
How to Use the Thesis

If this is the first time you read this thesis, you should primarily follow the sequence of the page numbers; however, the pages before the Abstract ([page 18](#)) and Chapter 1. Milestones can be omitted. If you would like to have a quick view of the results of the main surveys, you can first read the Abstract ([page 18](#)) and Chapter 2. Guide to the Presentation of the Information ([page 26](#)), then go directly to Chapter 5. Results ([page 91](#)). There are 'links' in the thesis pointing to other parts of the document; you can further explore those targeted topics temporarily. Usually a page number is given as the target address of the 'link', or you can look up the page number in Table of Content ([page 3](#)). The thesis can be read by readers without much mathematical knowledge, but to gain a full understanding of the study, knowledge of the key techniques, such as factor analysis, is required. For subsequent readings, please use the Table of Content ([page 3](#)) to locate the required information.

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Abstract

The present study is a unity of science and philosophy.

Previous studies of the attitudes towards animals suggest they are far from universal. The majority of existing studies are largely based on animal welfare in the Western world, which represents approximately 12% of the world human population. Little attention has been given to people in other parts of the world. People sometimes assume that animal welfare is the equivalent of animal protection, or positive attitudes towards animals, though the difference between animal welfare and animal rights has gained some attention.

The present study was placed in a global context; it not only investigated the attitudes of people from vastly different backgrounds, but also investigated the relationship between attitudes towards animal issues and world issues. Three distinct types of animal protection, Animal Welfare, Reverence for Animals, and New Welfarism were identified by scientific methods.

The major research method was an international survey of university students distributed online during 2007 – 2008. The survey was presented in the official languages of participating nations, and over 90 variables were investigated. The participants were invited by local collaborators from different parts of the nation based on probability sampling. In total, 4,514 filled questionnaires were received from 12 nations by the middle of 2008. The 12 nations were: China (mainland), Czech Republic, Iran, Ireland, Macedonia, Norway, Portugal, Serbia, South Korea, Spain, Sweden, and the United Kingdom.

The results were weighted by the gender ratio, level of education and area of study obtained from other sources; the results were also adjusted by tertiary enrolment rate of the nation.

Factor analysis, one self-developed program and other types of statistical techniques were applied to the raw results. In total nine Attitudes to Animal Indices were established

for different types of attitudes. Two indices were created to calculate people's attitudes to animal welfare and animal rights. The origin of positive attitude to animals was discussed from an evolutionary perspective; the relationship between holism and reverence for animals was explored. Important conclusions of the present study are shown below:

- The definitions for animal protection and vegetarianism are different in different nations.
 - Prevalent stereotypes of the attitudes of some societies are incomplete and unrepresentative.
 - Animal Welfare and Reverence for Animals are two fundamentally different attitudes towards animals.
 - A holistic world view is tied to high Reverence for Animals.
 - Animal Rights is a product of animal welfare and Reverence for Animals. Societies can have low levels of animal welfare but high levels of animal rights when Animal Welfare is low but the Reverence for Animals is high.
 - 'New Welfarism', a term coined by Gary L. Francione, is identified scientifically. This type of animal protection does not challenge the property status of animals and is different from Animal Rights; Integrity of animals and zoo issues are important aspects of Animal Rights but have been given limited attention in New Welfarism.
 - In total the four types of animal protection explain 32.8% of the variation in the overall attitudes to animals. The degree of the different types of animal protection are: (The UK ranks may be subject to considerable random error.)
 - Animal Welfare –
UK> Spain, Iran, Norway, Serbia>China, Czech, Ireland, South Korea, Macedonia, Sweden;
 - New Welfarism –
UK>Serbia>Macedonia>Spain>China, Czech, Ireland, Norway>Iran, Sweden>South Korea;
 - Reverence for Animals –
UK>Macedonia>China, Serbia>Spain>Czech, Ireland, South Korea, Norway, Sweden>Iran;
 - Animal Rights –
UK>Serbia>Macedonia, Spain>China, Czech, Ireland, Iran, South Korea,Norway, Sweden;
- Other types of attitudes analysed were: naturalness (Genetic changes) of animals, autonomy of animals, animal experimentation, wildlife protection, spiritual power of animals.

- Respect for the autonomy of animals is identified as a positive attitude towards animals. This attitude is sometimes mistaken for the avoidance of animals.
- The attitude to animal welfare is a more consistent predictor of the attitudes to world issues among different types of animal protection at the present time.
- Females on average have more positive attitudes to animals than males.
- Overall ranking of perceived sentience is: Human Infant> apes>other mammals> birds> cold-blooded animals.
- Far East tradition, Greek tradition and many indigenous traditions have higher levels of reverence for animals than do Abrahamic religions.
- There is some evidence to suggest that people in higher levels of the social hierarchy tend to have lower reverence for animals.
- Students from nations sharing similar political ideologies, in particular those sharing communist influences, share similar overall attitudes to animals and world issues, but this association can also be explained by the similar human welfare levels in these nations.

The present author concluded that though many factors are associated with the attitudes towards animals, memes (tradition, religion, political ideology, education, etc.) and genes (empathy, position in social hierarchy, genetic similarity to the animals, etc.) are two fundamental origins of attitudes towards animals, and the two can be further unified by the information they carry.

Keywords

Science, Philosophy, Applied Statistics, Animal Welfare, Animal Rights, New Welfarism, Attitude towards Animals, Reverence for life, Suffering, Cross-culture, China (mainland), Czech Republic, Spain, Ireland, Iran, Korean South, Macedonia, Norway, Portugal, Sweden, Serbia, United Kingdom, Eurasia, Europe, Asia, Greek, Gender, Universities Students, Ethnic Group, Religion, Food Avoidance, Vegetarian, Animal Protection Organization, NGO, Beef, Veal, Lamb, Pork, Poultry Meat, Eggs, Milk, Seafood, Pet, Animal Protection, Professional Ethics, Capital Punishment, Environmental Protection, Racial Equality, Genetic Engineering, Equality, Lesbian, Gay, Bisexual, Transgender,