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Taking Stock of Psychology

Breakthroughs that have enhanced our understanding of how we think and feel.

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The human brain contains at least 86 billion neurons. Each brain neuron, on average, connects with 7,000 other neurons. Little wonder, then, that scientists often compare the brain to a supercomputer. That said, psychologists and neuroscientists are just beginning to understand how the brain regulates sensations, movement, memory, emotions, and cognition.

Source: Pixabay
In *Our Minds, Ourselves*, Keith Oatley, an emeritus professor of psychology at the University of Toronto, provides an informative survey of breakthroughs that have enhanced our understanding of how we think and feel. Oatley draws on the relationships between psychology and other disciplines, including biology, sociology, anthropology, linguistics, literature, and computer science. He puts special emphasis on the development of cooperation, a behavior that, along with language, distinguishes human beings from other species.

Aimed at a general audience, *Our Minds, Ourselves* rounds up the usual suspects. With his metaphor of the cave, Oatley reminds us, Plato claimed that human beings often project their beliefs on the shadows they see. 2,000 years later, Charles Darwin founded the psychology of emotions, some of which derived from evolution. Oatley also analyzes the work of iconic 20th century researchers, including B.F. Skinner’s behaviorist learning-by-reinforcement, Stanley Milgram’s study of obedience, and John Bowlby’s theory of attachment.

Along with way, Oatley debunks popular myths. He emphasizes that memory is malleable; influenced by how interrogators pose questions, eyewitness testimony is often unreliable. Depression tends to set in, Oatley reveals, when something goes wrong in people’s lives. Countries with greater income inequality and more adverse events in childhood have higher rates of mental illness. Only after one or more episodes of depression, do changes seem to occur in the brain. Cognitive behavior therapy, Oatley maintains, is more effective than drugs in treating depression, and reducing the likelihood of a relapse.

Most surprising, perhaps, are the conclusions based on studies of transcranial stimulation and fMRI changes when individuals read fiction. “To understand and imagine,” Oatley points out, “we use parts of our brain we would use if we ourselves would act in a way that is verbally suggested.” A recent experiment on empathy, which arranged that each participant could see her partner and then applied an electric shock to the back of the hand, found that brain activation occurred when a loved one received pain. This research, Oatley suggests, casts doubt on the view that human beings act only in their self-interest.

Inevitably, *Our Minds, Ourselves* leaves some big questions unresolved. Committed to the “us with our loved ones, us who hang out with friends, us who work with colleagues” better angels of our nature hypothesis, Oatley acknowledges but does not pay sufficient attention to the “us versus them” proclivities of our species. He maintains that “the path of psychology” concerning the unconscious is about “truths we can discover and reflect upon of the worlds we know as human beings” – but does not define that elusive term, “truth.”

And as Oatley claims we have the free will to “choose, to make plans, to relate to others in cooperation and in kindness, even when self-interest or social pressures might prompt us otherwise,” he does not explain how we can choose to act responsibly, “even when we may not want to.” Or refute the claim made by Jonathan Edwards, the Puritan theologian, almost four hundred years ago, that human beings can will what they choose (i.e. having decided to kill a person, they can make themselves pull the trigger), but they do not have the ability “to choose what they choose.”
Although he apparently does not share Edwards’ belief in an omnipotent God, Oatley admits that because of environmental and genetic constraints “some people don’t seem to have much free will.” He concludes with his own expression of faith: “Perhaps, as a species, we humans have not yet had much time to cultivate, in societies and in ourselves, the ecological niches that might best enable both cooperation and free will.”

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