

## Empathy and Oxytocin Lead to Greater Generosity

ScienceDaily (Nov. 8, 2007) — What makes people act with kindness to a stranger they never expect to meet again? Why are some people more generous than others? Neuroeconomist Paul J. Zak of Claremont Graduate University has new research connecting oxytocin to trust and generosity.

In the research, Zak and his colleagues gave doses of oxytocin and a placebo to participants, who were then offered a blinded, one-time decision on how to split a sum of money with a stranger who could accept or reject the split. The results were overwhelming: Those given oxytocin offered 80% more money than those given a placebo.

According to Zak, this means that although we are inherently altruistic, we are also generous when we feel empathy toward one another. It is empathy that causes us to open up our wallets and give generously to help strangers.

"Oxytocin specifically and powerfully affected generosity using real money when participants had to think about another's feelings," Zak explains. "This result confirms our earlier work showing that oxytocin affects trust, but with a dramatically larger effect for generosity."

In his experiments, Zak distinguishes between generosity and altruism by using tasks that involve one's innate motivation to give to others, and when another's plight must be considered. Oxytocin's effect on generosity is more than three times larger than his work from 2005, which demonstrated that oxytocin increases trust.

Zak's recent paper explains the brain mechanisms responsible for the substantial increase in generosity during the last 50 years. Zak and his colleagues cite annual giving levels up 187% since 1954. In 2005, over 65 million Americans volunteered to help charities. 96% percent of volunteers said that one of their motivations was "feeling compassion toward other people"

In previous studies, Zak has shown a relationship between oxytocin and trust, making a clear case that the ancient hormone causes a shift in brain chemistry that is evolutionarily important—the more we trust one another and cooperate, the more we all benefit together.

This research extends Zak's finding based on oxytocin and trust, which was published in Nature two years ago.

Citation for new paper: Zak PJ, Stanton AA, Ahmadi S (2007) Oxytocin Increases Generosity in Humans. PLoS One 2(11): e1128. doi:10.1371/journal.pone.0001128

This new paper was co-written by Angela A. Stanton of Claremont Graduate University and Sheila Ahmadi of UCLA's Geffen School of Medicine.

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