

A test of trust

THE RESULTS OF TWO RECENT STUDIES suggest that researchers may have identified a biological basis of trusting behavior. Researchers from the University of Zurich and Claremont Graduate University in California administered either oxytocin, a hormone involved in nurturing behavior and social attachment, or a placebo to study participants. These participants, all male college students, then played a game where they assumed the role of either a monetary investor or a trustee. The rules of the game dictated that the more money investors shared with their trustee, the more they could receive in return. But they were also taking the risk that the trustee would abuse their trust and give them little to no return on their investment.

Previous research has shown that humans don't like to place this kind of trust in others, especially strangers. But in this new study, investors who received oxytocin before the interaction displayed more trusting behavior than investors who had received the placebo, transferring larger amounts of money to their trustees. What's more, oxytocin did not affect the amount of money trustees gave back to investors, suggesting that the behavioral change caused by oxytocin was specific to trusting behavior, not kind or generous behavior in general.

But couldn't oxytocin have affected another aspect of the investors' behavior, perhaps their willingness to take risks? In fact, the researchers also created a variation on their game, where they replaced the trustee participant with a method of randomly determining how much return investors would receive. In this second game, when there was no human partner toward whom they could feel trust, investors who had received oxytocin did not transfer any more money than did members of the placebo group. Thus it seems that oxytocin had a particular effect on the investors' feelings toward another human, not simply on their tolerance for risk.

The authors say that their findings could have far-reaching implications for the treatment of social phobias. Such conditions are often characterized by a persistent fear of social interaction and can result in severely impaired daily functioning, and even increased suicide risk. More than financial investors or trustees, perhaps it will be people with these conditions who benefit most from the new science of trust.

—Michelle Flythe

Everyday achievements

WHAT'S THE KEY TO ACADEMIC SUCCESS for kids struggling in school, especially those coming from disadvantaged backgrounds?

While countless programs have been introduced into classrooms to try to reach these students, researchers Bridget K. Hamre and Robert C. Pianta of the University of Virginia examined how everyday interactions between teachers and students affect struggling students' performance in school.



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Their results, recently published in *Child Development*, show that first graders who have had problems in school fare significantly better when they receive ongoing emotional support from their teacher.

"We consistently find that teacher sensitivity—what we call their ability to read kids' cues and respond to them—greatly improves kids' ability to perform well in a classroom setting," said Hamre.

Hamre and Pianta used a sample of 910 first graders from a long-term study run by the National Institute of Child Health and Human Development. They found that even students who had had trouble in kindergarten showed significant increases in all-around academic performance if they were placed in a first-grade class with a teacher who was more sensitive and attentive to their emotional cues. Their levels of academic achievement were roughly the same as those of kids who hadn't had problems in kindergarten.

The study is especially illuminating for its focus on everyday teacher behavior. Rather than implementing a complex—and often expensive—new curriculum, Hamre and Pianta have found that helping teachers hone basic interpersonal skills can give their students a big academic boost.

"The significance of this study is that by changing the way teachers and students interact on a regular basis, you can create a sustainable and long-lasting improvement

in teaching," said Hamre. "And importantly, the findings are not limited to early education. There's no reason these methods won't work in all grade levels."

—Matthew Wheeland

Survival of the social?

IT SEEMS THERE MAY BE YET ANOTHER reason to appreciate your friends: New research suggests that they might literally add years to your life.

Researchers in Australia analyzed data from a 10-year study of more than 1,000 adults, ages 70 and older, to see whether having networks of family, friends, children, or confidants would predict their survival. (Confidants included anyone—friends or family—respondents thought that they could trust and confide in.) The results, published earlier this year in the *Journal of Epidemiological Community Health*, show that adults with a stronger network of friends were significantly more likely to live longer. This may not seem surprising—yet stronger networks of relatives or children did not show any effect on life expectancy.

The researchers suggest that this discrepancy may stem from the fact that we get to pick our friends and not our relatives. This may make it easier for older adults to choose relationships that prove less stressful, enabling them to preserve and build resources such as social support, emotional resiliency, and control over their moods.

Yet an earlier study by the researchers found that among the same pool of older adults, people with a strong network of relatives were less likely to be afflicted with age-related physical disabilities. Maintaining networks of friends, children, or confidants did not help in this respect. The researchers suggest that relatives, more than other individuals, may have more influence over health-related behaviors that affect mobility, such as complying with a physician's recommendations.

The researchers are still synthesizing the results from the two studies and investigating the underlying factors behind these results. But despite any discrepancies, lead author Lynne Giles said that the studies deliver a key message: "A wide social network of both family *and* friends appears to convey important health benefits in terms of disability and survival."

—Michelle Flythe