Can a Genetic Variation Boost Empathy and Reduce Stress?

 One single difference in the human genome may play a role in behaviors such as empathizing and responding to stress. The research, published in the journal *Proceedings of the National Academy of Sciences*, focused on a single gene, called OXTR, which carries the design and production blueprint for cells scattered throughout the heart, uterus, spinal cord and brain that serve as docking stations for a chemical called oxytocin [*Los Angeles Times*]. Oxytocin is a chemical produced in the brain that makes us feel all warm and fuzzy when we interact with others in a nurturing or bonding way; it has also been shown to help mice stay calm when under stress.

The researchers decided to investigate a region on the OXTR gene associated with decreased social interaction in humans to see if small changes correlated to a person's sociability and ability to handle stress. They put 192 college students through experiments to measure empathy and stress. One in four of the subjects had a particular variation of that gene region, and those subjects were significantly better at accurately reading the emotions of others by observing their faces than were the remaining three-quarters of subjects [*Los Angeles Times*]. The people in this subset were also less likely to startle during the stress test, and reported that they were generally chill folks.

Study coauthor Sarina Rodrigues provides the usual caveat that genes alone don't determine our behavior and cautioned against reading too much into their discovery. Lots of people without the gene variation are able to understand and care about other people's emotions, Rodrigues said [*Telegraph*]. So what are we supposed to do with this information? That's not entirely clear, and the results need to be repeated in a larger group. Still, the work is "one solid step forward" in understanding the role of oxytocin in human social behavior, says neuroeconomist Paul Zak, … who has studied the effects of oxytocin on economic decisions [*ScienceNOW Daily News*].

One thing we do know is that, starting this weekend, if your employer somehow finds out that you are prone to high stress, at least they can't fire you for it.

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