Road Kill and the New Science of Human-Animal Relationships

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Ignore, rescue, or obliterate that turtle in the road?

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The new science of human-animal interactions, anthrozoology, rests on a premise by the French anthropologist Claude Levi-Strauss. "Animals," he wrote, "are good to think with." His point was that we can learn a lot about human nature by studying how we think about and act toward other species.

I was reminded of this recently when I read a Psychology Today blog by the ethologist Marc Bekoff. Marc expressed concern about the toll our driving habits take on other creatures. Every day, roughly a million dogs, cats, moose, garter snakes - you name it - fall victim to an automobile. Marc admonished PT readers to "slow down for wildlife, slow down for us all." I agree with Marc's advice, and his blog reminded me of a 2007 research report by Canadian wildlife biologists that nicely illustrates Levi-Strauss' "good to think with" principle.

The Psychology of Intentional Animal-Automobile Collisions

The experiment was simple and elegant. The researchers placed realistic rubber models of a turtle and a non-poisonous snake in the middle of a road and watched what happened. They also included a turtle-size Styrofoam cup and a thick line of grease the size of the snake for controls. During the trials, either an animal model or a control stimulus was put on the center line of a two-lane rural highway. The researchers recorded whether the drivers (a) ignored the stimulus, (b) swerved to intentionally hit it, or (c) pulled over to the side of road and rescued the model. (No one tried to rescue the plastic cup or the streak of grease.). They ran 500 trials for each of the four stimuli, and they also noted the sex of the drivers.

What can we learn about human-animal relationships by studying the incidence of intentional collision between cars and fake reptiles? Here are the results of the experiment:

*Kindness to animals is a normally distributed ("bell curve") trait:* Researchers have found that attitudes towards the treatment of animals follows a bell-shaped curve; most people are in the middle, with fewer at either extreme. This is also true of Canadian drivers. A large majority of drivers (94%) just ignored the faux turtles and snakes and drove on by. Some, however, were extraordinarily kind, while a few others went out of their way to kill the fake reptiles. About 3% of drivers stopped, got out of their car, and rescued the animal models. Needless to say, these unselfish acts are difficult to account for in terms of the standard evolutionary explanations of altruism. After all, the rescuers did not share any of their genes with the animals (kin selection), nor could they reasonably expect the snakes or turtles to return the favor in the future.
(reciprocal altruism). The bad news, however, is that, another 3% of drivers swerved and intentionally ran over the "animals."

**Snakes bring out the dark side.** Fear of snakes is the most common animal phobia, even though you are one hundred times more likely to be maimed or killed by your neighbor’s dog than a venomous serpent. As I discuss in my new book, Some We Love, Some We Hate, Some We Eat: Why It's So Hard To Think Straight About Animals, psychologists disagree about whether ophidiophobia results from instinct, learning, or a general aversion to weird creatures. But, whatever the source of our animosity to snakes, some drivers want to kill them. Figure 1 shows the proportion of trials in which the animals and the controls were intentionally run over. While the rate of turtle-squashing was only slightly higher than Styrofoam cup-squashing, three times as many fake snakes were "killed" as the same size and shape control stimulus.

![Percent of drivers who intentionally ran over "animals" and controls.](image)

**Men are not as nice as women.** Several years ago, I reviewed the scientific literature on sex differences in human-animal interactions. I came to two conclusions. The first was that in some areas, sex differences are small (attachment to pets), while in others they are large (membership in animal protection organizations). The second is that, with the exception of extreme hoarding, men are more likely to abuse animals than women. This sex difference clearly played out in the intentional road kill study. While only 2% of female drivers went out of their way to crush an animal, 7% of men did. This sex difference was particularly large in the fake snake trials in which men were eight times more likely to run over the model snake than were women.
The percentage of female and drivers who ran over the fake snake.

The New Science of Human-Animal Interactions

The intentional collision experiment shows how anthrozoology can shed unexpected light on many aspects of human behavior. The University of Pennsylvania psychologist Paul Rozin pointed out that in their search for general principles of behavior, psychologists have historically focused their attention on broad topics such as learning, memory, and motivation to the exclusion of important facets of our lives such as leisure, preferences for food and music, and religion. Our relationships with animals also fall into the category of things that everyday people care about but most psychologists don’t. I do not know of a single undergraduate psychology textbook that includes a serious discussion of the effects of pets on human wellbeing or on child development.

This situation, however, is changing. The National Institute of Child Health and Human Development, for example, recently joined with Mars, the corporate giant that makes Snickers for me and Tempting Tuna Treats for my cat Tilly, to fund a multimillion dollar research initiative on the impact of pets on children.

The study of our attitudes and behaviors toward animals is important for lots of reasons, but what I particularly like about the new science of human-animal relationships is that our interactions with other species pervade nearly every aspect of our lives...even the split-second decision to ignore, rescue, or obliterate a helpless turtle.

Thanks for reminding me, Marc.