



Managing in 2010: Teaching Old Dogs New Tricks

The old adage, "You can't teach an old dog new tricks," is being turned upside-down. It used to be believed that the brain not only didn't change, but deteriorated with age. But new research is proving that humans continue to form new brain cells and build new neural connections throughout their lives. The brain is elastic, "You can teach an old dog new tricks." So what does the new science of neuroplasticity have to do with managing an organization?

At UCLA, researchers designed a computer game called Cyberball. The game is played while the human player is connected to a functional magnetic resonance imaging (fMRI) machine. In a replication of playground bullying, the computer players stop including the human player about half-way through a session.

The results, published in *Science*, found that even though the opponents were computer players, the human player felt angry, left out, or rejected. The imaging results showed activity in the neural region that is also activated by physical pain and suffering. The people who were felt the angriest and rejected had the highest levels of activity in this area. Other studies show that being hungry and being left-out activate related neural circuits.

From this study and others in the last decade, scientists are hypothesizing that human beings have a brain that is physiologically shaped by social interaction. As UCLA's Lieberman says, "Most processes operating in the background when your brain is at rest are involved in thinking about other people and yourself." This rearranges Maslow's hierarchy which ranks survival needs at the bottom, social in the center, and self-actualization at the top. The new thinking puts social connection at the bottom along with food and shelter, all necessary for survival.

How does this impact managing the workplace? In the past, the workplace was viewed as transactional: employees did work in exchange for pay. Managers made decisions and gave direction. But the research demonstrates that the human brain sees the workplace first as a social system. Like the human players in the game, people can experience anger and rejection at work. This happens when they are given negative feedback, not invited to participate in a team, assigned a task for which they're overqualified, see unfairness, or asked to take a cut in benefits or pay. To the brain, these experiences are like being punched in the mouth or going hungry and are reflected in the activation of threat and pain related neural circuits.

The response changes the brain. The response uses up oxygen and glucose as blood is diverted from parts of the brain where working memory resides. It impairs the person's ability to think effectively, to solve problems, and to be creative. Most employees learn to hide their reactions or shrug their shoulders and get on with it. But these same employees will begin to limit their commitment to the workplace and may give their best energy and ideas somewhere else.

This research has broad implications for how organizations are structured, communication happens, information is exchanged, and reward and benefits are structured. What are a few ideas that managers can use to avoid activating a threat response and activate a reward response? I propose the following as a short list for managers:

- Choose your body language and words carefully. Observe how different patterns deliver different results. As a manager and leader, you're always on stage.
- Clearly communicate not only expectations, but priorities. Do this as often as necessary to maintain clarity in the organization.
- Be flexible, whenever possible, letting employees make their own decisions.
- Support employees' ideas for building good workplace relationships.
- Act with fairness, which can be increased by greater transparency, clear ground rules, and well explained objectives.

What is being learned in neuroscience about how we behave and relate to each other, creates a great advantage: there is now data backing the ideas that have been put forth in the past two decades about social and emotional intelligence. As managers and employees we have the opportunity to put that knowledge to use in successfully developing our organizations. We can all learn new tricks.

Eisenberger, M., Lieberman, M., & Williams, K.D. 2009. "The Pains and Pleasures of Social Life." *Science*, 323, 890-891.

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