

When queuing in a supermarket, who do you let go first?

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Unlike cooperation among individuals that meet on a regular basis, one-shot interactions among strangers are not motivated by the prospect of receiving a favour in return. So why bother being helpful? In an attempt to shed light on the evolutionary puzzle of what factors result in cooperation among genetically unrelated individuals who meet only once, two German researchers examined a situation well-known to everyone: standing in line at the checkout of a supermarket.

The researchers, Florian Lange and Frank Eggert from the Department of Research Methods and Biopsychology of the Institute for Psychology of the Technische Universität Braunschweig, find that the behaviour of customers towards others depends on two variables: the cost-to-benefit ratio of the helpful act and the image the customers have of the opposite individual. The research is published in Springer's journal *Human Nature*.

Lange and Eggert undertook a [field experiment](#) in which two male subjects lined up at the checkout, carrying one item that was clearly visible to other customers. Each subject lined up 60 times. In 50% of the cases, they carried a bottle of water, in 50% a bottle of beer. The order of items was randomized. An independent observer monitored each iteration.

The experiment found that customers were more willing to cooperate if the recipients could save a significant amount of waiting time. The authors explain this by way of a model of image-dependent indirect

reciprocity: potential helpers are more willing to cooperate if the recipients' benefits are relatively large in comparison to the helpers' costs. However, the potential helpers' readiness to cooperate was reduced significantly if the test customer was carrying a bottle of beer. According to previous research, beer drinkers are often perceived as lacking responsibility and morality. Lange and Eggert hypothesize that people may regard beer drinkers as being relatively unlikely to pass on the favour and help other individuals in turn. Thus, they conclude that the willingness of individuals to help also depends largely on their image of the recipient.

Further research is necessary in order to gain greater knowledge of the determinants of human cooperative behaviour, particularly with regard to observability and more direct information about the recipient's cooperativeness. However, the study provides an initial finding that cooperation among strangers follows a model of indirect reciprocity, and demonstrates the potential of field experiment methodology for the investigation of human cooperation.

More information: Lange, F. et al (2015). Selective Cooperation in the Supermarket. Field experimental evidence for indirect reciprocity, *Human Nature*. DOI 10.1007/s12110-015-9240-9

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