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## Conciousness, Emotion, and Self-Organization

## Introduction

This volume explores consciousness and emotion from the standpoint of the relationships between enaction, reaction, psychophysical correlations, and selforganization, in both their objective and subjective dimensions. Many of the papers pursue a self-organization or complex dynamical systems approach to understanding consciousness in its dependence on emotional processes. The guiding theme is that consciousness occurs only in systems that are active as opposed to reactive, efferent as opposed to afferent, and emotionally directed as opposed to merely information processing. The Ellis paper hypothesizes that, if consciousness and emotion are rooted in self-organizing as opposed to merely reactive systems, then we can use this conceptualization to understand why motivation is often geared toward exploration, play, curiosity, and other activities that apparently are not even indirectly motivated by consummatory drives. Consummatory drives were the last best hope for a neat reduction of the psychological to the chemical and physical realms, because it could be posited that the same tendencies toward electrostatic reduction and the sub-molecular level could account for biochemical processes and ultimately for the drives of the organism. But many of the more interesting aspects of the human affective life, and even that of lower animals, resisted such a reduction to secondary reinforcement based ultimately on consummatory drives, and new evidence from neuropsychology made it clear that many chemical systems in the brain are unconditionally (i.e., without prior conditioning) devoted to play, nurturance, and curiosity without regard to the status of other systems which have to do with consummatory drives such as hunger and thirst. These non-consummatory emotional tendencies seem pronounced in highly conscious beings, such as human

beings, and are not derivative through learning, even in an indirect way, from the consummatory ones. Also, they push the organism toward behaviors that emphasize its far-from-equilibrium aspects. This leads naturally to curiosity about whether such conscious and emotional systems can be understood in terms of complex dynamical systems, which exist far from equilibrium, and offer the hope of understanding a genuine difference between activity and mere passivity, and between the truly voluntary and the merely reflexive.

The paper by neuropsychologist Bill Faw is a basic neurophysiology text which attempts to accommodate these concerns. Faw tries to trace the connections between the activity-instigating and energy-mobilizing centers of the midbrain and upper brain stem with the emotional processes of the limbic system and the effect in turn of those on all other conscious processes. Special attention is devoted to the difference between anterior and posterior cingulate roles as differentiating between passive information processing facilitation, as when information about colors and lines is encoded in posterior sensory-cortex subsequent to the attentional focusing effects of the posterior cingulate, and active looking for imagistic contents, facilitated by the anterior cingulate, and presupposed by the voluntary direction of attention as well as the mental imaging of non-present sensory objects.

Phillip Okwo picks up on this neurophysiology and shows how it is all compatible with a self-organizational approach to the difference between conscious and non-conscious processes. He discusses problems in the mind-body relationship that can be solved more easily if we take this approach, and suggests reasons why only enactive systems can be conscious, using the Mack and Rock inattentional blindness studies as a paradigm example. Here we see that a preattentive set is presupposed before a conscious organism can even register received information in consciousness, and Okwo discusses the neurophysiological reasons for this, which are not touched upon by Mack and Rock in their purely perceptual- psychological studies.

Maria Adamos challenges the cognitivist and quasi-cognitivist approaches to emotion that have been so prevalent in recent years, especially among philosophers. She argues that to ground emotions in propositional attitudes is to place the cart before the horse. In reality, propositional attitudes depend on prior evaluations, as illustrated by the fact that our emotional reactions precede cognitive processing, both in terms of neurophysiological microgenesis of the mental event, and in terms of phenomenological analysis of the way we understand what we feel.

John Cogan picks up on this issue of the phenomenological analysis of emotions, and argues on Husserlian grounds that both cognitive theorists and philosophers, during the entire modern era if not the entire history of philosophy, have used methods of inquiry that are biased against being able to see emotions

for what they are, and instead see them through inappropriate categories. This results from an unreflective domination by the natural attitude, in which we tend to focus our attention on the objective rather than the subjective side of any given experience, and then see the subjective side not only as caused by the objective, but also as comprehensible within the categories that are suited to the objective. Cogan also makes the radical sociology-of-knowledge claim that the kind of personality that suits people to become philosophers tends to be an objectifying kind of personality, and thus is actually contrary to the aims of experiencing and expressing the immediate data of the emotional life, relying instead on intellectual interpretations that often are lain over the data, thus distorting its real content. He urges that a phenomenological method be adopted in the study of emotion, where the beginning point would be a careful phenomenological reflection on what the experiences do and do not actually tell us about their aims and intentional contents.

Louise Sundararajan fleshes out the phenomenological project still further. She shows how it is possible to reflect phenomenologically on an emotional tone that is prior to the clear categorizations and consequent pigeon-holing that so often results from applying fully narrative meanings to the intentional content of emotional experience. Instead, she suggests taking a "savoring" approach in which we allow moods and partially-formed feeling tones to be taken just for what they are in a "proto-narrative" framework. In proto-narratives, the meaning of a feeling tone (what Eugene Gendlin would call a "felt meaning" or "felt sense") is not as specific or clearly delineated as a narrative meaning. For this reason, proto-narrative emotions lend themselves to a phenomenological letting- go, so that we can allow the emotional meanings to speak to us prior to our categorizations, which tend to tell the emotions what they should mean rather than listening to their attempt to tell us what they mean.

As a foil to this line of thinking, Uriah Kriegel reminds us why it is still important to take the mind body problem seriously, and not to embrace a naive dualism. In particular, the idea of inter-theoretic reduction in the sciences is still important if we are to have a coherent ontological understanding of how mind and body interrelate. We must not forget that mental causation is a phenomenon that rules out dualism, since the causal sufficiency of the physical realm would render any non-physical realm causally superfluous, yet we know that our conscious events do lead to actions on our part. We must therefore have a non-dualistic account of these events. Ultimately, a coherent account must make both phenomenological and physical sense. That is why many of the authors in this volume urge further exploration of a dynamical systems approach in which emotions are taken to be pivotal. A dynamical systems understanding of emotional processes can bridge between the passive-reaction model of the inanimate realm and the action-initiating, purposeful model of the animate, by showing how the

principles by which dynamical systems operate can be made compatible with the usual understanding of the physical realm, yet preserve a causal power for the system over its own components. Self-organizing systems actively seek out, appropriate, and replace their components on an as-needed basis (to the best of their ability), rather than merely being caused by the actions of their microconstituents.