Random acts of kindness may be fueled by microbes

Why do people commonly go out of their way to do something nice for another person…and how could such altruistic behavior have evolved? The answer may not just be in our genes, but also in our microbes.

[R]esearchers…at Tel-Aviv University in Israel have theoretically shown that microbes could influence their hosts to act altruistically.

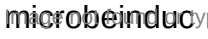
…

It's already well-known that microbes can affect the behavior of their hosts…Research has also shown that the microbiome…can even manipulate the hosts' social behavior by infecting neurons and altering neurotransmitter and hormone activity.

Against this backdrop, the researchers in the new study have proposed that microbes may induce a person to help others because the close physical contact (for example, food-sharing, co-sheltering, and grooming) increases the transmission of the microbes from one person to another. So when someone does something nice for us, we are not just the recipient of a kind act, but also of their microbes.

…

The results [of various simulations] showed that, as long as horizontal transmission (between individuals) of microbes is allowed, altruism-inducing microbes can take over the population, leading to microbe-induced altruism. This result occurs even when only a very small percentage of the population initially carries these altruism-inducing microbes.



(Left) The payoff matrix and (right) an illustration of horizontal transmission probability of microbes between hosts. Using this model, researchers have found that microbes may induce their hosts to help other hosts, benefitting the microbes and the other hosts, but not always the original hosts. Credit: Lewin-Epstein et al. Nature Communications.

[The study can be found here.]

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion, and analysis. Read full, original post: Microbes may encourage altruistic behavior