

David Lewis: Mad Pain and Martian Pain

Both the madman and the Martian "feel pain, just as we do"

Madman: Same physical basis [C-fibers firing]; different causal role.

Martian: Same causal role; different physical basis [inflating pedal cavities]

Behaviorism (sometimes called philosophical or logical behaviorism): All talk about minds and mental states is nothing more than talk about observable behavior and dispositions to behave. It is a category mistake to think that mental talk refers to private goings on "inside" a peculiar substance, the mind. (Ryle)

Pain = pain behavior (or disposition to produce pain behavior)

Identity Theory (also called materialism and physicalism): Mental states are identical with brain states; minds are nothing but brains configured in a certain way. "Mental states are in fact nothing but physical states of the central nervous system." (Armstrong, 329, top left) Folk psychology is (by and large) true and will eventually be reduced to neuroscience, just as optics has been reduced to electromagnetism through the discovery that light is identical with electromagnetic radiation in a certain frequency range. (Armstrong, Lewis)

Pain = firing of C-fibers

Functionalism: Mental states, like valves and word-processing programs, are defined by their function, by what they do. The functions of mental states are defined by their causal relations to other mental states, stimuli, and behavior. (Armstrong, Lewis) See Lewis (333, left) and Churchland's comment (352, left). Note: Armstrong's functionalist characterization of a mental state (328, right) solely in terms of the range of behavior it is apt to produce is too narrow.

Pain = whatever occupies the causal (functional) role of pain

	Madman in pain?	Martian in pain?
Identity theory	Yes	No
Behaviorism	No	Yes
Simple functionalism	No	Yes
Sophisticated functionalism (Lewis, Armstrong)	Yes	Yes

Lewis's Sophisticated Version of Functionalism

Pain = whatever occupies the causal (functional) role of pain for the appropriate population.

The concept of pain is a definite description (e.g. the President of the U.S in 2004) not a rigid designator (e.g. George W. Bush)

Rigid Designators: A rigid designator is a word or phrase that picks out the same object in every

possible world in which that object exists. Examples: proper names (Marie Curie, Bruce). [More precisely, an expression is a rigid designator if and only if it has the same reference in every possible world in which it has any reference at all.] Definite descriptions (e.g., the discoverer of radium, our cat) are nonrigid: which object they pick out will vary from world to world. According to Lewis and Armstrong, pain and other mental concepts are nonrigid. (Lewis, 333)

What is the appropriate population? (Lewis, 335)

- (1) Perhaps us (since it's our concept and word)
- (2) The population that X belongs to (if it's X we're talking about)
- (3) The population in which X is not exceptional
- (4) A population that is a natural kind (e.g., a species)

These criteria all agree in the case of normal humans.

How to decide which criteria take precedence in cases of conflict?

If X is the Martian, (2, 3, 4) take precedence over (1)

If X is the madman, (1, 2, 4) take precedence over (3)

If X is a mad Martian, same verdict as our madman: he's in pain when his foot cavities are inflated.

More difficult cases:

"Inverted spectrum" cases in which pain and thirst are interchanged: i.e., what plays the role of pain for us plays the role of thirst for a small subset of humans, and vice versa (what plays the role of thirst for us, plays the role of pain for them). See Lewis's discussion (335) and his conclusion (which he extends to inverted spectra cases) that there is no determinate fact of the matter as to whether the subset of humans are experiencing pain or thirst; the criteria (1) – (4) could go either way, depending on how we weight them.

Pain in a being who is mad, alien, and unique (335-6)? Lewis concludes that if there is no relevant population to which such a being can be assigned, then it is false to suppose that the being is in pain. It's impossible for such a being to be in pain!

The Qualia Objection to the Identity Theory (Materialism) and Functionalism

There is something that it is like to taste Vegemite, to feel pain, etc. This is a kind of first-hand information, phenomenal information that comes with personal experience, with actually feeling the sensation or tasting the substance for oneself.

No amount of the information available to materialists and functionalists can convey what pain feels like or what Vegemite tastes like to someone who has experienced neither.

So, materialism and functionalism are inadequate as philosophical theories of mind, since they are incapable of accounting for our knowledge of qualia; they cannot account for phenomenal information.

Lewis's Response to the Qualia Objection (336, "Knowing What It's Like," 394-95)

What a state such as pain feels like depends on its causal role and its physical realization. Once these have been specified, we have said all that can be said about how being in that state feels. (336)

"Now we must turn eliminative" (394, right) Knowing what it is like to taste Vegemite, to feel pain, etc., is not to possess information but to have an ability. Admittedly, someone who has not tasted Vegemite lacks some abilities (such as the ability to predict whether Vegemite would go well with mango ice cream or taste good on hot buttered toast) but abilities are not knowledge. Lewis gives, as an analogy, two kinds of faculty that a machine might possess: one faculty is the ability to store information (such as a complete description of a pattern); the other faculty is the ability to recognize future patterns by making a template of patterns to which the machine has been exposed in the past. Both faculties could be combined in the same machine (just as a clock radio can both tell the time and convert radio waves into sound). But even if a machine has both faculties, that does not entail that the machine must also have a third faculty, namely the ability to use its complete description of a pattern that it has not seen before to make a template that would enable it recognize the same pattern in the future. As Lewis puts it, a machine that lacks this third faculty does not lack information, it lacks an ability, namely the ability to construct templates solely on the basis of stored information.

SORITES ISSN 1135-1349

<http://www.sorites.org>

Issue #15 -- December 2004. Pp. 73-75

Mad, Martian, but not Mad Martian Pain

Copyright © by SORITES and Peter Alward

Mad, Martian, but not Mad Martian PainFoot note 1 1

Peter Alward

Lewis (1980) has argued that neither the identity theory nor functionalism can accommodate the possibility of both mad pain and Martian pain. Functionalism cannot accommodate the possibility of mad pain -- pain whose causes and effects diverge from those of the pain causal role. This is because what it is to be in pain according to functionalism is simply to be in a state that occupies the pain role. And the identity theory cannot accommodate the possibility of Martian pain -- pain whose physical realization is foot-cavity inflation rather than C-fibre activation (or whatever physiological state occupies the pain-role in normal humans). After all, what it is to be in pain according to the identity theory is to be in whatever state that occupies the pain role for us.

Lewis attempts to solve this difficulty by combining functionalism and the identity theory in the following way: he gives a functionalist account of pain *for a population*, and gives an identity theoretical account of pain *for individual members of a population*. According to Lewis, a state S is pain for a population P if and only if, with few exceptions, whenever a member of P is in S, her being in S has the sorts of causes and effects given by the pain role. (Lewis, 1980, p. 113) As a result, C-fibre activation (or what have you) is pain for the human population, and foot-cavity inflation is pain for the Martian population. And an individual, X, is in pain if and only if X is in a state which is pain *for the appropriate population*. (Lewis, 1980, p. 113) Thus, any individual for whom the appropriate population is the human population is in pain just in case she is in a state of C-fibre activation. And any individual for whom the appropriate population is the Martian population is in pain just in case she is in a state of foot-cavity inflation.

The problem that arises for Lewis' view concerns his account of under what conditions a population P is appropriate for a given individual X. He provides us with the following four criteria:

1. P is the human population.
2. X is a member of P.
3. P is a population in which X is unexceptional.
4. P is a natural kind.

Lewis does not give much explicit guidance as to how to apply these criteria, so it is best to look at how he does so in particular cases. Consider the following:

(a)

If X is our Martian, we are inclined to say that he is in pain when the cavities in his feet are inflated; and so says the theory, provided that criterion (1) is outweighed by the other three, so that the appropriate population is taken to be the species of Martians to which X belongs. (Lewis, 1980, p. 113)

(b)

If X is our madman, we are inclined to say that he is in pain when he is in the state that occupies

the role of pain for the rest of us; and so says the theory, provided that criterion (3) is outweighed by the other three, so that the appropriate population is taken to be mankind. (Lewis, 1980, p. 113)

The suggestion seems to be that each criterion is of relatively equal weight and, so, the population that satisfies the greatest number of criteria for a given individual is the appropriate population for that individual.

But note that given this characterization of the procedure for applying the criteria, Lewis' application of them is in both instances slightly askew. Consider case (a). The Martian population does satisfy criteria (2), (3), and (4) for a Martian for whom foot-cavity inflation occupies the pain-role. After all, it is a population which is a natural kind and of which our ordinary Martian is an unexceptional member. But the Human population does not merely satisfy criterion (1), but criterion (4) as well. And so while Lewis's theory does imply that the appropriate population for our ordinary Martian is the Martian population, it has to be because (2), (3), and (4) outweigh (1) and (4) together, and not simply (1) by itself as Lewis suggests. Similarly, in case (b), Lewis's theory implies that the appropriate population for the mad human is the human population rather than the mad human population. But this has to be because (1), (2) and (4) outweigh (2) and (3) together, and not (3) by itself as Lewis claims.

The real trouble arises, however, when we consider the case of the mad Martian. Lewis gives the following analysis of this case:

(c)

If X is a mad Martian, I would be inclined to say that he is in pain when the cavities in his feet are inflated; and so says our theory provided that criteria (2) and (4) together outweigh either (1) or (3) by itself. (Lewis, 1980, p. 114)

Now I agree that the Martian population does satisfy criteria (2) and (4) for a Martian for whom foot-cavity inflation fails to occupy the pain-role. But note: the human population does not merely satisfy criterion (1) for our extraordinary Martian, but criteria (1) and (4). And the mad Martian population does not merely satisfy criterion (3) in this case, but criteria (2) and (3). The upshot is that Lewis view does not imply that the appropriate population for our extraordinary Martian is the Martian population as opposed to the Human or mad Martian populations. As it stands, each of the three populations has an equal claim to be the appropriate one in this case. And so it seems that Lewis's theory fails to accommodate the possibility of mad Martian pain.

The source of this difficulty is the fact that criteria (1) and (3) have been inappropriately given the same weight as (2) and (4). The reason less weight ought to be given to criterion (1) is that, given that the human population is a natural kind, it automatically satisfies two of the criteria for being the appropriate population for any arbitrary individual. And the reason less weight ought to be given to criterion (3) is that for any physical realization of any given causal role, there will be a population of individuals who are similar with respect to the realization of the role, but many of whose (at least possible) members will be otherwise physiologically very different.^{Foot note 1 2} And some such motley population will always satisfy two of the criteria for being appropriate for any given individual.

In light of this, one possible emendation to Lewis' view would be simply to dispose of criteria (1) and (3) altogether. This approach, however, ought to be rejected. Suppose, for example, humans were an exceptional species with respect to the physical realization of pain within a larger a larger genus, itself a natural kind. The wholesale dismissal of (1) and (3) would have the effect of giving the human population and the more inclusive genus equal claim to being the appropriate population for any given ordinary human.

A better suggestion, at first glance, would be to retain (1) and (3) but give them lower weight than (2) and (4). This would yield the desired results regarding both sane human and mad Martian pain. But optimism here may well be premature. This is because there seem to be good reasons for demanding both that criterion (1) outweigh criterion (3) and that criterion (3) outweigh criterion (1), surely an untenable result. First, unless (1) outweighs (3), there will be no grounds for taking the appropriate population for Lewis' madman to be the human population as opposed to a more inclusive genus in which C-fibre activation is the occupant of the same causal role it occupies for the madman. But second, unless (3) outweighs (1), there will be no grounds for taking the appropriate population for an artificially intelligent robot to be the population of similarly designed robots (no natural kind) as opposed to the human population. Lewis' view, it seems, may ultimately be unsalvageable.

References

- David Lewis (1980), «Mad Pain and Martian Pain», in *Readings in the Philosophy of Psychology, Vol. I*, N. Block, ed., Harvard University Press, 1980, pp. 216-222. Page references to *Problems in Mind*, J. Crumley, ed., Mayfield Publishing Company, 2000, pp. 110-117.

Peter Alward
University of Lethbridge. Canada
peter.alward@uleth.ca

[Foot Note 1_1]

Thanks are due to the student in my philosophy of mind class at the University of Lethbridge in the fall of 2001 whose struggles with Lewis helped me «see the light.»

[Foot Note 1_2]

Note: I am assuming that what criterion (3) requires is that an individual have the same physical realization of (relevant?) causal roles as members of a population.

maintained by: