



BRILL

*Society and Animals* 15 (2007) 353-363

Society  
**Animals** Journal of  
Human-Animal Studies  
www.brill.nl/soan

## Support for Animal Rights as a Function of Belief in Evolution, Religious Fundamentalism, and Religious Denomination

Jamie L. DeLeeuw<sup>a</sup>, Luke W. Galen<sup>b</sup>, Cassandra Aebersold<sup>c</sup>,  
and Victoria Stanton<sup>c</sup>

- <sup>a</sup>) Research Assistant, Department of Psychology, Grand Valley State University,  
Allendale, MI 49401; corresponding author  
E-mail: jldeleeuw@wichita.edu
- <sup>b</sup>) Associate Professor, Department of Psychology, Grand Valley State University,  
2139 AuSable Hall, Allendale, MI 49401  
E-mail: galenl@gvsu.edu
- <sup>c</sup>) Research Assistants, Department of Psychology, Grand Valley State University,  
Allendale, MI 49401

Sent 2 October 2006, Accepted 5 May 2007

---

### Abstract

The present study examined the relationship among religious denomination, fundamentalism, belief about human origins, gender, and support for animal rights. Eighty-two college undergraduates filled out a set of 3 questionnaires: The Religious Fundamentalism Scale (Altemeyer & Hunsberger, 2004), beliefs about human origins (creationism, intelligent design, or evolution), and the Animal Rights Scale (Wuensch, Jenkins, & Poteat, 2002). Because conservative Protestants and fundamentalists adhere to religious doctrine that espouses a discontinuity between humans and other species, the study predicted they would have lower support for animal rights. Further, proponents of evolution—who tend to view species as interconnected—would advocate animal rights more so than creationists and believers of intelligent design theory. Results supported the hypotheses. A multiple regression analysis revealed that the religious variables and gender were significant in predicting support for animal rights.

### Keywords

animal rights, animal welfare, evolution, fundamentalism, creationism, intelligent design, human origins, denomination, religion

### Introduction

Christian tradition and doctrine have greatly influenced and sustained current ethical attitudes toward animals in the United States. Christianity, the country's

© Koninklijke Brill NV, Leiden, 2007

DOI: 10.1163/156853007X235528

predominant religion, has a largely subordinated and instrumental view of animals, teaching that animals should serve a practical, human purpose. For instance, the Roman Catholic Catechism states, "Nonhuman animals, like plants and inanimate things, are by nature destined for the common good of past, present and future humanity" (Frasch, 2000, p. 338). Mainstream Christian religious views toward animals are derived from biblical passages such as Genesis 1:26-28, which states that "God made man in His own image" and explicitly gave human beings dominion over every living thing. Past research (Jerolmack, 2003) has demonstrated that church attendance correlates negatively with support for animal rights, and more frequent church attendees have more exploitative or utilitarian attitudes toward animals (Kellert & Berry, 1980). Frequency of church attendance also correlates with religious fundamentalism, the belief that one set of religious teachings contains the inerrant truth about humanity and deity, that we must fight opposed forces of evil, and that believers of the teaching have a special relationship with the deity (Altemeyer & Hunsberger, 1992).

In addition to church attendance and religious fundamentalism, attitudes and beliefs both directly and indirectly related to religion, such as denominational conservatism and teachings on human and animal origins, may be more specifically related to views of animal rights. Galvin and Herzog (1992) found that only one-third of animal rights activists are affiliated with conventional (Protestant, Jewish, Catholic) religious denominations, a figure well below national averages; nearly half of activists consider themselves atheistic or agnostic, with the remainder holding pantheistic or Buddhist views. Furthermore, those in conservative Christian denominations (who tend to interpret the Bible more literally than moderate Christians), may emphasize the uniqueness of humans and their biblically grounded right to exert dominance over animals. Pro-vivisectionist attitudes have been found to correlate with political conservatism, religious fundamentalism, and lower empathy for animals (Broida, Tingley, Kimball, & Miele, 1993).

### **Human Origins**

One specific belief that may influence the relationship between religiosity and animal rights is one's view about human origins. Creation science, often supported by Christian fundamentalists, posits that each species was created individually by God. Young earth creationists believe this occurred between 6,000 and 10,000 years ago according to a factual interpretation of Genesis. A key belief of creationism is that new kinds of species could be made by God, but not through natural means such as Darwinian selection, as species are immutable (Evans, 2001). Old earth creationism is more compatible with main-

stream scientific findings on the age of the Earth (billions of years old) but still disagrees with common descent in that animals and humans are separate and immutable. Theistic evolution or intelligent design theory posits that although common descent has occurred over long spans of time, the evolutionary process has been guided by an intelligent designer or God.

The majority of Christians and Jews are theistic evolutionists who believe that God initiated biological evolution. They are more able than creationists to reconcile mainstream science with the Bible or have no problem maintaining both religious and secular systems of knowledge (Harrold & Eve, 1987). The naturalistic theory of evolution (Darwinian evolution) emphasizes the continuity of species and, in contrast to the previous theories, posits that changes over time are due to random mutation and genetic drift, and—as such—are not “guided” in any sense.

#### *Significant Differences*

Creationists—largely conservative, Protestant Christians who believe there can be no discrepancies between scripture and scientific data pertaining to human origins—tend to view evolution as a threat to religion and morality (Kehoe in Harrold & Eve, 1987). Therefore, the view of continuity or discontinuity with other animals is likely to be an additional influence shaping one’s views on animal rights. The continuity between human and nonhuman animals is unlike the Cartesian view that only humans experience consciousness and is at odds with the Judeo-Christian belief of humans as elevated above other beings (Shapiro, 1998). In interviews with animal-protection activists in Switzerland and the United States,

Jamison, Wenk, and Parker (2000) found activists’ view to be that “people are related through evolution to animals but ethically constrained from using them because we, alone, are conscious of the suffering such use causes and can exercise free will to end it” (p. 314). Similarly, in a comparison of groups of people who either accepted or denied evolution, Burghardt (1985) found that these groups’ scores differed significantly on scales reflecting a view of continuity between animals and humans on feelings, intellect, and behavior. The acceptance of evolution was related to a view that animals and humans are similar; therefore, it is probable that creationists would be less likely to view human and animal rights to be related in any way. It is not known, however, which one of these factors—religious fundamentalism, religious denomination, or views about human origins—most strongly influences views of animals and support for animal rights.

A demographic variable in past research that repeatedly correlates with animal rights support is gender; women tend to have a higher level of support for animal rights than do men (Einwohner, 1999; Jerolmack, 2003; Nibert, 1994;

Kruse, 1999). Gender can subsequently be used as a standard demographic predictor by which to demonstrate the unique predictive influence of the religious variables.

### *Hypotheses*

The study contained the following hypotheses:

1. Conservative Protestants will demonstrate lower support for animal rights than either moderate religious denominations or those belonging to no religious denomination.
2. Those low on religious fundamentalism will show more support for animal rights than those high on fundamentalism.
3. Proponents of evolution will demonstrate greater support for animal rights than those who espouse intelligent design; and the latter will in turn be more supportive than creationists.
4. Religious fundamentalism and belief in human origins will be more influential in the prediction of support for animal rights than religious denomination, which is a broader, more heterogeneous categorization of individuals.
5. Women will have higher support for animal rights than men.

## **Methods**

### *Participants*

Eighty-two college undergraduates participated in order to earn experimental credit for an introductory psychology class. The sample was 65% female and 85% Caucasian. Eighty-two % of the students were between the ages of 17 and 19, and 77% were freshman. Religious denomination was categorized similarly with previous work (Smith, 1990), which distinguishes moderate or mainstream denominations from more conservative ones. Smith categorizes denominations along a fundamentalist-liberal continuum using multiple techniques including membership in ecumenical organizations (National Council of Churches or National Evangelical Association), surveys of denomination members and clergy, and the theological beliefs of denominations. These beliefs include biblical inerrancy and the valuation of being "born again." Religious affiliation of the participants was as follows: 20% not religious/ no organized religion, 48% moderate (Catholic, Lutheran), 32% conservative (Baptist, Pentecostal, Christian Reformed). Numerical dummy codes were assigned to each denomination as follows: None (0), Moderate (1), Conservative (2).

### *Procedure*

As part of a prescreening for a separate study, all introductory psychology students received a measure of religious fundamentalism at the beginning of the fall semester. Participants for the present study were chosen based on their willingness to participate in exchange for class credit. Participants gave their informed consent and then filled out a packet. Each packet consisted of three questionnaires in random order.

### *Measure*

The Religious Fundamentalism Scale—Short Form (Altemeyer & Hunsberger, 2004) is a 12-item questionnaire that assesses how firmly participants believe one set of religious teachings contains truth about God and humanity. Sample questions include, “The basic cause of evil in this world is Satan, who is constantly and ferociously fighting against God” and “Scriptures may contain general truths, but they should NOT be considered completely, literally true from beginning to end” (reverse-keyed). The measure uses a Likert-type scale that ranges from -4 (very strongly disagree) to +4 (very strongly agree). Higher scores represent greater endorsement of fundamentalist beliefs. Altemeyer and Hunsberger report Cronbach’s alpha to be .91. The mean score of the religious fundamentalism scale was 60.5 ( $SD = 25.6$ ).

The Animal Rights Scale (ARS) is a 28-item questionnaire (Wuensch, Jenkins, & Poteat, 2002) that assesses one’s attitude regarding animal use and research. The ARS uses a Likert-type response scale that ranges from strongly disagree to strongly agree. It comprises two scales: One contains items reflecting concern with the violation of animal rights by using animals for fur, clothing, and food; the other contains items assessing concern with animal research. We used the overall score, not the subscales, as the items were strongly correlated with one another and measured the same basic construct. Sample questions include the following:

1. It is wrong to wear leather jackets and pants;
2. Most medical research done on animals is unnecessary and invalid;
3. I have seriously considered becoming a vegetarian in an effort to save animal lives;
4. God put animals on Earth for man to use (reverse-keyed).

Higher scores represent greater endorsement of animal rights support. The mean score of the ARS was 64.9 ( $SD = 12.9$ ).

The Human Origins Questionnaire (HOQ) consists of four statements concerning the origin and development of human beings. The statements were designed to be similar to the questions presented in national polls such as

Gallup and the Pew Forum to distinguish between the age of the earth, common descent with animals, and God's role in the process. Participants chose the statement that most accurately reflected their belief about human origins:

1. Human beings have developed over millions of years from earlier species or less advanced forms of life; God had no part in this process;
2. Human beings have developed over millions of years from earlier species or less advanced forms of life; God guided this process;
3. God created human beings pretty much in their present form at some point millions of years ago;
4. God created human beings pretty much in their present form at one time within the last 10,000 years or so.

These four responses are labeled—respectively—Naturalistic Evolution, Intelligent Design, Old Earth Creationism, and Young Earth Creationism. In the quantitative analyses, each option was assigned a numerical dummy code such that increasing values indicate support for creationism.

## Results

### *Human Origins Questionnaire*

Thirty-nine % of participants reported that they believe in intelligent design, and 33% believe in young earth creationism. Fourteen % of participants endorsed old earth creationism and naturalistic evolution, respectively.

### *Belief in Human Origins as a Function of Denomination*

A two-way contingency table analysis found that denomination and belief in creationism (rejection of evolution) were significantly related  $\chi^2(6, N = 75) = 32.18, p < .001$ , Kendall's tau-b = .51 (Figure 1). Seventy-three % of the participants who believe in naturalistic evolution belong to no denomination; the remaining 27% of naturalistic evolution supporters were from a moderate Christian religious affiliation; none of those endorsing naturalistic evolution were conservative Protestants. In contrast, 20% of intelligent design supporters had no denomination, 60% were part of a moderate denomination, and 20% were affiliated with a conservative denomination. Twenty % of the old earth creationism group belonged to no denomination, 30% to moderate, and 50% to conservative. Finally, 42% of young earth creationists were moderates, and 58% were conservatives.

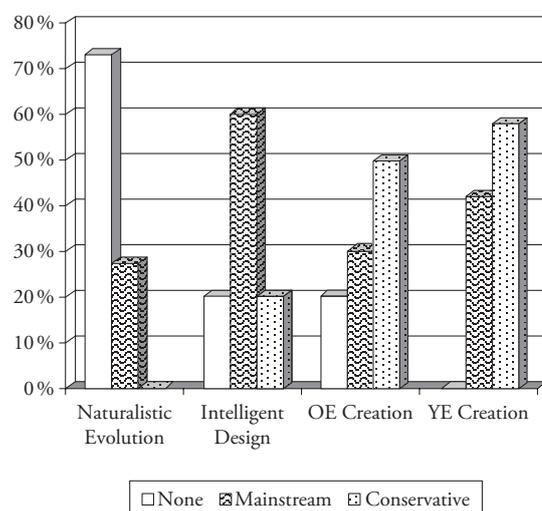


Figure 1. Denomination and human origins questionnaire

#### *Relationship between the Animal Rights Scale and Other Variables*

Cronbach's alpha for the 28-item Animal Rights Scale was .87, demonstrating the internal consistency of the items. The correlations between the Animal Rights Scale and the religious variables are shown in Table 1. All variables were significantly—but modestly—correlated with the Animal Rights Scale (.28-.32). The religious variables, Religious Fundamentalism, Denomination, and Human Origins Questionnaire were more strongly intercorrelated (.57-.81). Gender was not significantly correlated with any of the religious dependent variables, but was significantly correlated with the Animal Rights Scale (.41); women demonstrated higher support for animal rights than did men. The numerical dummy codes for gender were as follows: Men (0), Women (1).

#### *Religious Variables and Animal Rights Support as a Function of Denomination*

Given that examining mean differences was appropriate for our dataset, we considered it acceptable to analyze our ordinal data using Analysis of Variance. Further, the statistic is robust (Roberts & Russo, 1999). There was a significant relationship between Religious Fundamentalism and Denomination (Table 2). Participants in the no denomination category had a significantly lower religious fundamentalism score ( $M = 31$ ,  $SD = 16.1$ ) than the moderate group ( $M = 58$ ,  $SD = 20.2$ ), and both were significantly lower than the conservative group ( $M = 82.4$ ,  $SD = 17$ ),  $F(2,73) = 36.4$ ,  $p < .001$ ,  $\eta^2 = .51$ . The analysis of the

**Table 1. Correlations (Spearman) between Variables**

|        | Fund <sup>a</sup> | Gender | Denom <sup>b</sup> | HOQ <sup>c</sup> | ARS <sup>d</sup> |
|--------|-------------------|--------|--------------------|------------------|------------------|
| Fund   | 1                 | -.07   | .71**              | .81**            | -.29*            |
| Gender |                   | 1      | -.07               | -.04             | .41**            |
| Denom  |                   |        | 1                  | .57**            | -.32**           |
| HOQ    |                   |        |                    | 1                | -.28**           |

Note: <sup>a</sup> Religious Fundamentalism. <sup>b</sup> Religious Denomination. <sup>c</sup> Human Origins Questionnaire. <sup>d</sup> Animal Rights Scale. Pairwise deletion was used given missing data. \* $p < .05$ . \*\* $p < .01$ .

Human Origins Questionnaire responses as a function of denomination revealed that belief in creationism (rejection of evolution) was significantly greater in the conservative group ( $M = 3.3$ ) than in the moderate group ( $M = 2.6$ ) and the no denomination group ( $M = 1.6$ ); the mean for the no denomination group was significantly lower than that of the other two groups,  $F(2,74) = 17.0$ ,  $p < .001$ ,  $\eta^2 = .32$ . Upon analyzing support for animal rights (as measured by the ARS) as a function of denomination, people in the moderate ( $M = 63.2$ ,  $SD = 11.48$ ) and conservative ( $M = 61$ ,  $SD = 10.1$ ) denomination categories held less supportive views of animal rights than did participants in the no category ( $M = 73.4$ ,  $SD = 15.9$ ),  $F(2,76) = 5.6$ ,  $p = .005$ ,  $\eta^2 = .13$ .

**Table 2. Differences among the Denominational Groups**

|                             | Denomination             |                              |                                  | <i>F</i> value<br>(2; 73,74,76) |
|-----------------------------|--------------------------|------------------------------|----------------------------------|---------------------------------|
|                             | None<br>( <i>n</i> = 16) | Moderate<br>( <i>n</i> = 35) | Conservative<br>( <i>n</i> = 26) |                                 |
| Religious<br>Fundamentalism | 31.0 <sup>a</sup>        | 58.0 <sup>b</sup>            | 82.4 <sup>c</sup>                | 36.4**                          |
| Human Origins               | 1.6 <sup>a</sup>         | 2.6 <sup>b</sup>             | 3.3 <sup>c</sup>                 | 17.0**                          |
| Animal Rights<br>Scale      | 73.4 <sup>a</sup>        | 63.2 <sup>b</sup>            | 61.0 <sup>b</sup>                | 5.6**                           |

Note: Means having different superscripts are significantly different at  $p < .01$  using Fisher's Procedure. Pairwise deletion was used given missing data. \* $p < .05$ . \*\* $p < .01$ .

### *Multiple Regression Predicts Animal Rights Support*

A step wise multiple regression analysis was conducted to predict support for animal rights. Pair wise deletion was used for missing data. Gender was entered first to determine its unique variance. Religious fundamentalism, belief in human origins, and religious denomination were entered next as predictor variables. Step one demonstrated that gender was significantly related to animal rights support,  $R^2 = .11$ , adjusted  $R^2 = .10$ ,  $F(1,73) = 9.03$ ,  $p < .01$ . The confidence interval around  $R^2$  was .01 to .27. Eleven % of the variance in animal rights support was accounted for by gender. When the religious variables were added with gender in step two of the regression, the linear combination of measures was significantly related to animal rights support,  $R^2 = .23$ , adjusted  $R^2 = .18$ ,  $F(4,73) = 5.00$ ,  $p < .01$ . The confidence interval around  $R^2$  was .05 to .37. Adding the religious variables to gender increased the variance in animal rights support accounted for by the predictor variables from 11% to 23%.

### **Discussion**

Conservative Protestants and moderate religious denominations exhibited lower support for animal rights than did those belonging to no denomination. This reinforces previous research demonstrating that the majority of animal rights supporters are non-Christians, atheists and agnostics (Galvin & Herzog, 1992). Individuals high in religious fundamentalism and adherents of creationist views of human origins displayed lower support for animal rights; conversely, low fundamentalists and those who believe in naturalistic evolution were more supportive of animal rights. A step wise multiple regression analysis demonstrated that gender accounted for 11% of variance in support for animal rights. By comparison, when the religious variables (religious denomination, belief about human origins, and religious fundamentalism), which were strongly intercorrelated, were included in the regression, the variance accounted for by all the variables increased to 23%. Therefore, religious variables appear to add variance to other demographic variables (gender) in the prediction of animal rights support.

A larger conceptual issue concerns the mechanism by which religious beliefs are reflected in lower support for animal rights; this involves determining which religious variables are most influential of animal rights attitudes. There are several possible mechanisms by which religiosity may influence support for animal rights. A direct path may be that individuals, who are intuitively unsure of their moral responsibility to nonhuman animals, receive guidance or information from their spiritual advisors. This may also explain the association

between frequent church attendance, religious fundamentalism, and lower support for animal rights. Denominations may deem animal rights issues unimportant or irrelevant due to their interpretation of the Bible or view of humankind in relation to other species. Such views by religious authorities may be reiterated to the congregation and the status quo of animal treatment is thus maintained. Courtroom judges for instance, commonly cite biblical passages when dealing with cases involving nonhuman animals. As with “slavery, inter-racial marriage, bigamy, and gay rights, the courts have, on the whole, been heavily affected by the mainline interpretation of these practices within western Christianity” (Frasch, 2000, p. 341).

Another possible indirect mechanism may be that members of conservative denominations or those high in religious fundamentalism are also politically and socially conservative; their views of animal may therefore be the product of general conservative views rather than exist as the direct reflection of religion. Opposition to animal rights is closely aligned with political conservatism (Nibert, 1994). We did not include a measure of overall conservatism and therefore are unable to better determine how political orientation interacts with religion in shaping individuals’ moral views toward animals.

Future research on the relationship between religion and animal rights could entail interviewing church leaders in liberal, moderate, and conservative religious denominations to see how they have come to acquire their ethical views of animals and how frequently they “counsel” congregants on humans’ responsibilities/relationship to animals. It could also be beneficial to assess spiritual authorities’ knowledge of humans’ current animal practices.

Enhancing the public’s knowledge of evolution may itself be ineffective at increasing support for animal rights because emphasizing naturalistic human origins and the process of evolution would directly contradict a larger religious worldview (which may engender a defensive reaction). Rather, appealing to a religious concept such as compassion or stewardship as a shared value may increase support for animal rights in a way that challenging creationist views may not. Smith, Dykema-Engblade, Walker, Niven, and McGough (2000) have found minority arguments (against the death penalty) to be effective in influencing the majority when a shared belief system is appealed to.

Essentially, religious concepts may be framed or used to emphasize a more pro-animal stance. For example, the biblical material on “dominion” can be reformulated to include more stewardship—or care-taking of—rather than power over animals. Similarly, Frasc (2000, p. 345) argues that “religious believers and institutions can be fully religious while developing a framework rooted in the kindness ethic, compassion, and the belief that nonhuman animals possess intrinsic value.” This approach has had some recent success with the broader environmental movement. Some evangelical Christians have sepa-

rated from traditional conservative antipathy to stronger environmental support by using the concept of “stewardship” to increase awareness of issues such as global warming. There are opportunities for future research to determine if reframing a pro-animal stance to concur with biblical or creation stewardship can have an impact on animal rights attitudes.

## References

- Altemeyer, B., & Hunsberger, B. (2004). A revised Religious Fundamentalism Scale: The short and sweet of it. *International Journal for the Psychology of Religion*, *14*, 47-54.
- . (1992). Authoritarianism, religious fundamentalism, quest, and prejudice. *International Journal for the Psychology of Religion*, *2*, 113-133.
- Broida, J., Tingley, L., Kimball, R., & Miele, J. (1993). Personality differences between pro- and anti-vivisectionists. *Society & Animals*, *1*(2), 129-144.
- Burghardt, G. M. (1985). Animal awareness: Current perceptions and historical perspective. *American Psychologist*, *40*, 905-919.
- Einwohner, R. L. (1999). Gender, class, and social movement outcomes: Identity and effectiveness in two animal rights campaigns. *Gender & Society*, *13*(1), 56-76.
- Evans, M. E. (2001). Cognitive and contextual factors in the emergence of diverse belief systems: Creation versus evolution. *Cognitive Psychology*, *42*(3), 217-266.
- Frasch, P. D. (2000). Addressing animal abuse: The complementary roles of religion, secular ethics, and the law. *Society & Animals (Special Issue): Religion and Animals*, *8*(3), 331-348.
- Galvin, S. L., & Herzog, H. A. (1992). Ethical ideology, animal rights activism, and attitudes toward the treatment of animals. *Ethics & Behavior*, *2*(3), 141-149.
- Harrold, F. B., & Eve, R. A. (1987). *Cult archaeology and creationism: Understanding pseudoscientific beliefs about the past*. Iowa City: University of Iowa Press.
- Jamison, W. V., Wenk, C., & Parker, J. V. (2000). Every sparrow that falls: Understanding animal rights activism as functional religion. *Society & Animals (Special Issue): Religion and Animals*, *8*(3), 305-330.
- Jerolmack, C. (2003). Tracing the profile of animal rights supporters: A preliminary investigation. *Society & Animals*, *11*(3), 245-263.
- Kehoe, A. B. (1987). Scientific creationism: World view, not science. In F. B. Harrold & R. A. Eve (Eds.), *Cult archaeology and creationism: Understanding pseudoscientific beliefs about the past* (pp. 11-20). Iowa City: University of Iowa Press.
- Kellert, S. R., & Berry, J. K. (1980). *Phase III: Knowledge, affection and basic attitudes toward animals in American society*. Washington, DC: U.S. Fish and Wildlife Service.
- Kruse, C. (1999). Gender, views of nature, and support for animal rights. *Society & Animals*, *7*(3), 179-198.
- Nibert, D. (1994). Animal rights and human social issues. *Society & Animals*, *2*(2), 115-124.
- Roberts, M., & Russo, R. (1999). *A student's guide to analysis of variance*. New York: Routledge.
- Shapiro, K. (1998). *Animal models of human psychology: Critique of science, ethics, and policy*. Seattle, WA: Hogrefe & Huber Publishers.
- Smith, C., Dykema-Engblade, A., Walker, A., Niven, T., & McGough, T. (2000). Asymmetrical social influence in freely interacting groups discussing the death penalty: A shared representations interpretation. *Group Processes and Intergroup Relations*, *3*, 387-401.
- Smith, T. (1990). Classifying Protestant denominations. *Review of Religious Research*, *31*, 225-245.
- Wuensch, K. L., Jenkins, K. W., & Poterat, G. M. (2002). Misanthropy, idealism, and attitudes toward animals. *Anthrozoös*, *15*, 139-149.

