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Science supports gospel value of nonviolence

Rich Heffern | Jan. 19, 2010 NCR Today

Just after World War II, a new branch of science was born ? ethology, the study of animal behavior. The first ethologist to come to prominence in the scientific community was Austrian Konrad Lorenz.

In 1973 Lorenz won the Nobel Prize, along with colleagues Karl von Frisch and Niko Tinbergen, for their discoveries concerning animal behavioral patterns. They discovered the phenomenon of imprinting, in which young animals socially bond to the first moving object they encounter.

Some of Lorenz? views were expressed in his popular book *On Aggression* (1966), wherein he asserted that human aggressive impulses are to a degree inborn, and drew analogies between the aggression demonstrated in both human and animal territorial behavior. These assertions made decades ago have engendered considerable controversy. Some saw Lorenz? views as an attempt to whitewash human atrocities like the Nazi persecution of the Jews.

The opposition argued that aggression, like all human behavior, is subject to cultural influences. The issue was presented in an either-or fashion, as if behavior cannot be both learned and built on a biological foundation. This debate has gone through many rounds. However, the view that violence and aggression are innate and dominant in humans because of our inherited instincts toward territoriality has predominated. It was reinforced through famous field studies done by scientists like Jane Goodall and Dian Fossey, who showed that apes in general are not very peaceable.

There is, though, ample new evidence that in the animal world there exists the ability to keep aggression under control and even to foster peace.
For example, scientists have noticed that chimpanzees, with whom we share much genetic material, reconcile after fights with kisses and hugs. Such behavior has been noticed in a multitude of animal species, including non-primates like dolphins and hyenas. Such behaviors restore social relationships disturbed by fighting and bullying. Any animal that depends on cooperation needs such mechanisms of social repair.

Ethologists are telling us that behaviors can be transmitted through a kind of culture-shaping that occurs in the animal kingdom with some regularity. Interesting observational studies and experiments have been performed to study this phenomenon.

A noteworthy recent study investigated juveniles of two different macaque species who were placed together round the clock for months. Notoriously quarrelsome Rhesus monkeys were housed with more tolerant and easygoing stumptail monkeys. Stumptails reconcile with opponents easily, whereas such behavior is rare in rhesus monkeys.

Because the community was dominated by the stumptails, scientists noticed that aggression was rare. The atmosphere was relaxed, and after a while all the monkeys became friendly with one another. The Rhesus monkeys eventually developed peacemaking skills that equaled those of the stumptails.

In another instance, a study by Robert Sapolsky and Lisa Share shows field evidence that our relatives, the primates, can choose a culture of peace. These scientists observed wild baboons who developed a pacific social tradition that outlasted the individuals that began it.

For years, Sapolsky and Share had documented how olive baboons who live on the plains of Kenya waged wars of nerves, compromising their rivals immune systems and increasing stress levels. An accident, however, wiped out all the male bullies of this main troop. Sapolsky and Share observed that the number of aggressive incidents dropped dramatically. This by itself did not surprise the scientists, but they took notice when it was discovered that the behavioral change was maintained over decades. Baboon males migrate after puberty, so fresh young males enter the troop all the time, resulting in a complete turnover. Compared with troops around it, Share/Sapolsky?s group upheld its reduced aggression, increasing both friendly behavior and low stress levels.

?The conclusion from this natural experiment is that, like human societies, each animal society has its own ecological and behavioral history, which determines its prevalent social style,? said ethologist Frans de Waal. ?This complex problem is hard to unravel with a single study? yet the main two points of these discoveries are loud and clear: social behavior observed in nature may be a product of culture, and even the fiercest primates do not forever need to stay this way.?

He adds: ?Let us hope this applies to humanity as well.?

Good science has shown us that a tendency toward aggression is probably part of our genetic makeup but so too are strategies of reconciliation. And whatever our genetic legacy, most of us are fully capable of taking responsibility for our own behaviors. The bottom line, of course is this: Crucial to the survival of humankind on the planet is a strenuous effort to increase and grow the culture of peace.

Anthropologist Margaret Mead defined civilization as the ever expanding circle of those whom we do not kill. The number is growing of people for whom the circle of nonviolence includes every single life. Even today?s hard-nosed scientists support ancient gospel values of peace, expressed so succinctly by Jesus when he said: ?Who lives by the sword shall die by it.?

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