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# **Unconscious Pain**

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Pain is considered an immediately conscious sensation. If one has a pain, one knows it, and one knows it incorrigibly; these features qualify pain as a paradigmatic mental phenomenon. In everyday parlance, it would be at best awkward to speak of pains as being unconscious or to speak of people as being wrong about their own pains. The intrinsic consciousness of pain is often though to be commonsense and an intricate part of our folk-psychological view of mental states. The view is also very Cartesian (Descartes 1992, particularly Meditation II). It supports the idea that mental states are accessed only introspectively, that mental states are known with a higher degree of accuracy than bodily states, and that the nature of mental states is revealed through introspection. For those who endorse this view, existence of pain states is wedded to our awareness of those states, rendering pain an exclusively conscious state (for more contemporary views that endorse the immediate consciousness of pain, see Block 2002; Dretske 2005). Furthermore, the absence of consciousness can be taken as evidence of the absence of pain states, and there is no moral quandary about exposing people in a vegetative state (VS) or minimally conscious state (MCS) to painful stimuli. It is arguable, however, that the definition of pain construed in the commonsense way is not accurately describing the phenomenon.

Descartes' view of veridical introspective access to mental states has been criticized in the philosophical literature. One reason for the reassessment of that view is the documentation of various subliminal mental processes including aspects of memory and perception (for masked priming in perception see Marcel 1983; for auditory unmasked priming see Groeger (1988). Alternative views have been proposed, even for pain states, making it possible to consider subliminal or unconscious pain. In order to distinguish a mental state one must pick a feature that marks it as distinct from all that occurs in the brain and in a way that does not invoke consciousness. There are various processes occurring in the brain that would not qualify as mental, including the regulation of various bodily functions, so not all brain states are mental states. There are even some states that can be broadly construed as psychological but might not qualify as mental states, such as the processes that result in the perception of objects. The excitation of cells in the retina that result in color experience is not in itself a mental state, for example. If one picks phenomenal properties of pain as the distinguishing feature of a mental state, one could untangle pain from the conscious access to pain. This would result in a view that would permit not only a distinction between pain and painrelated behavior but a distinction between the occurrence of a pain state and the person's awareness of being in that state. In this view, pain can be a complex phenomenon with both conscious and unconscious features. Furthermore, lack of consciousness would not be taken to indicate lack of pain, and salient ethical issues could arise with regards to research on VS and MCS patients.

Phenomenal properties are often described as what it is like for an organism to be in this or that mental state (Nagel 1974). A phenomenal property of a particular pain state would be what it is like for an organism to be in that pain state; for example, what it is like to stub one's toe. Phenomenal properties can attribute to a pain state a certain location, intensity, and other qualities such as sharpness, dullness, etc. Given this definition, could there be something like a mental state that has the phenomenal property of stubbing one's toe, without consciousness? Let us consider quotidian occurrences of possible unconscious pains. It often happens that one wakes up with a nagging neck pain from sleeping on uncomfortable pillow. Assume, also, that the pain persists for most of the day. The awareness of the pain will be affected by the activities of the day. During quiet moments in the day one is more likely to be aware of the pain, but if one is engaged in a complex and novel task requiring attention, the pain is less likely to be noticed. In those moments when the pain is not noticed, is the pain still there? It would seem most obvious to answer affirmatively and just note that the pain is not noticed because our attention has been taken up elsewhere. One can claim that even when the neck pain is not being attended to, it still has a phenomenal property; one can still describe it as having the properties of being dull and nagging; thus, there is still something it is like to be in that pain state. But this phenomenal aspect of the state can be unconscious. In this view the pain only becomes conscious when we have an additional mental state, a higher order thought, that makes us conscious of the pain (Rosenthal 1991).

A further problem of divorcing sensational states like pain from our conscious access to them is that there seems not to be an appearance/reality distinction for pain states (Rorty 1979). It is easy to see how one can find the appearance/reality distinction as it applies to physical objects; one can easily pry apart the nature of physical objects from the way they appear to us. Optical illusions illustrate this distinction. A stick in water may appear bent, even when we know that the stick is straight. For pains, though, it seems most obvious to say that what seems to us to be true of pain corresponds to reality. But this construal of pain again

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depends on our usual, folk-psychological definition of pain and need not be taken to be an accurate description of pain states. A distinction could be drawn between our somatosensory representation of pain, underlying our sensory awareness of pain (p-representation), and our p-state, which stands for the bodily state mirrored by this somatosensory representation. The former is our mental representation of pain and the latter is the bodily state that is associated with the potential sensory experience, like a stubbed toe. This distinction allows for a person to be in a p-state, have stubbed toe, but not have a p-representation, thereby allowing for a pain that is not perceived or reported. This view can "easily accommodate the fact that an injured soldier and athletes can deny that they are in pain without qualification or acknowledgment that they might be apprised of considerations that would lead them to change their mind ...." (Hill 2005, 86). This view of pain can also accommodate the idea of pain without conscious experience.

Considering these alternative ways of defining and individuating pain states, we can now appraise some of the ethical issues involved in using VS and MCS patients in research. The first thing to note is that in the new view, diminished consciousness might not entail lack of pain states. The new way of thinking about pain could also help interpret the data reported by Laureys (2002), where activation of subcortical and cortical areas associated with pain were noted, but the activation was like an island disconnected from the rest of the "pain matrix." One need not interpret the noted isolation to be the lack of pain states. Given that the pain matrix is established by looking at normal subjects, it might indicate the activity in the brain for both the phenomenal features of pain and its interaction with other states that result in a conscious experience of pain. The isolated activity in VS patients might indicate the activity to be associated with the nonconscious features of pain, and the isolation of that activity could be an indication of the functional disconnect of the subliminal aspects of pain from all other states necessary for the conscious experience of pain. Similarly, if we use the distinction between p-representations and p-pains, the incomplete p-representation indicated by the research should not be taken to mean absence of p-pain.

If we countenance the existence of unconscious pains, and we agree that pain is not a simple, but complex phenomenon that has both conscious and subliminal aspects, the ascription of pain states to VS and MCS patients might become even more challenging. It would raise the question of whether doctors and researchers should treat unconscious pain. One way of answering this question is by calling for a criterion that would establish pain intensity levels not reliant on overt reports. Pain criteria could be set based on observable physiological signs, symptomatic of pain experience. In addition, the acceptable intensity of noxious stimuli can be determined in terms of what normal subjects rate to be minimal intensity of those stimuli. In order to establish both the level of pain experience in patients in disorder states of consciousness and to establish possible treatments, one must conduct further research on that population. Thus, the ethical thing to do is both to pursue this research and to do so humanely.

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