HOW OUR BRAINS DECIDE WHEN TO TRUST

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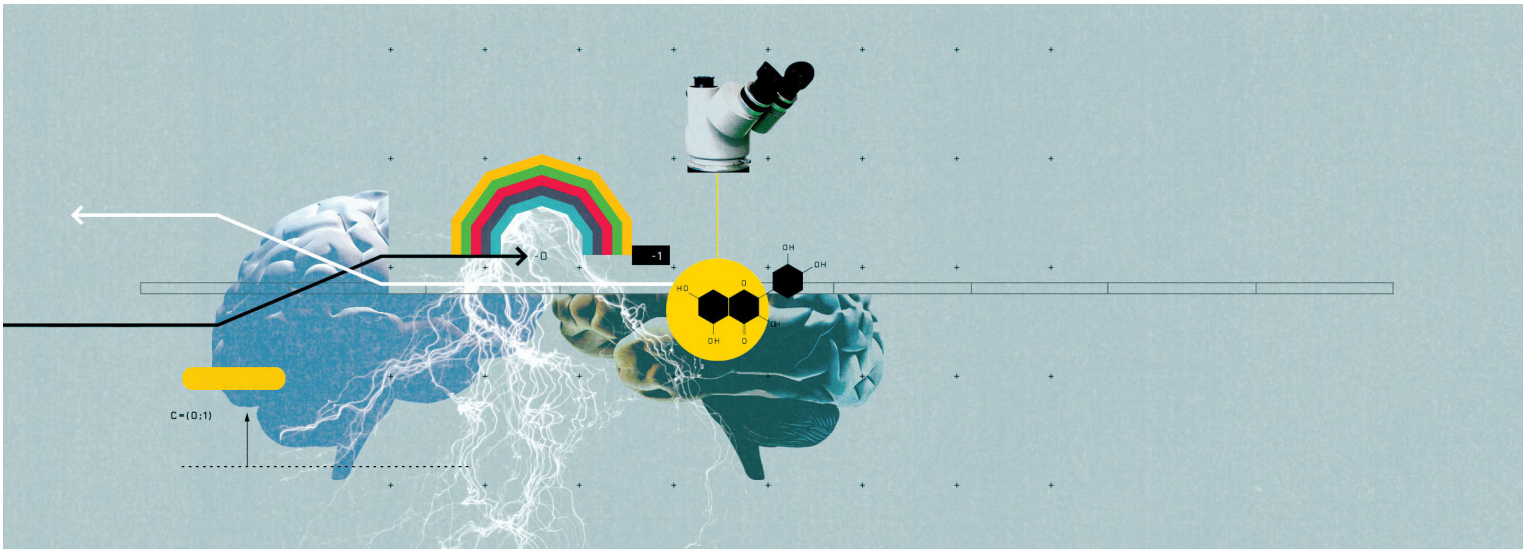

Trust is the enabler of global business — without it, most market transactions would be impossible. It is also a hallmark of high-performing organizations. Employees in high-trust companies are more productive, are more satisfied with their jobs, put in greater discretionary effort, are less likely to search for new jobs, and even are healthier than those working in low-trust companies. Businesses that build trust among their customers are rewarded with greater loyalty and higher sales. And negotiators who build trust with each other are more likely to find value-creating deals.

Despite the primacy of trust in commerce, its neurobiological underpinnings were not well understood until recently. Over the past 20 years, research has revealed why we trust strangers, which leadership behaviors lead to the breakdown of trust, and how insights from neuroscience can help colleagues build trust with each other — and help boost a company's bottom line.

THE BIOLOGY OF TRUST

Human brains have two neurological idiosyncrasies that allow us to trust and collaborate with people outside our immediate social group (something no other animal is capable of doing). The first involves our hypertrophied cortex, the brain's outer surface, where insight, planning, and abstract thought largely occur.

Parts of the cortex let us do an amazing trick: transport ourselves into someone else's mind. Called *theory of mind* by psychologists, it's essentially our ability to think, "If I were her, I would do *this*." It lets us forecast others' actions so that we can coordinate our behavior with theirs.

The second idiosyncrasy is empathy, our ability to share people's emotions. Copious research, initially out of my lab and replicated by others, shows that empathy is enhanced when the brain releases the neurochemical oxytocin. Humans have a high density of oxytocin receptors in the frontal cortex — higher than any other animal — which means our social nature is anatomically inscribed in our brains. As a result, we absorb social information and understand others' motivations with unconscious ease.

Oxytocin has two other primary effects on human beings. First, it reduces the anxiety we naturally have when around other people. Second, it motivates us to cooperate with and help each other. That's because oxytocin also modulates dopamine, the brain's "do this more" reinforcement chemical. Dopamine makes it feel good to collaborate and connect with others, which means that working together is something we evolved to enjoy.

To trust someone, especially someone unfamiliar to us, our brains build a model of what the person is likely to do and why. In other words, we use both theory of mind and empathy during every collaborative endeavor. And the other person intuitively does this about us, too. That means humans are constantly engaged in a two-sided trust game: *Should I trust you?* and *How much do you trust me?*

At work the trust game has an additional factor, which is the example set by leaders. As social creatures, we naturally follow leaders and model our behavior on theirs. The influence they have means they can easily sabotage trust in two key ways: by stoking fear and wielding dominance.

FEAR AND DOMINATION

Fear is a great motivator in the short term but a poor one in the long term. If your boss occasionally pressures you on a deadline, it can push you to get the work done on time. However, if you know your boss will berate, threaten, or punish you no matter what, it ceases to affect your performance. This leads to *learned helplessness*: Employees cannot control or predict the boss's tirades, so they avoid the fearmonger whenever possible and stay invisible by doing the minimum.

Dominant behavior, on the other hand, literally hurts the people who are targeted. When the boss struts around and mistreats underlings, not only are people demotivated now, but the effects are lasting. Neuroscience studies have shown that humans process social rejection in the brain's pain matrix, and the signature of social pain lasts even longer than that of physical pain, such as a punch in the gut. Dominant behavior also leads to stress, which, by inhibiting the brain's production of oxytocin, reduces the desire to work with others and put in discretionary effort to further the organization's goals.

While it is easy to blame aggressive behavior on a boss's personality, science shows that when people are the center of attention, their testosterone rises — and this is true of both men and women. Even a relatively calm, cerebral situation — winning a chess match, for example — increases testosterone, so imagine the hormonal surge when the boss closes a multimillion-dollar deal. To study these kinds of effects, my lab administered synthetic testosterone to participants in order to turn them into alpha males. We found that, when participants were alphas, they demanded more from and gave less to others than they did when on a placebo. They also greatly exaggerated their abilities and were quick to punish those who crossed them.

Why did they act this way? High testosterone convinces the brain that others find you desirable and socially powerful. It also inhibits the brain's release of oxytocin, reducing empathy and the desire to collaborate. What's more, testosterone's aggression is contagious, inhibiting oxytocin and trust in team members. Dominant behaviors are particularly acute in men, who have five to 10 times more testosterone than women, but they arise in female leaders as well. While I'm not suggesting that a leader's natural rise in testosterone is necessarily bad, or that you should get yours checked as part of your leadership development, it is worth recognizing that testosterone can produce inappropriate work behaviors. The solution? Resist impulsive actions by taking a breath and considering the implications of what you are about to say or do.

THE POWER OF HABITS

Understanding how trust breaks down is important. But how can you actively build it up at your organization? The first step is to measure how much there is.

Survey team members using this question: "On a scale from 1 to 7, how much do you enjoy your job on a typical day?" The question gets at the oxytocin-dopamine interaction that makes it satisfying to work on a trusted team. If you get back 5s and 6s, you have an effective culture. If you see 2s and 3s, you need a culture reboot.

To get a more refined snapshot of trust in your organization, you can use the free survey my team developed. (Disclosure: I licensed a commercial version to Envisia Learning and have a profit-sharing agreement for it.) The survey quantifies the eight behaviors that are the foundation of organizational trust.

Once you have a clear sense of how trust operates in your organization, and how much of it you have, you can work on increasing it. Among the brain's most effective tools for doing so is habit building. Habits, which are behaviors associated with the activation of the brain's default pathways, help the brain save energy. My approach to building trust exploits this neurologic need to activate preferred brain networks; it takes at least 90 days to change a habit, but then the new habit becomes the brain's default response. By increasing trust between you and your colleagues, you can also build the habits that let you quickly establish trust with clients. These habits will make your team more productive and signal your trustworthiness to clients, a neurologic win-win.

A retailer I recently worked with had an underperforming division. Morale and productivity were low and turnover was high. Managers recognized that the division's culture had frictions that were holding back improvement.

We suspected trust was a factor in the division's problems, so company leadership used the survey I developed to measure the eight behaviors that form the foundation of organizational trust. Sixty-five employees took the survey, and the results confirmed that trust was low. Specifically, scores were the lowest on a behavior that I call "Natural": colleagues' ability to be authentic and vulnerable at work. The employees scored in the 62nd percentile; the U.S. benchmark is the 70th.

I worked with a training company to create an intervention that would raise Natural over the next 90 days. For the first 10 days, employees were sent a series of short videos that explained the science of Natural and then asked them to take an action that would bolster it. For example, employees were asked to convene a meeting to discuss a mistake they had made in the last month, or to commit to spending one day a month in a customer-facing job. After the 10 videos, employees were emailed a question each week that prompted them to evaluate how much their colleagues were practicing the behaviors associated with Natural. The questions, delivered every Monday for two and a half months, were small nudges meant to remind employees that the division was trying to establish new habits that increased Natural.

After the intervention ended, we waited an additional two months to determine if the change had stuck. It had: Employees with a favorable view of Natural had increased from the 62nd percentile to the 81st. In addition, there was a positive and significant correlation between organizational trust and job retention; prior to the intervention there had been no relationship between them.

THE BOTTOM LINE

Trust is an essential ingredient for effective leadership and teamwork, great customer service, and achieving satisfaction from one's work. The payoff goes to both the top and bottom lines.

A recent study by my lab shows how trust directly drives sales. We obtained permission from two luxury clothing stores in California to have their staff wear sensors that measure the physiologic effects of oxytocin release in the brain. Research shows that oxytocin release can be reciprocal — if our interaction causes your brain to make oxytocin, it will typically do the same for mine — so we hypothesized that oxytocin release in salespeople would predict increased trust in customers. (Customers were not asked to wear sensors because we didn't want to interrupt the shopping experience.) We expected increased trust to predict which customers would make a purchase and how much they would spend.

A combination of neural measures that we call "immersion," which measures attention and oxytocin release, predicted with 69% accuracy who made a purchase and who walked out empty-handed. When we added in the length of time the customer spent in the store, predictive accuracy rose to 84%. Most important, the amount a customer spent increased linearly with immersion. Our hypothesis was correct: Trust was contagious and directly increased how much shoppers spent.

Two decades of research shows that leaders can boost performance by understanding exactly why we do (or don't) trust the people we work with. Trusting one another is something human beings do naturally. It activates brain systems that motivate teamwork, which, in the best case, makes work feel like play. | **THE BIG IDEA**

About the author: ***Paul J. Zak*** is the founding director of the Center for Neuroeconomics Studies and a professor of economics, psychology, and management at Claremont Graduate University, and the CEO of Immersion Neuroscience. He is the author of *Trust Factor: The Science of Creating High-Performance Companies*.