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Comment: Two Challenges for Adolphs and Andler's Functionalist Theory of Emotions

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Abstract

Adolphs and Andler's methodological functionalism recommends that affective science focuses on what emotions do rather than on what emotions are physically constituted by or how emotions feel. In addition, it is suggested that the functional roles of emotions should be extrapolated from a set of "features" emotions intuitively appear to have. In this brief commentary, I discuss both prescriptions, focusing on the concept of function and on the role folk psychological platitudes should play in a functionalist theory of emotions.

Keywords

emotions, feelings, functionalism, functions, teleosemantics

Adolphs and Andler's (A&A; XXXX) *methodological functionalism* boils down to two prescriptions:

- (a) In constructing your scientific theory of emotions, focus on what emotions *do* rather than on what emotions are *physically constituted by* or how emotions *feel*.
- (b) To figure out the *functional roles* of emotions, begin from a set of "features" emotions intuitively appear to have and bootstrap from there.

Prescription (a) pits *functionalism* against the *identity theory of mind*, its primary historical antagonist, and the *feeling theory of emotions*, a still common approach in the study of emotions, recommending that we conceptualize emotions as functional states rather than brain states or states of consciousness.

I agree that emotions can be multiply physically realized, contra the identity theory. If so, neuroscience can discover realizers of functional roles but not identity conditions for emotions. To wit, human fear is *not* identical to the activation of any neural circuit N, although N may realize the fear role in humans (such role may be realized differently in other species/robots).

Furthermore, emotions are not *by definition* states of phenomenal consciousness, although they typically involve such states

(Scarantino, 2014, 2016). The connection between emotions and feelings is a piece of folk psychology, not an ironclad constraint on scientific theorizing. Consequently, functionalist accounts of emotions are not fatally crippled by functionalism's alleged inability to capture phenomenal consciousness.

But what notion of function should functionalists endorse? Garden-variety functionalism relies on a *causal-role notion*: the function of a mental state is the causal contribution it makes to the capacities of the organism. A&A presuppose this notion, which they refer to as the "broad" functional role of emotions, when they write that the "function of an emotion is the biological role it plays within the web of mental states, stimuli, and behaviors" (XXXX, p. XXX), a role defined by the causal relations in which emotions are currently embedded.

However, in other parts of their article, A&A (XXXX) endorse an *etiological notion* of function, according to which the function of a mental state X amounts to the beneficial effects X had in the past that explain why X was selected for (see Garson, 2016, for an overview of function concepts). This would make A&A *teleofunctionalists* rather than *garden-variety functionalists*. They write, for instance, that "a molecule-by-molecule duplicate of one of us would not have emotions . . . because there is no history whose reference could provide an answer to the question of what any functionally individuated state is for" (XXXX, p. XXX).

What gives an emotion its (teleo)functional role is not what the emotion disposes its bearer to do, but what the emotion ought to do for its bearer in light of a selection history. Note that it is irrelevant how recent the history is: whether we are focusing on evolutionary history, or cultural history, or learning history, having an etiological function does not entail contributing to any current capacities (but: the shorter the history, the more likely it is that the etiological function = causal-role function).

Despite the claim that an "account of the provenance of the functional role of an emotion . . . is required to know what that functional role is" (Adolphs & Andler, XXXX, p. XXX), prescription (b) makes it clear that A&A are not true-blue teleosemanticists, since they believe the functional role of emotions can be inferred from what emotions currently do. But why do

they then deny to molecule-by-molecule duplicates of humans not just a selection history, but emotions themselves?

A&A cannot have it both ways: either the relevant functional roles emerge from an observation of current capacities and duplicates have our emotions since they share such capacities, or the relevant functional roles emerge exclusively from a past history of selection, but then the current capacities we observe cannot shed light on functional roles.

A&A's proposal (XXXX) is motivated by a thought experiment which has aliens ascribing emotions to humans on the basis of observed capacities. At the same time, the account emphasizes the importance of selection history for understanding functional roles. But why would the aliens care about such history, since it is orthogonal with respect to the complex behaviors they want to explain—an emotion can currently have a causal-role function F^* that is not its etiological function, and an emotion can currently lack a causal-role function F^{**} that is its etiological function?

My diagnosis is that A&A (XXXX) have conflated two of Tinbergen's (1963) four whys: to explain an emotion, we need to understand its evolutionary origin, its current function (or biological significance), its proximate implementation, and its ontogenetic development. But to understand its current function, we do not need to know about its origin, evolutionary or otherwise.

If methodological functionalism is to treat emotions as causally efficacious latent variables, it must focus on causal-role functions. Understanding selection history is of course vital to the theoretician, but not as a means to the end of explaining complex behaviors in terms of emotions. This is great news, because it is much harder to understand selection history than it is to infer latent variables on the basis of observed behaviors.

Prescription (b) is that we collect a set of "features" of emotions and use them to figure out what causal-role functions they suggest, regardless of historical provenance. The features, which are said to be "plausible" and "derived from observation" (Adolphs & Andler, XXXX), include the following: emotions have different intensities, they can have positive and negative valence, they require an appraisal of the stimulus, they persist from seconds to minutes, they can be caused by different stimuli and they can cause different responses, they engage the whole organism unlike reflexes, they are irruptive but allow for regulation, and their expressions can communicate.

These strike me as folk psychological platitudes about emotions. Deriving a functional role from them would make emotions functional correlates of a folk psychological theory. I take it that this is *not* what A&A (XXXX) recommend—their choice of the label *psychofunctionalism* to designate their theory suggests as much, because *psychofunctionalists* identify mental states with the functional correlates of *scientific* rather than *folk* psychology.

What I am less clear about is how A&A understand the relation between folk psychological and scientific emotion concepts. I have argued that the folk psychological notion of emotion is too heterogeneous to allow for any scientifically interesting generalizations to apply to all or even most of its members (Scarantino, 2012). To develop enhanced conceptual frameworks that best serve our scientific needs, (psycho)functionalist theories of emotions must focus on subvolumes of the hyperspace of emotional continua captured by the platitudes.

We need a theory T_1 of emotions that are, say, highly intense, short-lived, caused by pattern-matching primitive appraisals, present across species, endowed with subcortical neural circuits, and so on; another theory T_2 of emotions that are less intense, long-lived, caused by language-dependent central appraisals, only present in humans, lacking dedicated neural circuits, and so on.

I call this *methodological pluralism*—the view that there is no single psychological kind (let alone neurobiological kind) individuated by our folk psychological platitudes, even granting some "massaging" of folk intuitions. On this view, a (psycho) functionalist theory of emotions should treat the folk psychological platitudes about emotions as scientific astronomy treats the platitudes about celestial bodies of folk astronomy. They are just a preliminary way to individuate the phenomena to be scientifically investigated, and preserving as many of them as possible should *not* be an objective of scientific analysis.

Is this also A&A's (XXXX) view? Is methodological pluralism what ultimately drives their view that the current emotion concepts of folk psychology are problematic? Do they have any suggestions for distinguishing between acceptable and nonacceptable discrepancies between scientific and folk psychological emotion concepts, and for arbitrating between (psycho) functionalist accounts that may differ in terms of how well they accommodate the folk psychological platitudes?

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