

Enjoyment and the brain: The other "hard problem" for psychology and philosophy of mind

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The purpose of this paper is to define and explore the "problem of affect" as an increasingly important but seemingly intractable problem for philosophy, psychology, and neuroscience that is distinct from the so-called "hard problem" of consciousness.

In psychology and neuroscience, *affect* has become a widely used umbrella term for emotions and other mental phenomena (pleasure, pain, moods, etc.). As remarked by Oxford University psychologist Elaine Fox, "The term *affect* is probably best reserved for the entire topic of emotions, feelings, and moods together, even though it is often used interchangeably with *emotion*" (2008, p. 17). In turn, affect can be further defined in terms of various dimensions or feelings, including "hedonic valence," which is defined as follows:

Every person on the planet (barring illness) can tell good from bad, positive from negative, pleasure from displeasure. The basic ability to experience pleasant or unpleasant feelings and represent objects as positive or negative, or as pleasing or displeasing, is known as hedonic 'valence.' Valence is thought to be a fundamental, universal property of human experience (Lindquist et al. 2016, p. 1910).

In summary, one could say that affect is a dimension of all feelings, and hedonic valence is a dimension of affect (other commonly discussed dimensions include arousal and motivational force). But within the sphere of affect, hedonic valence is the most discussed dimension and, I will argue, it is also the most problematic. Indeed, scientists who study affect recognize that "debate continues about how to best conceptualize the nature of valence" (ibid. p. 1911). However, it does not seem that scientists are aware that hedonic valence, and thus affect, presents a special challenge from a purely phenomenological standpoint. Briefly, this problem is as follows: Although valence is a universal and prominent feature of experience and an important determinant of cognition and behavior, it is nearly impossible to analyze or define in precise terms because *it does not correspond to any distinct quality of feeling*. As observed by the British philosopher C.D. Broad, pleasure is a quality "which we cannot define but are perfectly acquainted with" (cited in Labukt 2012, p. 175). This peculiar lack of phenomenological tractability is the heart of what I call the "problem of affect," and my goal in this paper is to show that it presents a distinctive challenge to both philosophical analysis and scientific investigation.

In philosophy, the problem of affect is reflected by the way in which longstanding debates in analytic philosophy about the nature of pleasure have led to a stalemate. These debates can be traced back to the late nineteenth century, when the prominence of ethical hedonism (as promulgated by Bentham, Mill, Spencer, and others) prompted several Anglophone philosophers, most notably Henry Sidgwick (1967 [1907], first edition 1874) and later G.E. Moore (1968 [1903]) to examine the nature of pleasure. Since that time, philosophers have generally divided themselves between three main positions: 1) those that hold that pleasure and pain are distinctive qualities of feeling (“distinctive feeling theories”); 2) those that hold that pleasure and pain are not qualities but rather “tones” of feeling (“hedonic tone theories”); 3) those that hold that pleasure and pain are not determinations of feeling but rather pertain to different attitudes of the subject toward feeling (“attitudinal theories”). Strong arguments can be given for and against all three positions, and after more than a century of debate philosophers have not been able to settle on a satisfactory description of the phenomenal character of pleasure or pain (see Dunker 1941/1942; Alston 1967; Gosling 1969; Chisholm 1987; Feldman 1997; Helm 2002; Rachels 2004; Bramble 2011; Labukt 2012; Aydede 2014).

It is critical to understand how the problem reflected by this stalemate differs from the “hard problem” of consciousness. In short, the problem of affect turns on the *absence of distinct affective qualia* (phenomenal qualities) rather than the inexplicability of qualia per se. In the literature of analytic philosophy, the problem of consciousness is typically defined as an apparently unbridgeable “gap” between functional or causal descriptions of mental processes and the subjective experience of those same processes (Nagel 1974; Jackson 1986; McGinn 1989). It is possible to find fault with the ways in which the undeniable gap between first-person experience and third-person knowledge has been converted by analytic philosophy into one of the most notorious philosophical conundrums of modern times. But for present purposes I wish merely to point out that the gap between first- and third-person perspectives is not the main difficulty presented by the problem of affect. Instead, the problem of affect concerns a peculiar gap *within* first-person experience: a lack of distinctness where we expect to find some kind of distinct phenomenal quality. The color red and other phenomenal qualities may be mysterious in their own way, but affect is not like any other phenomenal quality—indeed, perhaps it is not a phenomenal quality at all!

Meanwhile, in psychology and neuroscience, we find that the problem of affect—at least as defined here—has received little if any attention, even in subfields devoted to the study of positive emotion (Gruber and Moskowitz 2014). Why is this? No doubt part of the explanation has to do with the success with which valence has been “operationalized” by various experimental research programs. That is, even while psychologists and neuroscientists have yet to agree on a precise definition or classification of affective phenomena (see Fox 2008; Davison, Scherer & Goldsmith 2003; Panksepp 2014), they have developed a variety of methods for eliciting positive and negative affective responses and measuring their effects on cognition and behavior.

For instance, affective responses can be studied in rats by presenting them sweet and bitter-tasting water and closely observing their reactions (Papini et al. 2015). With human subjects, psychologists use standardized tools such as the International Affective Picture System (or IAPS; see Lang et al. 1993) to elicit positive or negative affective states and then measure the influence of these states on various cognitive tasks (Ashby, Isen & Turken 1999; Frederickson and Branigan 2005; Gable and Harmon-Jones 2010). Also, affective states can be investigated more directly through various methods of self-reporting, most of which involve some version of the "circumplex model" developed by James Russell (1980; see variations discussed in Barrett and Bliss-Moreau 2009).

A wealth of fascinating empirical data has been obtained from this kind of research, as indicated by the Nobel Prize-winning work of Daniel Kahneman and Amos Tversky (see Kahneman 2000). Nevertheless, as long as psychologists do not have a solid grasp of the nature of affect, they should interpret this data with caution: history has clearly shown the danger of reducing affect to "operationalized" definitions. More than sixty years ago, psychologists claimed to have discovered the "pleasure center" of the brain when experiments showed that rats that were able to stimulate this part of their brain by pushing a button would proceed to push this button thousands of times per hour (Olds 1956). Decades later, this interpretation is now disputed: based on new evidence of a neuroanatomical distinction between processes of "wanting" and "liking," neuroscientists believe that this compulsive behavior was not a manifestation of pleasure but rather a desperate state of insatiable desire (Berridge and Robinson 2003).

Given that the distinction between pleasure and desire was established by philosophical analysis (Dunker 1941/1942) well before the discovery of the so-called "pleasure center," this confusion might have easily been avoided. In light of this missed opportunity, the question for contemporary psychology of affect is this: What can psychologists learn from the "problem of affect" as revealed by philosophical debates over the nature of pleasure? At the very least, it would seem that scientists would do well to consider the fact that after more than a century of debate philosophers are unable to agree on the essential phenomenal character of pleasure and pain. For example, psychologists and neuroscientists widely believe that feelings of pleasure and pain belong to a "common currency" of affect (Cabanac 2002; Leknes & Tracey 2008; Barrett & Bliss Moreau 2009; Grabenhorst & Rolls 2011; Berridge & Kringelbach 2013) but are seemingly unaware of the difficulty of establishing this affective unity on phenomenological grounds.

Another, equally important, question concerns what philosophy can learn from the large and growing body of evidence concerning affect and its influence on cognition (e.g. Gable & Harmon-Jones 2010). Because affect is a highly variable (albeit complex) dimension *within* conscious feeling, the problem of affect would seem to be much more amenable to experimental study than the problem of consciousness. On the other hand,

the peculiarly elusive phenomenal character of affect presents a special challenge that needs to be addressed simultaneously from multiple angles—conceptual, phenomenological, and experimental. Perhaps the first step is to show that the problem of affect is shared by philosophy and psychology, and to indicate how each can make up for the deficiencies of the other.

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