

## ANTS CAN LEARN TO FAVOR FRIENDS OVER FAMILY

Is altruism goodwill toward companions or merely a form of selfishness—an attempt to ensure that one's own relatives (and genes) will survive? The case of the small black Mediterranean ant *Cataglyphis cursor* is evidence that blood isn't always thicker than water. Like other ants, this one lives in a cooperative colony ruled by a queen. The queen lays the eggs and the workers tend the young—a job that entails carrying the immobile larvae around the nest and licking them. On the face of it, workers instinctively favor their kin: when given a choice between tending larvae from their own nest or those from another, they prefer their own. But three French biologists have shown that these ants can be taught to favor friends over family.

Michel Isingrini, Alain Lenoir, and Pierre Jaisson transferred some ant eggs to a foster nest, where, as larvae, they were tended by non-kin workers and lived until they reached the pupal stage. Then they were taken back to their natural nest. Unlike ants raised by kin, these ants, when later faced with a choice of tending kin larvae or non-kin brought in from their foster colony, favored the non-kin by giving them more attention. Obviously they didn't inherit this bias; they learned it while still larvae. They remembered the odors of the ants that nursed them.

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But can an older ant learn to accept non-kin? In another experiment, ants that had just matured were transferred from their own nest to another. Ten days later they were tested for brood preference. Although they gave better care to their relatives, their larval nestmates, they weren't as clannish as ants that had never lived with strangers.

Isingrini, Lenoir, and Jaisson concluded that ant loyalties form in the early stages of larval growth and strengthen with time. The longer an ant lives in a foster colony, the more solicitous it is to that colony's larvae. Proximity and fellowship, not number of genes shared, is the basis for bonds. In other words, most ants end up favoring their kin not because they're related to them but because they're raised by them.