



**Genetic Generosity**

## Why Giving Feels So Good



Why help a stranger who stumbles in the street? Why send money to faraway victims of tsunamis? Why volunteer for soup kitchens or offer a caring word to a neighbor? For evolutionary scientists, altruism is one of the great mysteries: it feels good, is linked to better mental and physical health, and is intrinsic to who we are, yet no one can quite explain how it evolved. Some

have suggested that when we protect our kin we protect our own genetic legacy; that when we give, others give back to us, and that generosity enhances our reputation. Even so, at the heart of altruism is a big question mark. *Why does giving feel so good?*

Now a new study suggests that altruism may be partly guided by genes that regulate the neurotransmitter dopamine

— the one linked to craving, pleasure, and reward. Subsets of dopamine genes vary in the general population, and the study finds that a specific, common subtype is highly linked to altruistic behavior. The research, conducted at Hebrew University and other centers, was published in the journal *Molecular Psychiatry* in 2005. Psychologists and geneticists looked at 354 families with more than one child, measuring the individuals' tendencies to ignore their own needs and serve the needs of others, as well as their tendencies toward attention deficit hyperactivity disorder — a trait associated with antisocial behavior that is also thought to be regulated by variations in dopamine genes. They then analyzed the individuals' dopamine receptors for well-known variations, or genotypes.

Their fascinating findings: the most common genetic subtype — known as the D4.4 — was significantly linked to altruistic

behavior, regardless of whether the receiver was a relative. Another variation — D4.7 — is known to be linked to novelty-seeking, aggressive, more anti-social behavior. The researchers conclude that variations in these genes reward a range of behaviors in humans, so that as a species we have novelty-seekers as well as givers. But in general, say the scientists, this gives us the first hard evidence that many of us are indeed “hardwired” for giving. It may be that generosity feels good because it is rewarded by spikes in dopamine. The scientists even speculate that further research could reveal variations in dopamine genes that favor generosity to kin, and others that favor giving to all. Next time you hold the door open for a stranger struggling to balance a bunch of packages, think of those innumerable little dopamine-loving neurons lighting up your brain with bliss.

—Jill Neimark

**Pronouns of Improvement**

## To Better Your Future, Reflect on What *She* Did Last Year

“There are times when the greatest change needed is a change of my viewpoint,” wrote Diderot. If you’re struggling to change — your body, your relationship, your routine — a study co-authored by Ohio State University assistant professor of psychology Lisa Libby finds that viewing your past in the third person, as if you were a stranger watching a movie of your life, can help you acknowledge the positive changes you’ve made, which, says Libby, “may help to motivate you to keep on trying.”

The study, published in the *Journal of Personality and Social Psychology*, asked college students in psychotherapy to rate their changes since their first appointments. Third-person viewers perceived more change (an average score of 7.18 versus 5.64 for first person). First-person recollections, says Libby, cause people “to get more caught up in the details

of a past event,” whereas third-person focus finds broader meaning.

In a related study, college students who said they were socially awkward in high school were told to recall an awkward event from that time. Those who viewed the experience from a third-person perspective were more likely to say that they had changed since then and were now more socially at ease. Left alone with someone they thought was another student (actually a research assistant), they were then more likely to begin a conversation and score higher sociability ratings, suggesting that, as Libby puts it, “feeling like you’ve overcome a problem in your past can give you the resources to behave differently in the present.” Libby stresses that change is possible, but not always easy. “Therefore it is important to focus on any progress you are able to make.”

—Ann Stapleton

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