

Something's fishy

Scientists are finding that distrust can alter our behavior in unexpected ways.

BY KIRSTEN WEIR

You open an email containing an unfamiliar link. If the email is from a friend, chances are you'll open it. But if it's from a stranger, you'll probably assume it's a virus or, at best, annoying spam.

Our most basic everyday decisions rely on trust. When you make a purchase, you trust the store clerk not to steal your credit card number. When you're on the road, you trust other drivers to stop at red lights.

On the other hand, there are plenty of reasons to be distrustful, says Ruth Mayo, PhD, a psychologist at the Hebrew University in Jerusalem. If a stranger offers you a ride home, you don't eagerly jump in the car. "Trust depends on the situation we're in, and luckily our mind is very flexible," she says.

As scientists study this essential facet of our lives, they're learning that trust — and its skeptical stepsister distrust — can influence our behavior and cognition in ways good, bad and surprising.

Have less, trust more

Most people equate trust with integrity, says David DeSteno, PhD, a social psychologist at Northeastern University and author of the upcoming book "The Truth About Trust." While that's certainly a critical part of trustworthiness, he says, there is another component that's often forgotten: competency. "You might trust a friend implicitly with money or secrets. But if you needed someone to do brain surgery, would you trust this person?" he asks. Unless she'd been to medical school, probably not.

At its essence, trust is about opening yourself to others. "The heart of trust is vulnerability. There's something that you need to acquire or achieve, and you need help to do it," he says. "But by accepting that help, you make yourself vulnerable."

That position of weakness is precisely what allows society to function, says Paul Piff, PhD, a social psychologist at the University of California, Berkeley. "Trust is a critical thread in the social fabric," says Piff, who has studied how wealth affects prosocial behaviors such as compassion, generosity and trust. He's found that the more a person has, the less trusting he or she becomes.

In one such study, Piff recruited men and women across the country to complete a survey for a chance to win points that could earn them a monetary reward. The volunteers then played an online game with an unknown partner. Trusting that partner could result in the player earning more points and potentially more money. But there was a risk that trusting the mystery stranger could backfire, and the player could go home empty-handed.

Piff and his colleagues found that participants with lower socioeconomic status were more trusting than their wealthier counterparts, regardless of age or ethnicity (*Journal of Personality and Social Psychology*, 2010).

As it turns out, wealthier people aren't only less trusting; they may also be less trustworthy. In a related study, Piff found that upper-class individuals were more likely than people with low incomes to lie, cheat and take valued goods from others (*PNAS*, 2012).

That may be because as people accumulate wealth, they focus more on their own goals. Along the way, their need for

social relationships — and the trust that goes along with those relationships — dwindles, Piff explains. "Trust is something that emerges between people when cooperation and collaboration are critical," he says.

Trustworthiness even appears to be written in our genes. Previous research has shown that people tend to behave in more prosocial ways when they have two copies of a gene variation involved in processing oxytocin, the so-called "love hormone" that regulates bonding and maternal behavior.

To find out how that genetic signature might affect behavior, and whether outside observers can pick up on such behavior, Aleksandr Kogan, PhD, of the University of Cambridge, and colleagues showed observers silent 20-second video clips of people listening to their (off-screen) lovers describe a painful personal experience. Then the observers rated the video subjects on kindness, compassion and trustworthiness. The observers judged people who had two copies of the genetic variation to be among the most trustworthy — and trusted those with the opposite genetic signature the least (*PNAS*, 2011).

A face you can trust

Other researchers have tried to parse the signals people send that broadcast their trustworthiness. Nikolaas Oosterhof, PhD, at Dartmouth University, and Alexander Todorov, PhD, at Princeton University, have studied how people make snap judgments from faces alone. They've found people perceive an upturned mouth and wide eyes as signaling trustworthiness, while a downturned mouth and eyebrows angled down at the center telegraph unreliability (*PNAS*, 2008).

DeSteno has studied the nonverbal behaviors that indicate whether a person can be trusted. First, he discovered that people more accurately judged the trustworthiness of a partner in an economic game if they could see the other player, suggesting that they were picking up on some kind of behavioral cues.

Setting out to identify those cues, he found that single actions weren't terribly predictive. "If someone is leaning away, is it because they are distancing themselves from you, or does their back hurt? You can't really tell when it's one cue," he says. But he found that a set of four cues together — leaning away, crossing the arms, touching the face and fidgeting with the hands — advertised untrustworthiness. The more often people performed this set of actions, he found, the less trustworthy their behavior was.

However, DeSteno wanted to be sure



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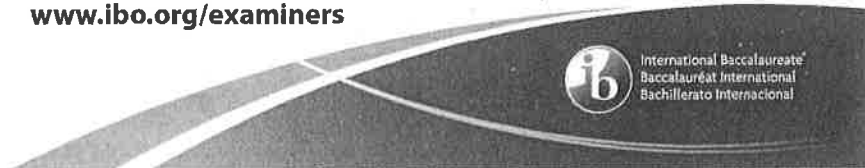
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that these were the behaviors that people picked up on when judging whether or not to trust a partner; after all, they could have been reading other subtle cues that he wasn't aware of. So, with colleagues at the Massachusetts Institute of Technology and Cornell University, he tested the behaviors using a robot programmed to perform humanlike actions. Sure enough, people perceived the robot as less trustworthy (though not less likable) when it leaned away, fidgeted, crossed its arms and touched its face (*Psychological Science*, 2012).

Changing the routine

If trust is crucial to our social interactions, distrust is just as vital. Even in polite society, ulterior motives and sketchy behaviors abound — and detecting them can be critical. “Trust is a default, but it’s a very weak default,” says DeSteno.

Mayo and colleagues at the Hebrew University have studied how distrust affects our cognition. Turns out, skepticism can flip our thoughts upside-down. Trust inspires a sense of safety, so when we’re trusting, we feel free to go about our usual activities, she explains. But distrust upsets our routine. “When we don’t trust, we don’t go with the flow,” she says.

To demonstrate this effect, Mayo and colleagues used photos of faces that most people judge to be trustworthy (with round eyes) or not (narrow eyes). They reinforced this perception among volunteers by presenting a series of narrow-eyed faces with false statements, and round-eyed faces with true statements. After being primed for trust, the volunteers more easily made associations that were harmonious — the word *dark*, for example, triggered the word *night*. But after being primed with distrust, people were more likely to make incongruent associations, such as *dark* with *light* (*Journal of Personality and Social Psychology*, 2004). In a similar experiment, participants primed with feelings of trust were more successful at solving routine math problems, while those primed with distrust were better at finding solutions to more out-of-the-box problems (*Journal of Experimental Social Psychology*, 2008). “When you’re less trusting you think in a critical way,” she says.

More recently, Mayo has continued this line of research using other methods of triggering skepticism. In one not-yet-published study, volunteers read either a neutral article about raising pigeons, or an essay designed to inspire distrust about government activities. Both groups saw pop-up ads for a popular diaper as they scrolled through the articles. Later, when asked to answer questions about consumer products, those who read the government criticism were more likely to name a competing diaper brand, not the one they had seen ads for, Mayo says. “In a distrust situation, people think of alternatives.”

This non-routine thinking may extend even to deeply held stereotypes, according to research by Ann-Christin Posten and Thomas Mussweiler, PhD, at the University of Cologne in Germany. To avoid relying on a single method, the researchers primed their participants to be trusting or distrusting using three approaches. One group viewed subliminal messages, a

second completed a scrambled-sentences task in which the sentences contained words associated with trust or distrust, and a third engaged in a two-player economic game with either a truthful or a deceptive partner. In all three cases, the participants who were guided toward distrust were less likely to resort to gender and ethnic stereotypes when judging other people (*Journal of Personality and Social Psychology*, 2013).

“Distrust signals that something is not as it appears, there’s misleading information around and we should be especially sensitive to information that deviates from the normal,” Posten says. “Trust comes with a lot of benefits, so I wouldn’t want to suggest that people should be distrustful. But there might be some benefit.”

After all, distrust can protect your computer from a malicious virus, inspire creative thinking and help you move past typecasting — all good things. That’s not to say you should subscribe to every conspiracy theory. But a little healthy skepticism can go a long way. ■

Kirsten Weir is a writer in Minneapolis.

Trust may increase as we age

Wish you had more faith in others? If you’re young, sit tight. A new fMRI study found that the tendency to trust increases from adolescence to adulthood as activity ramps up in brain regions associated with understanding the mental states of ourselves and others (*Social Cognitive and Affective Neuroscience*, 2013).

But even if your teenage years are behind you, you can boost trust with positive emotions. Northeastern University’s David DeSteno, PhD, found that people who played economic games in the lab tended to behave in slightly untrustworthy ways to maximize their monetary gain. But if they were made to feel a sense of gratitude before the game, they were less likely to cheat (*Emotion*, 2010).

Paul Piff, PhD, of the University of California, Berkeley, has begun exploring the link between trust and another positive emotion: awe. In not-yet-published work, Piff found that when people have an experience that inspires awe — something that makes them feel small, but part of something bigger — they become more communal, more cooperative and more trusting of others. So, go see the Grand Canyon, take in a symphony, visit the Sistine Chapel. Just hope you don’t run into any con artists on the way home.

— KIRSTEN WEIR