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Comment: Affect Control Theory and Cultural Priming: A Perspective from Cultural Neuroscience

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Abstract

Affect control theory posits that emotions are constructed by social and cultural forces. Rogers, Schröder, and von Scheve (2014) introduce affect control theory as a conceptual and methodological “hub,” linking theories from different disciplines across levels of analysis. To illustrate this further, we apply their framework to cultural priming, an experimental technique in cultural psychology and neuroscience for testing how exposure to cultural symbols (e.g., words and pictures) changes people’s behavior, cognition, and emotion. Our analysis supports the use of affect control theory in linking different levels of analysis while leaving some opening questions for improving such a framework in future research.

Keywords

affect control theory; cultural neuroscience; cultural priming

To what extent and how sociocultural forces influence emotion is an important inquiry for many fields of studies, ranging from sociology, social psychology, and anthropology to cognitive science, biology, and neuroscience. In order to tackle such questions, we have been proposing the need for an interdisciplinary approach that employs multiple methodologies to address social and cultural issues at multiple levels of analysis (Chiao, Cheon, Pornpattananangkul, Mrazek, & Blizinsky, 2013). From our end, we have followed this interdisciplinary approach mainly by synthesizing cultural psychology with cognitive neuroscience and molecular genetics in an emerging field of cultural neuroscience (Chiao et al., 2013). The authors of the target article, Rogers et al. (2014), on the other hand, took an innovative approach by drawing on affect control theory from sociology and applying an elegant mathematically driven theory to different levels of analysis across disciplines: cultural, relational, individual, and neural. The authors impressively delineated how affect control theory fits with each of the levels, linking its unique sociological methodology with theories from other disciplines, such as cultural models of self, social exchange theory, appraisal theory, and psychological constructionism. The authors are to be congratulated for

their effort in proposing cross-disciplinary connections and in initiating an integrative framework to better understand the social and cultural constitution of emotion. Following the authors' proposed framework, we attempt to analyze the *cultural priming* phenomenon using affect control theory as a conceptual "hub" — as an example for how to apply an affect control framework across different levels of analysis, based on our understanding.

Cultural priming was developed for experimentally activating cultural-relevant mindsets (Hong, Morris, Chiu, & Benet-Martinez, 2000; Oyserman & Lee, 2008) at the individual level. For instance, participants' collectivist and individualist mindset is often conceptually primed by words (e.g., "we" vs. "I," respectively) or iconic pictures (e.g., "dragon" vs. "Mickey Mouse," respectively) without being aware of the researchers' intent. As such, in terms of the affect control framework, these priming objects have different *fundamental meanings*, depending on the participants' culture. In other words, the perceptual dimensions of such priming objects, including *evaluation*, *potency*, and *activity*, may be varied as a function of culture, giving rise to different fundamental meanings. At the cultural level, the cultural priming procedure seems to show an effect especially if the participants' cultural background is different from the cultural concepts of the priming objects. For example, people in Hong Kong who lived in a collectivist culture were more influenced by an individualistic, compared to collectivistic, prime, while the opposite pattern was found among Americans (Gardner, Gabriel, & Lee, 1999). This discrepancy between priming concepts and people's own cultural mindset, according to the affect control framework, may parallel an *impression formation* process that *temporary (transient) affective meanings* of these primes are influenced by people's fundamental meanings. At the neural level, functional magnetic resonance imaging (fMRI) studies have been used to investigate the influence of cultural priming on the brain (Chiao et al., 2010; Harada, Li, & Chiao, 2010; Sui & Han, 2007). For instance, when making a general self-judgment (e.g., "in general, I am humble") compared to a contextual self-judgment (e.g., "when talking to my mother, I am modest"), bicultural Asian Americans primed with individualistic concepts showed stronger activity in the midline regions of the brain that are involved in processing "self," including the medial prefrontal cortex (MPFC) and the posterior cingulate cortex (PCC; Chiao et al., 2010). The opposite effect was found when bicultural Asian Americans were primed with collectivistic concepts. Altogether, the affect control theory can, in many senses, capture the cultural priming phenomenon that integrates across multiple levels of analysis.

Nonetheless, in applying the affect control framework to analyze dynamic cultural phenomena, one may also come across known unknowns that cannot be explained by current research in affect control theory. For instance, does a transient deflection of one's culturally-defined meaning as a result of cultural priming elicit a negative location in *affective space*? What distinct emotional states do different types of cultural priming elicit? Which brain areas and neural cognitive processes underlie evaluation, potency, and activity of concepts? Such questions, however, should not discourage future scholars from adapting the affect control framework. Given the benefit of having mathematical formulations as a main component, affect control researchers should have well-defined predictions in

answering such questions. Hence, the possibility of developing such elegant, unifying theories is limitless.

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