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# Emotion as a Form of Perception: Why William James was not a Jamesian

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## Abstract

Two main views have informed the literature on the psychology of emotion in the past few decades. On one side, cognitivists identify emotions with processes such as judgments, evaluations and appraisals. On the other side, advocates of non-cognitive approaches leave the “intellectual” aspects of emotional experience out of the emotion itself, instead identifying emotions with embodied processes involving physiological changes. Virtually everyone on either side of the cognitive/non-cognitive divide identify William James’ view, also known as the James-Lange theory, fully on the non-cognitivist side. But this is a mistake. Re-interpreting James’ writings in its scientific context, this paper argues that he actually rejected the cognitive/non-cognitive divide, such that his view of emotions did not fit either side—that is, James was not a “Jamesian” in the sense the term is used in the literature.

**Keywords:** emotion; cognitivism; James-Lange theory; perception; sensation; physiological changes.

## Introduction

It seems uncontroversial to say that emotions are often associated with physiological events, such as changes in heartbeat rate, breathing, sweating, and bodily sensations and feelings of pleasure or discomfort. The real challenge is to explain exactly what the nature of the relationship between emotions and such bodily changes is. Against the view that bodily “disturbances” are the *outcome* of emotions—i.e. that they are the physical “manifestation” or “expression” of emotions—William James famously proposed: “our feeling of [bodily] changes as they occur IS the emotion” (James 1884: 189-190, emphasis original). Over the years James’ thesis has received both praise and criticism. On the one hand, many scholars took James at face value and, inspired by his suggestion, focused exclusively on investigating the bodily changes involved in specific emotional experiences—in this Jamesian approach, understanding physiological processes allows us to understand emotions because emotions just *are* those physiological processes, after all. Many researchers, on the other hand, have found the Jamesian view to be inadequate, and rather than treating emotions as processes that are purely bodily and non-cognitive, they have pursued the opposite path, equating emotions with cognitive processes like judgments, appraisals, and evaluations. The current paper re-examines William James’ original proposal and argues that it has been widely misunderstood by critics and Neo-Jamesian supporters alike. James’ account of emotions was not “Jamesian” in the sense of being ‘non-cognitive’, and this because his view questioned the cognitive/non-cognitive divide in the first place. This suggests that many of the objections and amendments proposed in the literature over the years do not in fact apply to James’ account, which may have been closer to the mark than previously appreciated.

## The Cognitive/Non-Cognitive Divide in Emotion Theory and Research

In his comprehensive overview of the psychological literature on emotions, Randolph Cornelius (1996) identifies four main research traditions. The first tradition Cornelius lists is the *Darwinian* approach following Charles Darwin’s (1872) evolutionary account of emotional expression, which seeks to understand human emotions biologically, as universal expressions that are continuous with the behaviors exhibited by non-human animals. The second tradition in Cornelius’ list is the *Jamesian* view, inspired by William James (1884), and described as equating emotions with bodily responses, echoing “James’s insistence that the experience of emotion is primarily the experience of bodily changes” (Cornelius 1996: 12). The third tradition is *Cognitivism*, which views emotions as necessarily cognitively-based, and arising from judgments or appraisals individuals make of what goes on in their environment. Lastly, the fourth tradition listed by Cornelius is *Social Constructivism*, according to which emotions are best understood from a social level of analysis, as culturally-based and unique to particular social contexts rather than biological and, for that reason, universal.

Cornelius discusses the possibility, suggested by Plutchik (1980), of considering *neurological* research as a tradition of its own. Yet, he decides against adding it as a fifth tradition because he sees this line of research on the neurophysiology of emotions as being more of a methodological approach that can inform and complement work in the other four traditions. But similar reasons would justify characterizing the psychology of emotion as divided into fewer than four categories. The four traditions Cornelius lists can reasonably collapse into only two general approaches. One such division would be between biological and cultural approaches: the Jamesian view coincides with the Darwinian view in understanding emotions in functional terms, as biological adaptations of organisms to their environments; on the opposite camp, the Cognitivist and Social Constructivist views of emotion can coincide insofar as the cognitive judgments giving rise to an individual’s emotional experience is shaped by that individual’s cultural context. At the same time, however, it seems equally valid to divide the four different traditions according to the question each asks: in this perspective, the Darwinian and Social Constructivist approaches fall in the same camp as they deal most centrally with the question of how universal, if at all, emotions are, whereas the Jamesian and Cognitive approaches fall on a distinct side as they are primarily concerned with determining, more basically, what emotions *are*. So while I recognize at the outset the plausibility of view-

ing contributions to the psychological literature in terms of a biological/cultural divide, this article's focus on the Jamesian view motivates adopting a distinct characterization and focusing instead on the contrast between cognitive and non-cognitive approaches as competing answers to the question of what an emotion is.

### Characterizing the Divide

Briefly considering examples of work in the cognitive/non-cognitive divide will help make clearer what the disagreement is about—it will also make explicit the typical understanding of William James' view of emotions that is assumed by critics and Neo-Jamesians alike.

Robert Solomon's influential article "A Subjective Theory of the Passions" (1976) gives a good illustration of the cognitivist approach. Solomon's account of emotions as *judgments* is based on (1) a distinction between emotions and feelings, and (2) a distinction between emotions and other kinds of judgments. First, Solomon acknowledges that feelings and sensations may be intimately associated with emotions, but he argues that this association is not straightforward: feelings are not all there is to an emotion, and, at the same time, not all feelings are accompanied by an emotion. In contrast with both feelings and moods, Solomon claims that emotions are *about* something, that is, they have an intentional object: feelings are about nothing at all, moods are about nothing in particular, yet one is never simply angry, but rather "angry at someone for something" (Solomon 1976/2003: 57). Second, even though he takes the intentionality of emotions to be what differentiates them from feelings and moods, Solomon recognizes that not every intentional state is emotionally valenced. In his view, emotions are evaluative judgments, but "not all evaluative judgments are emotions" (p. 69): when one adjudicates between the competing claims of two friends who are having an argument, one's judgment can be as detached and "cold" as the conclusion that one fruit at the grocery store is riper than another. Emotions, by contrast, are judgments about objects that matter, objects we are deeply and personally invested in: "The objects of an emotion are objects of great personal importance to us" (p. 61). Solomon further adds: "An emotion is a basic judgment about our Selves and our place in our world, the projection of the values and ideals, structures and mythologies, according to which we live and through which we experience our lives" (p. 68). In this sense, the judgment that one friend is right and the other is wrong can be emotional if their disagreement matters to us on a personal level, if it connects to our sense of identity and meaning more generally; but the judgment that one banana is ripe and the other isn't typically does not matter to us in the same way and, for this reason, the judgment does not typically amount to an emotion. In short, while for Solomon not all judgments will be emotionally valenced, all emotions are judgments.

This and other cognitivist views of emotions (as judgments, appraisals, or evaluations) were proposed as alternatives to the opposite side of the divide, where we find the James-

Lange Theory, as the Jamesian view is also known. As already suggested, the canonical understanding of James' theory is that it postulates that emotions are just feelings of bodily changes, or sensations of physiological processes, and that "intellectual" processes are not part of the emotion itself. Taking this to be James' view, both cognitivists and self-declared neo-Jamesians criticize his theory for the obvious reason that it results in emotional experiences becoming experiences of bodily processes rather than experiences of the world. Among the critics, Solomon summarizes James view as follows:

in "What Is an Emotion?" James answered his question with his theory: an emotion is the perception of a visceral disturbance brought about by a traumatic perception, for example, seeing a bear leap out in front of you or coming across a bucket filled with blood. The theory (developed simultaneously by C. G. Lange in Europe) is now appropriately called the "Jamesian (James-Lange) theory of emotion." It is, I shall argue, as misleading as it is pervasive. (Solomon 1984/2003: 76)

On the opposite side of the divide, Antonio Damasio's work provides a good example of the neo-Jamesian view. Damasio recognizes the importance of bringing the body in as an essential component of emotional experience, but, like others, he complains that James seems to take this claim too far: "The main problem some have had with James's view is not so much his stripping emotion down to a process that involved the body, [...] but rather that he gave little or no weight to the process of evaluating mentally the situation that causes the emotion" (Damasio 1994: 129-130). And Damasio complements, summarizing James' view in the typical fashion:

"James postulated a basic mechanism in which particular stimuli in the environment excite, by means of an innately set and inflexible mechanism, a specific pattern of body reaction. There was no need to evaluate the significance of the stimuli in order for the reaction to occur" (Damasio 1994: 130).

This understanding of James' view, shared by cognitivists and (neo-Jamesian) non-cognitivists alike, is mistaken. This traditional rendering of James' theory of emotion misses a distinction, central to James' scientific approach to psychology, between sensation and perception. Re-examining James' thought in light of the rival psychological theory of structuralism, and with a better grasp of the richer sense of perception at play in James' theory, reveals James' account not to fit neatly on either side of the cognitivist/non-cognitivist divide. This fresh perspective motivates the conclusion that James did not endorse the James-Lange Theory as it is commonly described in the literature. Moreover, this re-evaluation of James' account in its context reveals that the view for which James has been criticized by cognitivists and praised by Neo-Jamesians is in fact closer to the perspective James meant to reject than to the one he actually proposed.

## Contextualizing James' Psychology

The past couple of decades has seen a few attempts to re-evaluate James' thought, particularly his theory of emotion. Phoebe Ellsworth (1994), for example, has provided an interesting, if controversial, interpretation of James as spousing a "labeling" view of the Schachterian style (Schachter and Singer 1962, Schachter 1964): "The bodily processes combine with the perception of the object to produce the emotion. In this respect, James's theory resembles Schachter and Singer's (1962) idea that emotion is a combination of cognitive and physiological responses" (Ellsworth 1994: 223). More recently, Matthew Ratcliffe (2005) has used James' later philosophical writings to shed light on his earlier work on emotions, emphasizing how the pragmatist and phenomenological aspects of James' thought incorporate affect into intentionality and turn emotion into the kind of "world-making" process that cognitivists take it to be. I agree with these and others insofar as I share the feeling that James has been misunderstood. But rather than anachronistically bringing in later ideas (whether James' own or others'), I believe that we can find already in James' early scientific work the tools to better understand his view of emotion.

The key aspect that most cognitivists and neo-Jamesians alike miss in James' thought is the distinction between sensation and perception, which was at the center of the clash between functionalist and structuralist psychology. Although James never explicitly accepted the label "functionalist," his scientific work was largely framed in opposition to the structuralist approach of figures like German physiologist Wilhelm Wundt and his American pupil Edward Titchener. One way to frame the distinction is as between, on the one hand, a passive process in which stimuli impinge upon our sense organs (this is *sensation*), and, on the other hand, an active process in which an organism engages in exploratory behavior as it attends to its environment (this is *perception*). Structuralist experimental psychology was predicated on the view that all psychological phenomena, including perception, are built through the addition or combination of simple stimulations or sensations. In contrast, James took "pure sensation" to never occur in the ordinary experience of adult humans.

The view of perception I have alluded to above, as a form of active exploratory engagement with the environment, resonates with the perspective put forward by J. J. Gibson, the James-inspired functionalist founder of Ecological Psychology. Gibson proposed that the senses are not "channels of sensation" but "perceptual systems" that pick up information for action: "Sensation is not a prerequisite of perception, and sense impressions not the 'raw data' of perception—that is, they are not all that is given for perception" (Gibson 1966: 48). Gibson further distinguishes perception and sensation in terms of being active and passive: "perceiving is an act, not a response, an act of attention, not a triggered impression, an achievement, not a reflex" (p. 149), and further, "Perceiving is an achievement of the individual, not an appearance in the theater of his consciousness. It is a keeping-in-touch

with the world, an experiencing of things rather than a having of experiences" (p. 239). Although there is no room for doubt about the influence of William James' work in Gibson's thought (see, e.g., Heft 2001 and Chemero 2009), it is open to question the extent to which James would have agreed with Gibson. Still, at least when it comes to this distinction between sensation and perception, textual evidence from James supports the idea that Gibson was on the right track. Notice how James himself draws the distinction between sensation and perception:

The nearer the object cognized comes to being a simple quality like 'hot,' 'cold,' 'red,' 'noise,' 'pain,' apprehended irrelatively to other things, the more the state of mind approaches pure sensation. The fuller of relations the object is, on the contrary; the more it is something classed, located, measured, compared, assigned to a function, etc., etc.; the more unreservedly do we call the state of mind a perception, and the relatively smaller is the part in it which sensation plays. (James 1890: 1)

But, James says, in ordinary life there is no pure apprehension of sense stimuli, no pure sensation—our engagement with the world always involves more than meets the eye: "Pure sensations can only be realized in the earliest days of life. They are all but impossible to adults with memories and stores of associations acquired" (James 1890: 7). And further:

A PURE sensation we saw above (...) to be an abstraction never realized in adult life. Any quality of a thing which affects our sense-organs does also more than that: it arouses processes in the hemispheres which are due to the organization of that organ by past experiences, and the result of which in consciousness are commonly described as ideas which the sensation suggests. (James 1890: 76)

Structuralists like Wundt and Titchener held the opposite view, assuming that pure or simple sensations are not only possible, but are actually required for perception. They took a reductionist approach to psychology, and viewed the mind as involving additive or associative processes, with basic or atomic sensory "elements" (pure sensations) combining to form complex "psychical compounds" (such as perception). The following quote illustrates this view:

All the contents of psychical experience are of a composite character. (...) The elements of the objective contents we call *sensational elements*, or simply *sensations*: such are a tone, or a particular sensation of hot, cold, or light, when we neglect for the moment all the connections of these sensations with others, and all their spacial and temporal relations. (...) The actual contents of psychical experience always consist of various combinations of sensational and affective elements, so that the specific character of the simple psychical processes depends for the most part not on the nature of these elements so much as on their union into composite psychical compounds. (Wundt 1897: 29, emphasis original)

The structuralists' view of the mind as operating through the combination of basic "sensational elements" or "sensations" informed their approach to experimental psychology, particularly motivating the development of reaction-time experiments. The idea was that if the mind operates by combining basic elements, then we can measure the complexity of various mental operations by checking how long they take: the more basic, the faster; the more complex, the more elements need to be combined and the longer it takes. Both the conceptual framework and the experimental approach of structuralism remain very popular in cognitive science—even if we now complement reaction-time experiments with brain imaging techniques to see what parts of the brain activate when we impose a given sensory stimulus on the subject. But it is precisely the assumption of this structuralist view of perception as sensation-based that, I suggest, led to the current misunderstanding of James' theory by cognitivists and neo-Jamesians alike.

### Distinguishing James' View of Emotion from the "Jamesian" View of Emotion

As seen in the previous section, James and Wundt had very different views of the nature of psychological phenomena, including the nature of perception as distinct from sensations (in the case of James) or as built upon combinations of pure elementary sensations (in the case of Wundt). This section will discuss in more detail how this conflation of sensation and perception has shaped the common misunderstanding of James' view. The section then concludes with a sketch of what, in light of the theoretical background discussed here, we can more adequately interpret James to have meant.

#### The "Jamesian" View: Emotion as Proprioception

The fuller version James' thesis that is usually quoted in the literature is:

the bodily changes follow directly the PERCEPTION of the exciting fact, and (...) our feeling of the same changes as they occur IS the emotion (James 1884: 189-190, emphasis original).

Equating perception with sensation (or taking perception to be the building up from, or combination of, pure sensations), as was proposed by structuralists and is still the mainstream view in cognitive science today, leads to a misunderstanding of the two parts of James' claim. The first part is misunderstood as saying something like *bodily changes follow directly from pure sensation*—for example the sensations involved in seeing a bear, that is, having discrete visual impressions or sensations of certain color patterns, appearance of fur, size, etc, and adding up all those elements to inform the recognition of a bear. In turn, the second claim is misinterpreted as stating that *the pure sensation of such bodily changes is the emotion*: in other words, *proprioception* is the emotion.

As already noted, in assuming that perception is a kind of passive pure sensation of bodily disturbances, Solomon

seems to think that James views emotions as devoid of content and meaning. Prinz (a self-avowed neo-Jamesian) misrepresents James in a very similar way, as viewing emotions as "perceptions of the body": "I present evidence in support of William James's conjecture that emotions are perceptions of patterned changes in the body" (Prinz 2005: 9). Prinz claims further:

James (...) tried to reduce emotions to a class of feelings that everyone is already committed to: feelings of changes in the body. When emotions occur, our bodies undergo various perturbations. These changes include alterations in our circulatory, respiratory, and musculoskeletal systems. Our hearts race or slow. Our breathing relaxes or becomes strained, blood vessels constrict or dilate, our facial expressions transform, and so on. Most people assume that these changes are the effects of our emotions, but James argues that this is backwards. Our bodies change, and an emotion 'just is' the feeling of that change. (Prinz 2005: 12)

Both the cognivist and the neo-Jamesian, then, seem to think that James took emotions to be sensations of bodily changes, or internal sensory inputs, as a result of misunderstanding what he meant by "perception"—i.e., as a result of assuming the structuralist view that perception is pure sensation, rather than the functionalist view of perception as an active engagement of the organism with the environment that is shaped by past experiences, learning, habituation, etc.

#### James' View: Emotion as a Form of Perception

Beyond mistaking James' and the structuralists' views of 'perception', an additional linguistic misunderstanding leads to the error of taking James' view as defining 'emotions' as *our sensing our own physiological changes*. This error can be observed in the common claim that, in James' theory, emotions are "feelings of bodily changes": "The James-Lange theory identifies emotions with feelings of bodily changes" (Prinz 2004: 224); and "On the concept James defined (...) the feelings an emotion consists in [are] nothing over and above the feelings of bodily changes" (Deigh 2010: 25). Notice, however, that James did not speak of emotions as "feelings" (in the plural) that are "of bodily changes" (that is, feelings whose object was the body and its changes). James' claim, instead, was that "our feeling of [bodily changes] as they occur is the emotion" (1884: 189-190). There is a fine but important distinction in the grammatical function of 'of' in these two uses, mirrored in the following constructions:

1. The mayor *of* Cincinnati
2. The city *of* Cincinnati

In [1], 'of' indicates a relation between two distinct entities (one is a person, the other a city), while in [2] 'of' connects two nouns that refer to a single thing (i.e., the city). The difference between these two constructions is similar to that

between “feelings of bodily changes” (the usual description of the Jamesian view) and “our feeling of bodily changes” (James’ actual claim). The former (the “Jamesian” view) equates emotions with feelings and then it specifies the distinct entities which are the object of those feelings (namely, bodily changes). James’ claim, in contrast, parallels construction [2] above, equating emotion with a single entity: “our feeling of bodily changes” just means “our having bodily changes” or “our undergoing bodily changes”. The “Jamesian” view as described in parallel with construction [1] treats emotion as a psychological experience the object of which is the *body*: to have an emotion is to feel changes in one’s body (e.g., to be sad is to sense our eyes producing tears). James’ claim, in contrast, describes emotions as an experience of the *world* rather than of our bodies: in this view, to have an emotion is to experience the world *body-changingly* or while undergoing bodily changes (e.g., to be sad is to experience the world tearfully). James’ description of an emotion as “our feeling of bodily changes” suggests that an emotion is our having bodily changes, not our having feelings/sensations that are of bodily changes. In this light, instead of describing emotions (in the plural) as “feelings of bodily changes,” James might make his claim in the plural form by saying simply that emotions are our feeling (of) bodily changes.

The James-Lange Theory (the “Jamesian” view) has come to be understood as stating that emotions are feelings/sensations of bodily changes (which in turn result from sensations of discrete external stimuli). Yet, there is good reason to understand James as claiming that our having bodily changes informs our perception of objects in the environment—e.g. enabling our adaptation to it by detecting good and danger—and that this bodily process *is* the emotion. Given James’ richer sense of perception (in contrast with “pure sensations” or their combination) and in light of the scientific alternatives James’ theory was intended to oppose, a reevaluation of the Jamesian view of emotion is called for. From what I have explored in this paper, we can conclude that not only did James not hold a “Jamesian” view of emotion as it is traditionally framed in the literature, but also that the view usually associated with the James-Lange theory by both cognitivists and Neo-Jamesians is actually closer to a structuralist perspective than to the views James actually held. Rather than equating emotion with proprioception—i.e., sensations of bodily changes—the scientific framework put forward by James motivates seeing emotion as a form of perception of the world—a way in which our body informs and constitutes our engagement with objects and events in the environment. In this view, emotions are forms of perception, not in the sense of being “perceptions of bodily changes” (where “perception” would mean the same as “sensation”), but rather in the richer sense of perception, as necessarily intentional and challenging the very divide between the cognitive and the non-cognitive. The reinterpretation proposed here provides a more accurate understanding of William James’ work and, by extension, of the historical foundations and progression of

psychological science. This reinterpretation is also of contemporary interest insofar as it makes James’ view directly relevant to current debates about embodied cognition, perception, and affectivity (e.g., Chemero 2009, Gallagher 2017).

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