

Why Neuroscience Matters to Executives

by David Rock and Jeffrey Schwartz

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The latest research on how the brain works unearths fresh insights into effective leadership.

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New findings about the physiology of the human brain are reshaping traditional views of organizational structure and behavior. Last year, we explored this emerging body of knowledge in “The Neuroscience of Leadership,” published in the Summer 2006 issue of strategy+business and then discussed in an s+b online seminar. The response to the seminar was so enthusiastic that there wasn’t enough time to address all of the audience questions. Here, we take on some of the unanswered queries.

How can recent developments in neuroscience be applied to organizational management? One of the biggest challenges organizations encounter is how to thrive when faced with constant, disruptive change. The study of neuroscience has provided us with a deeper understanding of why people find change so unsettling. It offers valuable insight into the way people approach new tasks or manage upheaval and helps us understand how the human brain utilizes mental resources to deal with ambiguity, resolve conflict, or find creative solutions to complex problems. Neuroscience can help organizations become more effective in how they manage change, which should increase organizational productivity and employee satisfaction.

The more we understand the phenomenon of change, the more effectively we can manage it.

Neuroscience shows us why some common practices work well, such as allowing people to take ownership of a new initiative. It also explains why some don’t succeed. For example, using threats or incentives to implement organizational change is rarely sustainable. No other field is exploring the physical science involved in these kinds of issues.

Do these lessons pertain to all types of organizational interaction? Yes, all types. Leadership, management, peer-to-peer support, even managing up. We are exploring the physiology of the brain and its effect on each of these relationships; specifically, which portions of the brain are utilized when people set objectives, give feedback to one another, develop strategies, or make decisions about how to attract and retain talent.

Is there research that indicates the most effective way to introduce change in an organization? Although there is no applied research that has directly tested different approaches, neuroscience has identified the building blocks needed for successful change, and even the order in which these blocks should be put in place.

The first and most important step is to get people’s undivided attention. The portion of the brain dedicated to learning and comprehension, the prefrontal cortex, requires concentration to process new information. Most people have the mental capacity to focus on only one

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new idea at a time. Therefore, it's imperative that leaders find ways to get employees out of their daily routine — for example, at an off-site meeting with no computers or other distractions — to encourage them to focus on the information being presented. What matters most is the quality and quantity of attention paid to a new idea.

Once leaders have created an environment that enables them to command an employee's complete attention, the second step is to create a compelling vision of what will occur when their new idea has been implemented. Cognitive scientists are finding that people's expectations and attitudes, known as *mental maps*, play a central role in their perception of the world around them. To facilitate change, leaders must encourage moments of insight that allow people to change their attitudes and expectations. These moments can occur at training programs or at other venues where new information is being presented, and they are of critical importance. During the moment of insight, cognitive scientists believe, the brain is undergoing a complex set of new neural connections that can help the brain enhance its mental resources and overcome resistance to change.

Finally, leaders must find ways to keep people's attention focused on the change. It's not enough to introduce a vision once and expect others to internalize it. Keeping a group of people focused on a major change requires bringing the change into their consciousness on a regular basis — not once a month or once a week, but every day, so that eventually the new vision becomes a filter through which every decision is made. Constant attention focused on a specific mental experience keeps relevant circuitry in the brain open and alive, which, over time, leads to physical changes in the brain's structure. In other words, people who focus on a specific task can lit-

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erally teach themselves to think differently over time.

You emphasize the importance of focusing attention. What role can meditation play? Regular sustained attention — which is what meditation is, after all — can change one's neural circuitry. Meditation helps the brain overcome the urge to automatically respond to external events; that kind of focus is a very important skill. Great leaders have the capacity to consider the context surrounding external events before reacting to them. Responding thoughtfully to external events, rather than saying what first comes to mind, prevents leaders from responding in a way they may later regret. This ability to remain cool and rational under pressure is what the great economist Adam Smith called the “impartial spectator” perspective. It's also known as self-awareness. Meditation is one way to build this impartial spectator, but it can also be developed in everyday life, for example, by paying attention to the relationship between how we feel and what we do.

Another important idea is the concept of a quiet mind. A noisy mind can develop when the brain is overstimulated. Emotions such as fear or anxiety can also contribute to the noise by increasing stress levels. Too much stress arouses the amygdala, a structure that is closely connected to the brain's fear circuitry. We all know the feeling of being upset by something at work, then not being able to concentrate for the remainder of the day. In short, a person's capacity to use his or her prefrontal cortex, also known as the working memory, can be impaired under conditions of peak stress, fear, or anxiety. This can result in a decreased ability to make rational comparisons among competing objectives.

Using one's impartial spectator perspective seems to enhance the functioning of the prefrontal cortex — the

area that processes new information and is most involved in rational, clear thought — and allows it to inhibit the amygdala and any associated anxiety. In other words, utilizing the impartial spectator perspective can help quiet the brain. This, in turn, allows the brain to be more efficient at recognizing and processing external events. +

Resources

John J. Ratey, *A User's Guide to the Brain: Perception, Attention, and the Four Theaters of the Brain* (Vintage, 2002): Readable summary of current thinking about the biology of thought, change, and learning. www.amazon.com/dp/0375701079

David Rock, *Quiet Leadership: Six Steps to Transforming Performance at Work* (Collins, 2006): One of this article's authors on the essentials of coaching. <http://www.amazon.com/dp/0060835907>

David Rock and Jeffrey Schwartz, "The Neuroscience of Leadership," *s+b*, Summer 2006: Advances in brain research can help organizations successfully adapt to change. www.strategy-business.com/article/06207

Jeffrey Schwartz, *Brain Lock: Free Yourself from Obsessive-Compulsive Behavior* (Regan Books, 1997): OCD function and cure illuminate many leadership issues. www.amazon.com/dp/0060987111

Jeffrey Schwartz and Sharon Begley, *The Mind and the Brain: Neuroplasticity and the Power of Mental Force* (Regan Books, 2002): Rewiring connections, and the underlying neuroscience. www.amazon.com/dp/0060393556

The First Global NeuroLeadership Summit Web site: Information about the inaugural conference led by the authors of this article, to be held May 14–16, 2007, in Asolo, Italy. www.neuroleadership.org/

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