Comments on Radu Bogdan's "Self-Consciousness: Executive Design, Sociocultural Grounds"

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In "Self-Consciousness: Executive Design, Sociocultural Grounds," Radu Bogdan makes a number of interesting and bold claims about the nature, development, and evolution of self-consciousness. By 'self-consciousness,' Bogdan says he means "consciousness of self-to-target relatedness" and distinguishes two kinds: introvert and extrovert self-consciousness. As far as I understand, introvert self-consciousness is consciousness of one's own mental states. Thus examples of introvert consciousness would be:

- I am conscious of a pain in my shoulder.
- I am conscious of thinking about the weekend while the department chair gives his speech.
- I am conscious that I am seeing a red tomato before me.

Extrovert self-consciousness, on the other hand, is apparently any form of consciousness about an external object and its relation (e.g., spatial, causal, mental) to oneself; however, extrovert self-consciousness does not involve consciousness of oneself having mental states. Thus, the following would appear to be good candidates for extrovert consciousness:

- An animal being conscious of a predator hiding behind the tree to its left
- An infant being conscious of its mother's visual attention to her movements
- My being conscious that I'm standing directly before the Empire State Building

In each of these cases, a subject (an animal, child, myself) is conscious of how an object (predator, mother, Empire State Building) is related (spatially, causally, mentally) to itself (the subject); yet, there is no need to assume in these cases that the subject is, by virtue of this type of consciousness, conscious of its own mental states. In each of these cases, the subject's consciousness is, as it were, directed outward onto the world not inward onto its own mind.

On the assumption that I have understood Bogdan's distinction between introvert and extrovert self-consciousness, I would like to look at a few of the claims he make about self-consciousness.

On page 3, Bogdan makes the rather strong-looking claim that "consciousness is not only target-related but necessarily consciousness of self-to-target related" (p. 3). He goes on to provide the following as evidence in support of this claim:

> Intuitively, consciousness always looks relational: we talk of being conscious of something or conscious that something is the case; it is hard to think of cases where one is simply conscious (full stop) and one's consciousness is contentless. This is to say that consciousness is necessarily intentional (in the philosophical sense) or target-related, as I prefer to put it. This is the necessity of our commonsense concepts. But there is a deeper factual reason why consciousness is not only target-related but necessarily consciousness of self-to-target relatedness. I abbreviate the latter as self-consciousness.
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> The factual reason is that mobile organisms are goal-directed,[1] in the sense that they have targets at which their mental states and actions are directed, and they must self-regulate their mentation and actions to be successful in tracking and reaching their targets. Self-regulation is the work of mechanisms that distinguish events inside from events outside organisms (self-determination) and monitor, control and guide their relations to targets (self-guidance). The joint work of these two kinds of mechanisms provide an organism with a sense of self-to-target relatedness (self-intentionality) and its affordances. It is a sentient, subpersonal and unconscious sense that results from the work of specialized mechanisms, mostly perceptuomotor. (p. 3)

Insofar as I understand Bogdan's argument here, it seems to go as follows:

1. All consciousness is consciousness *of* or consciousness *that*.
2. Mobile organisms need to be conscious *of* their relation to things in the environment as well as (perhaps) conscious *that* they are related to things in their environment to be successful in tracking and reaching these things.
3. Consciousness *of* how one is related to things in one's environment as well as consciousness *that* one is related to things in one's environment are instances of extrovert self-consciousness.
4. Therefore, all consciousness is extrovert self-consciousness.

[1] A claim that certainly needs some qualification, for many mobile organism (e.g., tumbleweeds) are not goal-directed organism, and even many *self-moving* organism (e.g., plants or single cell organisms) are not goal-directed organisms in the sense that "they have targets at which their mental states and actions are directed" (p. 3).

This argument would seem to prove too much for Bogdan, since introvert self-consciousness is a type of consciousness, but it is not extrovert self-consciousness. Perhaps, then, he would want to restrict premise 1 to something like all perceptual consciousness (e.g., all conscious seeing and hearing) is consciousness *of* or consciousness *that*.

But there is a bigger concern here. Even with this restriction of premise 1, the conclusion doesn't follow. All that follows is that mobile organisms are sure to have extrovert self-consciousness. It doesn't follow that all of a mobile organism's perceptual consciousness is extrovert self-consciousness. And that's good, since cases of perceptual constancy seem to show that there are forms of perceptual consciousness that are not "consciousness of self-to-target relatedness." For example, when staring at my kitchen table, the tabletop from where I am standing looks (in one sense of 'looks') like a squashed rhombus. At least, that is the sort of shape that I would draw if I were to sketch how the tabletop looks to me from this angle. Psychologist call this the proximal mode of perception, since the percept changes with changes in the retinal image (proximal stimulation) as I move around the table. However, as I stand before the table, the tabletop also looks (in another sense of 'looks') perfectly square. Psychologists call this the distal mode of perception, since the percept remains constant through changes in my retinal image as I move round the table. Walking around the table thus changes my proximal mode of perceptual consciousness but not my distal mode of perceptual consciousness. I am perceptually conscious *of* a square tabletop and perceptually conscious *that* the tabletop is square, and what I am conscious of doesn't change as I change my relation to the table. Not only that but insofar as my perceptual state has veridicality conditions, it remains vertical throughout my change in relation to the table (provided that the tabletop remains square). Those are two good reasons for thinking that what I am conscious of in cases of the distal mode of perception are not self-to-target relations but 'self-independent' objects, properties, and states of affairs. Of course, this is not to deny that I may *also* be perceptually conscious of certain self-to-target relations in perceiving the tabletop, such as those self-to-tabletop relations I perceive in undergoing a proximal mode of perception of the tabletop or perhaps even certain Gibsonian affordances of the tabletop. But what Bogdan's argument apparently seeks to prove is not simply that *some* states of perceptual consciousness (of mobile creatures) are consciousness of "self-to-target relatedness" but that *all* perceptual consciousness (of mobile creatures) are. And, again, this stronger claim doesn't follow from the "factual reason" that Bogdan provides.

In sections 3 and 4, Bogdan offers an argument for the existence of a correlation between introvert self-consciousness and "higher-level executive abilities ... located in the prefrontal cortex" (p. 5). This correlation with higher brain functions is taken by Bogdan to support his conjecture that introvert self-consciousness is expected to be a late developing ability in children as well as a late evolved ability in the primate line. The argument for this correlation rest upon certain facts about blindsight and absent-minded driving. In such case, subjects are routinely interpreted as having some visual awareness of objects in their visual field (as evidence by their performance on certain tests or their ability to keeping their cars on the road) but lacking any consciousness of their states of visual awareness (as evidenced by their sincere avowals that they do not/did not see any objects). Bogdan writes:

> Since a blindsighter can engage the blind field successfully in movement and other actions, as does the absent-minded driver in relation to the road, we must assume that low-level executive abilities guide their actions unconsciously through visuomotor coordination as well as monitoring and control of movement. It appears then that a high-level executive machinery correlates with self-consciousness but a low-level one need not. I think the former correlation is deep, systematic and explains which minds can be self-conscious, at what level of mental complexity, and with what direction of target-relatedness (world, actions, minds, of others or one's own). (p. 5)

One apparent way to reconstruct the argument is as follows:

1. Blindsight subjects and absent-minded drivers do not have certain "high-level executive abilities" found in the prefrontal cortex, such as "means-end initiative," and neither do they have any introvert self-consciousness of their own visual awareness.
2. Therefore, the absence of introvert self-consciousness is correlated with the absence of higher-level executive abilities in the prefrontal cortex.

Of course, what is also missing from blindsight subjects and absent-minded drivers is extrovert self-consciousness. The blindsight subject, for example, is not only unconscious of her state of visual awareness of an object in her scotoma, she is also unconscious of her having any spatial or causal relation with the object, either. She isn't conscious, for example, of her sitting before an object that was just flashed on the screen inside her scotoma (although on tests, she is able to guess correctly what that object might have been). She is just as unconscious of her

spatial relation (sitting in front of) to such an object as she is of her mental relation (visual awareness) to it. Thus, it may be that what is causing the simultaneous absences of introvert self-consciousness and "higher-level executive abilities" in blindsight subjects and absent-minded drivers is the absence of a common cause – namely, extrovert self-consciousness. This is not, I take it, the "deep, systematic" explanation of the correlation between introvert self-consciousness and "higher-executive abilities" that Bogdan is looking to give. I take it that he wants to show that introvert self-consciousness is caused by, or perhaps is one and the same as, "higher-level executive abilities."

Finally, Bogdan claims that children do not have introvert self-consciousness (at least, not on a regular basis) until "after the age of 4" (p. 12) and that nonhuman primate are capable of only "extrovert self-consciousness" (p. 9). Both of these claims have been empirically challenged in the last few years. For instances, Henrike Moll and Andy Meltzoff (2011), as well as Atsushi Senju and colleagues (2011), have run studies that suggest that children much young than 4 are conscious of their own perceptual experiences and use their knowledge of their own perceptual experiences to understand the visual perceptive of another agent. And there has been a large amount of research on metacognition (thinking about thinking) in monkeys that suggests that these primates are capable of introvert self-consciousness (see Hampton 2001; Kornell et al. 2007; Shea & Heyes 2010). There are, of course, interpretations of the children and animal data here that do not credit these subjects with introvert self-consciousness. But any definitive claim that children younger than 4 or nonhuman primates do not have introverted self-consciousness must address the empirical data that is now accumulating which appears to challenge this claim.

References

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