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Following on from our event 'Teaching Ethics to Bioscience Students: Sustainability and the Environment' in December 2009 at Cardiff University, two Bioscientists share how they have introduced environmental ethics into their teaching.

# Articulating Values in Environmental Ethics

Over recent years the teaching of ethics has become an established part of many science degree programmes across the UK. Two such modules are offered at the University of St Andrews: *Science Ethics*, an introductory, interdisciplinary module taught by staff from across the Faculty; and *Bioethics*, a final year, more advanced module taught by staff from the School of Biology.

Within the second year module, I deliver two lectures and a tutorial on Environmental Ethics and in particular the way in which we assign values and the extent to which we can broaden our moral horizons from being anthropocentric to eco-centric. In my first year of teaching this module, the students struggled with the relevance of this topic, finding it hard to personalise their involvement and to engage with the discussion. After some research, I stumbled upon an excellent activity in an article in the American Philosophical Association Newsletter (Kawall, 1999) that I have subsequently adapted and used as a very successful means of addressing these concerns.

The exercise involves a traditional-style, philosophical thought experiment in which several entities are ranked in order of their perceived value. To make the activity seem more approachable the students are asked to 'Imagine a scenario in which a large container ship is rapidly sinking with only one remaining lifeboat. Nearby, certainly in range of the lifeboat, is a large forested island with a small human settlement.' Their task is to decide in which order they would place the following on the lifeboat:

- An intelligent, healthy, morally virtuous human
- An intelligent, healthy, morally evil human
- A healthy moose (there is an indigenous moose population on the island)
- A collie with a permanently lame leg
- A severely mentally disabled human
- Ten chickens
- A breeding pair of an endangered species of bird, once native to the island
- A human in a coma (who will almost certainly never recover)
- A breeding pair of common, but beautiful, indigenous songbirds
- Two breeding pairs of a non-indigenous variety of rapidly breeding wild rabbits (with no known predators on the island, and an extensive food supply).

As with all thought experiments there are a range of assumptions and ambiguities involved. For example, students should assume that while on the lifeboat, none of the potentially dangerous species will attack or harm any of the others and all of the 10 choices require an equal amount of space in the boat. And perhaps one of the most commonly raised questions is "why is there a moose on the boat!?" Anyway, the students have to rank the options from 1 – 10, with 1 being the option they would save first, and 10 being the option they would be most willing to sacrifice if the boat suddenly sinks. Importantly the students are specifically instructed that there are no correct answers and, where possible, they should try to give a reason for each ranking.

After giving the students time to draw up their rankings, working either individually or in small groups, I bring the class back together and we discuss their results. There are several areas of interest that can be drawn out during a detailed discussion. Perhaps it is interesting to ask the students to compare where they placed the moose or collie relative to the human in a coma. This may lead on to a discussion of sentientism and the ability to experience pain and perhaps the introduction of the UK legislation on animal experimentation and the Animal (Scientific Procedures) Act 1986.

You could also introduce more direct philosophical issues such as Utilitarianism by asking if anyone saved the ten chickens before the single moose or dog? Of more direct relevance to my own interests in ecology and conservation, you could focus on the rabbits and discuss the ethics of introducing a non-native species or perhaps you could ask if anyone saved the endangered birds ahead of the chickens. Why are two rare birds more 'valuable' than ten chickens?

There are several goals of this introductory exercise. It is a fun way of introducing a number of key concepts in environmental ethics. It allows students to see they already have preconceived ideas concerning the issues raised and it helps them to explore the values underlying their initial preferences (even if they hadn't been able to explain their concerns at the time). But perhaps most importantly it highlights for each student the diversity of values and opinions amongst their peer group.

The exercise has plenty of scope to be adapted and expanded as required and will hopefully serve you, as it has me, as a way of getting the students hooked on environmental ethics and starting some heated and vibrant discussion.

### Reference
Kawall, J. (1999) *An Introductory exercise in articulating values*. American Philosophical Newsletter, **99**(1), 4-7

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Want to find out more about Utilitarianism and Deontological arguments? See our series of Bioethics Briefings, *www.bioscience.heacademy.ac.uk/resources/ethicsbrief.aspx*