

What Was I Thinking?

By NED BLOCK
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In "Self Comes to Mind," the eminent neurologist and neuroscientist Antonio Damasio gives an account of consciousness that might come naturally to a highly caffeinated professor in his study. He emphasizes wakefulness, self-awareness, reflection, rationality, "knowledge of one's own existence and of the existence of surroundings."

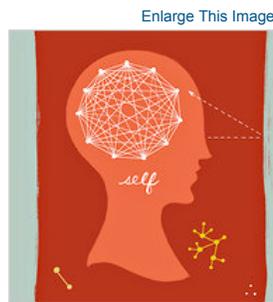


Illustration by Shannon May

That is certainly one kind of consciousness, what one might call self-consciousness. But there is also a different kind, as anyone who knows what it is like to have a headache, taste chocolate or see red can attest.

Self-consciousness is a sophisticated and perhaps uniquely human cognitive achievement. Phenomenal consciousness by contrast — what it is like to *experience* — is something we share with many animals. A person who is drunk or delirious or dreaming can be excruciatingly conscious without being wakeful, self-aware or aware of his surroundings.

The term "conscious" was first introduced into academic discourse by the Cambridge philosopher Ralph Cudworth in 1678, and by 1727, John Maxwell had distinguished five senses of the term. The ambiguity has not abated.

Damasio's distinctive contributions in "Self Comes to Mind" are an account of phenomenal consciousness, a conception of selfconsciousness and, most controversially,

a claim that phenomenal consciousness is dependent on self-consciousness.

Phenomenally conscious content — what distinguishes the experience of blue from the taste of chocolate — is, according to Damasio, a matter of associations that are processed in different brain areas at the same time. What makes a conscious state feel like something rather than nothing is explained as a fusion of mind and body in which neurons become "extensions of the flesh." Self-consciousness is the result of a procession of neural maps of inner and outer worlds. What's more, he argues, phenomenal consciousness depends on self-consciousness. Without a self, he writes, "the mind would lose its orientation. . . . One's thoughts would be freewheeling, unclaimed by an owner. . . . What would we look like? Well, we would look unconscious."

Even fish and lizards have a kind of minimal self, one that combines sensory integration with control of information processing and action. But Damasio's self is not minimal. It is inflated with self-awareness, reflection, rationality, deliberation and knowledge of one's existence and the existence of one's surroundings, and this is what he ends up arguing a - being needs in order to have phenomenal consciousness.

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SELF COMES TO MIND Constructing the Conscious Brain

By Antonio Damasio
367 pp. Pantheon. \$28.95

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You may have sensed that I think there is a problem with Damasio's emphasis on self-consciousness: indeed, "Self Comes to Mind" is mainly about self-consciousness rather than experiential phenomenal consciousness. And the book is not about geology or underwear or many other things either. So what?

I can explain the problem by a brief detour into a different book, "The Origins of Consciousness in the Breakdown of the Bicameral Mind" (1976), by the American psychologist Julian Jaynes. Jaynes held that consciousness was invented by the ancient Greeks between 1400 and 600 B.C. He argued that there was a dramatic appearance of introspection in large parts of the "Odyssey," as compared with large parts of the "Iliad," which he claimed were composed at least a hundred years earlier. The philosopher W. V. Quine once told me that he thought Jaynes might be on to something until he asked Jaynes what it was like to perceive before consciousness was invented. According to Quine, Jaynes said it was like nothing at all — exactly what it is like to be a table or a chair. Jaynes was denying that people had experiential phenomenal consciousness based on a claim about inflated self-consciousness.

Damasio also denies phenomenal consciousness because of the demand of a sophisticated self-consciousness. You may have noticed an exciting report a few years ago of a patient in a persistent vegetative state (defined behaviorally) studied by the neuroscientists Adrian Owen and Steven Laureys. On some trials, the two instructed the patient to imagine standing still on a tennis court swinging at a ball, and on others to visualize walking from room to room in her home. The patient, they found, showed the same imagistic brain activations (motor areas for tennis, spatial areas for exploring the house) as normally conscious people who were used as controls.

More such cases have since been discovered, and this year Owen and Laureys described a vegetative-state patient who was able to use the tennis/navigation alternation to give yes-or-no answers to five of six basic questions like "Is your father's name Alexander?" These results are strong evidence — though not proof — of phenomenal consciousness in some of those who showed no behavioral signs of it. But Damasio scoffs, saying that these results "can be parsimoniously interpreted in the context of the abundant evidence that mind processes operate nonconsciously." His skepticism appears to be grounded in the fact that these patients show no clear sign of self-consciousness and thus constitute a potential roadblock in front of his theory.

Damasio also stumbles over dreaming. In dreams, phenomenal consciousness can be very vivid even when the rational processes of self-consciousness are much diminished. Damasio describes dreams as "mind processes unassisted by consciousness." Recognizing that the reader will be puzzled by this claim, he describes dreaming as "paradoxical" since the mental processes in dreaming are "not guided by a regular, properly functioning self of the kind we deploy when we reflect and deliberate." But dreaming is paradoxical only if one has a model of phenomenal consciousness based on self-consciousness — on knowledge, rationality, reflection and wakefulness.

Contrary to Damasio's point of view, there is good evidence that vivid conscious experience may be antithetical to self-reflective activity. In one experiment, the Israeli neuroscientist Rafi Malach presented subjects with pictures and asked them to judge their own emotional reactions as positive, negative or neutral — a self-oriented, introspective task. He then presented different subjects with the same pictures and asked them to very quickly categorize the pictures as, for example, animals or not. Of course these subjects were seeing the pictures consciously, but Malach found that the brain circuits involved in scrutinizing self-reactions (as indicated by the emotional reaction task) were inhibited in the fast categorization task. Subjects also rated their self-awareness as high in the emotional reaction task and low in the fast categorization task. As Malach puts it, these results comport with "the strong intuitive sense we have of 'losing our selves' in a highly engaging sensory-motor act."

Damasio argues that a creature without sensory integration and control of thought and action would be unconscious. But even if that is true, it does not show that phenomenal consciousness requires self-awareness, reflection, wakefulness, or awareness of one's

existence or surroundings. This argument conflates the minimal self with the inflated self.

Is this discussion of any practical importance? Yes. Phenomenal consciousness is what makes pain bad in itself and pleasure good. Damasio's refusal to regard phenomenal consciousness (without the involvement of the inflated self) as real consciousness could be used to justify the brutalization of cows and chickens on the grounds that they are not self-conscious and therefore not conscious. Damasio, in response to those who have raised such criticisms in the past, declares that in fact he thinks it "highly likely" that animals do have consciousness. But this doesn't square with the demanding theory he advances in his book, on the basis of which he denies consciousness in dreams and in "vegetative state" patients who can answer questions. He owes us an explanation of why he thinks chickens are conscious even though dreamers and the question-answering patients are not.

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