

SCIENCE + TECHNOLOGY

UCLA neuroscientist's book explains why social connection is as important as food and shelter

Stuart Wolpert | October 10, 2013



Facebook and gossip might seem like a waste of time, but they actually serve a basic human need.

A growing body of research shows that the need to connect socially with others is as basic as our need for food, water and shelter, writes UCLA professor Matthew Lieberman in his first book, "[Social: Why Our Brains Are Wired to Connect](#)," published this week by Crown Publishers.

"Being socially connected is our brain's lifelong passion," said Lieberman, a professor of psychology in the UCLA College of Letters and Science and a professor of psychiatry and biobehavioral science at UCLA's Semel Institute for Neuroscience and Human Behavior. "It's been baked into our operating system for tens of millions of years."

Lieberman is one of the founders of social cognitive neuroscience, a discipline that analyzes how brain function underlies social thinking and social behavior. In "Social," he explains that our predisposition to be social may explain our need to interact through social media, iPhones and gossip, as well as why people are interested in watching others' social interactions on soap operas and reality television, for example.

The book, which cites more than 1,000 published and unpublished studies, is the story of how 250 million years of evolution have produced major differences in the brain that distinguish us from our ancestors. That evolution ultimately has made today's humans "more connected to the social world and more dependent on the social world," according to the book.

"Mammals are more socially connected than reptiles, primates more than other mammals, and humans more than other primates," Lieberman said. "What this suggests is that becoming more socially connected is essential to our survival. In a sense, evolution has made bets at each step that the best way to make us more successful is to make us more social."

Lieberman suggests that our institutions — from schools and sports teams to the military and health

care institutions — would perform better if they were structured with an understanding of our social nature.

"Some day, we will look back and wonder how we ever had lives, work and schools that weren't guided by the principles of the social brain," he writes.

For example, Lieberman explains that middle school education could be dramatically improved by tapping the brain's social potential. The book notes that U.S. students' interest in school tends to wane when they reach the seventh and eighth grades — an age when humans become extremely social.

"But our school system says to turn off that social brain," Lieberman said. "We typically don't teach history by asking what Napoleon was thinking; we teach about territorial boundaries and make it as non-social as possible. Too often we take away what makes information learnable and memorable and emphasize chronology while leaving out the motivations.

"Eighth graders' brains want to understand the social world and the minds of other people. We can tap into what middle school students are biologically predisposed to learn, and we can do this to improve instruction in history and English, and even math and science."

Research also suggests that students are more likely to remember information when they take it in socially. Schools could apply that lesson by having older students tutor younger ones.

"If you have an eighth grader teach a sixth grader, the eighth grader's motivation is social: to help this other student and not embarrass himself," Lieberman said. "Getting everyone to be both teacher and learner would create enthusiasm for learning."

In the book, Lieberman also suggests that business leaders might benefit from understanding people's social motivations. Studies by other researchers have shown that feeling liked and respected in the workplace activate the brain's reward system in the same way that financial compensation does—and that social rewards might be at least as effective as money in motivating workers. And a study by Lieberman demonstrated that people were usually willing to return money that had been given to them if it meant that others would write kind words about them.

The book also describes a study of 60,000 leaders which found that less than 5 percent excel at both achieving important results and building social relationships. "Not many people effectively combine the two," Lieberman said.

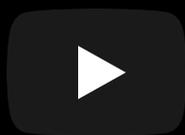
"Social" also gives real-life context for research by Lieberman and colleagues that used functional magnetic resonance imaging (fMRI) to show that neural mechanisms make us profoundly social beings.

The importance of social connection is so strong, he writes, that when we are rejected or experience other social "pain," our brains "hurt" in the same way they do when we feel physical pain.

"Social and physical pain are more similar than we imagine," Lieberman said. "We don't expect someone with a broken leg to 'just get over it.' Yet when it comes to the pain of social loss, this is a common — and mistaken — response."

Our social nature is so powerful that it even may dictate how effective we are in developing new innovations and producing major societal changes. "We're wired to see things and think, 'How can I use this to help other people that I know?'" Lieberman said. "I can have the most brilliant idea for an invention, but if I can't convey that to other people in a way that they'll help me build it and market it to other people, it's just an idea in my head. If we're not socially connected, even great ideas wither."

Watch Lieberman's September 2013 TEDx talk on the social brain:



To learn more about Lieberman's work, follow him on Twitter at [@social_brains](https://twitter.com/social_brains).

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