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In Defense of Prinz's view of Somatic Theory

The debate between the somatic theory and cognitivist theory of emotions has been fought with arguments from psychological studies to historical examples. In this paper, I will defend the somatic theory of emotions that supports Prinz's thesis by arguing that our automatic, involuntary responses to changes in bodily states work with our deliberate, cognitive evaluation of those responses, but only the former causes emotions.

The somatic theory, formed by James and Lange, holds that emotions are changes of bodily states. In James-Lange theory, we react to the change cause the emotional experience. In "What is an Emotion?", he describes, "the bodily changes follow directly the perception of the exciting fact, and ... our feeling of the same changes as they occur is the emotion," (189–190). When the body experiences a physiological change such as a sudden change in blood pressure, the body mentally identifies an emotion in response to this physiological change. This physiological change is known as the bodily state and, according to James, the emotion corresponds to that change in the bodily state. The bodily state may be sufficient on its own to stimulate the emotional response. In addition, these changes in bodily states can be necessary for emotion and it is even possible to have a change in bodily state without the emotion. For example, according to anatomical studies by Damasio, one may have a physiological fear response (such as dilation of pupils) without actually experiencing the emotion of fear if the mind does not register the bodily state. And, on the other hand, one may feel an emotion such as depression without being aware of an external cause if one registers the bodily state. Therefore, the somatic theory relies on the emotion's dependency on the change in bodily state.

Jesse Prinz has recently defended most aspects of somatic theory and expanded upon the theory itself. In Prinz's theory, the bodily activity causes a mental state that is the emotion. This is in contrast to James' theory in that, according to Prinz, the emotion is the mental state, not the bodily activity

itself. This change in bodily state is caused by external stimuli, as consistent with somatic and cognitivist theory, but the emotion is an embodied appraisal, or our perception of those changes in the bodily state. In his essay, “Embodied Emotions,” Prinz responds to several objections to the James-Lange theory with his theory of emotions as perceptions of bodily changes.

The somatic theory relies on a fundamental connection between bodily change and the emotion. Critics of the theory have claimed that, since changes in perception of bodily states do not always change one's emotional state, the relationship between bodily state and emotion isn't so clear and it may be possible to experience emotion without changes in bodily state. Prinz responds by citing Damasio's “as if” loop, which states that emotions may result from perceived changes in bodily state, rather than actual changes in the bodily state. If one imagines himself standing on the edge of a cliff, he or she may find him or herself experiencing the anxiety and fear of heights from actually standing on the edge of a cliff. According to the “as if” loop, the idea of standing on the edge of a cliff is a bodily change since it causes similar physical responses as those from actually standing on the edge of the cliff. Since emotion may arise in this perception, but in the absence of the bodily state, the emotion may result in those situations. I agree with the defense of the “as if” loop, but I would be cautious in exercising it in situations that involve deliberate judgement of emotion. If one imagines the edge of a cliff and, after careful thought about what it is like to be at the edge of the cliff, becomes afraid, then the emotion would have resulted from a judgement, not an involuntary response. Allowing judgement to play a of judgement in emotion conflicts with somatic theory. However, if the change in bodily state from the imagination of standing on the edge of the cliff is automatic, then it is an emotion. The automatic nature of this “as if” loop allows it to parallel the actual bodily states. Critics might push back on this “as if” loop by claiming that, since the emotion can occur from an imagined state, then the somatic theory is flawed. However, Prinz responds that the brain's adaptation to those external stimuli and

bodily changes allows the emotion to result from the perception of a changed bodily state. He cites neurological sources of mirror neurons of bodily changes. Mirror neurons elicit the same response when one performs an action to the response when that action is observed. Recent studies have also shown that viewing pain can excite the same areas of the brain that are responsible for experiencing pain itself[3]. I believe that, as evidenced by the function of the hypothalamus[1] in mediation of emotional responses, mirror neuron responses are automatic, and therefore, they cause the mental perception of the emotion. When one's pupils dilate at the immediate sight of a scary bear, it is without control or mental evaluation, and one experiences the emotion of fear. But, in response, one may evaluate his or her response and realize that he or she is in fear. This shows the affective appraisal mechanism of emotion. However, since the emotion occurs with or without realization, I believe the cognitive evaluation is not necessary. Since these neurological processes of the initial response activate automatically and involuntarily, I believe they are compatible with somatic theory and incompatible with cognitivist theory. This is the fundamental connection between bodily change and emotion that upholds somatic theory.

Critics may continue to argue that emotions may occur without changes in bodily state. One may experience complex emotions such as guilt or nostalgia without physical responses. Prinz responds by first stating that many emotions that we may doubt have physical responses actually do have physical responses, but they are more indirect and more difficult to observe. Guilt may occur with anxiety-like symptoms. Nostalgia may occur with sadness that could cause fatigue. I would support this extensive analysis of the physical responses to emotions and argue that these “complex” emotions are simply constituents of basic emotions that correspond more directly to the changes in bodily states and physical responses. For example, nostalgia is composed of sadness and desire, both of which are clearly shown through physical states. This way, the emotion is more tightly related to the change in bodily

state. Prinz continues by stating that, if one were to truly experience an emotion with no physical change, this “emotion” would be an imitation. I would argue that the “emotion” in absence of physical change may be simply a judgment. These judgements are the result of our rationality and cognition, and, therefore, not emotions. Prinz cites the example of imitation in an art critic that is incredibly experienced, he or she may praise works of art without feeling the physical response of happiness. For this example of the experienced art critic, I believe that the emotion still exists in the absence of the physical response due to satiation of the physical response[2]. When one experiences a physical sensation repeated times or on multiple occasions for a certain period of time, that physical sensation will begin to diminish. Scientifically, as neurons are fired repeatedly over a various period of time, the extent to which their effect occurs slowly diminishes with time. Critics may argue that this satiation causes a lack of bodily state, and, therefore, somatic theory is flawed. However, I would argue that, because the neuron satiation is in and of itself a physical phenomena, the satiation that thwarts the physical response is a physical response. Since satiation is an involuntary scientific phenomena that is caused by biochemical and physical principles, I believe the state of satiation is still a bodily state. Critics may respond that, since studies have shown that the satiation may be overcome through a cognitive re-appraisal of the stimuli[4], then the satiation can be constructed as a cognitive element. Therefore, the emotion involves a cognitive element, and somatic theory is disproven. However, since I have already argued that the satiated state of a neuron is a physical change in and of itself, then this objection is irrelevant. If one overcomes the satiation through cognition, then that doesn't mean that the cognitive element is even necessary for the emotion because the state of satiation is a bodily state. Thus, the fundamental link between physical response and emotion holds true.

Throughout this paper I have mentioned that voluntary responses have no presence in emotions. If one is receiving a gift that he or she does not enjoy, he or she may force him or herself to be happy.

This feigned “happiness” may be an instinctual response or it may be the result of deliberate thought upon receipt of the gift. I would argue that, in this situation of the instinctual, involuntary response, then the emotion is the result of the physical sensation, not of the judgement. Upon receipt of the gift, one may experience joy by showing a smile or warm tone of voice out of instinct, and this displayed “happiness” is the bodily response. In the situation of the happiness resulting from a deliberate thought, one may choose to be happy after deliberate thought and as the result of a judgement.

This role of judgement has been emphasized by Sartre. According to Sartre, the emotional consciousness isn't about the emotion itself, but, rather, the object that causes the emotion. Our emotions are the means by which we make sense of a world that is otherwise completely irrational. If a thief robs Jon of his money, Jon makes the judgement that there is no justification for this event, and it is, therefore, irrational. As a result, Jon's anger is a result of his judgement. One might argue that it is possible to experience an emotion as a judgement without any physical response. In response to these claims that emotions involve interpretation, Prinz describes “elicitation files” that function by organizing triggers for emotions by similar conditions. When Jon experiences anger from his judgement, interpretation, or sense of rationality, then his body recognizes the situation of being robbed as a trigger similar to that of, for example, being threatened. Threat is a danger that underlies these physical sensations in our bodies, and the body elicits a response. Thus, the emotion results from this bodily change, not a cognitive evaluation. I would argue that, since the “elicitation files” are defined through similar physical responses as actual bodily states from changes in our environment, then the mental perceptions to changes in our environment are similar to those perceptions in response to bodily changes. In addition, since we experience these triggers automatically and involuntarily, then they are similar to those responses from actual environmental changes and they constitute the basis for the emotion. Prinz continues that bodily perceptions are similar to evaluative judgements, but “they do it

by figuring into the right causal relations" (57). I would argue that perception files leave room for the perception of the bodily changes that is central to Prinz's theory. In addition, the distinction between our judgements that are not part of the emotion and the bodily changes that cause the emotion is much more easily defined because the elicitation files are part of the bodily change while judgements are a result of rationality.

However, some might say that it is difficult to distinguish rational judgements of the situation from perceptions of bodily changes. For example, if Jon loses his money, he may believe he experiences anger because of the situation but remain unaware that he is actually angry because he didn't get much sleep last night. In this situation, I would argue that, since our judgement can often be misleading, then the perception of the bodily state is more reliable. It also occurs involuntarily and without our own careful, rational thinking. In addition, identifying bodily states as an indicator of emotions uses fewer resources than a cognitive evaluation, and, therefore, somatic theory leaves less room for error. In addition, cognitive evaluations add issues of intentionality and controllability to emotions. This blurs the distinction of our control and our lack of control before identifying a clear picture of what is in our control and what isn't. Because we don't have a clear definition of what the the physiological basis for rationality, we should be skeptical about applying intentionality and controllability to emotions. Bodily changes are automatic, and, therefore, more easily defined. Therefore, bodily changes are a more reliable indicator of emotions. It is more efficient to claim that these perceptions, not evaluative judgements, are the emotion. Prinz's theory of emotions as perceptions of bodily changes is easier to prove and relies on fewer assumptions.

Another objection to somatic theory is that one must interpret the bodily changes that occur in order to experience an emotion. Schachter and Singer's studies have shown that test subjects make judgments about their own physical responses that change their emotions. When they expose

adrenaline-injected subjects to a stooge, the reported emotions of the subjects changed based off the stooge's actions. In addition, informing subjects of the effects of those drugs changed their reported emotions. Prinz argues that the adrenaline would make subjects more sociable and likely to imitate the stooge. Also, subjects informed about the effects of the drug would still feel happy, but conclude that their happiness was caused by the drug and not by the stooge. Therefore, the subjects would not report the emotion or "realize" the emotion in the same way that uninformed subjects do. And the informed subjects would not have been very sociable and would have been unlikely to imitate. This is important because Prinz is not arguing that the emotion is caused by the cognitive evaluation. Rather, he argues that the emotion is still experienced due to the bodily change, but we evaluate the emotion, not the bodily change. When subjects are more sociable due to the adrenaline, then they experience an emotion from a change in bodily state. I support Prinz's view because the Schachter and Singer theory tries to explain this gap between emotion and action through a poorly-defined and ambiguous "cognitive evaluation" that could easily be explained as an action in response to our interpretation the emotion. If the cognitive evaluations and awareness had caused emotions, then it casts doubt on the truthfulness of those emotions. I believe Prinz's distinction is coherent with my proposed model of automatic, involuntary responses that cause emotions that are separate from deliberate evaluations of bodily states.

References

[1] "Hypothalamus." Neuroanatomy at the University of Wisconsin-Madison. n.p., n.d. Web. 9 Dec. 2014.

[2] Matthew Botvinick, Amishi P. Jha, Lauren M. Bylsma, Sara A. Fabian, Patricia E. Solomon, Kenneth M. Prkachin, Viewing facial expressions of pain engages cortical areas involved in the direct experience of pain, NeuroImage, Volume 25, Issue 1, March 2005, Pages 312-319, ISSN 1053-8119, http://dx.doi.org/10.1016/j.neuroimage.2004.11.043.

[3] M.M. Hetherington, L.M. Pirie, S. Nabb, Stimulus satiation: effects of repeated exposure to foods on pleasantness and intake, Appetite, Volume 38, Issue 1, February 2002, Pages 19-28, ISSN

0195-6663, http://dx.doi.org/10.1006/appe.2001.0442.

[4] Morgan Poor, Adam Duhachek, Shanker Krishnan, The moderating role of emotional differentiation on satiation, Journal of Consumer Psychology, Volume 22, Issue 4, October 2012, Pages 507-519, ISSN 1057-7408, http://dx.doi.org/10.1016/j.jcps.2012.07.005.

[5] Prinz, Jesse. "Embodied Emotions."

This is a great paper! Good work. For some smaller notes, see the margins!