

Human Attitudes, Canine Behavior, and the Management of Free-roaming Dogs



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Human Attitudes



Canine Behavior



Population Management



Human Attitudes to Dogs



The Importance of Understanding Attitudes



“The single most important influence on dog numbers is the attitude of humans”

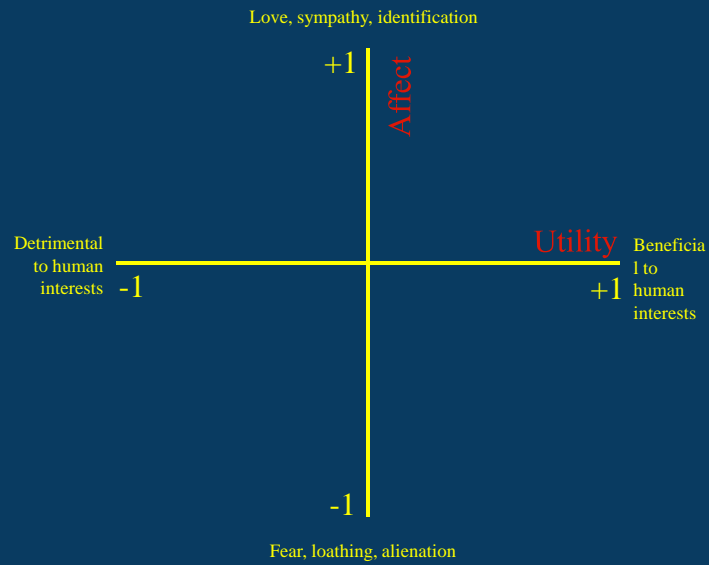
Matter, H.C. & Daniels, T.J., 2000. In: C.N.L. Macpherson et al., eds.
Dogs, Zoonoses and Public Health. CABI Publishing.

Attitudes to dogs influence:

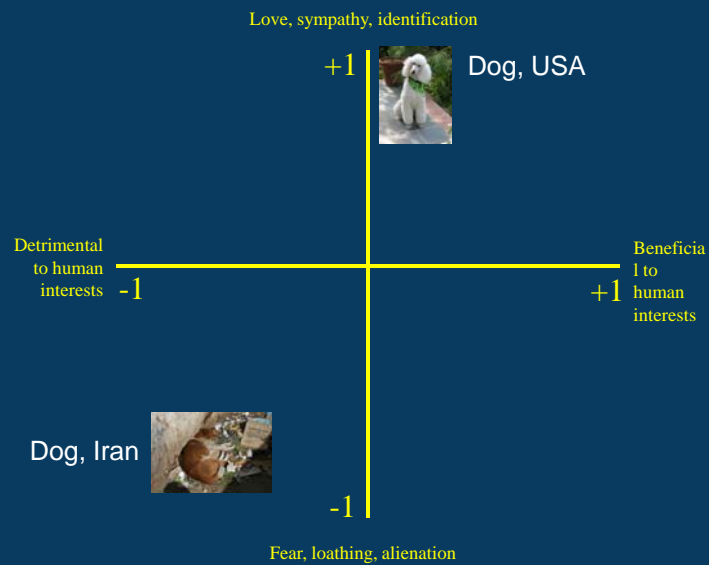
- The number and distribution of dogs in a given area
- Patterns of dog ownership, restraint, and levels of care
- The acceptability of particular control measures
- The willingness of people to touch or handle dogs
- Levels of exposure to zoonotic disease and other dog-related risks
- Etc.

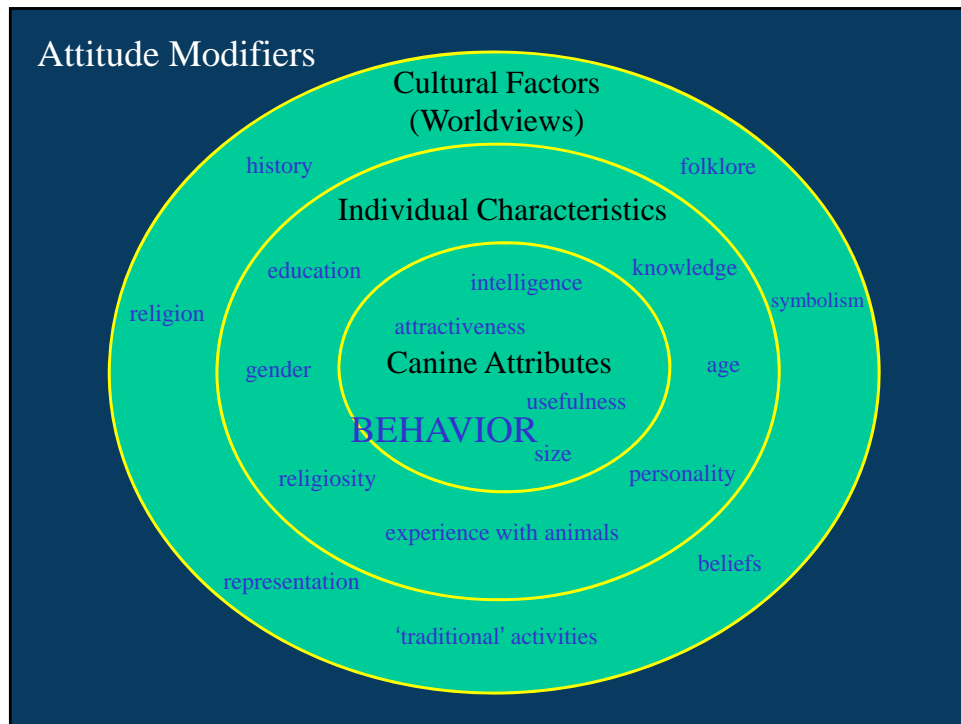
The Affect *versus* Utility Model of Attitudes to Animals

(Serpell, JA. 2004. *Animal Welfare*, 13(S): 145-152)



The Affect *versus* Utility Model of Attitudes to Animals





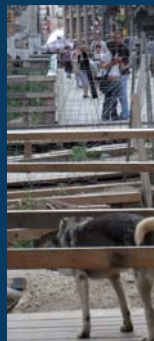
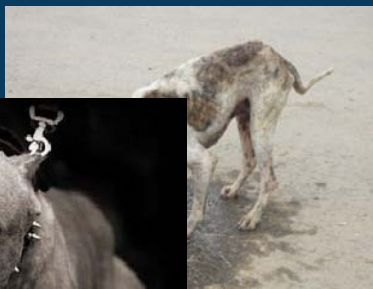
The Western Idea of the “Noble Dog”



Positive Dog Stereotypes



Negative Dog Stereotypes



When we neglect or abandon dogs, and oblige them to survive independently, we force them to perform exactly the kinds of behavior for which they are most despised and denigrated.



Dog Population Management



Taiwan

A Case Study

Republic of China on Taiwan



Area: 36,000 km²
Human population: 22 million.
Stray dog population: 1.3 million



Very Poor Conditions in Shelters

Out of 67 public and private animal control or holding facilities in Taiwan investigated by WSPA, 62 were classified as “poor” or “unacceptable” (Leney & Marks, 1996):



“The majority of dogs seen..... whether in new or old facilities were suffering with severe skin problems, were visibly traumatized, with many close to death. Dead and decaying dogs were seen amongst the living, also dogs eating dogs.”



Goals of the Study



- ❖ To provide an objective description of Taiwanese attitudes to dogs.
- ❖ To examine the relationship (if any) between dog-related attitudes and behavior toward dogs.
- ❖ To determine the influence of demographic, cultural and experiential factors on the development of such attitudes.

Methods



- ❖ Face-to-face interviews with 27 local informants – e.g. dog owners and non-owners; dog feeders; animal protectionists; veterinarians; academics; politicians; religious spokespersons; urban, suburban, rural residents – regarding interviewee's dog-related knowledge and experience, attitudes to dogs, and perceptions of the stray dog problem and its causes.
- ❖ Interviews recorded on audiotape (with informant's consent); transcribed, and broken down into major recurring content themes, topics, and issues.

Methods

Interview information used to develop a 95-item survey questionnaire divided into six sections:

- ❖ Respondents' demographic backgrounds
- ❖ Their general attitudes to dogs (Likert scales)
- ❖ Their attitudes toward stray (free-roaming) dogs (Likert scales)
- ❖ Their experience of dog abandonment by others
- ❖ Their own dog ownership history
- ❖ Their attitudes toward, and care of, any currently owned dogs.

	Strongly Disagree	Disagree	Agree	Strongly Agree
1. I love dogs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Methods

- ❖ Questionnaire translated into Chinese; reviewed, pre-tested and modified by the Office of Survey Research, Academia Sinica, ROC Taiwan.
- ❖ 5760 residential telephone numbers selected at random from the Taiwan directory and dialed, 2510 people answered, and 509 (20%) declined to be interviewed (Office of Survey Research). Average questionnaire completion time 12.5 minutes.
- ❖ Resulted in a sample of 2001 adult (18+ years) Taiwanese residents. Demographics of the sample closely matched Taiwan census information, but slight gender bias toward women.

Dog ownership in Taiwan

- ❖ 22.9% of respondents currently were owners (USA: 36.9%) of 1.6 dogs/household (USA: 1.7), and 20% of these dogs were neutered (USA: 70%).
- ❖ 30.4% reported adopting a stray dog at some point in their lives.
- ❖ 33.6% reported losing dogs that had escaped, run away or gotten lost (increased significantly with the number of dogs owned).
- ❖ 5.3% reported abandoning or releasing a dog themselves at some point in their lives.
- ❖ 31.9% reported knowing someone else who had abandoned or released a dog.
- ❖ Last dog “died of natural causes” (38.5%), “escaped or got lost” (15.5%), “given away” (14.9%), “still with me” (12.8%), “killed in an accident” (12.5%), “abandoned” (2.6%), and “euthanized by a veterinarian” (1.5%).

NB: Taiwan Animal Protection Law (1998) imposes a fine of between \$700 and \$3,300 US for abandoning an animal.

Results of Attitude Survey Were Subjected to Factor Analysis to Identify Different Attitude Dimensions or Factors

Subscale 1: Liking for Dogs (Affect)

Item	Factor #	<u>1</u>	<u>2</u>	<u>3</u>
I love dogs	0.65	-0.15	-0.01	
Keeping dogs for companionship is a waste of money	-0.56	0.20	-0.07	
Dogs should have the same rights/privileges as family members	0.69	-0.03	-0.07	
Dogs bring happiness to their owners	0.75	0.09	-0.14	
Dogs are clean animals	0.62	-0.20	0.04	
Dogs are not very intelligent	-0.47	-0.21	-0.07	
Dogs are able to understand and sympathize with people's feelings	0.56	0.17	-0.06	
Dogs deserve as much respect as humans do	0.67	0.17	-0.07	

(Cronbach's alpha = 0.78)

Factor 2: Viewing Stray Dogs as Harmful (Utility)

Item	Factor #	<u>1</u>	<u>2</u>	<u>3</u>
Stray dogs are dangerous to young children	-0.13	0.77	0.03	
Stray dogs spread diseases	0.09	0.78	-0.05	
I sometimes worry about being attacked by stray dogs	-0.23	0.58	-0.09	
Stray dogs cause many traffic accidents & injuries to people	0.09	0.70	0.11	
Stray dogs give foreign visitors a very bad impression of Taiwan	0.19	0.58	0.13	

Cronbach's alpha = 0.72

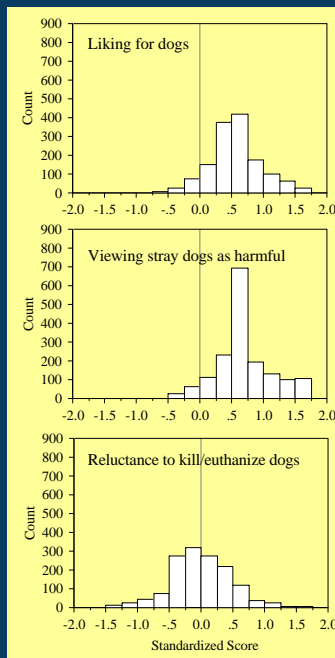
Subscale 3: Reluctance to Kill/Euthanize Dogs

Item	Factor #	1	2	3
I'd rather release an unwanted dog than have it euthanized		0.01	-0.08	0.59
I would be afraid of bad luck if I killed a dog or had it euthanized		-0.07	0.02	0.76
I believe that the things we do to dogs and other animals in this life can affect the quality of our existence in future lives		0.17	0.00	0.69
Stray dogs should be captured, neutered, and released again if they are healthy enough to live on the street		0.01	-0.02	0.55

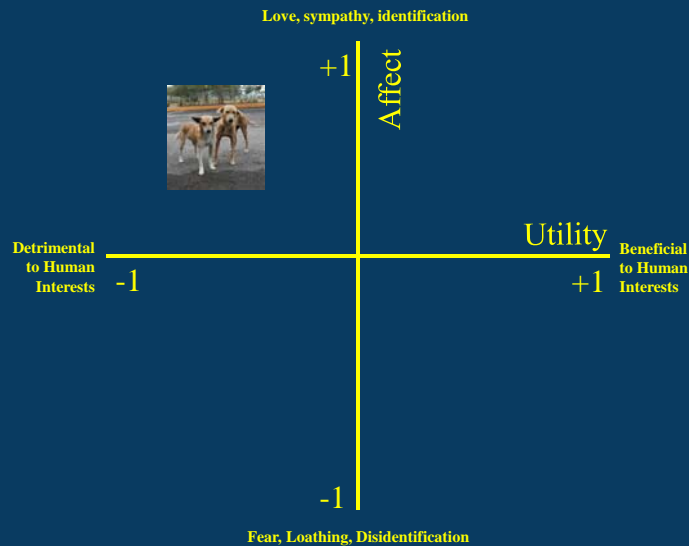
(Cronbach's alpha = 0.57)

(All three factors accounted for 47% of the common variance)

Frequency distribution of subscale scores



Taiwanese Attitudes to Dogs



Demographic Factors & Experience Affect Attitudes

- Younger, higher income individuals expressed stronger “Liking for dogs”, especially if they lived in urban/suburban areas during childhood with dogs allowed inside the home.
- Older, married, and better educated women were most likely to “View stray dogs as harmful”, particularly if they had religious mothers, and grew up with unconfined, household dogs during childhood.
- Unmarried women on lower incomes, with traditional Asian religious beliefs, and living either on farms or in low rise housing in rural areas displayed greatest “Reluctance to kill/euthanize” unwanted dogs, especially if they had grown up with unconfined household dogs as a child.

Attitudes Predict Behavior towards Dogs

- High score on “Liking for dogs” predicts: More dogs owned currently and in the past, greater likelihood of adopting stray dogs, owning dogs for companionship (*versus* other reasons), more time spent with dogs, taking dogs to the veterinarian, and vaccinating dogs.
- High score on “Viewing stray dogs as harmful” predicts: Fewer dogs owned both now and in the past, and less likelihood of adopting stray dogs, allowing dogs inside the house, vaccinating and neutering/sterilizing dogs, or spending time with dogs.
- High score on “Reluctance to kill/euthanize dogs” predicts: Less likelihood of euthanizing own dogs, and greater likelihood of abandoning dogs, allowing dogs to roam freely, and failing to take dogs to the veterinarian or to have them vaccinated.

i.e. If you can change attitudes, you can change behavior

Summary of Findings

- ❖ Three distinct attitude dimensions were identified: (1) an affective dimension to do with general liking/affection for dogs, (2) a utility dimension to do with perceiving dogs as harmful to public health and safety, and (3) a cultural dimension concerned with beliefs about the moral/ spiritual consequences of killing unwanted dogs.
- ❖ These different attitude dimensions predicted behavior towards dogs in expected ways.
- ❖ Age, sex, income, marital status, religion, area and type of residence, all helped to predict dog-related attitudes. Childhood experience of living with household dogs was the most important variable affecting attitudes.
- ❖ National affection for dogs, combined with low rates of neutering/sterilization, recent demographic shifts from rural to urban living, and cultural reluctance to kill/euthanize dogs, appear to be the main factors contributing to the free-roaming dog problem on Taiwan.

The Value of Such Studies



Need to develop a set of standardized instruments for measuring attitudes to dogs and dog-related issues cross-culturally.

- ❖ By focusing on local attitudes and the factors influencing these attitudes, the results of such studies can suggest culturally sensitive approaches to solving the problem of free-roaming dogs.
- ❖ Such studies can also help to target public education where it is likely to have the greatest impact on people's attitudes and behavior.
- ❖ Provide a baseline from which to measure change in dog-related attitudes and behavior.

Lessons for Taiwan

- ❖ The classic western pet “overpopulation” model with its emphasis on humane euthanasia for unwanted and unadoptable animals is unlikely to be popular in Taiwan because of this country’s cultural opposition to killing dogs.
- ❖ Instead, Capture (vaccinate), Neuter, and Release (CNR) programs of the type widely used to control populations of free-roaming cats might be more ethically and socially acceptable.
- ❖ Recently, CNR-type programs have been shown to work as a method of humane control of stray dogs (e.g. in Jaipur in India), but this option may not be suitable everywhere.

Gracias!

