

An Imperative Theory of Pain*

1 Introduction

Intentionalism—the thesis that the qualitative properties of an experience are exhausted by its intentional contents—has come as a gospel to many physicalists.¹ It promises an end to the hard question of consciousness. It opens the way to a satisfying integration of the philosophy and the neuroscience of perception. Best of all, there are good philosophical arguments for it.

Nevertheless, intentionalism faces difficult cases. Many have been drawn towards what Byrne calls *restricted* intentionalism. Restricted intentionalism accepts intentionalism for a large class of sensations, but denies it for a special class of bodily sensations—hunger, thirst, itches, and so on. The most striking of these problematic sensations are pains.

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¹ G. Harman. “The Intrinsic Quality of Experience”. *Philosophical Perspectives*, IV (1990): 31–52; A. Byrne. “Intentionalism Defended”. *Philosophical Review*, CX, No. 2 (2001): 199–239.

Representational theories of pain have been proposed,² but they are problematic. First, pains have a distinct qualitative feel that seems to have little to do with their content. The pain of a paper cut may be associated with an entirely trivial state of affairs; the pain itself has a strong, nontrivial motivating aspect to it. Conversely, cases like that of morphine pain appear to show that motivation can be dissociated from the feel of pain, suggesting to many that ordinary cases of pain are not exhausted by what they report. Such cases have pushed many in the field to a dual-aspect theory of pain, on which ordinary pains consist of two dissociable sensory states: one associated with tissue damage, and one that motivates (perhaps via an irreducible qualitative feel) towards action.³ In the end, even those who might be inclined towards intentionalist theories of pains find it difficult to account for this unique phenomenology. This in turn gives fuel to those who are inclined to ditch intentionalism entirely and make a case for primitive pain qualia.

Pain presents a problem only for a certain type of intentionalism, however. The above critiques assume that the intentional content of sensations must be representational. That is, they assume that the content of all sensations is akin to the content of declarative sentences, where the content is something like a proposition or a de-

² See M. Tye. "A Representational Theory of Pains and their Phenomenal Character". *Philosophical Perspectives*, IX (1995): 223–239; Byrne "Intentionalism Defended"; M. Thau. *Consciousness and Cognition*. Oxford University Press, New York, (2002)

³ For influential arguments along these lines, see R. Melzack. *The Puzzle of Pain*. Basic Books, New York, (1973); R. Melzack and P. Wall. *The Challenge of Pain*. Basic Books, New York, (1983); V. Hardcastle. "When a Pain is Not". *this JOURNAL*, XCIV (1997): 381–406.

scription. This is unnecessarily restrictive. Continuing the analogy, there are many types of meaningful sentences, and each has a content. Not all sentences are declarative, though, and we are happy with a pluralism of types of content—there are interrogative, imperative, and subjunctive sentences as well as declaratives. Each of these sentences has a distinct kind of content irreducible to the others.

A similar distinction can save intentionalism about pains. I argue that pains are exhausted by their content, but that this content is imperative rather than representational. Pains thus command rather than describe. Commanding is still a way of having content, however, and so intentionalism is preserved. In what follows, I will sketch an imperative theory of pain and defend it against two common objections. I suggest that the biological function of pain has been misunderstood; properly conceived, the purpose of pain fits well with an imperative account. I conclude with some areas of open research.

2 An Imperative Theory of Pain

2.1 Imperative Sensations

Imperative sentences do not describe the world. When I insist that a student write a paper, I do not represent a way that the world is. I do presuppose that the world is a certain way consistent with her not yet having written a paper. But I do not utter my command in order to express the proposition that the world lacks a paper written by my student.

The direction of fit of imperatives is rather more like that of desires. Both are only satisfied if the world is made to be a certain way. Unlike many desires, though, impera-

tives are not just satisfied by the world coming to be a certain way. My command to a student is not satisfied by the production of a paper with my student's name on it; instead, in issuing imperatives I (explicitly or implicitly) demand a certain action from my student herself. My imperative is thus satisfied if and only if the target of the command acts in a certain way; my command to my student is satisfied by her activity of paper-writing, not by the written paper itself.

Imperative sentences demand an action. Similarly so with imperative sensations. Richard Hall has argued⁴ that the content of an itch is the command 'Scratch here!', the content of hunger is 'Eat Something!', and so on. These sensations obey a logic similar to that of imperative sentences. First, they do not represent the world as being a certain way. When I feel an itch, I do not know what to expect at its location. There are many causes of itches, and the sensation itself does not tell me which of them might obtain. Further, an itch is not the sort of thing that can be veridical or nonveridical. Since itches are not in the business of reporting, we are not surprised if we cannot even find a reason why we itch. This suggests that itches are not usefully understood as representing anything.

What an itch does do is demand that I perform a certain action—namely, scratch it. Again, this is not equivalent to the passive claim that the world be made a certain way. There is no particular state of affairs that an itch demands: as an itch does not imply

⁴ In alas still unpublished work. Hall has indicated (in private correspondence) that he thinks pains are viable candidates for an imperative treatment. However, none of what follows should be considered to express Hall's considered views except where noted.

that the world is a certain way, it does not require it to be made any other way. Instead, my itch commands only a certain action from me, that of scratching. I might satisfy this imperative in a number of different ways: scratching myself with my nails, or rubbing up against a rough tree, or fishing around with a ruler. What is demanded by an itch is unified only by the action that it demands—that is, by scratching. Thus, I do not perceive an itch as a passive subject who merely wants the world to be a certain way. I approach it as someone who must do something to satisfy a command issued by my body.

Other imperative sensations include hunger and thirst. Hunger demands that I eat; thirst demands that I drink. Note the features common to all of these sensations. Each carries little information about either its cause or about what future state of the world would be required to alleviate it. Indeed, all display a curious failure even to localize precisely, and some (like thirst) can be felt as imperatives that issue from nowhere in particular at all. The distinctive qualities of each stem from the fact that they demand a certain kind of action to be satisfied.

2.2 Pains as negative imperatives

Pains have the same features as imperative sensations. They are often poorly localized, they distract from action and (as I will argue in section 3) they do not carry information

about their causal origins.⁵ This is good evidence that pains are also imperatives: they are felt as commands, and impinge upon the mental economy as do other imperatives.

There is a small obstacle to treating pains as imperatives. Other imperative sensations are unified by a single action type that would satisfy them (eating, scratching, etc). Most pains do not seem to demand any particular positive course of action. It is true that some acute pains cause withdrawal, but withdrawal can be explained by spinal reflex. When we consider the effect of pain on planned actions, we find no simple action-type that would satisfy them. Consider in this regard the pain in my thighs as I run up a steep hill, or the ache in my arms as I repeatedly lift a heavy weight, or the pain in my ankle as I recuperate from a sprain. None of these demand that I do anything in particular.

Phrased this way, however, I think the solution is clear. The content of any pain is a negative imperative.⁶ The imperative force of pains is thus to proscribe rather than pr e-

⁵ For the relation between pain and itch, see M. Schmelz and H. Handwerker. "Itch". In: S. B. McMahon and M. Koltzenburg, Eds., *Wall and Melzack's Textbook of Pain*, Elsevier, London (2006): 219–227. For further parallels with bodily sensations, see P. Wall. "On the Relation of Injury to Pain". *Pain*, VI (1979): 253–264, esp 254.

⁶ Other negative imperatives might include nausea and the various nameless aches associated with illness. I leave it open what might differentiate them from pains, but I do assume that there is something in their content that distinguishes them (Unlike Nelkin in his N. Nelkin. "Reconsidering Pain". *Philosophical Psychology*, VII (1994): 325–343).

I also assume that there is something that separates *sensations* with a negative imperative content from, e.g., strong *thoughts* with negative imperative content. What this difference might be is an interesting problem, and one that faces representationalist forms of intentionalism. Representationalist responses have been well-discussed in the literature; for a good recent review of some distinctions between styles of response, see section 2 of A. Egan "Appearance Properties?". *Noûs* XL No. 3 (2006): 495-521. I intend the present account is compatible with any of these proposed solutions. It could be, for example, that thoughts with negative imperative content are distinguished from sen-

scribe. What unifies the above pains is the imperative that I stop doing what I am doing; their content is a proscription against action.

The more specific content of pain depends on where and how it is felt. Take the pain of a broken ankle. The pain of a broken ankle is felt as a command against putting weight on that ankle. The content of that pain is therefore a negative imperative against moving in a way that would put weight on the ankle. There is no positive content required: as long as one avoids certain ways of acting, the imperative of pain will be satisfied.

The account extends to other pains. The pain of a burn commands against any action that would cause the injured area to contact the world. As such, pain encourages us to treat burns (and scrapes and wounds) gingerly. The pain of a sprained joint is a negative imperative against moving the limb along one or more of its degrees of freedom. The pain of incipient damage—say, as I bring my hand close to a fire—is an imperative against any action that would bring my hand even closer. The pains of exertion and exercise are felt imperatives against continued use of the affected body part.

The imperative account also has a story about the content of pains usually associated with reflexive withdrawal. Withdrawal because of pain may seem problematic, for it looks like a case where the relevant imperative would be positive rather than negative.

sations with negative imperative content by their functional roles (what Block calls ‘quasi-intentionalism’ in N. Block “Mental Paint and Mental Latex”. *Philosophical Issues* VII (1996):19-49). It is also possible that the imperative content of pain is sufficiently unique to distinguish it from other sorts of imperatives. I rather suspect that the latter is the case: the imperatives of pain proscribe against a wide range of complex ways of bodily action, and so differ from thought imperatives just in virtue of their additional content.

Not so. The imperative account treats these as limit cases. The pain of touching a hot stove is a very strong imperative against any action that would keep your hand in contact with the stove (including the trivial action of keeping it exactly where it is). Some sort of withdrawal is thus effectively demanded. However, it is demanded only indirectly, via a command against doing anything but withdrawal.

A few quick notes are in order. First, I claim that pains attach to the use of body parts, rather than just to body parts themselves. In this regard, I think the pain literature is over-fond of a problematic locution. Many philosophers take as paradigmatic statements like 'My B hurts' or 'I have a pain in my B', where B stands for a particular body part. If I am right, however, such locutions are misleading—not in the least because they encourage one to ignore a large part of the content of pains. Instead, the telling locution is 'It hurts when I A' or 'My B hurts when I A', where A is an action.

Of course, this is not to deny that pains are felt as located in parts of the body. Further, there is surely an intimate relation between the felt location of pains and the actions proscribed. This should be expected. Again, pains do not proscribe against particular actions directly. In many cases there are an indefinite number of actions against which a pain would have to proscribe. There are many things that you should not do when you have a broken ankle (standing, kickball, hopscotch...). The content of pain certainly does not range over all of these. These are all effectively ruled out as a consequence of the general imperative against using your body in ways that would further injure your ankle by putting weight on it.

A second point. I have spoken as if we perceived pains while static and idle. This is a simplification. When we feel pain, we are usually moving in the world, executing planned actions to achieve goals. Pains show up against this background of planned action as imperatives against performing certain actions in various ways. The imperatives of pains are thus enter into a larger process of planning action, and can be overridden within that context. I can choose not to listen to the pain caused by the hot casserole in my hands, at least for long as it takes to get the dish to the table. Pains are dynamic, however, and we ignore the pains of action only for a time. Pain tends to increase as we perform a prohibited action, and decrease as we back away. Hence the strength of the imperative can differ as we go about the world, exerting a correspondingly different effect on our action as it does.

Finally, I argue that the imperative content of pains exhausts what there is to say about pain. This is meant in support of the intentionalist. The phenomenal properties of pains are exhausted by their imperative content, and nothing more need be cited to account for the qualitative feel of pains. The difference between someone in pain and someone not in pain is just the presence or absence of an imperative. The pain of a broken ankle is an imperative for me not to use my ankle. Give me enough morphine for my pain to be lessened, and you lessen the strength of that imperative. Give me enough to eliminate my pain, and you have eliminated the imperative against action entirely. Nothing more need be postulated to explain my phenomenology, nor to explain the distinctive contribution that phenomenology makes to my behavior. Intentionalism in its

broadest form is thus true of pains: there is no difference in the phenomenology of a pain experience without some difference in the intentional content of a pain experience.

3 Objection 1: Tissue Damage

So far I have said nothing about tissue damage—and, in particular, the role that pains might play in informing us about such damage. Many would object to this. For on most accounts, we feel pain precisely because we need to be informed about tissue damage.⁷ This is often backed by a seductive argument: the biological purpose of pains is to inform about damage, and so the content of pains must have some informative content commensurate with this role.⁸ Call this view the *myth of tissue damage*. The imperative account says nothing about tissue damage. This may seem like a problematic lacuna. However, the omission is deliberate. The myth of tissue damage is false, and pains are only incidentally related to tissue damage.

Before the arguments, an important point. We frequently come to know that we have been damaged because we feel pain. I do not deny that obvious fact. But that alone does not weigh against the imperative account. A soldier may learn that war has begun by receiving his marching orders. That does not show that the content of marching or-

⁷ Or any similar state—I will use tissue damage as a generic term to include disturbance, disorder, or any other harm to the body.

⁸ This view is not confined to representational accounts; something like it is also assumed by many qualia theorists and those with a more complex view of the phenomenology of pain. See for example RJ Hall. “Are Pains Necessarily Unpleasant?”. *Philosophy and Phenomenological Research*, XXIX (1989): 643–649; M. Aydede and G. Güzeldere. “Some Foundational Problems in the Scientific Study of Pain”. *Philosophy of Science*, LXIX (2002): S265–S283.

ders includes information about the commencement of hostilities. Nor does it show that his marching orders were issued in order to inform him about some state of affairs. The content of his marching orders is entirely exhausted by the imperative they contain. So too with pains. Pain, like any imperative, may indirectly inform us about the occurrence of the situation that caused it to be issued.

With that in mind, there are three reasons to deny that the myth of tissue damage. First, pain is often caused by states other than actual tissue damage. Second, pain is not a reliable source of information about tissue damage. Third, the biological purpose of pain is not to inform, and would be undermined by sensations with informative content. Let us look at each of these points in turn.

First, tissue damage is not the sole, or even typical, cause of pain. Many pains show up in non-damage situations. We feel pain after acute damage. But we also feel pain before damage—as when we get our hands too close to a flame. This pain does not report on damage, because no damage has yet occurred; indeed, if we listen to our pain, no damage will occur. We feel chronic pains following injuries like a broken bones. These pains persist during recuperation and long after the original damage has healed. Hence, these pains are associated only with weakness and propensity to re-injury. We also feel pain during heavy exertion; in many cases, exertion is not even counterfactually connected with damage, as we would collapse from lack of energy before we could hurt ourselves.

Importantly, none of these are pathological cases; failure to feel pain in these circumstance would put one at serious disadvantage. This is most dramatically shown by

those congenitally insensitive to pain. Their unfortunate lives are typically cut short not by acute damage, but by the collective impact on their joints of re-exacerbated injuries and of long-term overexertion.⁹ The pains associated with potential injury, exertion, and postural adjustment are thus just as important for our survival as the pains associated with acute damage.

Further, we mostly learn to withdraw from pain before tissue damage. Similarly, the pains of exertion are common, and the pains of injury-weakened tissues last for months. Hence, these non-damage pains may well account for the majority of the pains the average person feels. The assumed correlation between pain and tissue damage thus begins to look like a failure of imagination. We feel pains for a heterogeneous variety of bodily causes, few of which involve damage.

Second, those in pain are often poorly informed about its cause. Given that pain is so poorly correlated with tissue damage, this should come as no surprise. To take an obvious case, even with the help of advanced diagnostic tests only about 10% of cases of lower back pain can be assigned a specific origin.¹⁰ Lower back pain thus carries little indication about whether one's lower back is damaged, diseased, or abnormal. Vis-

⁹ And barring that, they will succumb to osteomyelitis caused by wear on joint edges. This is not a result of acute injury; it stems from a failure to properly regulate posture (Melzack and Wall, *The Challenge of Pain*: 18-19). Those who contemplate the relation between pain and action would do well to reflect on the vital, usually overlooked role played by pains in this regard.

¹⁰ M. van Tulder and B. Koes. "Low back pain". In: S. B. McMahon and M. Koltzenburg, Eds., Wall and Melzack's *Textbook of Pain*: 699–708, p699

ceral pains are similarly ambiguous; patients experiencing acute abdominal pain are often unable even to localize the source of the pain with any reasonable precision.¹¹

Non-clinical cases are also common. Consider: it remains an area of active research why muscles hurt after long labor—and in particular whether the cause is micro-damage to muscles or some other non-damage mechanism. Pain itself does not appear to give those so suffering any information to help resolve this question; nor do athletes usually treat such pains as indicators of damage.¹² Similarly, anyone as clumsy as the author will have had the experience of running into a large object, assuming that one has been injured, and discovering a few minutes later that one is quite intact and unharmed. Pains can thus be a poor source of information as to their origin—puzzling if the content or typical cause of pains is supposed to be tissue damage.¹³

¹¹ H. Y. Wong and E. A. Mayer. “A Clinical Perspective on Abdominal Pain”. In: S. B. McMahon and M. Koltzenburg, Eds., *Wall and Melzack’s Textbook of Pain*: 753–776, p759

¹² U. Proske. “Muscle Tenderness from Exercise: Mechanisms?”. *The Journal of Physiology*, DLXIV (2005): 1

¹³ Conversely, many serious injuries are in fact painless for a time. This is also difficult to reconcile with views that suppose that the purpose of pain is informative, since it appears that pain fails to show up precisely where it should. Further, such cases are not easily explained by distraction, pathology, or top-down cognitive control. See H. Beecher. “Relationship of Significance of Wound to Pain Experienced”. *Journal of the American Medical Association*, CLXI (1956): 1609–1613; H. Beecher. *Measurement of Subjective Responses to Pain*. Oxford University Press, New York, (1959); P. Carlen, P. Wall, H. Nadvorna, and T. Steinbach. “Phantom limbs and related phenomena in recent traumatic amputations”. *Neurology*, XXVIII (1978): 211–17;. For compelling evidence against positive cognitive evaluation of injury as the explanation of painless injury, see R. Melzack, P. Wall, and T. Ty. “Acute Pain in an Emergency Clinic: Latency of Onset and Descriptor Patterns Related to Different Injuries”. *Pain*, XIV (1982): 33–43. What follows

Examining a sufficiently broad range of cases therefore casts doubt on any view that treats the content of pains as a report on tissue damage.¹⁴ Of course, it is not impossible to maintain that the content of pain is nevertheless tissue damage; I take it, however, that these cases should make that view increasingly implausible.

Third, the biological function of pain is not plausibly interpreted as informing about damage. The biological role of pain clearly has something to do with keeping bodies healthy and intact. Those unlucky enough to be born congenitally insensitive to pain again offer dramatic proof of the utility of pain. The interesting question is how pain protects us, and whether that protective role would best be served by a sensation that informed us when damage occurs.

To begin, note that the cases where pain keeps our bodies healthy are all cases where motion needs to be limited for various reasons—to prevent future injury, or further injury, or re-injury, to name a few.¹⁵ Now suppose that the content of pains was

owes a debt in part to Wall's discussion of painless injury in the course of developing his multi-stage theory of pain, especially in his P. Wall. *Pain*. Columbia University Press, New York, (2000).

¹⁴ The required unity will not come from appeal to lower-level physiological features like pain receptors. Melzack and Wall (*The Challenge of Pain*, esp Ch 5-7) provide a useful overview of the physiology of pain perception, and it is clear that nothing like a straightforward physical pathway for pain exists. Not all pain has its source at specialized receptors, there is a good deal of neural processing even at the spinal level (including a complex system of peripheral and central inhibition), and there are probably several spinal pathways for nociceptive information.

¹⁵ As Wall emphasizes, there is a strong neurological link between pain and some sort of planning for action. Functional imaging studies show that the ventral premotor cortex, an area involved in planning motor actions, is strongly and consistently activated by pain: R. Coghill, C. Sang, J. Maisog, and M. Iadarola. "Pain Intensity Processing Within the Human Brain: A Bilateral, Distributed Mechanism". *Journal of Neurophysiology*, LXXXII (1999): 1934–1943. The

information about tissue damage (or, more broadly, some other state that required limitation of motion). On such a view, pain would be like the sensation of blue, or the smell of a magnolia—that is, it would inform us that a particular state of affairs obtained.

Therein lies the problem. The right action to perform when we see blue is highly variable. It depends on the context, on what we know about the blue thing, and so on. For many sensations, this contingency of response is a functional advantage: it allows for flexible response to the same property in the external world. This is clearly an advantage in complex environments.

Contingency of response would be a positive disadvantage when it comes to pain, however. In cases where we feel pain, there is only one appropriate response, other things being equal. That is to cease acting in a way that would cause more injury. A merely contingent relationship between the content of pains and the biologically crucial response of limiting movements would therefore only hurt us, at least in the vast majority of cases. As such, an informative content to pain would be positively maladaptive.

same area contains premotor neurons that have dual receptive fields—both a tactile and bodily- (rather than retinally-) centered visual one, suggesting a role in integrating touch and sight for future action M. Graziano, G. Yap, and C. Gross. “Coding of Visual Space by Premotor Neurons”. *Science*, CCLXVI (1994): 1054–1057. Furthermore, there is good evidence that pain activates numerous regions of the anterior cingulate cortex, which is involved in attention, motivation, and motor planning: D. Price. “Psychological and Neural Mechanisms of the Affective Dimension of Pain”. *Science*, CCLXXXVIII (2000): 1769–1772; P. Rainville, G. Duncan, D. Price, B. Carrier, and M. Bushnell. “Pain Affect encoded in Human Anterior Cingulate But Not Somatosensory Cortex”. *Science*, CCLXXVII (1997): 968–971; O. Devinsky, M. Morrell, and B. Vogt. “Contributions of Anterior Cingulate Cortex to Behavior”. *Brain*, CXVIII (1995): 279–306.)

Far from supporting the myth of tissue damage, therefore, considering the biological role of pain weighs against it.¹⁶

Contrast that failure with the imperative account. On an imperative view, the primary role of pain is to limit action by commanding against using your body in certain ways. This is a good way to achieve the biological end of feeling pain. Given the wide range of circumstances and the importance of limiting motion, pains should not have the luxury of informing or persuading. Their important function instead requires that they command against movements contrary to health. This is precisely what the imperative account claims.

The imperative sensations generally have the feature that informative content (and the resulting possibility of contingency of response) would be maladaptive. An animal who has not had food or drink in days does not need to be informed about her body. She needs to be driven to eat and drink; a biologically effective system for doing so should not bother with the niceties of explaining why. So too with pain.

4 Objection 2: Morphine Pain

The imperative theory belongs to a group we might call motivational theories of pain.¹⁷ According to motivational theories, feeling pain has some essentially motivating char-

¹⁶ Thanks to David Hilbert for helpful discussion on this point.

¹⁷ Other motivational accounts include Nelkin "Reconsidering Pain"; B. Helm. "Felt Evaluations: A Theory of Pleasure and Pain". *American Philosophical Quarterly*, XXXIX (2002): 13–31. I also include Wall's action plan theory of pain, sketched in his *Pain*. See Melzack, *The Puzzle of Pain*: 147-8, for some historical theories in this camp.

acter. The imperative theory cashes that character out as an sensory imperative against using your body in certain ways.

Motivational theories of pain often founder on the problem of morphine pain. Some patients, when given morphine shortly after acute trauma, will report that their pain persists, but that they no longer care about it. They do not seem motivated to do anything about their pain—complain, ask for help—and they seem quite content. Morphine pain is not a rare fluke, either; most emergency room doctors are familiar with it, and a similar phenomenon occurs with several other types of drugs.¹⁸

In cases of morphine pain, patients therefore report that their pain persists, but that it no longer bothers them—that they do not want to do anything about it. This is why many authors have concluded that pains only contingently motivate; since motivational import can be divorced from pain, it is at best an inessential aspect of the sensation.¹⁹

¹⁸ There are reports of similar phenomena caused by synthetic mu agonist opioids (such as Meperidine) that differ structurally from morphine, various barbiturates (A. Keats and H. Beecher. "Pain Relief with Hypnotic Doses of Barbiturates and a Hypothesis". *Journal of Pharmacology and Experimental Therapeutics*, C, No. 1 (1950): 1–13), and nitrous oxide (Hall, "Are Pains Necessarily Unpleasant?"). Thus suggests that the phenomenon does not depend on some effect specific to morphine.

¹⁹ See Beecher "Relationship of Significance of Wound to Pain Experienced"; Hall "Are Pains Necessarily Unpleasant?"; Tye "A Representational Theory of Pains and their Phenomenal Character"; Aydede and Güzeldere "Some Foundational Problems in the Scientific Study of Pain"; D. Dennett. "Why You Can't Make a Computer that Feels Pain". In: *Brainstorms*, MIT Press, Cambridge (1985): 190–229. Also tempted by this line, though they waver, are G. Pitcher. "The Awfulness of Pain". *this JOURNAL*, LXVII (1970): 481–492 and B. Stimmel. *Pain, Analgesia, and Addiction*. Raven Press, New York, (1983).

I have argued that some sort of motivation is not just necessarily connected to pain but actually constitutive of it. The imperative account therefore faces this objection. It is an advantage of the account that it can do so.

First, an important point. Patients say a lot of things when they report on morphine pain, and it is easy to get distracted by the details. Many have supposed that they are meant to explain near-to-actually paradoxical sensations like ‘pain that does not hurt’ or ‘pain that is not painful’. For what it is worth, these appear to be less common than phrasings like ‘It hurts but I no longer care’.²⁰ However, philosophers would do well not to get wrapped up in particular turns of phrase.²¹ Those reporting on morphine pain

Price has argued, on roughly these grounds, that the processing is linear, with the affect normally added only after sensory discrimination. Further, Coghill et. al. have presented evidence that pain processing is parallel and partially redundant, a view that probably best supports my own position .

Hardcastle (in “When a Pain is Not”) uses the apparent dissociation of pain and unpleasantness to argue that pain research represents a classic use of the double dissociation methodology in psychology—i.e. either pain affect or sensory pain can occur on their own. The evidence that the primary affect of pain can occur without any sensory aspect, however, relies on ambiguous experiments involving electrical shocks to exposed tooth pulp under the influence of Fentanyl (R. Gracely, R. Dubner, and P. McGrath. “Narcotic Analgesia: Fentanyl Reduces the Intensity but Not the Unpleasantness of Painful Tooth Pulp Sensations”. *Science*, CCIII (1979): 1261–1263). In this case, it seems reasonable to assume that having one’s tooth pulp electrically shocked is just unpleasant simpliciter. Indeed, I find it hard to see how we would go about distinguishing ‘pain with the unpleasantness but without the sensory qualities’ from simple sensations of unpleasantness.

²⁰ Thanks to Dr. Edward Thompson for valuable, if admittedly anecdotal, evidence in this regard.

²¹ Compare to masochism. Philosophers often go astray when they take seriously the simple formulation ‘pain that feels good’. This is clearly too simple a formulation of what the masochist feels. As Pitcher has pointed out, if the whippings felt good, then the masochist would seek out a new partner—his goal, in an important sense, is to be hurt

have gone through recent trauma and are under the influence of powerful narcotics; they are far from the armchair and the phenomenological precision we philosophers would prefer. The main thing to explain in morphine pain is how patients can be in severe pain yet not be motivated to do anything by it. Particular utterances can be accommodated within an adequate framework as needed.

Second, a distinction. We have not dealt with the motivational side of pain precisely enough. In discussions of morphine pain, the primary motivator is usually taken to be something like the ‘immediate unpleasantness’ of pain. Following Price’s terminology (though not his exact distinction), I will call this the *primary affect* of pain.²² On the imperative account, primary affect is indeed a central part of pain, and stems from the imperative nature of pain itself. Contrast this with *secondary affect*, which includes emotional responses evoked by pain—especially second-order responses to the sensation of pain itself. Secondary affect includes anxiety about the present and future, fear about what pain signals, and so on.

Secondary affect certainly promotes positive activity, often of a complex and intentional kind. And morphine’s effect is no doubt partially due to an elimination of negative secondary affect. But no one should doubt that secondary affect is separable from pri-

(Pitcher, “The Awfulness of Pain” : 485). Furthermore, as Stoller has emphasized, masochism cannot be separated from the overall context in which it occurs, suggesting that the pain is sought not because of a simple inverse valence but because of its relation to a larger goal of humiliation, sexual excitement, and so on (R. Stoller. *Pain and Passion: A Psychoanalyst Explores the world of S&M*. Plenum Press, New York, (1991), esp Ch 1).

²² Price “Psychological and Neural Mechanisms of the Affective Dimension of Pain”.

mary affect. Indeed, it has such a contingent connection to token pain experiences that it is easier to treat secondary affect as an evoked reaction rather than an inherent part of the pain experience itself. As such, arguments for separability of secondary affect do not touch questions about the essential motivational import of pain.

Morphine pain is problematic only if it eliminates primary affect. If a motivational theory of pain claims that the primary motivation is positive, then that theory does have a problem: morphine pain does not appear to motivate patients to do anything at all. However, the imperative theory makes no such claims. It implies only negative primary affect; pains only proscribe.

Patients acutely dosed with morphine are profoundly apathetic and (in emergency room situations) immobile.²³ Observed cases of morphine pain have thus occurred in patients who have temporarily lost their drive to do anything; further, the environment they are in demands nothing from them.

Nothing prevents pains from being experienced in this state. But in this atypical context, pain is completely irrelevant: there is no potential activity against which its proscriptions might have force. Morphine pain is like a stop sign in a ghost town: it possesses all of its negative imperative force, but with no one around to care. It is thus no puzzle why sedated patients in these odd cases are not bothered by their pain. Since pains do not necessarily motivate new, separate actions, an imperative role can be fulfilled without conflict. Hence we have an explanation of the odd phenomenology of morphine pain: patients are in pain, but do not care about it because they do not care about

²³ See R. M. Julien. *A Primer of Drug Action*. W.H. Freeman and Company, New York, 8th Ed., (1998), Ch10.

doing anything. Pain is still present, and just as painful as before; it has simply ceased to be something to care about.

This gives a handy prediction. The imperative theory predicts that if patients in the grip of morphine pain were to act, then their pain would still motivate against using their bodies in certain ways. Emergency rooms present certain practical and ethical hurdles to experimentation, but there is another place where this prediction can be tested.

An identical phenomenon occurs in lobotomized patients.²⁴ Rare now, lobotomized patients were studied extensively. They make reports identical to the reports of those in the grip of morphine pain. They too seem profoundly unmotivated, caring little about their pains (or anything else). As it turns out, when they do act, their activity is precisely as the imperative theory predicts. Melzack reports that these patients still withdraw from pinprick, avoid walking on broken ankles, and rubbing burned skin.²⁵

Such patients are thus still motivated by the proscriptive force that I have argued is constitutive of pain. They lack secondary affect, and so are not motivated to do anything positive about their pain; nor do they seem to mind too much when they are in pain. When such patients do act, however, their actions show that the negative imperative of pain is at work in their mental economy. They avoid problematic activities accordingly.

²⁴ Indeed, one occasionally gets references to morphine in this context as a 'pharmacological lobotomy'. See Keats and Beecher, "Pain Relief with Hypnotic Doses of Barbiturates and a Hypothesis".

²⁵ See Melzack and Wall, *The Challenge of Pain*, p131. Note that Melzack and Wall's claim that "The predominant effect of lobotomy appears to be on the motivational-affective dimension of the whole pain experience," they clearly mean secondary affect.

Thus, we can conclude that the imperative theory of pain, far from being threatened by morphine pain, handles it well.

5 Remaining Problems

I have sketched an imperative theory of pain and showed how it can overcome certain objections. I find the theory convincing in its outlines, but there is still work to be done to develop a full theory.

Some of this work will involve dealing with aspects of pain I have passed over. This includes pains that do not seem to fit well with the account sketched above, because they do not appear to have the tight connection to action that most pains have. Among these are the pains associated with headache, menstrual cramps, and disturbances of the deep viscera.²⁶ It is difficult to see which actions these pains weigh against. At best, they proscribe against large movements of the head or torso. At worst, the imperative theory must treat them as degenerate cases: cases where pain is proscribing against unspecified or unintelligible actions. I do believe that they can be accounted for along the lines of the former, but more work would need to be done to tell that story.

I have also said little about the qualitative differences between pains. There is no doubt that such differences exist—some pains are stabbing, others burning, and so on. It is sometimes suggested that these differences correspond to differences in the type of

²⁶ These are arguably problems for every account, but a problem for all is a problem for each.

injury that provokes them, but this turns out to be empirically false.²⁷ I suspect that they may correlate better with more specific types of action being proscribed; that is an empirical question, however, and one where more work is required before a definitive answer can be given.

A further aspect of pain that I have omitted is its relationship to what is termed psychological or emotional pain. I know of few philosophical accounts that attempt such a link.²⁸ The phenomenal linkage between these pains and physical pains is obvious for many people, however, and a philosophical account entirely ignores them at its peril. Again, I find the link between pains and limitation of action to be suggestive in this case; again, I have little more to offer than suggestion.

The final aspect of pain that I have not touched is the intimate connection between pain and attention. Pain captures attention, and attention modulates pain.²⁹ Both directions are clearly important for our experience. An adequate account of phenomena like hypnotic analgesia will certainly require a story about the connection. Here I assume that the imperative view probably has plenty to say, for any adequate account of im-

²⁷ For an example of such a suggestion, see Tye, "A Representational Theory of Pains and their Phenomenal Character": 235. For empirical work against this thesis, see Melzack, Wall, and Ty "Acute Pain in an Emergency Clinic: Latency of Onset and Descriptor Patterns Related to Different Injuries" and R. Melzack and J. Katz. "Pain Assessment in Adult Patients". In *Wall and Melzack's Textbook of Pain*: 291–304.

²⁸ For one, see Helm "Felt Evaluations: A Theory of Pleasure and Pain".

²⁹ See C. Chapman. "Pain: The Perception of Noxious Events". In: R. Sternbach, Ed., *The Psychology of Pain*, Raven Press, New York (1978): 196–202, esp 179-188.

perative sensations should account for their general ability to capture attention; pain is no different in this regard than thirst or hunger or nausea. The relationship between pain and attention will thus likely depend on a worked-out theory of the general relationship between imperative sensations and attention.

Despite these outstanding questions, I take it that I have shown the viability of an imperative theory of pain and the problems with alternative accounts. Other accounts of pain go wrong because they assume that the body is just another object out in the world that we need to be kept informed about. That is wrong. The body is our means of getting around and interacting in the world. Bodies are made with the capability of injuring themselves through their own actions. Sometimes we want to do things that might require one of those self-damaging actions. Pain is there to stop us. It stops us by commanding against action, and protects us well thereby.

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