

Module Title: Philosophy of Mind

Essay Title: Explain and assess functionalism

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Explain and assess Functionalism.

This essay shall outline two versions of functionalism: analytic functionalism and psycho-functionalism. In the first section, I will give an exposition of both analytic functionalism and psycho-functionalism. In the second section, I shall argue that a supposed advantage of functionalism, namely the multiple realisability of mental states, can be construed as an incisive argument against analytic functionalism. In the third section, I will demonstrate the limitations of psycho-functionalism using an argument for semantic externalism in the philosophy of language. I will conclude that both versions are no better than their predecessors in characterising the myriad ways mentality manifests itself.

Section 1 – Two versions of functionalism

Analytic Functionalism

Analytic functionalism concerns the meaning of the mental concepts we employ in daily life. The analytic functionalist aims to provide an account of our folk psychological concepts amenable to a systematic analysis of sensory inputs, relations to other internal states and behavioural outputs. The analytic functionalist must find a functional analysis that supports the way we demarcate and ascribe different mental states onto others.

Psycho-Functionalism

Psycho-functionalism analyses mental states not in relation to a folk-psychological theory like analytic functionalism. Instead, a psycho-functionalist takes functional accounts of

mental states as substantive empirical hypotheses with respect to some cognitive psychological theory. A proponent of this kind of functionalism has a wide range of sources by which to illustrate the functionalist picture. He can appeal to the latest neuroscientific advancements as well as behavioural patterns and thus demarcate mental states in accordance with this data, unimpeded by common-sense conceptual use of mental state concepts.

Section 2 – Multiple Realisability objection to analytic functionalism

Historically, functionalism can be seen as a successor to past theories of mind, namely logical behaviourism and mind-brain type identity theory. The primary problem with behaviourism is that behavioural analysis of mental states inevitably pre-supposes and invokes other mental states: I will only accept an offer of a drink of water if I *know* that it is indeed water and not poison. I will not go to the water tap if I do not already *believe* that it works properly in its dispensing function. Therefore, a purely behavioural analysis doesn't provide a useful characterisation and differentiation of mental states. The primary problem for mind-brain type identity theory is that it doesn't take into account the multiple realisability of mental states: the same mental states can manifest in different physical constitutions. A common, simplified example concerns the numerical identity between pain and C-fibres firing.

However, this implies a 'neuronal chauvinism' since it would seem that only beings with a very human-like physiology would be able to feel pain. However, other animals such as Octopodes possess vastly different neuronal structures, and thus lack the same fine-grained process that enables humans to experience pain. This would entail that octopodes can't feel pain, which is contrary to recent research suggesting they do.¹ Indeed, hemispherectomy surgeries suggest brain neuroplasticity, where certain mental faculties have been transferred from one part of the brain to another. These examples show the identity theorist conflicting

¹ Srinivasan, Amia. 'The Sucker, the Sucker!'. London Review of Books (September 2017).

with empirical data as well as being 'chauvinistic' by not allowing for the possibility that some clearly minded entities may indeed be minded.

Functionalism was formed in order to resolve these difficulties: mental states should be characterised in relation to other mental states in a causal system alongside sensory inputs and behavioural outputs. This absorbs the mental state circularity problem of behaviourism due to the computational background of functionalism: there is no problem defining computational functions in relation to other machine states, so the same applies in mental computation. The functionalist also seems to incorporate multiple realizability since he isn't committed to a particular physical constitution. Octopodes and Humans both experience pain in terms of the functional role it plays, despite having different physiological constitutions.

In fact, multiple realizability can be used to criticise and undermine the functionalist picture. Specifically, the objection from multiple realizability will be used to reject analytic functionalism. An analytic functionalist may characterise pain as having the following causal characteristics:

- 1) It is typically caused by bodily injury
- 2) It typically causes distress, a desire for it to cease or a belief about its source or location
- 3) Certain behaviours such as wincing, exclamations such as 'ouch' or nursing the injured area.

However, these causal roles are just as contingent as the physical constitution is to pain.

Lewis conceives of someone for whom pain has completely divergent functional roles. His pains are not caused by bodily injury but by moderate exercise. They may not facilitate

distress and a desire for the pain to cease, but concentration instead.² The logical possibility of this ‘madman’ seems to show that mental states are not identical to some specific functional organisation:

Premise 1: the functionalist identifies pain with some functional role F

Premise 2: A ‘madman’ with pain but with a deviant functional role Q is logically possible in some possible world.

Premise 3: identity relations hold across all possible worlds

Conclusion 1: therefore, pain is not identical to some functional role F.

Conclusion 2: Analytic functionalism is false.

An analytic functionalist might respond by accepting the logical possibility of the madman but may remind the critic that analytic functionalism aims to provide a framework only for folk psychological mental state attribution – but this thesis doesn’t posit a metaphysical identity between functional states and mental states and so the argument has no force.

However, the multiple realisability of functional states can be consolidated through more concrete cases. Psychosomatic pains and disorders are typically not caused by bodily injury but by stress and anxiety. Masochists seem not disposed to avoid pain but to seek it out. They are sexually gratified by pain rather than averse to it. For some, pain is not intrinsically undesirable but motivational (such as a bodybuilder, where pain is a sign of progress and going beyond physical limits). Different kinds of people have different functional structures while still experiencing a ‘pain’ of some sort. It seems therefore that at least the mental state of pain can be realised by many types of functional states.

² Lewis, David K. ‘Mad Pain and Martian Pain’. In Ned Block (ed.), *Readings in the Philosophy of Psychology* (1980). Harvard University Press. p. 229

A response: the functionalist does not claim that pain *necessarily* precludes certain causes and effects, only that it *typically* has certain causes and effects. In this way, we can say that the examples of the masochist and bodybuilder are atypical cases from pain's usual function. Moreover, a functionalist may say that in the case of the masochist, it is not the function of pain that changes per se, but that the feeling of pain juxtaposed with sexual pleasure, intensifies the latter. In this way, one can appeal to pain's relationship with other mental sensations such as sexual pleasure as part of a standard functional analysis.³

However, this response is unpersuasive: once we ascribe pain to the masochist, the functionalist can accommodate it by appealing to atypicality, but now there seems to be no grounds for suggesting the masochist is in any kind of pain at all. It seems now that an appeal to a typical causal or functional profile no longer provides a way to demarcate pains from non-pains. I could say that the feeling of drinking beer is pain but with atypical causes and effects. This kind of analysis is absurd, but its consistency with the functionalist appeal to typicality puts the onus on the functionalist to find a way of distinguishing between genuine cases of pain with atypical causes and effect – as well as the absurd examples where there's no pain at all. Despite the persuasive characterisation of the pain of the masochist in relation to sexual pleasure, the functional structure of pain has still altered, and demarcation becomes a murky issue – at what point do we not attribute pain? Which, if any causal relationship is essential? This is a serious problem for the analytic functionalist, since it seems that we use the same mental state terminology in cases of differing functional organisation.

Like the identity theorist, it would seem that the functionalist has little option but to retreat to

³ Burton, Neel. 'The Psychology of Sadomasochism'. *Psychology Today* (August 2014). Burton maintains that sadomasochists only seek out pain and humiliation "in the context of love and sex" and are averse to "simple, unfettered violence or abuse as much as the next person".

an appeal to domain specificity: there is no such thing as pain simpliciter, but only pain-in-x. Pain-in-normal humans has different causal relations and outputs than pain-in-masochists or people with psychosomatic pains. However, this does nothing more than acknowledge the myriad, complex ways mentality manifests that folk psychology cannot capture. Thus, retreating to domain specificity implies giving up analytic functionalism and advocating a more precise position such as psycho-functionalism which need not hinge on the ambiguity and imprecision of folk psychology. Instead, a psycho-functionalist can appeal to more precise experiments and data in neuroscience and other psychological investigations to more precisely demarcate mental states according to their functional organisation. In this sense, a psycho-functionalist, armoured with a more precise criterion, can absorb the counter-examples by demarcating functional states without trying to incorporate a folk psychological theory of mind.

Section 3 – Semantic Externalism objection against Psycho-functionalism

Now that analytic functionalism has been shown to be untenable and the replies offered by the functionalist collapsed into psycho-functionalism, I shall subsequently object to psycho-functionalism on the grounds that it still presents an impoverished analysis of mentality based on its limited scope when applied to intentional states. Psycho-functionalism inherits an outdated Cartesian presupposition that has seeped its way into contemporary philosophy of mind. This is what Putnam calls ‘methodological solipsism’ – the idea that I as a conscious human being have the latent ability to mentally represent any thought whatsoever a priori, regardless of whether I’m being deceived by an evil demon or a brain in a vat.⁴ A mental system can in principle refer to anything, regardless of its environment. Methodological solipsism assumes that “if P is a psychological state... then it must be logically possible for a

⁴ Putnam, Hilary. ‘The Meaning of “Meaning”’. *Minnesota Studies in the Philosophy of Science* 7 (1975). p. 136

“disembodied mind” to be in P.”⁵ Psycho-functionalism as I’ve expressed it holds this presupposition because its criterion for what characterises a mental state makes no reference to someone’s environment, only the specific relations of a particular psychological state. Contrary to this view, Semantic externalism is the view that the meaning of the terms we use to refer to the world are determined by factors external to properties of the subject uttering them. This view can be applied to intentional states such as beliefs. Under an externalist picture, beliefs cannot be exhaustively characterised through sensory information, internal physical states or behaviour. Putnam illustrates this view through a thought experiment: Imagine a world identical to Earth and all its inhabitants.⁶ The only difference in this ‘twin-earth’ is that instead of water being composed of H₂O, it is composed of some other complex chemical formula which shall be abbreviated as XYZ. However, XYZ behaves just like water does on our earth – it quenches thirst, takes the shape of its container, forms into precipitation and covers a large proportion of the world’s surface. The only observable difference is in its chemical formulation. We are then asked to consider a resident from our earth and twin-earth in the year 1750, before chemistry has sufficiently advanced enough to discover the molecular composition of water. As a result, nobody on either earth or twin-earth would be able to distinguish between water as H₂O and water as XYZ. However, the resident on our earth in 1750 would use the word ‘water’ to refer to H₂O. That is to say that the extension of ‘water’ would be all the instances of dihydrogen monoxide. Consequently, if our resident pointed to a glass of XYZ and believed it was water, he would have been incorrect. The same applies to our twin-earth resident, where his use of the word ‘water’ would refer to instances of XYZ. We might imagine that one day, both residents said ‘I would like some water’. Do their desires refer to the same thing? They do not, since our twin-earth resident desires some

⁵ Ibid.

⁶ Ibid, p. 139

XYZ and our earth resident desires some H₂O. However, their beliefs about what ‘water’ refers to are identical for the functionalist – they possess the same psychological state: they believe the same facts about water, such as its ability to quench thirst. A functional analysis of their intentional states, the sensory inputs (seeing other people drink water etc.), the relation to other states (such as the desire to avoid dehydration) and behavioural output (going to a water-dispenser etc.) would be identical, despite the referent of their mental state being different. This shows that intentional states cannot be purely determined by one’s psychological state, as functionalism would assume. For Putnam, our ability to refer to things in the form of intentional mental states is not just in virtue of one’s psychological state, but also in virtue of one’s environment. Block writes that “a condition for the possibility of your believing water is wet is a certain kind of causal connection between you and water.”⁷ However, the twin-earth resident would not be able to fulfil this causal condition. So, my believing that water is wet is not the same belief as the twin-earth resident’s belief, not in virtue of some psychological function, but in virtue of our environment. Consequently, we can charge psycho-functionalism as being restricted in analysing the ‘aboutness’ of mentality and not acknowledging the crucial relationship between our environment and our mental states. One could respond by reconstruing psycho-functionalism as defining a narrower subset of distinctly internal states which doesn’t preclude external factors. However, even if a persuasive outline of what internal states are included in this subset, it diminishes the initial appeal of functionalism – namely its wider scope of analysis in comparison to previous theories.

Section 4 - Conclusion

⁷ Block, Ned: ‘Troubles with Functionalism’ (Minnesota Studies in the Philosophy of Science 9:261-325). p. 275

The analytic functionalist claim that in daily life we conceptualise mental states in terms of their functional roles has been shown to be false due to counter-examples that illustrate cases where we attribute the same mental state realisable by different functional roles. Putnam's twin-earth thought experiment has shown the persuasive force of semantic externalism, thus demonstrating the psycho-functionalist's impoverished account of intentionality, a unique and fundamental part of our conscious lives. The foundations of both analytic and psychological versions have been shown to be unstable due to their false presupposition of 'methodological solipsism'. Taken together, functionalism, as presented in its psychological and analytical versions, suffers from the very same issues as its predecessors, namely objections from the multiple realisability of mental states and substantial limitations in explaining one of the most fundamental aspects of human psychological states – intentionality.

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