See Armstrong (1962, 1968), Pitcher (1970, 1971), Fleming (1976), Wilkes (1977). Graham and Stephens (1985), Stephens and Graham (1987), Newton (1989) are some interesting variations on these earlier attempts.

[5] In his (1968), Armstrong seems also to include what he calls 'bodily feelings' (like feeling tired or fresh) into troublemakers for a thoroughgoing perceptual view of qualitative mental states.

(that I feel pain) are directly and immediately accessible to my consciousness, and the nature of this direct access is such that the belief is (becomes) true when and only when such an access is established, which in turn guarantees my awareness. In the same vein, it is said that the appearance/reality distinction is not applicable to pain. Kripke expresses this intuition when he writes:

> To be in the same epistemic situation that would obtain if one had a pain *is* to have a pain; to be in the same epistemic situation that would obtain in the absence of pain *is* not to have a pain... Pain ... is not picked out by one of its accidental properties; rather it is picked out by its immediate phenomenological quality... If any phenomenon is picked out in exactly the same way that we pick out pain, then that phenomenon *is* pain.[6] (Kripke, 1980, pp. 152–53)

This conception of pain is not peculiar to philosophers and the folk.[7] Remarkably, most scientists involved in pain research also seem to adopt it. Indeed, the "definition" of 'pain' has always been a vexing issue for scientists — so much so that in the early 1980s the International Association for the Study of Pain (IASP) formed a subcommittee on taxonomy to impose some order on the apparently diverse usages of pain terms in the field. 'Pain' itself was not left out and became the first entry in the report. The committee consisted of fourteen internationally prominent pain researchers. Their "definition", as far as I can tell, has been widely accepted in the field of pain research. Although the acceptance is not universal, the remaining controversy seems to relate to its formulation and details, not to its substance. This canonical characterization of pain was published in 1986 in their official journal, *Pain*, and went like this:

> **Pain**: An unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage. *Note*: Pain is always subjective. Each individual learns the application of the word through experiences related to injury in early life... Experiences which resemble pain, e.g., pricking, but are not unpleasant, should not be called pain. Unpleasant abnormal experiences (dysaesthesia) may also be pain but are not necessarily so because, subjectively, they may not have the usual sensory qualities of pain. Many people report pain in the absence of tissue damage or any likely pathological cause;

[6] Emphases are in the original. In the quotations that follow, emphasis will always be original unless otherwise stated.

[7] Dennett (1978) claims that the ordinary conception of pain, in addition to (i)–(iii), incorporates the idea that pains are essentially unpleasant and hurtful. On the basis of some clinical cases of morphine patients and patients who underwent frontal lobotomies, cases in which patients seem to believe that they are in severe pain but are not bothered or hurt by them, Dennett argues that pain as conceived by the folk doesn't exist, since the folk concept is irremediably incoherent. So he adopts an eliminativist position with respect to pain as ordinarily conceived. See Conee (1984) and Kaufman (1985) for replies.

> usually this happens for psychological reasons. There is no way to distinguish their experience from that due to tissue damage if we take the subjective report. If they regard their experience as pain and if they report it in the same ways as pain caused by tissue damage, it should be accepted as pain. This definition avoids tying pain to the stimulus. Activity induced in the nociceptor and nociceptive pathways by a noxious stimulus is not pain, which is always a psychological state, even though we may well appreciate that pain most often has a proximate physical cause. (IASP, 1986, p. 250)

What is remarkable about this characterization is that it embodies, indeed insists on, all the features that the folk think are essential to the concept of pain, expressed in (i)–(iii) above.[8] It also adds that pain experiences are always unpleasant.[9]

Irrespective of whether such a conception of pain commits one to the existence of irreducible mental particulars or qualities, it seems undeniable that the indirect realist has the upper hand here vis-à-vis the ontological worries of the direct realist. Here is one way to see this.

When it comes to the ordinary perception of external reality, it seems quite foreign to the folk to regard the perception of physical objects and their properties as indirect or mediated by anything like sense-data in the philosophers' sense — so to this extent, the folk seem to side with the direct realists. Indeed, if I claim that I saw the car, then I take myself to have seen the car, not anything like a sense-datum (or a bunch of sense-data organized in a certain way). If it turns out that I was under some sort of visual illusion or hallucination, then I retract my claim and say that I was mistaken, it was a *mis*perception.

But, as we have seen, when it comes to bodily sensations like pain, tickles, itches, and the like, things seem quite different with the folk: pains turn out to have almost exactly the same characteristics of indirect realists' sense-data. The ordinary ways of talking about pains seem to treat them as mental particulars — at least in most occasions. Compare, for instance, "I feel/experience a pain in my right arm" to "I see an apple on the table". The two sentences have similar surface grammar, and thus *prima facie* demand similar semantic treatment. But since, in the case of pain, having hallucinations or illusions seems to be ruled out, the objects denoted by the complement phrases of the sentences cannot have the same ontological status: no process can be the perception or awareness of a physical object unless there exists the possibility of *mis*perception, or

[8]There is, of course, a sense in which this should come as no surprise. Scientists are among the folk, after all, when it comes to the "definition" of the concept of pain. This characterization of pain raises interesting issues with respect to what pain scientists think they are scientifically investigating. But I leave these aside here.

[9] It is interesting to note that unpleasantness is thought to be essential to pain here. For, as I will mention later on, it is now an established fact within the scientific community that the affective-emotional aspect of pain, which underlies its unpleasantness, can be disassociated from its sensory-discrimitative aspect.

so it appears. But that is precisely the possibility precluded by the commonsense conception of pain.

So the indirect realist asks: If it is OK to conceive of bodily sensations on the model of sense-data, why not for other sensations or perceptual experiences in general? Sense-data are required in any case, continues the indirect realist, for an adequate explanation of illusions and hallucinations in ordinary sensory modalities. What is it that I take myself to have seen if my experience was a perfect visual hallucination of the car? What explains the perfect qualitative match between my hallucination and the experience I would have had in the veridical case? The indirect realist puts the emphasis on her unitary and homogeneous treatment of external perception. That is one of the strengths of her position. The psychological processes in both cases are the same except that in the veridical case the sense-data are caused by what they represent, whereas in the non-veridical cases they are caused by something else, which is an anomaly. But what explains the qualitative type-identity or similarity of both kinds of experiences is the presence of the same (type of) sense-data.

So the more or less common consensus was that we were committed to the existence of pains and other mental particulars involved in intransitive bodily sensations, and *they were ontologically problematic at any rate*. The lesson indirect realists drew from this was that we should not shy away from irreducible mental particulars or qualities in the philosophy of perception.

Some direct realists, on the other hand, drew a totally different lesson: if we can give a successful analysis of perception as direct perceptual awareness of (aspects of) reality without introducing any ontologically suspect entities like sense-data, then by all means we ought to do so; and pains (and other bodily sensations) can and should be treated similarly as direct perceptions of reality, namely, as direct perceptions of "disordered" states of our bodies. Pain experiences, accordingly, are no different from ordinary visual experiences in respect of being direct perceptions of an objective reality.

This was not thought of as an easy position to hold. George Pitcher, one of the earliest and most articulate defenders of the perceptual theory of pain, puts the uneasiness thus:

> I shall defend the general thesis that to feel, or to have, a pain, is to engage in a form of sense perception, that when a person has a pain, he is perceiving something. This perceptual view of pain will strike many as bizarre. But sense-datum theorists, at least, ought not to find anything at all odd in it: indeed, I am puzzled why philosophers of that school do not subscribe to the perceptual view of pain *as a matter of course*. Since I am not a sense-datum theorist, however, but a direct realist, I espouse what must at first appear to be an irremediably

> perverse position — namely, a direct realist version of the perceptual view of pain. (Pitcher, 1970a, p. 368)

A little later, Pitcher tentatively formulates this view as follows:

> ... to be aware of a pain is to perceive — in particular, to *feel*, by means of the stimulation of one's receptors and nerves — a part of one's body that is in a damaged, bruised, irritated, or pathological state, or that is in a state that is dangerously close to being one or more of these kinds of states. (Pitcher, 1970a, p. 371)

What is "bizarre" about the perceptual view of pain? And what is so "perverse" about the direct realist version of it? Isn't it obvious that potentially injurious stimuli typically cause us to experience pain in just those bodily locations threatened by the stimuli? Add to this observation the discovery that throughout our body there are nerve endings specialized to respond to only potentially injurious stimuli, and the effects of these stimuli are carried through such pathways to specialized areas of the brain, and the conscious experience of pain is normally the result of such stimulation. Why then can't we regard pain experiences as perceptions of the states of our body tissues? Why should such a view strike many as bizarre?

– II –

The reasons will emerge as we go along, but Pitcher's rhetorical questions suggest that the immediate issue is not which version of realism (direct or indirect?) is correct vis-à-vis pain and other bodily sensations, but rather whether it is plausible at all to regard pain as perception on a par with other forms of perception. And the tacit assumption is that both direct and indirect realists have some explaining to do if they want to treat pain as bodily perception — only that direct realists have much more of the explanatory burden, for reasons that will become clear in a moment.

I agree with Pitcher that there is not much to prevent a sense-datum theorist (as a paradigm indirect realist) from subscribing to the perceptual view of pain, and that such an indirect realist seems better off than direct realists. Let us start, then, by taking up what seems to be the case against a perceptual view of pain on an indirect realist position (i.e., why sense-datum theorists have not subscribed to this view as a matter of course). As we will see, this case will also be in force — and even more so — against direct realist versions of the view.

Consider the visual experience involved in my seeing a red apple. According to the sense-datum theorist, what I am *directly* aware of, or immediately experience, is a red, roundish, apple-shaped sense-datum. This constitutes an *indirect* perception of an independent reality insofar as the

sense-datum is caused by the real apple which my sense-datum represents. But first we need to understand what this representation relation is: what makes my sense-datum represent the apple?[10]

There are two strands that can be discerned in answering this question. One idea, which is perhaps better elaborated and more popular, is that my sense-datum represents the apple by *resembling* it. The resemblance relation is then cashed out in terms of sharing of (certain) properties or qualities to various degrees. The issues here are not clear-cut as most people in the debate drew a distinction between primary and secondary qualities. But the general idea seems to be this. Although my sense-datum possesses both secondary and primary qualities and the apple possesses only the primary ones in the first place (and not necessarily the same ones as my sense-datum's),[11] there is nevertheless, if I may put it in anachronistic terms, an informational relation between them constituted by some sort of systematic causal covariation, and it is only because of this fact can I unconsciously work on what I directly and immediately experience to reconstruct[12] and thus indirectly perceive the apple as having certain sensible qualities, like redness.

The assumption of *causal covariation* is the second strand in this account of the representation relation. The rough idea is that in veridical perception the variations in the properties of my sense-datum carry information about the variations in the properties of the apple, and it is through this informational isomorphism that I succeed in accessing the physical reality — albeit in an indirect way. For instance, many thought that although the secondary qualities as experienced are not literally possessed by physical objects, they were nevertheless systematically caused by certain powers/dispositions of the objects, which are to be explained in turn in terms of the objects' primary qualities. Of course, one is at liberty to adopt various positions here on the basis of some combination of these two strands, and/or according to one's views about the primary/secondary distinction among properties. But where sense-data are taken to be representational, causation and resemblance were deemed necessary (and, for many, also sufficient) for the representation relation.

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[10] There is even a prior question, as raised before: Is my sense-datum essentially/intrinsically representational (or, intentional)? Or is it just a contingent feature of my sense-datum that it represents what it does (i.e., the red apple in this case)? The history of attempts to answer these questions is complicated and obscure. Here, I will assume what appears to be the most common position about whether sense-data are essentially representational, which is that they are not.

[11] There is a sense in which physical objects also possess secondary qualities, but not as experienced, only as powers/dispositions to cause experiences. These powers are constitued by primary qualities. See below.

[12] I use this term in a neutral sense as far as this is possible. It has never been very clear what the relationship was supposed to be between the perceiving subject and her sense-data, and how the immediate awareness of sense-data is supposed to enable the subject to perceive physical objects and their properties. The idea of inference has never attracted many people and turned out to be extremely problematic. Nor was it very clear in what the direct and immediate awareness of sense-data consists (psychologically as well as epistemically). Keeping with the tradition, I will pretend in what follows that ignoring such questions does not jeopardize our understanding of the debate between direct and indirect realism. But I will return briefly to some of these questions below.

Now what is required for a sense-datum theorist to subscribe to the perceptual view of pain? Well, the sense-datum involved in the experience of pain must, at a minimum, be representational. It must represent something. But what? We will see that it is not difficult to answer this question within the framework of sense-datum theory — all that is required is that the sense-datum is systematically caused by a "disordered" bodily state of the appropriate sort. However, that this is not difficult raises our main question: is it at all plausible to suppose that the sense-datum involved in pain is representational?[13] Pitcher's puzzle then reduces to the puzzle of why most sense-datum theorists have routinely rejected this supposition as implausible. There appear to be three reasons for this, none of which seems particularly compelling for rejecting the sense-datum version of the perceptual theory of pain, but will become centrally important and problematic for direct realist versions of the theory, as we will see later on.

The first seems little more than a gut reaction: bodily sensations like pains, itches, and tickles just don't seem to be representational at all! When I feel a sudden itch on my back, or a tickle under my armpit, or experience an intense orgasm, what is it that I am perceiving? What is it in the relevant parts of my body that my experience represents? And the answer seems to be: "I have absolutely no idea… and, mostly I don't care!" In many cases I can identify the cause, but not always. Sometimes a particular spot on my back suddenly and intensely starts to itch for no apparent reason at all, I have absolutely no idea what, if anything, I am perceiving, let alone misperceiving. If this is the proper thing to say, then itching would be a very odd form of perception if it turns out to be such. When I seem to see something, I can tell a lot about what it is that I seem to see, and not just in objectual terms: I can also talk about patches of colors, shapes, etc., in my visual field that directly relate to the object of my perception. In other words, I can *readily articulate* what I take myself to see and what its (sensible) properties are. This is not surprising: in perception I gather information about my environment which I can use in crucial ways in navigating that environment. If I have no idea about the object of my perception and its properties in itching except the awareness of a certain kind of feeling (sense-datum), and an immediate desire to relieve the accompanying discomfort by scratching, then what is the point of viewing itching as a form of perception?[14] The same goes for other bodily experiences, including

[13] In what follows, I will have a robust notion of (sensory/experiential) representation. Information (in the sense analyzed by Dretske 1981) may be necessary (although not sufficient) for something to be or become a mental representation: I will assume that whatever further conditions are required for providing both necessary and sufficient conditions for mental representation, they are in place. These may include optimal conditions (as hinted in the main text), appeal to teleology, and almost certainly appeal to functionally characterizable architectural requirements of a computational/representational *system* interacting with its environment and its information-flow organization. Thus I will use 'perceiving' and 'representing' interchangeably as far as the context makes it clear that we are talking about experiences.

[14] Indeed not much is known about the neural substrates of experiencing an itch. It is suspected that pain mechanisms are essentially involved.

pain. Indeed, even though most of the time we can identify the cause of pain or itch, there doesn't seem to be any sort of resemblance between the sense-datum and its cause.

Although this reaction expresses a strong intuition about intransitive bodily sensations, it doesn't show that the sense-data allegedly involved in such cases are not representational. The point about resemblance, for instance, can be dismissed quickly: resemblance is not all that important for a quality to represent something, or to carry information about something. In fact, it is not at all clear what resemblance here would amount to. Consider particular smells, sounds, or tastes. What does it mean to say that the particular qualities I experience in these cases resemble their causes? Indeed, part of the point of drawing the distinction between primary and secondary qualities is that the latter don't resemble anything in the physical world. Systematic causation in such cases would carry the whole weight for representation. But if systematic causal covariation is all it takes to make secondary qualities of sense-data representational (with perhaps unconscious background information and assumptions about the primary qualities of their causes), then the fact that in having an itch I have no idea about the object of my perception might simply reflect my ignorance about its causes, about what it represents, not that the mental quality (feel) involved is not representational. This is what happens in standard cases of apprehending secondary qualities of objects. Indeed, why not treat bodily sensations (or better: the secondary qualities of the sense-datum involved in the experience, i.e., the qualitative feel we are directly aware of) as representations of the secondary qualities of objective bodily states (i.e., objective powers/dispositions of bodily states to cause such feels)?[15] Furthermore, in cases like pain, this ignorance seems neither complete nor irremediable. Further reflection and research can identify what it is that is represented in such cases. So we can put the first objection aside for the moment (but see below).

Second, I said that there was no room for misperception in the case of pain, and this seemed to militate against the view that pain is a form of perception. But it appears that I was a bit too quick. When we experience pain, our experience may be directly accessible to us, so it may be that we are indeed incorrigible about our pain experiences; but *if* this experience is a form of perception of something, say, potential tissue damage, then our experience can be and sometimes is non-

[15] The notion of a secondary quality can be (and has been) used ambiguously in a way that is apt to cause confusions. We can clarify the issues for the purposes of this paper as follows. First, there are the secondary qualities *of physical objects* as objective powers/dispositions to cause certain sensations/feels. It is through these sensations or feels, of which we are directly and immediately aware, that we are supposed to indirectly perceive these powers or their constitutive bases. Second, these feels can also be said to be the secondary qualities of a sense-datum involved in the experience as the immediate object of our direct perception or awareness. As indicated before, the idea is supposed to be that the secondary qualities of sense-data (as mental qualitative feels we are directly/immediately aware of) track the secondary qualities (as objective powers/dispositions) of physical objects we are indirectly and mediately aware of. The same is supposed to be true for the primary qualities of both. I don't claim this clarification makes the issues absolutely crystal-clear. The difficulties seem to stem from the relational nature of secondary qualities. When I use the term in what follows, the context should make it clear in what sense I use it.

veridical, i.e., it *is* a *mis*perception. Consider the analogy to vision: in seeing a red apple, I am having a visual experience which I can report, perhaps by saying that it visually appears to me that there is a red apple in front of me, or simply by saying that I seem to see a red apple. This report about my visual experience can itself be likened to reporting pains in that it is plausible to hold (many in fact have held) that we are equally incorrigible about our visual experiences. If I didn't really see an apple, then, yes, I retract my claim that I saw one, but not that I seemed to see one. Pains are like visual experiences in that they are the token experiences themselves (or perhaps, acts of experiencing), not the objects of experiences, i.e., a pain is not the tissue damage, but rather the experience of sensing/feeling/perceiving one. *That* is what we call pain. The sense in which we are incorrigible, then, relates to our epistemic relation to pain as a token experience, not to what it might represent.

But this response leaves out a further puzzle: it doesn't explain why we correctly apply the concept of pain to non-veridical experiences. A pain is a kind of experience irrespective of whether it is veridical or not (cf. the IASP definition: irrespective of whether it is caused by any noxious stimuli), and this seems strange. What would the rationale be for co-classifying veridical and non-veridical experiences in this way? The point of having a perceptual system seems, at a minimum, to be to gather information about one's environment, even if this is an internal (bodily) environment, so it makes all the difference in the world whether our perceptions are veridical or not. Indeed, all the non-controversial cases of perception (exteroception) insistently draw a radical distinction here. Yes, we may be incorrigible about our own visual experiences but we don't call them "seeing" (in any ordinary sense), and our response to non-veridical visual experiences is radically different. In brief, we don't have an *ordinary* concept that lumps together veridical and non-veridical visual experiences; and that we don't is not accidental: in the one case we have access to an independent reality in which we have a vital interest, and in the other we don't. So, the sense-datum theorist may conclude, that we don't distinguish between veridical and non-veridical pain experiences is strong evidence that pain is not a form of perception, and hence that the sense-datum involved in pain is not representational.

This is an intuitively powerful line of argument. That we don't distinguish between veridical and non-veridical experiences, and correctly call them both pain, does indeed make a *prima facie* case against the perceptual view. But I think that a sense-datum theorist can handle this objection without giving up her commitment to either representationalism or to the perceptual character of pain experiences. Here is one sort of explanation that such a theorist might give as to why or on what basis we classify both kinds of experiences as pain. The sense-datum involved in pain experiences have properties that are representational, but we classify them as pain even when they misrepresent because we don't like having such experiences at all, and the reason why we don't is because they all have a hurting, abhorrent quality. It doesn't matter whether some pain

experiences are non-veridical, they are equally hurtful, so in that sense they are equally bad. In fact, when we are aware of a pain, the pain can be identified with the sense-datum itself (a mental object *par excellence*) that intrinsically has this awful hurting quality, which dominates our consciousness when it becomes severe and intense. But this doesn't mean that pain sense-data are not representational or don't have qualities that are representational, qualities that don't reveal anything about their putative causes. They do. When we experience pain, we seem to be aware of many phenomenal qualities that tell us various important things about the character of the tissue damage, or the causes of potential damage. Pains may be flicking, quivering, pulsing, throbbing, beating, pounding (temporal properties); jumping, shooting, flashing (spatial); pricking, drilling, stabbing (punctate pressure); sharp, cutting (incisive pressure); pinching, pressing, crushing (constrictive pressure); pulling, wrenching (traction pressure); burning, searing (thermal); tingling, smarting, stinging (brightness), etc.[16] They can be diffuse or localized, they can be dull and deep, they can last a long time or just a few seconds, be severe or mild (volume), and so forth. Doctors have increasingly been using these descriptors as not only diagnostic tools, but also in prognosis.

But, as the sense-datum theorist who still resists treating pain as perception might plausibly reply, none of these seem to be essential to our classification of a sense-datum as pain. What is essential is that there is this hurting, awful, abhorrent quality that all pains share: *that* is the basis of categorizing sense-data as pains, and this quality doesn't seem to be representational at all. This is why pains are sometimes claimed to be *intrinsically* bad. And this brings us to the third reason, already mentioned above, why pains don't seem to be a form of perception: namely, the aversive affective dimension of pains, the fact that they all share an unpleasant hurting quality that doesn't seem representational at all. Indeed, this hurting quality, when attached to experiences, seems to have the force of directing attention, in the first instance, to the experiences themselves rather than to their objects. Attention gets directed (when it does) to the objects only incidentally, i.e., only insofar as the qualities of the experience offer clues to ending the hurtful experiences themselves, and more generally, only insofar as they give information about the significance of their causes, about the well-being of their subjects' bodies. In such cases, our *immediate* interest is in the experiences themselves and not in what they seem to represent — if they happen to represent anything. Furthermore, even though this is most typically so in the case of bodily sensations, the fact that certain affectively neutral experiences involved in ordinary perception (especially in olfaction, gustation, and to some extent, audition) can become (or, cease to be, as the case may be) abhorrent or extremely unpleasant seems to show that the affective/aversive dimension of experiences is

[16] Most of these are taken from McGill-Melzack Pain Questionnaire. See Melzack and Wall (1983) for the informational value of these descriptions of the sensory-discriminative qualities of pains and for more descriptors along other dimensions (affective-emotional and cognitive-evaluative).

distinct from their representational content (see below). So, one might say, what unifies veridical or non-veridical pain experiences as genuine pains is this qualitatively distinctive aversive dimension common to them all, which seems separate from their representational character.

However, given the framework of the sense-datum version of indirect realism presented above, none of what has been said so far undermines the sense-datum version of the perceptual view of pain. First, even if it is true that pains have this hurting quality essentially and even if this quality is not representational, all this shows is that not all qualities of a pain are representational. But this does not refute a perceptual theory of pain. All a perceptual theory of pain on a sense-datum view requires is that the sense-data involved in pain experiences have *some* representational properties (perhaps most are representational). It doesn't require that *all* its qualities are representational. Put simply, pains may have some non-representational qualities but they can still be perception of something for all that, insofar as some of the qualities of the relevant sense-data track certain objective bodily disorders. Second, there is strong scientific evidence that the hurting aspect of a pain is not essential to its being a pain, contrary to popular wisdom. It is a well known clinical fact that some patients who undergo prefrontal lobotomies for their intense chronic pain, as well as patients under the effects of morphine for their pain, patients with pain asymbolia, and patients under hypnosis, still classify their experiences as pain but claim that their pain no longer hurts them. This phenomenon, dubbed "reactive disassociation" by Dennett (1978), has been very well documented. Indeed, it appears that the disassociation also sometimes goes the other way around. I will come back to this issue below, but for the moment, this phenomenon provides *prima facie* evidence against the view that the unpleasant hurting quality of pains is essential to them. Third, even if the hurting quality is essential to pains, where is the argument for treating *it* as non-representational? Yes, it doesn't *seem* to be representational, but it may be representational for all that.

We may conclude that Pitcher's puzzlement is justified. There is nothing that prevents a sense-datum theorist, and for that matter, an indirect realist, from adopting a perceptual view of pain. It looks like none of the standard reasons given against such a view are compelling. In fact, given the empirical findings in pain research and the commonsense observation that pains normally are caused by, thus signal, injury or potential tissue damage, a perceptual view of pain seems to be a much better choice for a sense-datum theorist, especially given that the sense-datum theorist can also do full justice to the phenomenology of pain experiences. Pains feel like mental objects, particulars; a pain that didn't feel like *this* wouldn't be a pain, and this *is*, in fact, the perception of a "disordered" bodily state. It is just that, unlike ordinary perception, our immediate interest in pain perception is, for obvious reasons, typically in the token experiences themselves rather than what we thereby perceive, namely, our bodily states.

To summarize, what makes the phenomenon of pain and other bodily sensations so confusing and appear to be so radically different from ordinary perception is just this fact, namely, the focus of our immediate attention and interest. But, to repeat, the sense-datum theorist can accommodate this difference by saying that our direct and immediate awareness in pain perception is of the pain sense-datum with all its phenomenal qualities — and this is no different from what is involved in standard cases of exteroception. What is different in pain perception, however, is that we rarely (never?) show a direct and immediate interest in what we *indirectly* perceive; but none of this shows we don't (indirectly) perceive anything, for we do. So a sense-datum theorist can and perhaps should subscribe to the perceptual theory of pain.

Now we are in a better position to appreciate why, according to Pitcher, a direct realist version of a perceptual theory of pain seems an "irremediably perverse" position to hold. Direct realists want to do away with sense-data as perceptual intermediaries. So, in a way, they want to do away with precisely what, by holding onto the qualitative intermediary, enables an indirect realist to explain the epistemic and utilitarian/practical asymmetry just mentioned between exteroception and pain perception. Of course, wanting to get rid of sense-data in itself isn't perverse at all. On the contrary, sense-data are ontologically queer entities, and they are, as such, unacceptable to a naturalist even if we put the epistemological worries aside. But by rejecting sense-data, most (early) direct realists, including Pitcher, want to do away with phenomenology also. They seem to hold that there is no qualitative sense-content, no phenomenological dimension to our experiences. But this position seems utterly implausible in the case of bodily sensations like pain. Indeed, how would a direct realist account for the fact that it is the acts of experiencing (token experiences) rather than the objects of experiences that constitute pains? If there is no qualitative aspect shared in veridical and non-veridical pain experiences (assuming that pain is indeed a form of perception of disordered bodily states), what is it that makes them both pain experiences on a direct realist version? There should be no denying that pains *appear* to be mental particulars, and that we *seem* to be directly/immediately perceiving them: at a minimum we seem to stand in some sort of a direct epistemic relation to our token experiences, and in doing so we seem to be aware of its distinctive qualities. We have just seen why and how this fact is no problem for an indirect realist who wants to subscribe to the perceptual view of pain. But on a direct realist view, we should be directly perceiving our bodily states and their condition in feeling pains, itches, tickles, tingles, and the like. So a direct realist who wants to get rid of the qualitative phenomenology of experiences has some serious explaining to do — not only about how it is that, contrary to appearances, direct perception of bodily states is precisely what we do, but also about how and why our immediate epistemic and utilitarian relation appears to be to the *acts* of (direct) perceiving rather than their objects. Furthermore, how do we establish such a direct and immediate (introspective) relation to token experiences themselves on such a position?

Now it may be pointed out that denying the existence of a qualitative phenomenology is not forced upon a direct realist: all that is required is the rejection of sense-data as mental *objects* or *individuals*, and the insistence that perception of external objects and bodily states is unmediated and direct. This, I believe, is indeed true: I will come back to this point and elaborate it below. Nevertheless, historically, most direct realists have wanted to deny the qualitative content of our experiences. Pitcher is among the most explicit theorists on this point. His main worry about sense-data is ontological rather than epistemological. This is partly why he thinks that defending a perceptual view of pain, as a direct realist would, seems so perverse. Although he doesn't raise the issue in his 1970 paper (quoted above), in his 1971 book he gives a direct realist account of perception as a form of *belief acquisition*. Armstrong (1968) takes more or less the same line. But beliefs, on most accounts, don't have any qualitative phenomenology.

Here I won't discuss the merits of direct realism so construed. What needs to be emphasized here is this. Supposing a direct realist makes a convincing case for direct realism for standard cases of perception like vision, an attempt to extend the case to bodily sensations would certainly be worthwhile: if pain is a form of perception and perception doesn't require any irreducibly mental particulars or qualities as intermediaries, then explaining pain doesn't essentially require postulating any such ontologically suspect entities either. This is indeed Pitcher's main motivation in promoting such a view:

> The obstacles [to a direct realist version of the perceptual view of pain] are some features of pain that seem to rule out [such a view], since they seem to demand either (a) that pains be mental (or at any rate nonphysical) particulars, or (b) that the awareness of pains be the awareness of subjective "sense-contents" that are not identical with anything in the physical world. My aim in the paper is to show that these obstacles are merely illusory, and there are no features of pains that force on us the mental-particulars view of pain. So although my attack on [this view] is only indirect, I nevertheless regard it as lethal. (Pitcher, 1970a, p. 369)

Pitcher characterizes (a) as the "act-object" analysis of pains and (b) as the "adverbial" version of it. Interestingly, he calls both of them the "mental-particulars view of pain" and treats them as equally ontologically problematic, probably because he thinks that even in the adverbial version we would still be committed to (bundles of) *qualities* that appear as irreducibly mental as any sense-data (*qua* mental *objects*). Pitcher does a good job of developing and defending a perceptual view of pain as a direct realist, and the difficulties he faces are just those one would expect. I don't think he succeeds in solving those difficulties, but I will leave its discussion aside here.[17] At the end, it

[17] I will take them up below in the context of more recent direct realist attempts that acknowledge qualia.

seems just incredible to deny that pains have a certain characteristic range of feels to them and that it is on this basis that we categorize our token experiences as pain. Indeed, Armstrong's and Pitcher's analyses of pain have generated quite a bit of controversy in a very peculiar way. Pain phenomena have become the battle ground between subjectivists and objectivists, between the defenders of subjective qualia, who didn't care much about ontological worries they generate, and proponents of an objectivist construal of perception, who were usually physicalists or naturalists about the mind. Some, such as Everitt (1989) and Grahek (1991), have argued against the perceptual view of pain by arguing for a sensory view of it that emphasizes the private and subjective qualitative character of pain experiences. Everitt, echoing Kripke, summarizes his discussion in terms of two "axioms" about pain:

> (1) For something to be a pain, it must have a certain sort of feel to it.
> (2) If something has a feel of that sort, then it is pain.
> ... It is this fact which is the fatal flaw in any attempt to combine (*à la* Armstrong and Pitcher) a perceptual account of pain with a belief acquisition account of perception. Acquiring a belief simply has no phenomenological feel to it ... and thus Armstrong and Pitcher inevitably leave out of their account something essential to it. (Everitt, 1989, p. 122)

But Everitt's conclusion is more general. He seems to think that a direct realist version of perception cannot accommodate any qualitative feel and draws from this the sweeping conclusion that "we must give up the thought that pain can be construed as a kind of perception" at all (1989: 124). Similarly, Grahek (1991) concludes that pain cannot be an objective perception of a bodily state, but a subjective sensation with a peculiar qualitative content to it. Interestingly, he reaches this conclusion by drawing on recent findings from scientific pain research.

– III –

One might wonder whether conceiving of pain as a certain sort of subjective sensation or sensory experience precludes understanding pain as a form of perception. Why can't a direct realist acknowledge an essential qualitative dimension to pain while viewing it as a form of direct perception of objective reality (i.e., internal bodily states)? Indeed, why can't a direct realist acknowledge a qualitative dimension to all perceptual experiences? The standard worry is supposed to be epistemological: it is claimed that once a "veil of perception" is admitted, it is difficult to prevent skeptical conclusions. But as we have seen, in the case of pain and other bodily sensations,

the main worry seems to be ontological, not epistemological.[18] But does acknowledging qualia commit one to irreducibly mental objects like sense-data? This last question is nowadays answered in the negative, and I will not challenge it.

But what is the ontologically less problematic alternative? What are qualia? Is merely acknowledging phenomenological properties or *qualities* without mental *objects* any less problematic, ontologically speaking? As I mentioned in the beginning, recent lively discussion about phenomenal consciousness seems to indicate that it is not. If qualia are to be retained, they need to be naturalized. At least, this is the position taken by those, like Pitcher, who have pushed very hard for a perceptual theory of pain because of ontological worries. Indeed, if acknowledging qualia is not to pose any difficulty for direct realism, qualia, whenever deemed essential to the identity of the perceptual experiences, ought to be *directly* related to the properties of the object or state that the perception is said to be of. For the direct realist insists that our perception of the physical world is not through a prior perception or awareness of qualia: we typically directly perceive the physical world by having qualitative experiences, but the qualities of these experiences are not themselves objects of perception or awareness, rather they are the awarenesses of the qualities of physical objects. So it seems that the only plausible way for a direct realist to establish this direct epistemic relation to physical objects and their properties seems to be to claim that qualia are nothing over and above the (analog, non-conceptual) representations of those properties. Of course, this is only the beginning. If this move is to count as progress, what it is for a qualitative sensory state to be all representational needs to be spelled out in naturalistic terms, for one thing; for another, an independent story needs to be told about our introspective access to our experiences and their qualities — for no direct realist would want to deny that we are introspectively aware of our experiences and their qualities.

In fact, once the direct realist allows for the existence of qualities of our perceptual experiences, that she ought to treat them as essentially and wholly representational and that she ought to give a naturalistic account of her representationalism, are but two aspects of her predicament. We can see this by looking at the dialectic between her position and that of her rival.

The direct realist is under two sorts of pressure. One is epistemological: she wants to get rid of the "veil of perception." The other is ontological: the qualities of our experiences we seem to be aware of in introspection are resistant to physicalist treatment in that they seem to be irreducibly mental. The traditional solution on the part of direct realists was to deny the qualitative character altogether and treat perceptual experiences as entirely cognitive, namely, as acquirings of conceptually articulated beliefs and other propositional attitudes.

[18] For some, there were also epistemological worries of a different sort: they wondered how it is possible at all to have infallible access to the qualities of our experiences. The nature of the epistemic authority that introspection seems to provide was a mystery.

This is not the route taken by most of the more modern, naturalistically oriented direct realists (but who are not cognitivist like Armstrong and Pitcher),[19] according to whom the qualitative aspect of our perceptual experiences entirely consists of non-conceptual representation: phenomenal content *is* a form of representational content. When we seem to be aware of phenomenal properties of experiences in introspection, what we are aware of aren't the intrinsic properties of experiences but the properties of physical objects. The quality of redness when I see a red apple isn't a quality of my experience, but rather a quality of the apple I see. This is not to deny the existence of qualitative experiences, but to deny that there are *intrinsic* phenomenal qualities that attach to them. Experiences are then free to be treated as (non-conceptual) representations of (properties of) physical objects, with the insistence that we don't experience or perceive our own experiences/representations (and their qualities) in the way we directly perceive the physical objects themselves — and even if we do, this is not required in directly perceiving the physical world. This kind of move, if it works, solves both the ontological and the epistemological difficulties at once. But it comes at a price, of course. For one thing, it is committed to the denial of the traditional distinction between primary and secondary qualities: the redness I see is as much a mind-independent property of the apple as its round shape. When I visually hallucinate a red apple, there is no phenomenal object I see, but rather I have an abnormally caused experience of the same sort when I actually see a red apple. Here the hallucinatory experience is just that: a hallucination, a misrepresentation. My experience seems to carry the information that there is a red apple in front of me when in fact it doesn't. Here 'experience' is to be understood naturalistically as a physical/functional state of the brain: there is no *intrinsic qualitative* character to it. This seems to be an eliminativist stance not just with respect to sense-data, but also with respect to any qualitative phenomenology.[20] Yet there is another way of looking at this position.

One might say that this is eliminativism with respect to sense-data — non-material phenomenal objects *par excellence* — but direct realism in and of itself is not an eliminativist position about qualia or the qualitative character of our experiences. Rather, it might be said, it is a *naturalist* or *reductionist* position regarding qualia. On this reading, all qualia are identified with (analog, non-conceptual) representational properties of experiences, and they are then given a

[19] I have in mind Drteske and Tye, among others, to whose accounts I'll turn in more detail below. It is interesting to note that there is a crucial difference between early direct realists and the more modern ones: unlike the earlier ones, the later direct realists tend to reject cognitivism, which is the view that perception and its conscious phenomenology require having concepts — thus, having simple *de re* beliefs. See Dretske's attack (1994) on Dennett's cognitivism for a review of the issues.

[20] As we have seen, this has been more or less the standard reading of the traditional (perception-as-belief-acquisition) direct realist position vis-à-vis its rival: belief states are conceptually articulated and there is no phenomenology to them. But this may not seem entirely correct. Smart (1959) and Armstrong (1968) did give so-called "topic-neutral" analyses of phenomenological reports. However, this should not matter since the whole point of such translations was to show that there were no ontological commitments to irreducibly mental particulars or properties.

relational account. In other words, representational properties of an experience, *E*, are not *intrinsic* to *E*. *E*, presumably, is realized by a brain state. As such, it has certain physical and functional properties. But, on this reading, what makes *E* exclusively representational, and thus qualitative, is *not* the possession by *E* of certain *intrinsic* physical (or, for that matter, irreducibly intrinsic phenomenal) properties, but certain of its *relations* to the properties of physical objects/states it represents. These relations are then cashed out in terms of causal or nomological relations. There are different proposals about how to best understand these relations, but, for present purposes, we can afford to be brief and crude: *E* sensorially represents *F* just in case *E*'s occurrence nomologically covaries with *F*s under certain (optimal) conditions. This relational fact between *E* and *F* is what makes *E* a sensory representation of *F*, thus qualifies it as having a phenomenology.[21] Thus, on this reading of direct realism, having a certain phenomenology is not an *intrinsic* feature of experiences, but reduces to having a certain sort of nomological relation to the properties of physical/external objects. In a way, of course, this reading is still eliminativist with respect to qualia conceived as *intrinsic* features of experiences. But, the direct realist might say, this sort of eliminativism is quite welcome as long as we can secure a relational phenomenology while clearing the epistemological and ontological hurdles of indirect realism.

It is instructive to contrast this reading with that of the indirect realist who holds that phenomenal qualities are *intrinsic* to experiences, but can, for all that, still be representational.[22] "Consider the red color of a section of a map. Suppose the redness is an intrinsic property. Still it can be used to represent altitude".[23] Similarly, qualia are intrinsic features of experience and as such they are not intrinsically or essentially representational, but can function as representational *vehicles* when appropriately caused by properties of physical objects. In other words, qualia *may* indeed be representations, but their ontological nature is not exhausted by their representational character. Furthermore, there may be certain sorts of qualia, as in pain or orgasm, that are never representational. But this raises a very interesting issue about the uneasy relationship between indirect realism and naturalism. If qualia are to be conceived as intrinsic features of an experience, *E*, then there seems to be only one option for preserving naturalism or physicalism: namely, identify them with the physical (or, perhaps, narrow psychofunctional) properties of the brain state that

[21] As in fn. 13 above, I am assuming that whatever turns this formulation into something that also gives a sufficient condition for something to be or become a mental representation is in place.

[22] A sense-datum theorist certainly holds that the object of our perceptions with which we are directly acquainted have those phenomenal properties intrinsically. But here I don't have a sense-datum theorist necessarily in mind. As we have seen, an indirect realist can insist on the reality of qualia intrinsic to experiences while rejecting sense-data as mental objects.

[23] This quotation is from Block's reply (1997: 163) to Gamble's commentary on Block's target article (1995). I found Block's position to be very elusive, to say the least, so I don't want to claim that he is an indirect realist, but he comes close, as I characterized the positions here. The quotation is used here to remind the reader how intrinsic qualia can be representational, something we have touched on above while discussing what makes sense-data and their qualities representational.

constitutes *E*. Apart from the well known philosophical difficulties of such a position, there is also the danger of its collapsing into direct realism. For suppose a particular quale *Q* is identified with physical feature *M* of *E*. Then when *Q* is taken to represent *F* it is plausible to account for this relation in terms very similar to the ones given above: namely, *Q* sensorially represents *F* just in case instantiations of *Q* nomologically covary with *F*s. If this account is correct, then there seem to be only two differences, apart from terminological ones, between this position and non-eliminativist direct realism — if naturalism is to be preserved. One is that the former allows for non-representational qualia, whereas the latter doesn't. The other is that the naturalist indirect realist ends up claiming that what we are directly and immediately aware of, in indirect perception of external reality, are our brain states and their functional/physical properties, whereas the direct realist has no such commitment. For this reason, it is difficult to see how an indirect realist could be enthusiastic about preserving naturalism or physicalism.[24]

We can now better appreciate why a simultaneous solution to both epistemological and ontological worries is essential for a direct realist who wants to preserve common sense by allowing our perceptual experiences to have a qualitative phenomenology. If exteroceptive experience is direct access to properties of physical objects and it has a phenomenology, then this phenomenology can be nothing over and above the representational features of the experience, which are then given a relational account in causal/nomological terms, and are thus ontologically kosher. If this reading is correct, then direct realism emerges as a form of naturalism about qualia through what we might call *physicalist representationalism*:[25] the claim that all qualia are essentially representational, where this is understood in externalist terms, that is, having a phenomenal/representational content is essentially a matter of standing in a certain type of causal/nomological relation to what is represented.

Thus a direct realist version of the perceptual theory of pain and other bodily sensations can be seen not so much as a perverse attempt to dispense with the subjective qualities of pain, but rather as an attempt to give a naturalistically acceptable account of pain experiences. The importance of this cannot be underestimated: if direct realism is a form of anti-skeptical naturalism in the philosophy of perception, then if bodily sensations like pain are nothing but perceptions, direct realism is poised to become an all-encompassing naturalism about the mind. This is why perceptual theories of pain and other bodily sensations are so important, and it is also why arguing against them by insisting that pains have an essentially subjective qualitative phenomenology is

[24] Not all would find the idea of directly perceiving brain states implausible. Some claim precisely this (e.g., Churchland 1985, Loar 1997). Cf. Aydede and Güzeldere (ms.).

[25] I will drop the qualification 'physicalist' in what follows. It is there to distinguish this version from the representationalism that a sense-datum theorist might hold, as described above.

ineffective. A direct realist can accept pain qualia as essential if pain qualia turn out to be all relational/representational.

This means that the philosophical issues about pain are indeed special but only in so far as pain poses a special problem for the naturalization of the qualitative mind through representationalism. For there is already an intuitive resistance to treating qualia as relational features of experiences even in the case of exteroception. When it comes to pain and other bodily sensations it seems a formidable task to give a plausible account of qualia as anything other than those intrinsic features of our experiences we seem to be so vividly and incorrigibly aware of in introspection — as indeed common sense seems to tell us. Can this be done? Can pain qualia (and qualia involved in other intransitive bodily sensations) be exhaustively accounted for in representational, and thus relational, terms, as direct perceptions of the conditions of our bodily states?

Two recent attempts in this direction are worth mentioning. Tye (1995, 1997) and Dretske (1995, 1999) have argued that pain experiences (along with other bodily sensations) can be given a purely representational account in much the same way a representationalist direct realist would do in the form I have described above, and therefore are not obstacles to the naturalization of qualia. Dretske is more cautious, but he still seems to think that this is the only way to go if we are to naturalize the qualitative mind. I am very sympathetic, but I don't think that their attempts succeed. They fail exactly where previous direct realist attempts have failed: first, in the attempt to explain the epistemic and utilitarian asymmetry between standard cases of exteroception and intransitive bodily sensations like pain, and second, in the attempt to handle the aversive affective dimension of pain experiences — we'll presently see that these two points are *intimately* related. In what follows, I won't argue that pains and other bodily sensations can't be naturalized, but will rather argue that they can't be naturalized through representationalism alone in the way Tye and Dretske propose.

Before we move on to see what problems pain cause for naturalism about qualia, however, we need to attend to one more issue of crucial importance.

– IV –

So far I have said very little about introspection and the role it plays in the debate between direct and indirect realists. But how introspection is to be understood makes a crucial difference for both parties. It is easy to see why. We noted above that the concept of pain (of itch, tickle, tingle, and the like) is the concept of a token experience with a certain characteristic range of feels (and perhaps with certain sorts of typical causes and effects). When someone is reporting pain, what is being reported is typically the presence of a certain type of experience. The common wisdom is that such reports are extremely reliable — so much so that they are said to be incorrigible. That is why misperception seems impossible in "pain perception," just as it seems impossible to be mistaken in

one's introspective access to experiences involved in exteroception. So to come to know about one's pain is to come to know about one's ongoing experience of a certain sort. But coming to know about one's experience in this first person way is to engage in introspection.

Introspection is the means by which we come to know about our own phenomenal mental states. This much is universally agreed. The disagreement begins in answering how it works and what it involves. There is a view of introspection that Dretske and Tye adopt and that fits very nicely with the naturalist direct realist program as outlined above. To describe this view, let's see what is involved in my coming to know that I see a red apple, or that I have a visual experience as of a red apple. If the content of my knowledge is to be expressed with a 'that'-clause, as I have just done, then at a minimum I must have the relevant concepts involved: the concepts of seeing (or, visual experience), of redness, and of an apple. Furthermore, I must have the ability to identify the experience through its content and mode. My visual experience (as of a red apple), *E*, has various properties that I come to know in introspection. So whenever I need to express what properties *E* has, I must use the concepts expressing those properties. But according to the direct realist, as we have seen, the qualitative properties of *E* are all relational/representational. It is often alleged that the transparency of introspection confirms this: when I "look inside" to "see" what properties *E* has, all I see is what *E* represents, namely a red apple and its various other qualities that I can discriminate in seeing the apple. In having *E*, I seem to come to know about *E* by coming to know about the apple I see. If so, it seems that I cannot come to know about *E* if I don't have the conceptual resources to articulate what *E* represents, i.e., if I cannot come to know *that* the world (*E* represents) is a certain way, *that* there is a red apple in front of me. Without the concepts that apply to the object of exteroception, we cannot come to know about the acts of exteroception themselves. This is not to say that without those concepts we cannot perceive. We can and we do. All it says is that without concepts we cannot introspect our perceptions. On this view, to report about *E* is to report about features of the world *E* represents as being, i.e., *qua E*'s content and *E*'s having that content. If so, introspection is a form of what Dretske (1995) calls *displaced perception*: you come to know about your experiences by coming to know about the world they represent. You look at the world, so to speak, and come to know what your experience is like.

Although this process is inferential, which might argue against the view, it nevertheless seems to preserve the epistemic authority of the introspecting subject and the privileged access he has to his own experiences. Other things being equal, I am the best authority on what is going on in my own mind. That is because no one but *me* is receiving the information I get about the world through the act of actually perceiving the world, when I do and in the way I do. *I* am the receiver and possessor of this information in acts of perception which is then available for me to use to specify the content of my experiences and thoughts. Even though introspection is a form of

indirect perception, this doesn't seem to challenge my epistemic authority about my own mental life.[26]

This is only a rough account of introspection, but it illustrates the contrast nicely. On this direct realist view, introspection is not a matter of sensing or glancing or looking at (in short, *perceiving*) the experiences themselves. Experiences are (realized by) brain states, and as such there is nothing to be learned about how or what they represent by just looking at them. Thus introspection is not itself a form of *perception*, but rather a conceptual articulation of (or, *thinking* about) our mental activities through their representational properties. We cannot come to know what our brain states represent by looking at them: what we need to do is to look at the world and say "*that* is what my experience is like".

This view of introspection is, as I said, essentially in harmony with the direct realist's naturalism about qualia. If qualia are properties of our experiences and are all representational, then we come to know what qualia our experiences have by coming to know what they represent, and we come to know what they represent by actually engaging in perceptual experience, i.e., by actually experiencing the objects of our perceptions and their properties, thus coming to know about *them* (through the exercise of the relevant concepts). This is why a direct realist cannot allow for non-representational/non-relational qualia if qualia are essentially knowable. Or, to put it the other way round, this is why this account of introspection won't give you epistemic access to qualia if and when they are non-representational, since you won't have the concepts to articulate them. For you acquire the concepts you use in introspection by acquiring the concepts you use in articulating your thoughts about the world (external and internal bodily world). If there are non-representational qualia, then you won't have the resources to acquire the concepts applying to them, hence you'll be blind to them. But this is to postulate qualia that are essentially unknowable.

Now suppose that there are non-representational qualia or aspects of our experiences about which we somehow come to know in introspection, as I will try to convince you in a moment. Then not only does representationalism collapse, but so does its account of introspection, in which case the alternative conception of introspection would commend itself for re-evaluation. This would then remove at least one obstacle to the acceptance of indirect realism.

[26] See Dretske (1995, 1999) for more elaboration. Tye (1995) also shares this view of introspection, but he has indicated to me that he would not accept the claim that this view makes introspection inferential. Since, according to him, phenomenal character of experiences is their phenomenal content, and since phenomenal content is intentional content, i.e., the sensible properties of objects we directly perceive, we are directly aware of phenomenal character when we are directly aware of sensible properties of objects. But this seems not enough to avoid making introspection inferential. A further step needs to be taken: namely, that this phenomenal character is what my present experience has, i.e., such and such sensible properties are being represented by my present experience. Introspection is access to mental states, after all, not access to sensible properties of physical objects. I have called the latter exteroception.

The alternative view of introspection treats it as a form of inner perception or inner sense. This view has a long and venerable tradition in philosophy, but is hard to articulate without raising serious difficulties since it is not clear what it is that is being perceived in introspection in a naturalistic framework. But, as I said, it is not clear whether an indirect realist who holds that qualia are intrinsic features of experiences can enthusiastically endorse naturalism so long as intrinsicness precludes all qualia or all aspects of qualia being metaphysically and exclusively constituted by representational (thus relational) properties of experiences. If qualia are more than just representations, then the question naturally arises as to how we do have epistemic access to whatever this "more" is.[27] There seem to be only two choices: it is either an irreducibly mental quality or else some physical/functional property of a brain state that realizes the experience. The traditional tendency was to opt for the former. But if naturalism is to be preserved the second seems to be the only option. Nonetheless, this is *prima facie* implausible: how come we don't have any clue whatsoever about which physical brain property that is? I won't here pursue the difficulties involved.[28] Suffice it to say that specifying this access as a form of inner perception in analogy to exteroception cannot all by itself be sufficient for self-*knowledge*. Sooner or later, the indirect realist has to explain how this inner perception leads to the acquisition of *concepts* necessary to articulate the content of such introspective knowledge.[29] It is only to be expected that this requirement raises additional problems for a naturalist defender of this view, since the concepts we are supposed to have acquired in this way don't, *prima facie*, seem to apply to physical properties of brain states.[30]

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[27] See Güzeldere and Aydede (1997) for a criticism of Block (1995) along this line. Block talks about access to P-consciousness or P-properties (phenomenal properties) but it is clear that this notion of access is very different from the notion of access to R[epresentational]-properties he introduces regarding his A[ccess]-consciousness. It is not clear at all what according to Block "access to P" is supposed to be.

[28] This question is largely meant to be rhetorical: there are some answers available (I do provide one in Aydede and Güzeldere (ms.)). For extensive criticisms of introspective consciousness as inner perception, see Dretske (1993, 1995), Rosenthal (1997), Güzeldere (1997). These criticisms are actually directed against the so-called "Higher Order Perception" (HOP) — as opposed to HOT[hought] — view of state consciousness: roughly, the view that what makes a mental state conscious is its being monitored or perceived by a higher order mental state or by a sort of mental organ. But the critical points could easily be transformed to viewing introspection as inner perception.

[29] Armstrong (1968) is a direct realist who adopts a view of introspection as inner perception. But, as I mentioned above, it turns out that his account of perception is a form of belief acquisition. Lycan (1987, 1996) is a naturalist representational direct realist who holds a perceptual view of introspection without claiming that perception is a form of belief acquisition. I wish I could have space to point out the difficulties of his position as well as its merits.

[30] I don't think that these difficulties are insurmountable. In fact I do think that there is an important kernel of truth in conceiving introspection as a kind of perception. But to tell what that is would take us too far afield. Again see Aydede and Güzeldere (ms.).

– V –

In discussing why a sense-datum theorist, contrary to first appearances, may in fact legitimately subscribe to the perceptual view of pain, I addressed three points that seemed to militate against such a stance. I argued that none of them prevents a sense-datum theorist from adopting a perceptual view. These points were closely related to each other. First, the qualitative content of an experience of pain just doesn't seem to be representational. This is supported by the observation that in having pain I don't know much about what it is that I am perceiving, if I am perceiving anything at all. Second, if pain is a form of perception, it should be possible for it to involve misperception. But we don't make such a distinction: we apply the concept of pain to *any* experience that has a certain type of phenomenology, irrespective of whether this phenomenology involves a perception or misperception. Third, the only explanation for this seems to lie in the fact that this phenomenology has a certain kind of abhorrent, hurting, awful aspect to it, which doesn't seem representational at all. As we have seen, it doesn't matter for a sense-datum theorist whether there is any non-representational quality to pain sense-data insofar as it has other qualities that function as vehicles to represent the disordered bodily states. But for a direct realist who wants to give a naturalistic and relational account of qualia through representationalism, these points are much more troubling, because he cannot allow for *any* non-representational qualia or qualitative aspect to the phenomenology of pain: pain qualia, on a direct realist view, are nothing but non-conceptual representations of disordered bodily states. Let me explain.

To begin with, consider how Tye (1997) proposes to handle these points within his approach. First, according to Tye,

> Pains... are *sensory* representations of tissue damage. To feel a pain, one need not have the resources to conceptualize what the pain represents... One need not be able to say or think that such-and-such tissue damage is occurring. Still, the content of the pertinent sensory representation is what gives the pain its representational character. ... A twinge of pain is a pain that represents a mild, brief disturbance. A throbbing pain is one that represents a rapidly pulsing disturbance. Aches represent disorders that occur *inside* the body, rather than on the surface... (Tye, 1997, p. 333)

Tye characterizes the phenomenal content as *nonconceptual* intentional content, and claims that there is no a priori answer to exactly which features represented by pains are elements of their phenomenal contents. He thinks that empirical research is necessary to determine this (339). So the first point is acknowledged, but not taken as threatening. Knowing about what is perceived requires having the concepts of the physical properties of the (actual or potential) tissue damage. In

some cases, we can certainly characterize them as such. But if we can't always do this exhaustively, that is no problem for the claim that phenomenal content is representational — or so Tye seems to think.

The second point is also absorbed by Tye: the concept of pain applies to *token* experiences with a certain phenomenology, hence a certain representational content, irrespective of their veridicality. So pains can be and sometimes are illusory. But no explanation is offered by Tye about the apparent oddity of this: what is the point of having such a concept if pains are direct perceptions of bodily states? Below I'll discuss a few remarks he makes that relate to this question. But first, I will argue that his responses to the first two points above are inadequate, and in fact, quite puzzling.

If pains are token experiences representing tissue damage, then my coming to know about my present pain in my right knee is my coming to know about my present experience representing a certain physical disturbance there. But coming to know (i.e., introspecting) such an experience is possible only when I possess the appropriate concepts applying to what is represented by my experience (in addition to having a concept of experience/sensation qua mental). According to Tye (and Dretske too), even though I can *have* the experience (i.e., pain) without the relevant concepts, I cannot be aware *that* I am having it (i.e., that I am experiencing a disturbance in my knee): *in just this sense,* there can be "unfelt pains". As Tye says, without the relevant concepts we are blind to our own experiences, which are nothing but analog/non-conceptual representations of external as well as internal physical conditions. So strictly speaking it is possible that "[t]o feel a pain, one need not have the resources to conceptualize what the pain represents ... [o]ne need not be able to say or think that such-and-such tissue damage is occurring". But often to feel pain is to know one is feeling pain: in fact, as we have seen above, the connection between feeling pain and knowing one is feeling pain is routinely taken as "axiomatic", not just a de facto link. But for knowing/believing, we need concepts. Well, then, which concepts, *as a matter of fact*, do most people (including small children) have when they come to know they feel pain? Certainly, not the concepts of bodily disturbances, tissue damage, disordered states, nociceptive stimulation, etc. All they need — and, usually have in fact — is the concept of pain. But the concept of pain is *not* the concept of physical disturbance (tissue damage, etc.), as I took pains to point out in sections I and II of this paper.

People usually have the concepts required to express *when* and *where* the pain is. Whatever it is that my pain experience represents, it represents it as happening somewhere in my body occurring at a certain time — I need the relevant spatio-temporal concepts for introspecting the spatio-temporal properties of my pain. This certainly shows that some aspect or part of the phenomenal content of pain experiences is intentional. No argument is needed here. But it doesn't show that all content is intentional. Consider a mild tickle, itch, tingle, and pain occurring on the

very same spot in my back for the same length of time (at different times, of course). The spatio-temporal content will be the same (except the times of their token occurrences), but surely we type-classify the token experiences themselves differently. And we do this without having the concepts that apply to *what* these experiences represent as happening on that spot in my back. They feel different. And if their feel is what they represent, then I seem to be able to discriminate between them, and single out their differences generally, without having the concepts that apply to what physically happens in the relevant part of my body, i.e., without having the concepts that apply to what is being represented by these experiences. The concepts I happen to have are none other than the concepts of an itch, tickle, tingle, and pain, and these concepts are not the concepts of physical bodily happenings supposed to be represented by them. I don't know what physical kinds itches, tickles, tingles, and pains are — that is why we need the science of these to tell us what they are, just as we need to have the science of color to tell us what colors are (similarly with smells, tastes, sounds, etc.). So it seems that Tye's handling of the first and second points is flawed.

– VI –

At this point, tempted by the similarity just pointed out between bodily sensations and experiences as of secondary qualities of objects, one might try to assimilate pains, itches, tickles to secondary qualities in the following way.[31] The concept of pain (itch, tickle, etc.) is actually ambiguous. Sometimes it applies to token experiences (as in, e.g., "I am in pain", "I am having pain") — as we have seen, this seems to be the dominant usage — but it also sometimes applies to body parts, regions, to skin as well as internal tissues (as in, e.g., "I feel a pain in my right knee", "the pain in my stomach", "the pain of my knee", etc.). In the latter cases, it is natural to treat pain as a sensible secondary quality of those parts, very much like the way colors, smells, tastes, felt warmth/cold are considered to be secondary qualities of surfaces, objects, which can exist without being sensed or felt — secondary qualities as objective powers/dispositions. The naturalist direct realist, like Tye or Dretske, who is also a realist about qualia standardly treats secondary qualities as mind-independent objective properties of objects on a par with primary qualities. The qualitative aspect of experiencing these is nothing but non-conceptually representing an objective property of physical objects/states (or a set of such properties like surface reflectances in the case of color, or molecular compositions in the case smell and taste, etc.). The sensory concepts we have of

[31] People who seem to have taken this route include Fleming (1976), Graham and Stephens (1985), Stephens and Graham (1987), Newton (1989), and Langsam (1995). Newton's paper is the most explicit attempt to develop a theory of pain as a secondary quality objectively had by a damaged body part. She acknowledges the dominant use of 'pain' as it applies to token experiences, but tries to lessen its impact on her position by arguing that better scientific and philosophical understanding can alter ordinary concept/word use. Palmer (1975) works very hard to make a philosophical case for "unfelt pains".

secondary qualities apply primarily to these objects/states. Hence, as we have seen above, as long as we have the concepts, we can come to know, introspectively, what experiences we are undergoing and what their qualities are. The direct realist can adopt the same strategy here with respect to pains, itches, and tickles. Pain is a perfectly objective physical condition of the body, and when I experience this condition, I am non-conceptually representing it (i.e., the pain). Hence when I come to know about my pain (through experiencing/representing it), i.e., about the disorderly state of the part of my body, I apply the concept of pain (in its second sense) to that part; but then I can come to know about my experience of pain, just as I can come to know about what visual experience I am having through the exercise of the concepts of red and of experience.

This is actually a promising route. But it immediately makes clear why this way of seeing pain is not the dominant one: it makes it possible to have pains without experiencing them, consequently without knowing one has them, as well as to experience pains, hence to sincerely believe one has them, without actually having them. Both these possibilities, as we have seen earlier in the paper, are exactly what seem to be excluded by the folk, scientific, and standard philosophical conceptions of pain. The conception of pain as a secondary quality of body parts is not the standard or dominant one. Although this conception seems to get a foothold in certain rare situations,[32] it seems aberrant when one reflects on the ordinary conception of pain as a token experience of a certain sort irrespective of whether it veridically signals injury. Tye and Dretske, of course, acknowledge this dominant sense of "pain" and try to explain pains as token experiences in terms of representationalism. But as we have seen, they seem to have serious difficulties given what their account of introspection requires, namely, the possession of concepts that apply to what experiences non-conceptually represent. Given that "pain" primarily applies to token experiences, how is it that we come to know about them, through what concepts? Here, as we have seen, we lack a satisfying answer.

But let me try one on behalf of direct realism à la Tye and Dretske. It seems plausible to treat pain (itch, tickle, etc.) as a secondary quality (call it, pain_{sq}) of a body part, as discussed above, as the correct model to understand bodily sensations insofar as we can give an explanation of why the conception of pain (itch, tickle, etc.) as token experiences (call them, pains_{te}) has become the standard, dominant one. The demand for such an explanation is, of course, in line with our previous demand for an explanation of why we standardly apply the concept of pain to certain sorts of token experiences irrespective of whether they are veridical perceptions or not. This was the third point brought against the perceptual view of pain. If pains_{te} are nothing but sensory representations of pains_{sq}, how have we come to develop an immediate epistemic and utilitarian/practical interest in the experiences themselves in the first place, rather than in the objects/conditions represented by them?

[32] For these situations, see the discussions in the articles cited in the previous footnote.

This is something we rarely, if ever, see in other forms of perception, and this fact rightly argues against the perceptual view of pain, as we have seen. But can't the direct realist give the standard explanation here, namely, that these experiences have an aversive, hurting, abhorrent phenomenology common to them irrespective of their veridicality? This is how, it might be said, the concept of $pain_{te}$ has become the dominant one.

This move is plausible as far as it goes, but is not very helpful for the direct realist who tries to explain the entire phenomenology of an experience solely in terms of representationalism based on causal covariance. For if the explanation admits a qualitative aspect to token experiences (an aspect of their common phenomenology), this aspect cannot be accounted for as representational content; or if it can, this content can't be $pain_{sq}$, i.e., some disordered condition of body parts. It is easy to see why. The explanandum is why our primary and immediate interest (epistemic as well as practical) is in the experiences themselves such that the related concept ($PAIN_{te}$) applies primarily to them rather than what they represent (i.e., to $pain_{sq}$) — we have no parallel of this phenomenon in standard exteroception,[33] where the whole phenomenology can be accounted (assuming it can) for solely in terms of what is represented, i.e., the perceptual object and its qualities as the representational content of the relevant experiences. Put differently, the explanandum is precisely the asymmetry about our differential epistemic and practical interests that exists between pain and certain other bodily sensations on the one hand, and ordinary perception like vision on the other; it is manifested in our differential applications of the relevant concepts (see the FIGURE 1).

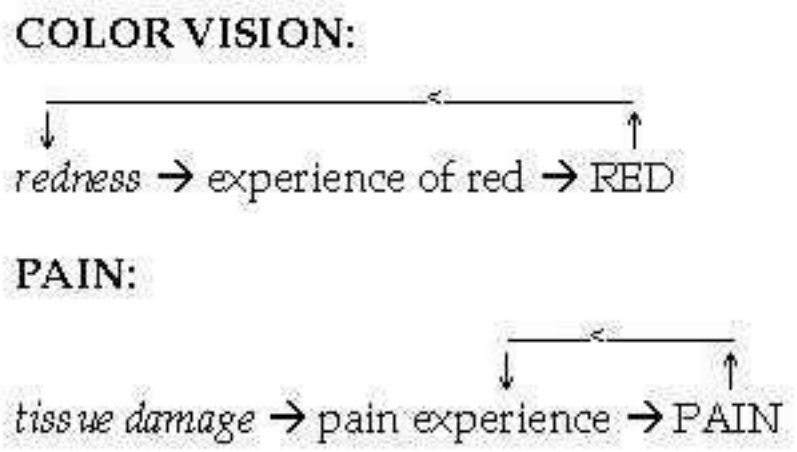

FIGURE 1: *The asymmetry in concept application despite identical information flow*

[33] Which is not to say that we can't form concepts that apply to token experiences in standard exteroception, irrespective of their veridicality. We can and we do — I mean, we, philosophers do; the ordinary folk don't seem to have much truck with such concepts. Also, I hope it is clear that when I talk about an immediate epistemic and practical/utilitarian interest in or focus on the token experiences, I don't mean a consciously directed effort.

But if the explanation offered is that there is a common hurting quality (or, an aversive qualitative aspect) of the experiences that turns the immediate attention and interest onto themselves away from the main perceptual object/condition that they are supposed to sensorially represent, then this quality, (even it may turn out to be representational — see below) can hardly be the representation of the main perceptual object/condition and its qualities. If it were, the mystery would still remain as to why that should have the effect of directing the attention and interest to the token experiences, rather than of sustaining the attention and interest in the object/condition itself, as is the case in standard (affectively neutral) exteroceptive cases. Hence we would have no satisfying explanation.

So, as far as I can see, there seem to be only two reasonable options for a direct realist like Tye: either (1) deny that there is no common hurting *quality* or aversive *phenomenology* that explains why we have come to have the concept of $pain_{te}$ as the dominant one (rather than that of $pain_{sq}$), and offer a cognitive/conceptual explanation instead in terms of our *cognitive reactions* to such experiences; or (2) accept that there is a such a quality, but argue that this quality still represents something other than the apparent perceptual object and its properties (i.e., something other than $pain_{sq}$).

Unfortunately, I am not aware of any contemporary direct realist, who has invested in naturalizing qualia through representationalism and has addressed this situation in any clear and satisfying manner. Tye appears to opt for (1), and I will come back to what he says in a moment. But let me indicate why taking option (2) offers no immediate help to a direct realist who has opted for a view of introspection of experiences as a form of higher-order thought about them (hence requiring, as we have seen, concepts applying to what is represented by these experiences, as well as concepts of experience, sensation, representation, and the like).

Taking the second option would require the possession of a concept applying to what is represented by this common aversive quality. If this quality is not a representation of $pain_{sq}$ (along with its spatio-temporal, intensity, properties, etc.), then it is obvious that no one[34] has any clue as to what it is a non-conceptual representation of. But then no one has any concept applying to what this qualitative aspect of $pains_{te}$ is supposed to represent. Then, of course, given the account of introspection currently deployed, no one is aware of this aspect of their $pain_{te}$. This is not only a *reductio* of the second option, but also has the consequence that it would still remain a mystery how token experiences have become the focus of our immediate epistemic attention and utilitarian interest.

[34] Perhaps with the exception of some pain and emotion scientists, and some professional phenomenologists.

Option (2) may not be completely hopeless, but if not, it needs to be unpacked in an entirely different way, and it is not at all obvious how to do this (see below for more on this point).

– VII –

Option (1), as we may remember, was the option taken by the early perceptual theorists, like Armstrong and Pitcher. It was in line with their general cognitivism and with their view of perception as a form of belief acquisition. If you can sustain such a heavy cognitivism and are willing to deny any episodic qualitative phenomenology to experiences, it is not difficult to give an explanation of the affective dimension of intransitive bodily sensations in terms of our affective reactions to them, i.e., in terms of qualitatively stripped "dislikings". Such acts of dislike are easily patterned after standard propositional attitudes.

Tye seems tempted to follow the leads of these early perceptual theorists, but his position is not stated clearly or in sufficient detail. He says:

> How is [the painfulness of pains] to be accounted for within the above proposal? To begin with, it should be noted that we often speak of bodily damage as painful. When it is said that a cut in a finger or a burn or a bruise is painful or hurts, what is meant is (roughly) that it is *causing* a feeling, namely the very feeling the person is undergoing, and that this feeling elicits an immediate dislike for itself together with anxiety about, or concern for, the state of the bodily region where the disturbance feels located. Of course, pains do not themselves normally cause feelings that cause dislike: they *are* such feelings, at least in typical cases. So, pains are not painful in the above sense. Still, they are painful in a slightly weaker sense: they typically elicit the *cognitive* reactions described above. Moreover, when we introspect our pains we are aware of their sensory contents as painful. This is why if I have a pain in my leg I am intuitively aware of something in my leg as painful (and not in my head, which is where, in my view, the experience itself is). My pain represents damage in my leg, and I then cognitively classify that damage as painful (via the application of the concept *painful* in introspection). (Tye, 1997, pp. 332–3, emphases in the original; see also Tye, 1995, pp. 111–16 and 134–36)

Tye's first take in this paragraph is the claim that the damage (i.e., pain_{sq}) causes a feeling, namely the overall feeling involved in the token pain experience, i.e., pain_{te}, and this in turn elicits an immediate dislike and perhaps a bunch of related cognitive reactions. So one trend in the above paragraph is toward a purely cognitivist explanation of the hurtfulness of pains_{te} by proposing that it is our cognitive reaction to such token experiences that enables us to co-categorize them.

As indicated before, this proposal mainly suffers from intuitive implausibility: it certainly doesn't appear that the hurting aspect of $pains_{te}$ is just a matter of our cognitive reactions to them as *ordinarily* understood. Cognitive reactions qua cognitive don't seem to have any qualitative phenomenology to them.[35] But more importantly, this move mislocates the problem. The question is: in what does the painfulness, the hurting quality, of $pains_{te}$ consist?

The response seems to deny that there is anything qualitative, intrinsic or common to $pains_{te}$ that we can identify as *their* hurting phenomenology. The only qualitative content of $pains_{te}$ is, according to Tye, their representational content, i.e., $pains_{sq}$ and their spatio-temporal properties. Tye's claim is that the alleged hurtfulness consists in $pains_{te}$'s *relations*, not to $pains_{sq}$, but to their possessors: their possessors don't like having them, dislike them, and so forth. One immediate problem with this claim is that there are many experiences that we dislike, but which don't hurt, or are not painful such as hunger pangs, nausea, dizziness, being sleep deprived, feeling sick or tired when hit by a flu, and so on. Notice that most (perhaps, all) of these experiences may also be said to represent some or other "disordered" state of our bodies. But we don't classify them as pains. So there must be something special about the hurtful aspect of $pains_{te}$. The present proposal doesn't capture it. Moreover, you can come to dislike an experience which you used to like a lot: if you become sick after eating the kind of sushi you adore you can develop a very strong aversion to its taste and smell. What seems to happen in such cases is that the taste and smell of the sushi come to be experienced as bad, or unpleasant, and this is *why* you *start* to dislike sushi. Cognitive reactions like dislikings are just too plastic and varied to serve as what appears to be hardwired painfulness of $pains_{te}$.

This suggests that the present proposal puts the cart before the horse, at least when terms like 'dislike' and 'liking' as species of cognitive reactions or attitudes are understood in the ordinary sense. One would think that it is *because* the damage feels so painful, hurts so much, that it causes dislike in me, not the other way round. It seems that when I report a hurting leg in phenomenological terms, I am not just reporting a damaged leg. I can certainly report this without any accompanying hurt if I am given morphine or am under local anesthesia, either by seeing the damage in the latter case, or in the former by sensorially feeling it via the discriminative pain mechanisms (see below). What I seem to be reporting here is also an aspect of my experience of the damaged leg that *makes* me dislike the experience. Consider also the standard cases of masochism: it seems that the masochist *likes* having $pains_{te}$ precisely *because* they are hurtful, aversive, painful.

[35] Tye actually accepts this — indeed he insists on it: see his (1995).

Moreover, it is crucial to remember that our moral attitude to pain experiences radically differ from our attitudes to other "purely informational" experiences in ordinary perception. This can hardly simply because of the nature of what is represented. All else being equal, it would still be morally wrong to inflict pain artificially without damaging one's body, i.e., by inducing non-veridical representations, pain experiences that misrepresent (if pains represent bodily damage).[36] This, again, seems to show that there is something about the experiences themselves, rather than what they represent, that makes for the difference.

In the above paragraph, Tye seems to have another, *prima facie* different, proposal expressed in his remarks starting with "Moreover, …". It is not clear what the proposal is. But part of the claim seems to be that prompted by pains_{te} we apply a concept PAINFUL to the damaged body part, and then through deployment of the same concept, we pick out pains_{te} as painful, just as Tye's account of introspection would demand. The question then is what objective physical property the concept PAINFUL picks out. If it is the same property picked out by the concept of pain_{sq}, say, PAIN_{sq}, then there is no explanatory progress made. For the explanandum was what turns our immediate epistemic attention and utilitarian interest to token experiences, to pains_{te}, rather than to their representational content, pains_{sq}. As noted above, the explanans can hardly be found in just their main representational content. If it could, it would be a mystery why, unlike standard cases of perception, our dominant concept is PAIN_{te} that applies to token experiences rather than to their objects. It must be something about the experiences themselves that makes for the difference.

But perhaps, Tye means to claim that PAINFUL picks out a property different than pain_{sq}. What property can this be? It is clear that it cannot be a physical property intrinsic to damaged body parts (these are already covered by PAIN_{sq}). It can at best be a relational property: how the experience itself relates the possessor of the experience to the damaged part of the body (i.e., to pain_{sq}) through its own presence. If so, the following questions need satisfactory answers:

- What objective property/relation is that?
- How do I represent it?
- Do I, for instance, represent it non-conceptually, in the way I sensorially represent physical properties?
- How do I acquire its concept?

[36] What makes certain institutional torturers professionals is precisely their expertise in inducing maximum pain, i.e., intense token experiences, while inflicting the least damage — indeed, their dream world in their risky profession would be to inflict pain without inflicting *any* bodily damage!

- How do I apply its concept to my experience in coming to know about my token pain experiences, i.e. in *introspection*?

None of these questions have obvious answers, and certainly none suggested by Tye and other similarly oriented direct realists. The significance of these questions is the main issue they raise: namely, how to give a naturalistic account of the affective qualitative aspect of token experiences in pain and other bodily sensations (including emotions) in entirely representational terms, so we have an adequate explanation of *intransitive* bodily sensations[37] as perceptions of physical bodily conditions, rather than perceptions, or in more neutral terms, awarenesses of token experiences, i.e., introspection. We have seen that it proves extremely difficult to provide a representationalist account solely in terms of bodily conditions detected/represented by these experiences. It is the affective dimension of these experiences that seems to turn the focus onto themselves, away from their main representational content. This affective dimension seems clearly episodic in character and especially vivid in cases like pain (as well as sensual pleasures like orgasm). The questions I have just posed all relate to how to handle this affective dimension within the constraints of naturalist direct realism à la Tye and Dretske.

– VIII –

So far I have focused on general observations to make a case for a distinctive affective phenomenology of pain experiences (along with some other bodily sensations), separate from their sensory/discriminative qualitative content, and have argued that a naturalist direct realist can at best handle the latter component in terms of the representationalism as described before. We seem to be introspectively aware of an aversive, painful/hurtful quality intrinsic to pain experiences, which seems not representational at all, and is at the basis of what turns our immediate cognitive and utilitarian focus onto token experiences irrespective of their veridicality, hence our ordinary concept of pain.

It is important to point out that this conclusion is overwhelmingly supported by what we have scientifically discovered about pain mechanisms in the last thirty years or so. Here I cannot go into any details,[38] but it is now standard practice among pain scientists and clinical researchers to distinguish between the sensory/discriminative and affective/emotional components of pain.[39]

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[37] As well as an explanation of emotions qua experiences, or experiential aspects/parts of emotions.

[38] I have described some of the relevant material elsewhere in the context of discussing the relation between pain and pleasure. See my (2000), Güzeldere and Aydede (forthcoming).

[39] This distinction, or something very similar, was also drawn quite early on by introspectionist psychologists like Marshall (1894), Titchener (1909), and Duncker (1940), among others, mostly on

When Melzack and Casey (1968) first elaborated that there are at least three distinct components of pain — namely sensory/discriminative, affective/emotional, and cognitive/evaluative — subserved by different neural mechanisms, at the time the proposal, although well motivated by clinical data, was largely speculative due to lack of direct neuroscientific evidence. Thirty years of intense research has confirmed the model in its basic outlines as a general working framework, and unearthed most of the complex subserving mechanisms, consolidating the distinction between the sensory/discriminative and affective/emotional components of pain.[40] The underlying neural mechanisms seem separate (although overlapping). In fact, what drove the search for distinct underlying mechanisms for these distinct components were some puzzling phenomena, dubbed by Dennett (1978) as "reactive disassociation", as I have mentioned before. Some patients seem to experience intense pain without being bothered by it, without minding it at all, without finding the experience distressing, discomforting, or hurtful. Such reports have typically come from patients who have undergone prefrontal lobotomy[41] or cingulotomy[42] as a last resort for their intractable severe chronic pain (as frequently involved in phantom limb pain, neuralgia, causalgia, severe psychogenic and cancer pains, etc.), from patients under the effects of hypnotic suggestion,[43] nitrous oxide (laughing gas), and opium derivatives like morphine.[44] Pain asymbolia also typically produces this kind of reactive disassociation.[45] Moreover, there is strong evidence that the disassociation between these two components also goes in the other direction: in addition to cases where the intensity of sensory component can be reduced without much affecting the unpleasantness of the experience,[46] there is at least one documented case where the patient experiences something very unpleasant upon receiving nociceptive stimuli without being capable of identifying his experience as pain.[47] It was the accumulation of this sort of clinical data (among other things) that has led to the distinction of different phenomenological components of token pain experiences, and ultimately the identification of the neural substrates involved.

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phenomenological grounds. See also Trigg (1970) for a powerful philosophical analysis reaching the same conclusion partly by drawing on some of the clinical data then available. Pitcher (1970b) contains an intriguing philosophical discussion of whether there can be pains that are not painful or awful.

[40] See Donald Price (1999, 2000) for an extensive overview. Fields (1999), Chapman and Nakamura (1999), Melzack and Wall (1983) are also very useful. For an extensive examination of this distinction and its significance for the science and philosophy of pain, see the articles collected in Aydede, Güzeldere, and Nakamura (forthcoming).

[41] Freeman and Watts (1942, 1946), Hardy et al. (1952), Barber (1959). Bouckoms (1994).

[42] Foltz and White (1962), White and Sweet (1969).

[43] Rainville, et al. (1997, 1999).

[44] Barber (1959).

[45] Rubins and Friedman (1948), Weinstein, et al. (1995).

[46] Gracely, et al. (1979).

[47] Ploner, et al. (1999).

– IX –

As I said previously, my aim in this paper was not to refute naturalism about qualia, but to challenge the naturalism of direct realists by arguing that pains and other (intransitive) bodily sensations continue to pose serious problems for representationalism, and for naturalism about the mind in general, as long as representationalism remains as one of the most viable and promising attempts to naturalize consciousness.

A perceptual theorist about pain has, of course, the option of claiming that pains are perceptions of bodily conditions just like vision, but they are not *just* perceptions. The discussion of this paper shows this, but, it might be claimed, pains could still be perceptions for all that.

I think that this is basically correct. As should be clear by now, I have certainly not argued that pains don't involve perception. What I have argued is that perception does not exhaust the nature of pain. This conclusion, however, although can be accommodated by some early versions of the perceptual theories of pain, cannot be accepted, as we have seen, by more recent advocates of the theory like Tye and Dretske. Remember that what drives them is the hope that *all* qualia can be exhaustively accounted for in informational/representational terms. I conclude that naturalist direct realists have not adequately dealt with the affective qualitative aspect of pains and other bodily sensations, and with the issues raised by our introspective access to them.

The question of whether the hurting aspect of pain qualia can be accounted for in informational terms is still open — as no representationalist I know of has explicitly addressed it. In fact, the problem here is a perfectly general one, which arises whenever we deal with affectively non-neutral states. These include not only pain and other bodily sensations, but also, pleasure and all emotions (and perhaps, even moods). If we allow for an episodic qualitative character to emotions, it is clear that a big part of this will be affective, at least in the minimal sense that it will involve varying degrees of hedonic valence (positive or negative). From the perspective of a naturalistic research program about the phenomenal mind, like the one offered by informational/representational direct realism, the problem is how to account for the affective component of our most cherished or feared experiences and emotions. I hope it is clear from our discussion so far that one general effect of affect, at least for conscious creatures with some conceptual capabilities like us, is to redirect the immediate and practical attention or interest to the experiential states themselves. And this seems to preclude any possibility of advancing a direct realist perceptual model as an *exhaustive* account of their qualitative nature. Insofar as the aim is to naturalize qualia, and if there are affective qualia, such models seem insufficient or incomplete for the job.

I believe that the (episodic, non-dispositional) affective component of qualitative

experiences, including the hedonic valence of emotions, can be accounted for in naturalistic terms by supplementing representationalism with psychofunctionalism about the ways in which the (sensory/discriminative) information in the experience is processed to set motivational/behavioral parameters.[48] This essentially relates the affective component to learning, as the evidence from emotion research indeed confirms.[49] Any future investigation into the affective component of the phenomenal mind has to look at the functions and significance of emotions in this light: their hedonic valence may not be a representational affair, but rather a certain kind of processing of the information (sensory representations) already gathered through standard (including internal bodily) sensory channels. An information-theorectic representationalism combined with a certain form of psychofunctionalism may be the key to naturalizing all phenomenology, including emotions.[50]

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[48] For an elaboration of this idea in more detail, see my (2000).

[49] See, for instance, LeDoux (1996) and Rolls (1999).

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