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Mindless Brutality or a Spiteful Gene?

We have all heard of the selfish gene, but in extreme circumstances genes can be downright spiteful too, scientists have discovered.

According to Gaurdian, researchers at Edinburgh University who studied the brutal behaviorr of bacteria and insects say spiteful behavior is not only justified at times but is hardwired into our genes. Andy Gardner and Stuart West, at the university's institute of cell, animal and population biology, delved through reams of scientific literature and found numerous examples of organisms going out of their way to cause harm to others--even if it meant killing themselves in the process--if it helped make life easier for their closest relatives.

In the world of bacteria and insects, genes that encourage spitefulness lead to behavior that matches the most heroic examples of human self-sacrifice. When, for instance, E coli bacteria find food is running low some switch to "suicide mode"--they explode in a brief shower of toxins that can kill all bacteria nearby.

Crucially, close relatives of an exploded bacterium have a gene making them immune to the toxins. So by sacrificing itself to kill unrelated bacteria, the E coli makes food more plentiful for its closest relatives.

"It's not good for the bacteria doing it because it dies in the process, but the benefits come because its kin, which carry the same genes, have a better chance," explained Dr. Gardner, whose work appears in the latest issue of the Journal of Evolutionary Biology.

The report describes how spiteful behavior is not confined to microbes. Certain species of wasp inject their eggs into caterpillars, turning the hapless creatures into living baby food for the growing larvae. But because a caterpillar can become the host to many eggs from different wasps, some larvae risk going hungry.

To make sure they get enough food, some wasp eggs develop fast, not into wasp larvae but into snake-like organisms that swim around inside the caterpillar seeking out and destroying embryos that are not recognizably close relatives.

Spiteful behavior has been largely ignored by evolutionary biologists because they have believed it was unlikely to arise in the wild. But the latest work suggests it could be more common than suspected.



Catch-Up Infants Risk Weak Chests

Infants who are slow to grow in the womb but catch up on their growth in the first weeks after birth risk chest illnesses. BBC News Online said.

Babies with low birth weights are known to be prone to lung problems.

But, for the first time, greater weight gain in the weeks following birth has been linked with impaired lung development.

The University of Southampton study appears in the American Journal of Respiratory and Critical Care Medicine.