



## Comment: *Between Anthrozoology and Robotics*

---

Not so long ago humans in the rich countries were concerned about how we relate to one another (politics, sex, psychotherapy etc.); decades ago we worried, some of us, about our relationships with God (liturgiology, judgment, Hell etc.). Now, however, such changes have occurred in people's attitudes towards animals and how we treat them that in zoos, farming, hunting, eating, wild life tourism, and so on, people like us are re-evaluating our relationships with animals and the natural world, often acrimoniously. This process has stimulated scientific interest enough to give rise to the new field of anthrozoology: the study of the interactions between human and non-human animals. In some universities, social anthropology and zoology have combined to fund and shape this new degree-conferring discipline.

*Anthrozoös* is a quarterly, peer-reviewed journal: it reports the results of studies, from a wide array of disciplines, on the interactions between people and animals. Theology should join in. In what must be the first study of beliefs about animal afterlife, the authors surveyed 800 participants, exploring how demographic factors including sex, race, age, geographic region, religious beliefs, and pet ownership, affect an individual's beliefs about animal afterlife. People who believe in an afterlife for humans are more likely to believe in an afterlife for animals — no surprise there. More intriguingly, members of certain demographic categories turned out more likely to believe in life after death for non-human animals: women, Native Americans, Native Alaskans, African Americans, Buddhists, persons living in the South, and also pet owners. People in the sample held different beliefs for different animals: 'In general, dogs, cats, and horses were rated the most likely to experience an afterlife, whereas insects, fish, and reptiles were rated the least likely'. Almost half the sample claimed no specific religious beliefs, which the researchers took to mean they were simply affected by cultural traditions and inherited preconceptions about animals. Maybe so, but Christians might wonder how the researchers, let alone the participants, conceived of the afterlife for animals of any kind, humans included. Were they thinking of a final judgment at the end of time?

But now humans also have to consider how to relate to non-humans in the shape of robots with artificial intelligence. Maybe the most challenging for Christian moral theology are so-called Lethal

Autonomous Weapons (LAWS). Two US Defence Advanced Research Project Agency (DARPA) programmes are working on technological advances in such autonomous weapons: Fast Lightweight Autonomy (FLA), tiny rotorcraft that move at high speed inside buildings, eliminating everything they hit; and Collaborative Operations in Denied Environment (CODE), squads of aerial vehicles to carry out strike missions when enemy signal jamming makes communication with, and so control by, a human commander impossible.

The moral issues are easy to see. The 1949 Geneva Convention requires any attack to satisfy three criteria: military necessity, discrimination between combatants and non-combatants, and proportionality between the value of the military objective and the potential for collateral damage. None of these criteria has always, or even often, been satisfied when humans are deciding. How would weapons judge for themselves on the last two criteria?

With self-driving cars, home-delivering drones, robots that explode suspect luggage, etc., we are already in an era when people will no longer do certain jobs. That raises moral and practical issues about the right to work, the dignity of labour, and so on, as proclaimed in Catholic Social Teaching since Pope Leo XIII. Full employment would become impossible. Already, where robotics is a flourishing academic discipline, we hear of a generation of 'sentient' robots that can learn, adapt and take decisions. They will work for us, beside us, assist us and interact with us, not only in defence and transport but also in the oil and gas industries, renewable energy, space exploration, healthcare, and much else.

With ethically more demanding relations with non-human animals on one side, and on the other the risk for humans of being supplanted by autonomous robots, there will be plenty for us Christians to think about in the next decade or so.

*Fergus Kerr OP*  
*fergus.kerr@english.op.org*