

Sometimes less is more for hungry dogs

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Hungry dogs would be expected to choose alternatives leading to more food rather than less food. But just as with humans and monkeys, they sometimes show a "less is more" effect. Thus conclude Kristina Pattison and Thomas Zentall of the University of Kentucky in the US, who tested the principle by feeding baby carrots and string cheese to ten dogs of various breeds. The findings are published in Springer's journal *Animal Cognition*.

The research was conducted on [dogs](#) that would willingly eat [cheese](#) and baby carrots when offered, but showed a preference for the cheese. However, when given a choice between one slice of cheese, or the cheese together with a piece of carrot, nine of the ten dogs chose the cheese alone. That is, they chose less food over more food.

The "less is more" effect is considered an affect heuristic or mental shortcut that sometimes shows a preference for the qualitative over the quantitative when considering different options. It appears that the dogs averaged the quality of the cheese plus carrot, rather than sum up the quantity of food. This quick decision making was first demonstrated in humans, and later in monkeys. People, for instance, tend to place greater value on a set of six baseball cards that are in perfect condition, than on the same set of six perfect cards together with three more cards in fair condition. A similar effect was also reported in studies of monkeys where the animals would eat both grapes and cucumbers, but preferred one grape over one grape plus a slice of cucumber when given the option.

The researchers believe that this paradoxical choice occurs because in most cases it is easier to judge the average quality than the overall quantity of alternatives. In cases where rapid decisions must be made, quick solution-driven heuristics such as the "less is more" effect may therefore come in handy. For instance, it is helpful when members of the same species, such as a pack of dogs, feed together. The one that hesitates may lose [food](#) to faster-choosing competitors. Such heuristics may also help prey in the wild to make rapid decisions rather than become supper. But the fact that one in ten dogs did choose the cheese-and-carrot combination suggests that levels of motivation may play a role in this effect. The outlier dog, for instance, had a history of living in shelters and fending for himself.

"The present research indicates that the less is more effect is not unique to humans and other primates but can occur in other mammalian species, at least those that are socially organized such as carnivores like wolves, dogs and jackals," says Pattison. She believes that further research is needed to find out if the "less is more" effect also occurs in less socially organized species such as rats, or non-mammalian species such as birds.

More information: Pattison, K.F. & Zentall, T. (2014). Suboptimal Choice by Dogs: When Less is Better than More, *Animal Cognition*.
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