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Locating Consciousness:We're conflicted by the role of conflict

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Locating Consciousness: We're conflicted by the role of conflict

Short Title: Locating Consciousness

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Abstract
What is consciousness for? Consciousness allows us to handle conflict, a promising proposal by Morsella et al. But they provide little evidence why consciousness is particularly valuable in resolving conflict nor do they limit the role of consciousness to only conflicting experiences. We attempt to clarify their possible positions and offer several solutions of how they might be formulated and tested.

Bill is expounding on the genius of Julian Jaynes (2006) and how his theory of consciousness also meshes with the view of Nicholas Humphrey (2006). I want to interject a questioning voice but I was just about to enjoy a unique blend of hops by lifting my fresh glass of our local Santa Cruz IPA. This situation fits with Morsella et al.'s conflict—do I utter my question or bring the glass to my lips to savor the beer? The situation is not as dramatic as a driver seeing a deer jump across a mountain-ness road, creating a conflict of continuing on hitting the deer or swerving off the road. Consciousness manages these scenarios of conflict according to Morsella et al. but they do not justify why consciousness makes the resulting behavior any easier or more adaptive.

More importantly, perhaps, they appear to assume that consciousness is present well before the conflict begins. Their cave example has the actor consciously perceiving the cave's opening and having the conscious experience of a noxious smell. Thus, our actor is conscious of the relevant percepts without any conflict, so consciousness cannot be limited to solving only conflict situations. So the question for Morsella et al. is whether the person is conscious of both stimuli before any conflict arises, or is the conflict responsible for a conscious experience of these two stimuli. If Morsella et al. really impute consciousness of fundamental percepts like seeing and smell, they have joined the dominant camp of attributing consciousness to our direct experience of objects and events.

A more unique position would be to define the individual percepts as non-conscious, the outcome of prototypical pattern recognition processes that could easily be performed by a zombie or automaton without consciousness. Consciousness would raise its talking head only when the individual percepts create conflict as in our examples of taste vs talk or our actor leaving or staying in the cave.

But we think that Morsella et al. won't deny that percepts are conscious. To resolve this conflict we might turn to Seeing Red by Nicholas Humphrey. He attributes consciousness not to percepts but to sensations created by the interaction of the senses and an experiencing actor. So for Humphrey we have a conscious actor interacting with various percepts unconsciously until the deer jumps across the road. Would this second engagement of Humphrey's consciousness perhaps now access something from the sensorium to better deal with the conflict? If so, benefitting from the sensorium's input, would seem to justify consciousness during conflict but not during individual (non-conflicting percepts). However, we doubt it would access anything beyond the normal ongoing activity of the sensorium. It might access something from the "Narratorium." That is, along with the provoked emotional shift of seeing a deer,

the individual might streamline any number of narrative scenarios about what is going on and what to do about it.

In Morsella's model it is almost certain that having a deer jumping across the road could cause a consciousness evoking change. The driver may have been in one of those epochs that consciousness people talk about where you drive for miles with no recall of being aware of that driving. Then the deer appears. Now, for Morsella, one conflict might be "do I do less damage to myself and the car by swerving or by continuing on. In Morsella's view, these competing actions that are vying for access to the motor output system, bring about a moment of consciousness.

How many conflicts do we actually run into? Is conflict all that unique, infrequent, or qualitatively different? Our mindless pattern recognition solves conflicts seamlessly, as in our studies of optimal speech perception given auditory and visible speech (erroneously called the McGurk effect because it involves much more than the field's prejudice for "illusions" given conflicting auditory speech). Conflict does not seem to unravel this form of integration as specified by the FLMP.

In an expanded 5 by 5 factorial design, five levels of audible speech varying between /ba/ and /da/ were crossed with five levels of visible speech varying between the same alternatives. There were also trials that had simply a visual or auditory syllable. The participants were instructed to identify the syllable as /ba/ or /da/. The results give a large interaction between the auditory and visual speech, a signature prediction of the FLMP. It appears that there is a natural integration of the auditory and visual speech even though many of the speech events had conflicting audible and visible speech. This result might lead us to question why conflict is necessary or sufficient for consciousness.

Perhaps one could empirically test whether behaving to a single percept is all that different from behaving to conflicting percepts. This would inform whether conflict is all that is essential to engaging or creating consciousness. Recall the demonstrations of Benjamin Libet in which an actor was told to watch a clock and decide when to make an arm movement (see Obhi & Haggard, 2004). She moved and then reported what time the clock was showing when she decided to move. The results revealed that an action potential in the brain occurred **before** the time she reported. We could replicate this experiment and also include a conflicting situation in which there is a conflict and the person judges when they decided to make one action versus another, such as move one hand vs another. For example, a right hand results in 5 people dying and a cure for the common cold whereas a left hand response is 10 people dying and a cure for cancer. The question would be whether the action potential in the brain occurs before or after the time she reported. If there is a significant difference in the relative occurrence of the action potential in the brain and the person's decision time, then we might have empirical evidence for something like consciousness influencing conflicting situations relative to non-conflicting situations.

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