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Cultural Diversity and Attitudes Toward Marine Wildlife: A Conceptual Framework

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Technical Report

Working Paper #1

**CULTURAL DIVERSITY AND ATTITUDES TOWARD MARINE
WILDLIFE: A CONCEPTUAL FRAMEWORK**

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Cultural Diversity and Attitudes Toward Marine Wildlife
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Economic globalization and increased migration have brought cultural traditions and practices from many regions of the world together in most large metropolitan regions. Along with unsustainable practices associated with western models of economic development, the practices of newcomers can have adverse impacts on the local natural environment and its resident fauna, including marine wildlife. Cross-cultural conflict in such locales may also emerge on the basis of a general lack of familiarity and understanding of culturally diverse attitudes and practices towards animals. Yet prior work in the area of attitudes toward animals has not considered the issue of cultural differences. This report presents a conceptual framework designed to facilitate an understanding of attitudes toward marine wildlife in a culturally diverse metropolitan setting such as Los Angeles. The framework incorporates three interrelated levels of analysis: the global, local, and individual. The global level includes overarching trends in economic globalization and environmental degradation, culture-specific nature-culture relations, social movements around animals and the environment, and the impacts of international regulatory agencies. The local level, takes into account local institutions and environmental contexts, as well as an area's demographic characteristics that may affect attitudes toward marine wildlife. At the individual level, the focus is on basic environmental values, knowledge about animals, species preferences, and interactions with animals. This framework represents an effort to integrate contextual locational and cultural characteristics of individual subjects into an understanding of attitudes that is more dynamic than prior attitudinal research. Attitudes are considered as emerging not only out of demographic and socioeconomic differences, but also as being shaped by: (1) population flows which bring together individuals of diverse backgrounds; (2) multi-generational maintenance of cultural traditions within destination locations; and (3) socio-spatial issues like urban poverty and economic marginalization. Ultimately all of these factors are understood to result in differing culture- and place-specific attitudes towards animals.

Keywords: Attitudes toward animals, Cross-cultural attitudes, Marine wildlife

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1. INTRODUCTION

Culturally-specific attitudes towards animals can be the source of cross-cultural misunderstandings and in some instances, the source of adverse impacts on the local natural environment and its residential wildlife as well. With increased global migration, cultural traditions and practices from a variety of regions around the world are often brought together in one geographic locale; increasingly, these are urban areas, and most commonly urban coastal environments. It is important to recognize that it is the impact of human activity that causes environmental problems, usually by the dominant, Euro-white mainstream group; however, as diverse cultural attitudes and practices towards nature in general, and toward animals specifically, come together in one locale they also often have adverse environmental and social impacts. Ecosystems such as coastal tidal zones may be affected by a specific culture's harvesting practices. In addition, the members of various cultural groups may become judgmental towards each other due to unfamiliarity and lack of understanding of traditional practices of each group; examples range from tidepool collecting, harvesting of an endangered species, to the conditions of keeping live seafood. Cross-cultural conflict (which often manifests as racialization) occurs as a result of conflicting attitudes about appropriate practices and attitudes towards animals.

Prior work in the area of attitudes towards animals has been descriptive, with little or no information on culturally diverse attitudes, and few studies have looked at attitudes toward marine wildlife. Information on diverse attitudes toward animals is needed in order to resolve cross-cultural conflict issues and to enhance mitigation of environmental impacts resulting from problematic practices. The purpose of this working paper is to theorize the formation of attitudes and to suggest the basis for attitude variation, especially between people of different cultural backgrounds. A conceptual framework was created for this purpose. It incorporates global, local and individual level influences which combine and interrelate to ultimately produce attitudes towards animals, and in this instance, attitudes toward marine wildlife .

We will first provide a brief synopsis of the conceptual framework, then give a more detailed explanation of the area of focus within the model: the individual level. The question of racial/ethnic/cultural variation in attitudes will be addressed next,¹ followed by a conclusion which lays out the hypothesis of the research.

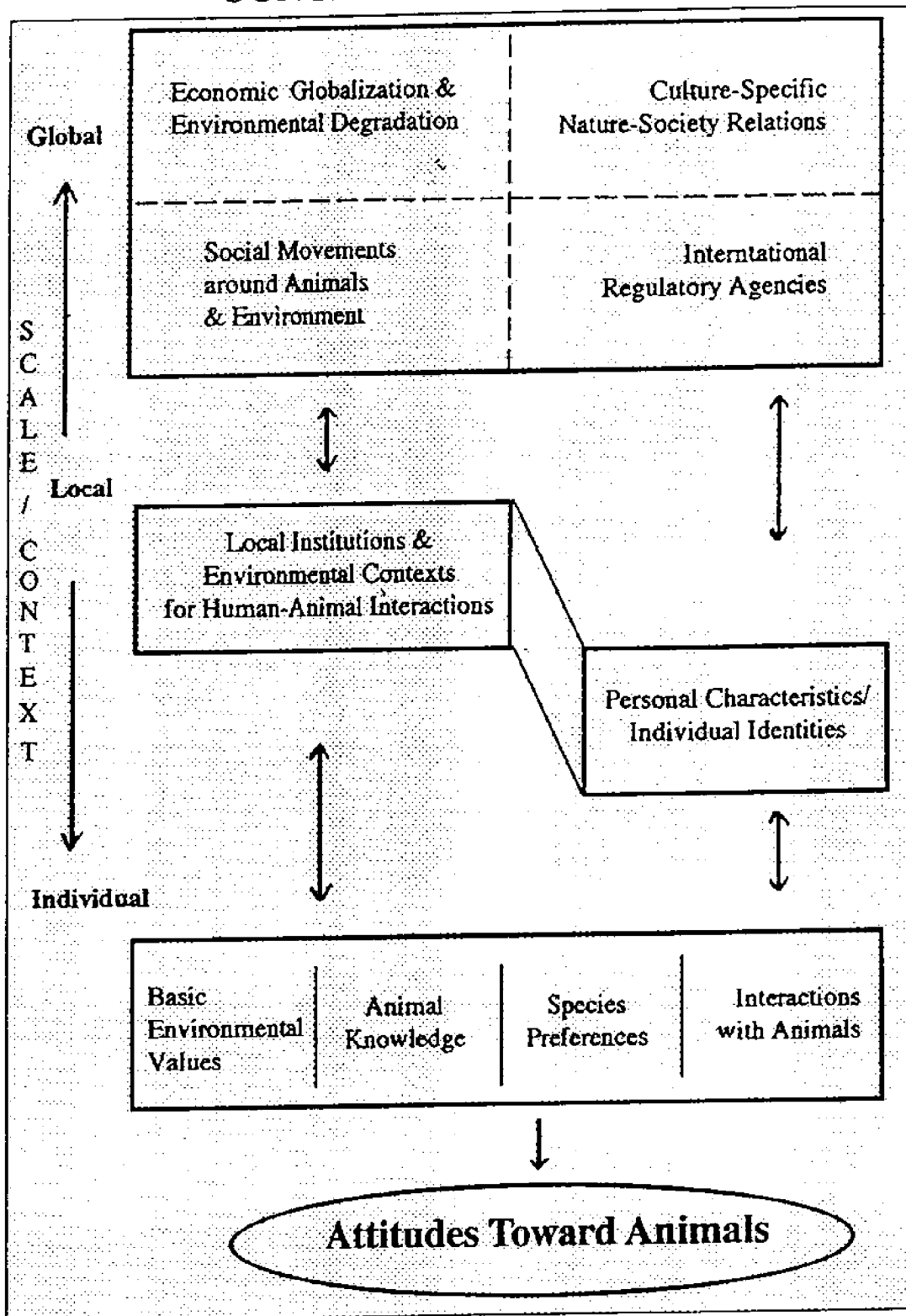
2. OVERVIEW OF THE CONCEPTUAL FRAMEWORK MODEL

Context is critical to shaping attitudes toward animals. The conceptual framework used in this study (as shown in Figure 1) illustrates the levels of context involved in producing attitudes toward animals. It is a model which addresses a hierarchy of scales and contexts which range from global factors

¹ While class is an important consideration, due to limitations on the scope of the survey, it is not separately addressed. However, it is considered in the analysis of personal characteristics, specifically, socio-demographics, due to the particular emphasis on education and income.

Figure 1

CONCEPTUAL FRAMEWORK



such as economic globalization, to local level institutions which in turn influence and are influenced by individual identities. Global, local, and individual level factors interrelate to influence an individual's basic environmental values, animal knowledge, species preferences, and interactions with animals (in this case marine animals). The final product of the interaction of all of these contexts and scales is an individual's attitudes toward marine wildlife.

2.1 GLOBAL CONTEXTS

Economic globalization and environmental degradation

Over the past two decades there have been shifts in the *global context* of animal-society relations. These shifts are due to *economic globalization* and the *environmental degradation* that has subsequently followed. Increasing international competition, the rise of multinational corporations, and associated rise in consumption of petroleum products and fish/seafood have led to globalized and capitalized oil exploration, the softening of regulations for shipping safety (due to this intense competition), and increasingly hi-tech methods of fishing designed to reduce reliance on labor, increase profits, and out-compete other countries. Examples of resulting global environmental degradation are found in Exxon Valdez-type incidents, the collapse of major fisheries, impacts of aquaculture, issues of incidental catch with its excessively high kills of non-commercial marine life, and the devastating effects from free-floating drift nets that kill vast number of fish, marine mammals, and sea turtles. In addition, international development agencies have driven the intensification of agriculture and livestock production, which produce increased fertilizer and animal wastes which ultimately contribute to ocean pollution through run-off.

Social movements around animals

Environmental degradation fostered by economic globalization often serves as the stimulus for the formation of international, national, and local *social movements around animals*. For example, oil spills and overfishing/harvesting lead to groups rallying to protect whales and other marine mammals, and the marine environment. These organizations raise awareness and levels of knowledge about the environmental problems threatening marine wildlife. International wildlife advocacy organizations form a social movement or series of them influencing attitudes. These influences ultimately filter down to local level actions. Results manifest in grassroots campaigns for dolphin-free tuna (which put American based tuna fishers out of commission in the Eastern Pacific), an international ban on whaling, and in the United States, the creation of the Marine Mammal Protection Act. All of these are a result of strong international social movements around the environment.

In addition, through the global communication links (such as the internet) that have accompanied economic globalization, environmental and animal groups such as the Humane Society, the World Wildlife Fund, and the International Wildlife Coalition are able to communicate with and mobilize groups from all over the world. And finally, many high-profile media campaigns reaching large numbers of people have resulted from the rise of animal social movements and organizations, and have occurred in both developed and developing countries.

International regulatory agencies

International regulatory bodies (and non-governmental organizations, NGOs) are created as a result of demands and pressures instigated by social

movements around marine wildlife (and other animals) and in conjunction with emerging scientific knowledge—the Convention on International Trade in Endangered Species of Wild Flora and Fauna (C.I.T.E.S) and the International Whaling Commission are two examples. These international regulatory bodies arise as a result of links between economic globalization/ environmental degradation and social movements. These agencies in turn influence local institutions, and affect policy at each structural level.

Culture-specific patterns of nature-society relations.

Broad economic and environmental concerns are filtered through *culture-specific patterns of nature-society relations*. Also, animal social movements are shaped by such cultural patterns. Traditions and practices vary according to broad geographic regions. As indicated in the previous chapter, a rich anthropological and geographical literature supports this variation of patterns much of which concerns traditions and practices involving animals. An example of variation is found in the differing physical environments which determine the types of fauna to which residential cultural groups are exposed. Other examples include a huge range of culture-specific animal totems as well as taboos concerning animal use and consumption (Simoons, 1994) as well as numerous rituals involving animals. Thus attitudes towards animals vary from cultural group to cultural group.

Additionally, an important aspect of the global context is the international migration that has accompanied current global economic restructuring. One of the results of this international migration is increasingly diverse urban populations, most often in coastal environs. The traditional practices of a particular cultural group are brought with that

group to the new location. If these practices are deemed to be in conflict with the dominant group's animal practices and attitudes, then campaigns or movements can arise around the conflict. For example, conflicts occur between nonwestern and western ideas of cruelty towards animals, forming the basis for "animal rights" campaigns targeted at non-western animal practices deemed cruel by western activists.

The culture-specific nature-society relations of particular centrality also include the wide variety of belief systems in "use of the sea." Such differences are illustrated in Asian views of nature contrasted with the western view, exemplified in Los Angeles by practices common amongst Southeast Asian immigrant populations. Southeast Asians' rural coastal fisher folk customs of tidepool gathering continue in their new location. Their attitudes toward the local marine wildlife/ecosystems are influenced by their customary interactions with tidepool animals: collecting and harvesting. However, environmental groups concerned with coastal issues may object to the Southeast Asian practices of tidepool gathering.

2.2 LOCAL CONTEXTS

How large scale, global dynamics outlined above work together to influence specific attitudes towards marine wildlife and other animals, depends in large part on *local institutional contexts*. A variety of local and regional institutions shape and manage human-marine wildlife interactions and coastal environments in urban coastal locales. State or local institutions such as fish and game department or wildlife units influence what the local population perceives as correct practices regarding wildlife, both terrestrial and marine. Their influence stems from the nature of (for example) hunting and fishing regulations and educational materials circulated at public places

such as parks, interpretive centers, and tackle shops; and affects both public awareness and participation in wildlife related activities. Rules and regulations of parks and beaches shape recreational practices and delimit accessibility to recreational coastal areas.

Development of the coastal zone is regulated in California, for example, by the California Coastal Commission, which decides what coastal areas can be developed and thus affects ease of access to beaches. Although public access to the beach may still be available, if homes or business are permitted in certain coastal areas, knowledge of and convenience to those sites may be limited. For example, public access to some beaches in Malibu is increasingly restricted due to smaller, fewer and poorly designated public access paths. Accessibility to coastal environments can influence the potential of interactions with marine wildlife for many members of the public.

2.3 INDIVIDUAL CONTEXTS

Personal characteristics/individual identity

Local institutions are themselves influenced by the *individual characteristics and identities* of the local population. These are the individuals who serve or work for local institutions, who vote to elect local legislatures and members of coastal regulatory bodies, and/ or who volunteer and support environmental organizations. In addition, people of particular ethnic backgrounds who are often brought to the area due to global restructuring (economic, war, political issues) often reside in close proximity to each other or are closely networked. This may influence everything from voting patterns to recreational choices. Traditions from place of origin are brought with them and often perpetuated through subsequent generations. These traditions include attitudes and practices involving animals and the environment, such

as certain types of fishing practices or traditions of eating live seafood, and may also include social movements around animals.

Moreover, personal characteristics, such as demographic traits, socio-economic status, and personal background features work in the context of local institutions and environments to shape an individual's specific attitudes toward animals. Personal characteristics have been the basis of past attitude towards animals studies, for example, studies have focused on gender, socio-economic status, and in some cases, racial/ ethnic contrasts.

And finally, global, local and individual contexts together shape the acquisition of key individual traits and practices:

- *basic environmental wildlife/values,*
- *marine wildlife knowledge,*
- *species preferences, and*
- *interactions with marine animals.*

Values, knowledge, preferences, and interactions with marine wildlife (as well as other animals) coupled with personal characteristics and in context of the global and local scales, ultimately mold an individual's attitudes toward marine wildlife (and other animals).

3. UNDERSTANDING ATTITUDE FORMATION

While all levels of the conceptual framework are integrally linked, this thesis focuses on the individual level of the conceptual framework model. It will concentrate on personal characteristics as sources of attitude variation, and will specifically explore how environmental values, experience/interactions, knowledge, and preferences about marine wildlife combine to produce attitudes toward marine wildlife. A key area of

investigation will be how cultural background influences these proximal attitude formation factors. The individual level focus is most directly amenable to empirical analysis that falls within the scope of this thesis project, and in addition, offers valuable insights that maybe of direct utility to policy-makers and others charged with coastal wildlife management.

The individual scale of the conceptual framework model also includes personal characteristics coupled with an individual's values, knowledge, preferences and interactions about animals, in this case, marine wildlife. These personal characteristics include demographics, socio-economic factors, and locational characteristics as well as personal background features. While the literature highlights these sources of variation in attitudes towards animals, little work exists in the area of cultural differences. Yet these culture-specific perspectives are deeply imbedded and are increasingly important due to growing population diversity in the same geographic locale.

Few studies focus on any of these aspects for marine wildlife, especially the values, knowledge, preferences, and interaction around marine animals of non-western, non-white groups. Two studies in Canada have focused on commercial fisheries and marine wildlife conflicts with a strong emphasis on utilization and economics issues as the base of concern. While revealing support for conservation little information was shown in terms of overall attitudes towards marine wildlife (Kellert et al. 1995, Edgell and Nowell 1989) Of note is that the groups addressed in the survey did not include indigenous groups—although "their needs" were referred to. Cultural traditions can influence many aspects of interactions with animals based on differing environmental values, and historical exposure to certain animal groups.

Before proceeding, it is appropriate to review important highlights of prior research on attitudes towards animals. As previously mentioned, seminal studies were done in the late 1970's and early 1980's by Stephen Kellert. While not unproblematic, Kellert's work is critical due to his formation of attitude categories and the body of work which he produced. He developed a specific typology for describing and measuring fundamental human attitudes towards animals, and his work strongly shaped many of the studies that followed.

Kellert's research found the most prevalent attitudes occurring in American society were humanistic (35%) and negativistic (35%). Humanistic attitudes towards animals are exhibited by individuals who have a primary interest in and affections for individual animals, such as pets, and an interest in wildlife focused on large, attractive animals. Negativistic attitudes are displayed by individuals who avoid animals due to indifference, dislike or fear. Moralistic attitudes, in which the primary focus is the ethically correct treatment of animals and a strong opposition to environmental exploitation and cruelty towards animals (20%), and utilitarian attitudes, in which the main concern is for the practical and material value of animals (20%), were the next highest frequency of attitudinal dimensions. Fifteen percent of the public expressed an aesthetic attitude while 10 % fell in the naturalistic category². Scientific and dominionistic attitudes ranked the lowest, while only 7% of the sample displayed ecologicistic attitudes (Kellert in Hoage 1989 p. 11)³. This low score for ecologicistic attitudes helped stimulate efforts to educate the American public about wildlife and to promote programs which

² See Appendix A for a full description of each attitude category.

³ These figures total more than 100% since individuals can be strongly oriented towards more than one attitude.

strive to foster changes in public attitudes that would support wildlife and environmental protection.

Essentially, Kellert suggests that there is both a strong public interest in and affection for animals, as well as widespread indifference and fear, along with some interest in the utilization of animals (Kellert in Shaw and Zube 60, 1980). Additionally, he points out that there is a considerable variation in these attitudes, according to demographics, socio-economic status and location. Other researchers also found variation in attitudes based on these variables, and their work will be included in the appropriate sections which follow. However, it must be noted that while Kellert's body of work is important, problems exist in the description of categories and his work does not inform us about differences based on cultural diversity.

3.1 *LOCATIONAL CHARACTERISTICS, DEMOGRAPHICS, SOCIOECONOMIC STATUS AND ATTITUDES TOWARD ANIMALS*

Locational Characteristics

Location of residence is an important factor in forming attitudes, although few studies except for Kellert's have directly looked at geographical differences in attitudes towards animals. In his studies on suburban and urban differentials, Kellert found strong correlation between location of residence and attitudes, leading him to note that urbanization has changed perceptions and attitudes of the American general public regarding wildlife (Kellert and Berry 1980, Kellert 1984). Rural residents usually show higher naturalistic scores and lower humanistic scores, as well as higher participation rates in wildlife-related activities (especially consumptive recreation). Kellert also found that small cities of 50-100,000 population had the highest utilitarian scores. In contrast, the urban college-educated have a

strong appreciation, concern, and knowledge for the natural world. Kellert suggests that this may be due to less practical reliance on animals or natural resources for income and more exposure to the non-commodity values of animals (224, 1984). O'Donnell and Van Druff (1987) also found that a non-rural background correlates to more positive attitudes towards a variety of animal species and to being more tolerant of problems created by well-liked animals.

Variations in attitudes towards animals were also evidenced in Kellert's research among geographic regions. For example, residents of the West and Alaska showed the highest naturalistic attitude scores and exhibited considerable interest in wildlife, the out-of-doors, and animals in general; while residents of the South scored as the least interested and concerned for animals, with the lowest naturalistic and highest negativistic scores (Kellert and Berry 1980, Kellert 1985). Such differences in attitudes towards animals between urban and rural locales, and among geographic locations suggests that there may be attitudinal differences between residents of inner cities and those who reside in coastal areas or who have easy access to coastal experiences. According to Gilbert (1982), public perception of wildlife is influenced or correlates to local environment, its naturalness, and accessibility; the local environment makes a difference. People who live near or work near the beach may have different attitudes due to proximity and increased likelihood of interactions with marine life.

While previous research is helpful in that it substantiates differences in attitudes based on urban and rural location, most of this work was done in the late 1970's and early 1980's and does not take into account the changing demographics of many major American cities. The urban environment is

made up of an increasingly diverse population which includes low income, working class, and affluent people, as well as people of color and recent immigrants. Currently, cultural diversity is an integral part of most urban, and in many places rural, environments. For example, how would the work of Kellert and others differ if it took into consideration the various ethnoburbs (relatively self-contained suburban immigrant districts) now an integral part of many urban regions (Li, 1997)? The interface between urban areas and wildland or natural areas, including coastal zones, is affected by this diversity (Ewart et al. 1993) and by both suburban and inner city residents. How attitudes towards animals are manifest in this complex environment is not well-known.

Socioeconomic Status and Demographics

In addition to location of residence, other personal characteristics, such as age, income, education, gender, and race/ethnicity all have a strong bearing on attitudes towards animals. Younger individuals are more generally appreciatively and affectionately oriented towards animals than older people, and often score significantly higher on humanistic and naturalistic scales (Kellert and Berry 53, 1980). Young adults, for example, are more likely to support animal rights (Kellert 1991, Pifer 1996). But few studies are longitudinal, so they lack information on how much of the difference is generational versus historical.

As for differences in attitudes due to income, Kellert found that respondents with higher incomes demonstrated more naturalistic attitudes (indicated by an interest in wildlife and nature) and ecologicistic attitudes, with fewer negativistic attitudes (animal avoidance due to fear or dislike); however moralistic attitude scores were lower among the higher income group. There

are more dramatic differences between educational groups than between urban income groups, leading him to conclude that higher income unaccompanied by higher education is not predictive of increased concern for animals and the natural world (Kellert 224, 1984). Other studies agree that education is a strong predictor of attitudes towards animals. Shaw and Zube found the difference between education groups so "dramatic as to suggest fundamental distinctions in perceptions of animals and the natural world between these socio-economic groups" (49, 1980). Essentially the more years of education the more positive the attitude towards animals.

Access to museums and public marine facilities such as marine theme parks and aquaria, and class-linked recreation are reasons why income and education may particularly link to attitudes toward marine wildlife. Lower income groups (directly correlated with lower education levels) cannot easily afford ticket prices to major marine theme parks for example, and in addition, further class-linkages are exemplified in certain recreational pursuits, such as the use of personal water-craft. Participation in either of these realms may influence opportunities for interactions with and thus, attitudes toward, marine wildlife. Moreover, education influences levels of awareness about marine wildlife topics and issues, for example, an individual might not have the incentive to attend museums or marine parks or educational exhibits without some basic information to stimulate interest in the topics. Also, factors such as culture and race/ethnicity as well as gender have often affected equal opportunities for education, and by correlation, income.

Gender differences in attitudes towards animals have been documented and explored in a wide range of studies (Kellert and Berry, 1987, Race et al. 1990, Herzog et al. 1991, Driscoll 1995, Wells and Hepper 1995).

Males scored higher on dominionistic and utilitarian attitudes indicating interest in control of and use of animals, while female scores were more moralistic and humanistic and displayed attitudes of support for animal rights and protection of animals (Kellert and Berry 1984, Wells and Hepper 1995). This is in line with several studies which have reported that adult males have less concern for certain animal welfare issues compared to females (Shaw 1977, Herzog, Jr. et al. 1991, Driscoll 1992, Pifer et al. 1994, Pifer 1996). Several explanations have been raised to explain why women show greater sensitivity towards animals. They range from differences in cognitive and emotional orientations towards animals (Kellert and Berry 1987), to sociological or biological explanations (Herzog, Jr. et al. 1991). Some ecofeminists argue that women are more naturally "in tune" with the environment and nature and therefore more sensitive to animals as a part of the natural environment. Although there is lack of agreement on the explanation, there appears to be consensus on the differences. None of this work on gender differences, however, addresses gendered attitudes among non-anglo/non-European people.

Some differences in attitudes towards animals based on "racial" categories of respondents have been found (Kellert and Berry 1980, Dolin 1988). This research reflects the findings of general differences in attitudes toward the environment found between European-Americans and African-Americans (Caron 1989, Sheppard (Caron-Sheppard) 1995) and European-Americans and Hispanics (Noe and Snow 1989-90). For example, dissimilarities in Hispanic views on the environment were revealed in a South Florida survey which focused on Hispanic use of a national park. The study concluded that, while cultural heritage is a factor in determining

environmental attitudes, situational opportunities (such as park use) and various social factors may influence a shift in those attitudes (Noe and Snow 1989-90). Attitudes towards animals were not addressed in this study.

Most work that differentiates respondents on the basis of race relies upon binary theorizations of race as a biological construct, and uses a black/white categorization. African-Americans are typically under-represented in samples (although they often come closest to being sampled in proportion to their representation in the total population compared to other nonwhite groups). Despite these inadequacies, studies found attitude differences between the two categories of respondents (See for example: Kellert 1980, Kidd and Kidd 1990). Kellert (1980) found that African-Americans scores were exceptionally low for naturalistic and ecologicistic attitudes, and on knowledge scales, but scored highly on the negativistic scale. They had some of the highest scores on the utilitarian dimensions (only farmers and respondents over 56 years old had higher scores). In addition, other studies concluded that African-Americans show less interest, knowledge and concern for wildlife and natural habitats (Kellert and Berry 1980, Dolin 1988).

However, Shaw et al. (1985) found that race was strongly connected to education and income, while other research suggests that there are non-socioeconomic factors linked to African-American attitudes toward animals (Sheppard 1995, Dolin 1988, Kellert 1984). For example, as partial explanation for a lack of environmental interest among urban African-Americans, Kellert refers to Eldridge Cleaver who remarked that black people as a consequence of slavery learned to "measure their own value according to the number of degrees they were away from the soil" (in Kellert 219, 1984). Highly

significant differences that Kellert found among college-educated whites and African-Americans lent support to Cleaver's idea that African-Americans who achieve greater socioeconomic success tend to associate this achievement with increasing distance from the land and the natural environment. As animals are an integral part of the natural environment these historical cultural issues can affect African-American's attitudes toward animals. In summary, there are other factors beyond the standard demographic markers which are must be considered in attitude research. One of the most important of these is cultural background, which can have a powerful affect an individual's attitudes towards animals. There can be vast differences in attitudes towards animals between cultural groups, e.g., rural southern African-Americans versus Southeast Asians or Hispanic groups. Individuals raised in the differing traditions and practices toward animals of these groups would most likely have developed distinctly different attitudes. In addition, other attitudinal differences such as, gender, might strongly vary from culture to culture. How would western female attitudes towards animals differ when compared to women from an Asian or Middle Eastern culture? Research in this realm is virtually non-existent, and none of the research addresses these underlying reasons, nor are explanations of attitudinal difference fully developed due to the largely descriptive nature of most studies.

3.2 *KNOWLEDGE OF ANIMALS*

In addition to personal characteristics, knowledge about animals is another dimension of the individual framework. Knowledge is the state or fact of knowing, and it is distinct from both behavior and attitudes. According to Kellert (1991), knowledge and attitudes are often independent

dimensions. This is illustrated in a study which found public attitudes showing positive support for wolf reintroduction, yet all respondents had low knowledge scores (Bath 1991). Nor does the public's inability to name species or understand principles of ecology interfere with how much they like the animals (Kellert 1980, Shaw and Mangun 1984, Penland 1987). For example, two studies found that failure to identify local (urban) birds did not relate negatively to the respondent's interest in birds (Penland 1987). Yet knowledge is an important component which when combined with values, preferences and interaction with animals, influences attitudes towards animals. While knowledge may not directly affect behavior or attitudes, it may make an individual more open to or interested in a particular animal, while knowledge of dangerous or harmful aspects of animals may predispose one to avoid that animal.

The general American public's knowledge of animals and wildlife is fairly low (Kellert and Berry 1980, Gilbert 1982). Gilbert (1982) found that most people do not know the names of individual wildlife species. Their ability to identify animals is based on abundance of the animal, proximity to one's home, familiarity, liking, and/or a concern for personal property. As for scientific knowledge involving animals, the public is naive concerning biological issues (Shaw and Supplee 1987), and principles of ecology are not well understood (Penland 1987). There is greater public awareness of emotional issues concerning large, attractive, animals who are phylogenetically similar to humans, i.e., the "higher" animals. Also, there is greater knowledge if human injury is relevant. The public exhibits the least knowledge about endangered species (Penland 1987). Specifically, in one of the few surveys that include marine mammals, knowledge of basic marine

mammal biology was found to be extremely low and varied widely among three Canadian groups surveyed (general public, sealers, and commercial fisherman) (Kellert et al. 1995).

Not surprisingly, higher overall knowledge scores were related to greater levels of education in Kellert and Berry's study (1980). Respondents with less than an 11th grade education (in Kellert and Berry's study), those under 25 years old and the elderly scored low in knowledge categories (Kellert and Berry 1980). Perhaps not surprisingly, hunters exhibited higher knowledge scores. In Kellert's studies African-Americans had lower knowledge scores, but once again there was no analysis of other "races" or ethnicities.

Knowledge also varies by location. Urban residents are less knowledgeable about wildlife than are rural or suburban residents (Gilbert 1982, Kellert 1984). Kellert also found that residents of cities with a million or more population, ranked the lowest in knowledge scores (Kellert 1984). Knowledge also varies according to geographic region. Overall, residents of Alaska and of the western region of the United States, have higher knowledge scores (Kellert and Berry 1980, 1984)⁴, as do males (Kellert and Berry 1980, 1984, Race et al. 1990, Herzog et al. 1991, Wells and Hepper 1995,). It seems likely that individuals living in coastal areas would potentially have higher knowledge levels about marine wildlife.

As for sources of knowledge, most people get their information from TV, movies, magazines, and books (Gilbert 1982). For students, however, a

⁴ Perhaps in Alaska this may be due to a "frontier" mentality (exploring and becoming familiar with the environment for purposes of survival/conquest) and in both Alaska and the West the greater open space may encourage residents to be drawn into the landscape and increase interaction and observation of animals.

teacher's interest and background knowledge about wildlife has been shown to have a significant effect on student learning and attitudes (Siemer et al. 1987, Race et al. 1990).

Findings about various factors associated with knowledge of animals, imply that nativity and cultural heritage could impact knowledge about specific species. Might knowledge of marine wildlife be greater amongst cultural groups whose home of origin/heritage involves a strong relationship with the sea? Are sources of knowledge as accessible to all cultural groups? If "racial"/ethnic minority groups have less access to education this might have a bearing on their overall knowledge of animals. In addition, the information that local institutions convey such as environmental education on coastal matters (or the lack of it) affects an individual's awareness and knowledge of coastal issues. This institutional information is not always sensitive to the cultural diversity of an area and therefore may not be communicated clearly or even be linguistically accessible to various cultural groups.

3.3 *PREFERENCES*

An individual's species preferences are another important element of the individual level context of the framework. Preferences involve choices and ranking according to desirability. Generally, domestic animals, especially pets are the most preferred animals, while stinging and biting invertebrates are most disliked (Pifer et al. 33, 1994). Dogs, horses, and cats rank at the top of animal preferences in most surveys (Kellert 1980, Kidd and Kidd 1990, Wells and Hepper 1995, Driscoll 1995), although the order may change depending on gender (boys often prefer dogs, and girls prefer cats) and location. Overall, dogs are almost always at the top of the list.

According to the results of surveys by Kellert (in Hoage 1989) the dog and horse, ranked as the two most liked animals, were followed by two aesthetically pleasing bird species, the swan and robin, and the butterfly. Most research also finds that insects, reptiles and amphibians rank as the least liked species (Brown et al. 1979, Kellert 1980, Shaw and Mangun 1985, Bath 1991 Driscoll 1995).

Several important factors have been found which influence public preferences for different species. Size, aesthetics, intelligence, phylogenetic relatedness to humans, and relationship to human society (pet, domestic farm animal, exotic wildlife, etc.) as well as cultural and historical relationship to humans are all considered important. Emotional appeal is also a factor. Economic value of the species and utility to humans appear on most lists. Danger to humans, likelihood of inflicting damage to property, and predatory tendencies also influence preferences (Kellert in Hoage 1989, 22-23, Laurence in Hoage, 1989, Bath 1991, Reading et al. 1994, Driscoll 1995). Not surprisingly then, the most popular animals are usually large, attractive/cute, phylogenetically related to humans, economically and/or culturally significant mammals. This also explains why individuals may be more inclined to support an attractive popular animal (such as a whale) at the expense of a less attractive endangered species. As Kellert (60, 1980) indicates, those that support animals do it primarily due to affection and emotional response. Of the few studies that do involve marine mammals, whales are high on the list of preferred animals; they easily fit into the "charismatic megafauna" description.

But within specific cultures, what other preferences might exist? Do all cultures have the same preferences for whales, for example? Relationships to

the human economy and culture influences preferences, as different animals are economically and/or culturally significant to different groups. For instance, Native Northern Americans (Aleuts, Inuits, for example) who have a close cultural relationship with marine mammals, may have different preferences than, say, urban African-Americans from the midwest.

3.4 *ANIMAL INTERACTIONS*

Oskamp describes behavior as something that a person does (7, 1991). Interactions with animals are a type of behavior. Behavior differs from attitude in that a specific action may or may not reflect the underlying attitude. For example, a study on attitudes toward the endangered Eastern Barred Bandicoot found a distinct conflict between attitudes and actions of respondents. Respondents indicated strong support for protecting the bandicoot (a culturally and historically important animal). They also indicated that they knew that the biggest threat to the (nocturnal) bandicoot was domestic cats roaming outside at night. Yet the majority of cat-owner respondents who indicated their support for the bandicoot (and knowledge of the cat problem), still let their cats out at night (Reading et al. 1994). This study vividly showed how attitudes can differ from behavior.

There are a variety of ways that people can interact with animals, but most research focuses on interactions with pets or wildlife. "Non-consumptive uses" of wildlife (bird-watching, bird feeding, wildlife photography, wildlife watching and identification) are the main ways that the majority of people interact with wildlife (Dawson and Miller 1979, Kellert 1984, Shaw and Mangun 1984, Shaw et al. 1985, Glass and More 1990). The greatest number of people participating in wildlife activities would fall into the category of "residential wildlife appreciation" (Shaw and Mangun 1984,

Shaw et al. 1985). The majority of those respondents that participate in non-consumptive wildlife activities are well-educated (77% have 5+ years of college), and 45% are under the age of 35 (Shaw and Mangun 1984). There was no significance found for gender, but lower education (less than high school) and lower income (less than \$10,000) were associated with lower participation (Shaw et al. 1985).

Studies that illustrate the gap between "races" in non-consumptive wildlife use show that whites are twice as likely to participate in non-consumptive wildlife use as other "races" (Shaw and Mangun 1984, Shaw et al. 1985). Lack of exposure is given as a possible reason, but further explanation is lacking. Other factors such as location of residence, which can also be interrelated with education, income, and ethnicity, could have a strong bearing on the potential for interactions. When it comes to marine wildlife, coastal accessibility can be a major factor regarding participation and interactions.

3.5 VALUES

Values are distinct from attitudes in that values are usually considered to be a measure of something. Oskamp notes that a common view is that a value is an important life goal or societal condition desired by a person, more of an end rather than a means (13, 1991). In addition, values can be broad abstract concepts like beauty, happiness, or service to others, or more concrete values like money or material possessions (Oskamp 1991).

The literature addresses values in many ways: kinds of values towards wildlife (economic, social, or ecological), typologies for the values people place on wildlife, and both positive values (such as the value created by wildlife-focused recreation) and negative values. Negative values concerning

wildlife are usually connected to costs to people resulting from damage to property, or risk of injury or disease (Decker and Gavin 1987, O'Donnell and Van Druff 1987). Negative values can also be traced to cultural perception of animals as dangerous or unclean, such as "the big bad wolf" so common in European folk tales (see Emel 1995).

Another type of value is the existence value of animals. In many studies, especially those focusing on endangered species, a majority of respondents supporting protection indicate that they place great importance on "existence value" (Shaw 1977, Glass and More 1990, Bright and Manfreda 1996). According to Glass and More (1990) the basis of existence value attitudes can be intrinsic value (just because it is there and has a right to life), bequest value (want it there for future generations) or altruistic value (because it is the right thing to do). In their study done specifically to measure existence value, results showed that existence value was strongly chosen over option value (what else could be done with the land, such as, development). In addition, Glass and More (1990) used "willingness to pay" as a way of measuring values (i.e., contingent valuation). They noted that "willingness to pay" (for protection of a re-introduced species, for example) does not always result in action. So values differ from behavior.

However, as the wide variation in "types" of values illustrates, many interpretations of the term "values" exist and arriving at any one overall definition is quite challenging. As previously defined in Chapter One, there are essentially two basic levels of values: "concrete" or "assigned" values (e.g., monetary or contingency values), and "grand," "abstract," or "held" values which are central to a person's belief system and transcend objects (e.g., "freedom" may be applied to many different situations or objects) (Stevens et

al. 1994, Tarrent et al. 1997). These "held" values are usually societal or culturally based. Besides difficulty in defining values, there is an apparent hierarchical relationship between basic values, generalized environmental attitudes and specific attitudes, and thus creating immense problems in designing an adequate values scale (Fulton et al. 1996, Tarrent et al. 1997).

For purposes of this study a close linkage between values and attitudes is assumed. Further, however, attitudes are assumed to be shaped by values but also modified by knowledge, preferences, interactions, and personal characteristics. There is, therefore, no direct correspondence between values and attitudes. Following other studies, operationalizing the framework, only attitude statements and questions are used. This is due to the extreme difficulty in creating adequate value scales.

Before leaving this discussion, it is important to note the relevance of cultural background to values. As "grand" or "held" values are often culturally based this is an area where the intervening variable of culture can make a major difference to an individual's values. For example, Jainisim as a system of religious belief is based on a strong commitment to the concept of ahimsa, noninjury to all living creatures (Simoons 1994). Such beliefs could be expected to have a powerful influence on an individual's values concerning animals. Another example relates to how cultures differ in placing value on the sea, which may depend on their economic relations to marine wildlife. Whaling has economic value in Japan; might this affect the way members of the Japanese cultural groups value whales and other marine wildlife? This is an area not well-explored in previous literature.

3.6 *ATTITUDES TOWARDS ANIMALS*

Research on attitudes towards animals, based primarily on survey research methods which employ specific attitude questions, has explored a range of issues, including animal use by humans to pet keeping and wildlife management.

Studies of attitudes toward animal use often focus on animals used in biomedical research. Results have shown that there is solid public support for the use of animals in research when the respondents are asked to choose between animals rights and human health (Driscoll 1987, Pifer et al. 1994). In measuring opposition to animal research Pifer (1996) found that over half the sample agreed that most of the scientific research done with animals is unnecessary and cruel, and there was strong opposition to the use of animals if it involved pain or injury to animals like dogs and chimpanzees. However these same respondents agreed that "continued research with animals will be necessary if we are to ever conquer diseases such a cancer, heart disease, and AIDS" (Pifer 43, 1996).

In addition, many people oppose certain uses of animals such as product-testing research, using animals for luxury garments, and killing harmless, but annoying animals (Driscoll 1992). Attitudes vary concerning other types of animal use such as domestic animal work, sporting events, animal shows, circuses, zoos, and racing. The distinguishing factor in attitudes toward the use is: does the practice lead to an animal's death or injury (versus other activities which do not result in the same amount of suffering) (Driscoll 1992, Wells and Hepper 1995).

Another aspect of animal use is pet ownership; attitudes of pet owners vary widely. For many the pet is an extension of the family (as evidenced, for example, by inclusion of pets in family portraits (Schenck et al. 1994), for

some, pets function as child surrogates (Laurence in Hoage 1989). Other pet owners, usually those in more rural settings and those who hold utilitarian views, see their pets as workers with a job to do. Attitudes towards pets arise in childhood (Kidd and Kidd 1990), are developed in a family context (Schenck et al. 1994) and are especially influenced by the mother. Some research has found that positive attitudes towards pets and involvement with animals (specifically pets) decreases with age (St. Yves and Robitaille 1990, Wells and Hepper 1995).

Wildlife management policies or urban wildlife issues have been the focus of other attitude studies. Overall, most results suggest that people support reintroduction of wildlife, even predators such as wolves (Bright and Manfredi 1996, Bath 1991), however support may vary according to symbolic beliefs and emotional responses. In addition, attitudes towards reintroduction and other management issues can vary according to species preferences, especially when "pest" status is involved, such as coyotes (Stevens et al. 1994). Attitudes towards wild animals in urban settings are generally supportive, as exemplified in Decker and Gavin's 1987 study of public attitudes toward a suburban deer herd. Results of this study indicated that nearly three-fourths of residents wanted the deer herd to remain despite problems such as car/ deer collisions, damage to property, or concern that deer were disease carriers.

Yet these studies are primarily based on anglo Euro-American samples. What types of attitudes do other cultural groups have towards animal use, pets, and wildlife issues? Based on local environment and customs these attitudes could differ greatly. Although some work has been done on attitudes within other countries, they are usually European or

industrial/ developed countries (Kellert 1993, Pifer et al. 1994), are "nationally" based, and not focused on cultural subgroups.

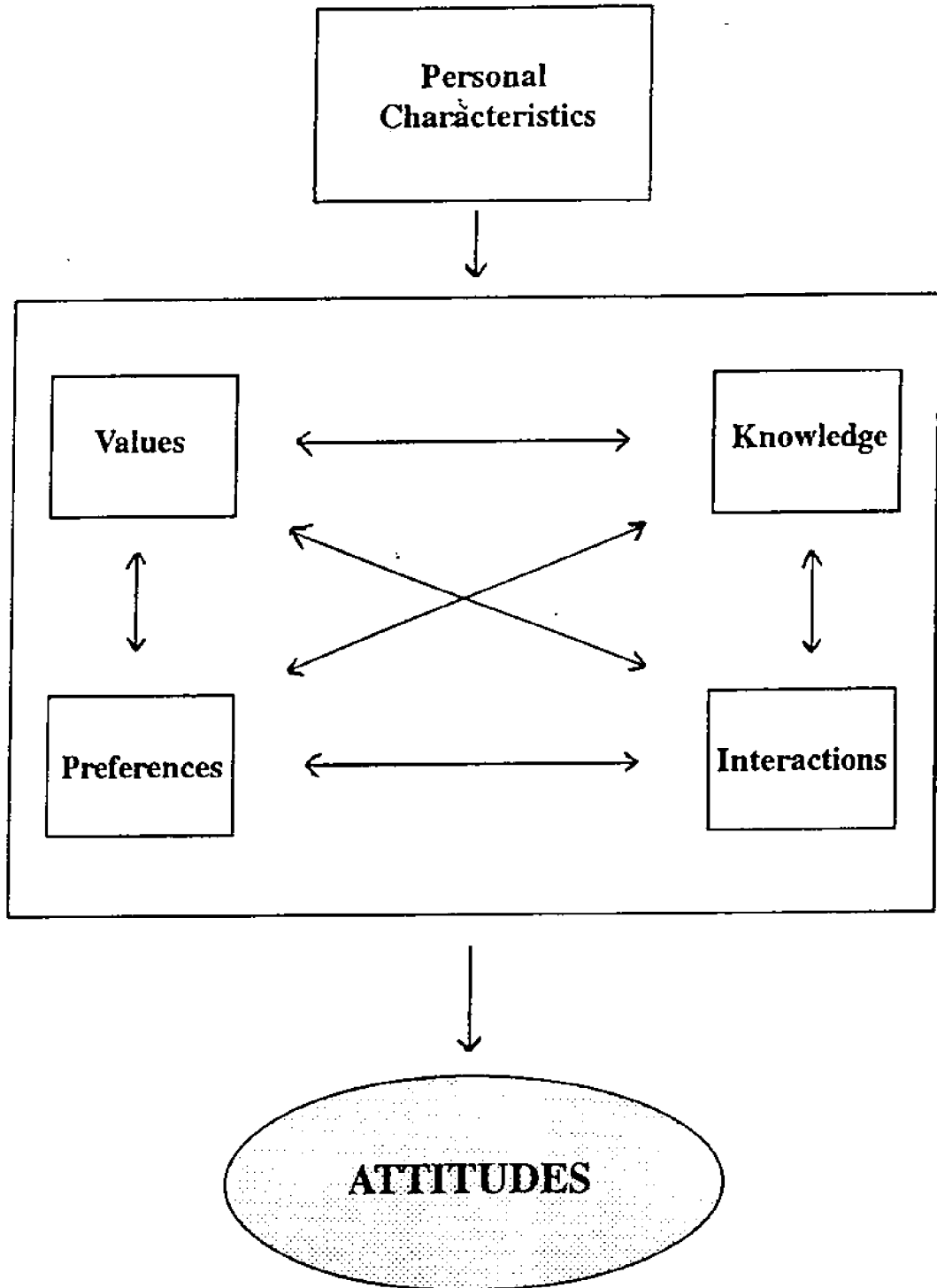
3.7 SUMMARY: DYNAMICS OF ATTITUDE FORMATION

In combination values, knowledge, preferences, and interactions are themselves shaped by larger global and local level contexts, ultimately determining attitudes towards animals. However, Figure 2 illustrates how values, interactions, knowledge, and preferences interact and influence each other at the individual level context to produce attitudes toward animals. Knowledge, for example, can influence values, preferences, and interactions with animals, and this same dynamic flows among all of these elements. One's interactions with animals (choosing to act, what kind of interaction, the reaction to the interaction) is affected by knowledge of the animal, preferences (in terms of like/ dislike) and values about animals in general. In turn the experiences from the interactions can affect preferences which can also affect knowledge and values. This interrelationship produces attitudes towards animals.

However, all of these important elements of the individual framework are affected by personal characteristics, and cultural background is a significant element of personal background and a key influence in shaping attitudes towards animals. Cultural differences warrant study for the following reasons. Overall, most studies have focused on attitudes among white Europeans toward animals, and thus, *cultural differences are poorly or inadequately addressed in the literature* or ignored totally. In addition, these

Figure 2

Individual Attitude Formation System



cultural differences are deeply rooted in everyone. According to Driscoll (1992) persons have consistent attitudes towards animals in general and attitudes and feelings for animals are acquired in childhood. While she found that the key lies in specific early experiences and not in overall socio-cultural background, it can be argued that an individual's cultural background would strongly affect the type of early childhood experiences with animals and therefore significantly shape the individual's attitudes toward animals. Cultural background can determine which animals are considered as pets, or which animals are permitted indoors, consumed as food sources, or considered domestic animals. And finally, these *culture-specific attitudes are increasingly heterogeneous even in the same geographic place*, due to international migration, economic restructuring, and the racialization/ social isolation of native-born United States minority groups (e.g., African-Americans and Hispanics). These differences also are tied to differential access to education, natural environments, and experiences with nature, that characterize many economically marginalized groups living in large cities.

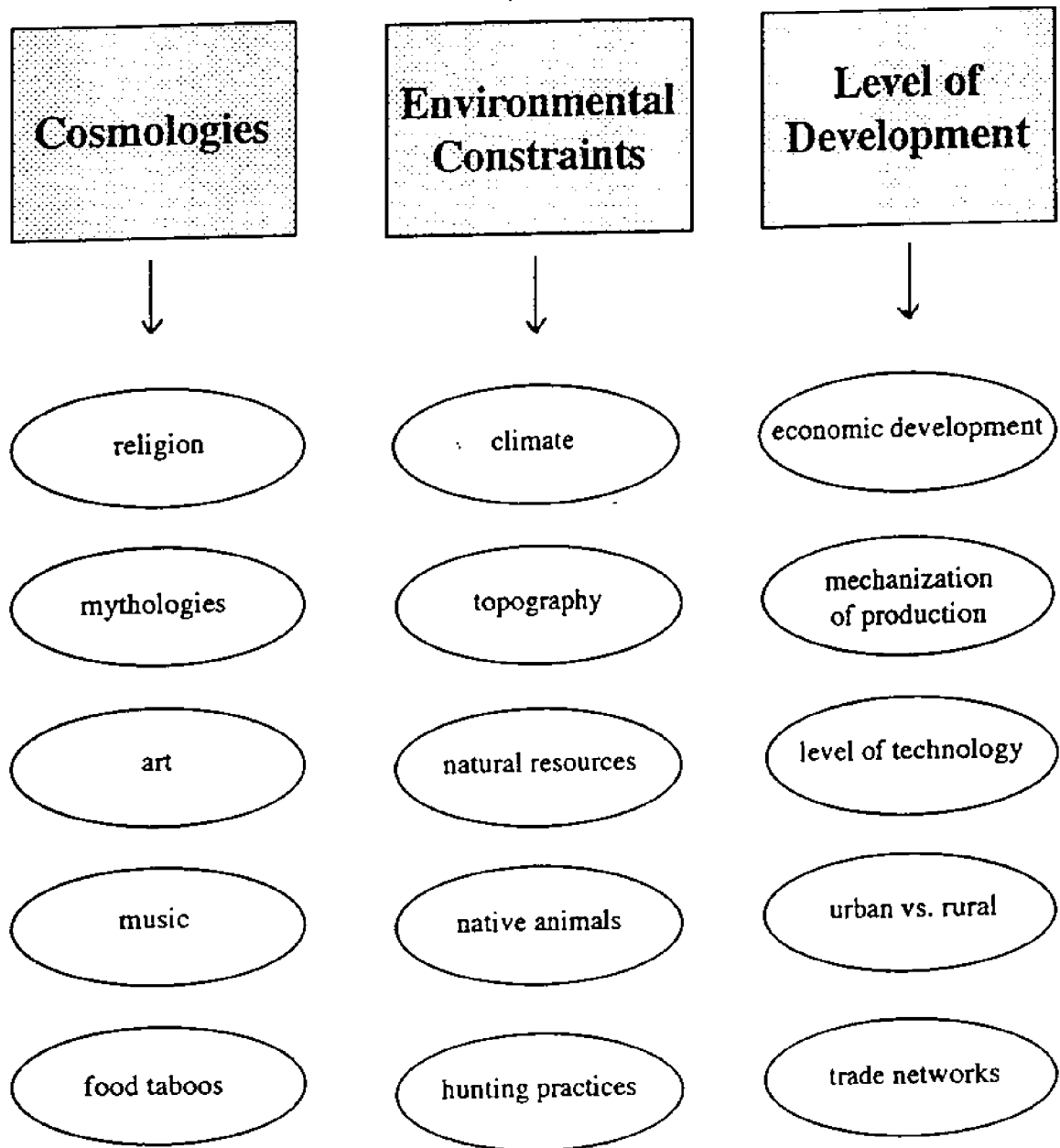
What are some of the key cultural differences, most relevant to animals, what is their basis, and how do they vary?

4. CULTURE AND ATTITUDES TOWARD ANIMALS

The aspects of culture along which attitudes towards animals may vary stem primarily from *cosmologies, environmental constraints, and the level of development (scale of production/ technology)* in the geographic locale of the country of origin (see Figure 3). In cases where individuals relocate to new geographic areas, these influences come with them in the form of traditions and practices. Thus attitudes towards animals can be expected to differ from

Figure 3

Aspects of Culture along which Attitudes Towards Animals Vary



group to group and therefore cultural attitudes in heterogeneous settings might be highly variable. Cultural traditions may be maintained through subsequent generations in the new locale, or may undergo change.

4.1 COSMOLOGIES

Religious beliefs, mythology, creation myths, rituals, and even food taboos are based on overall belief systems or cosmologies. Belief systems influence an individual's attitudes toward animals. There are numerous examples of a culture's cosmology impacting relationships with animals and thus potentially influencing the attitudes towards animals among individual group members. For instance, religious teachings can dictate specific treatment of animals as in the "right of thirst" for animals in Islamic Law (Westcoat Jr. 1995). Under Islamic law, animals have a right to drinking water similar to human beings (Caponera 1973 in Westcoat Jr. 1, 1995). Therefore, in some Muslim countries wells are maintained so that wildlife can have access, or watering troughs are erected in towns for that purpose. Animals are thus considered similar to humans in their basic need and right to drink. Considering animals in this light would directly shape an individual's attitudes toward animals.

Other examples are found in the Orokaiva society of Papua New Guinea, where domesticated pigs and people are regularly treated alike. Piglets and human babies are raised together partaking in similar childhood rituals, if the child should die before completing the rituals the pig takes on the full status of "person" for the rest of its natural life. In some rituals men are actually hunted, killed, and shared with the community instead of the pigs (although pigs suffer this fate with much greater regularity) (Brown

1995, Goodale 1995). Again the religious and ritual significance of the animal shapes the attitudes of the population toward it.

The literature on Asian attitudes toward nature indicates there are differences in attitudes towards the environment based on belief systems (see Brun and Kalland 1995), thus there is likely to be a difference in attitudes towards animals also, as they are part of the natural environment. For example, Japanese culture is often portrayed as emphasizing harmony with nature, yet, Kellert's surveys indicate that Japanese appreciation of nature is narrow, with an idealized focus on single species. Survey respondents in Japan appeared to value control over nature with little ethical or ecological concern for nature and wildlife in comparison to respondents in the United States (Kellert 299, 1991b). While many Japanese people exhibit a deep appreciation of segmented symbolic aspects of nature, the result is usually an "antagonistic consciousness towards wild nature" (Kellert 302, 1991).

Due to the vast variety of belief systems there are multiple influences which can affect cultural traditions involving animals. An individual who is familiar with a particular animal through folktales, mythologies, art, music, or religious teachings will have a different background from another individual influenced by different cultural belief systems. That unique background will shape his/her attitude toward animals.

4.2 ENVIRONMENTAL CONSTRAINTS

The physical environment of the geographic locale also influences the attitudes towards animals held by cultural group members. Geographical factors such as elevation, latitude, climactic conditions and topography play important roles in determining what fauna can exist in an area and what access both non-humans and humans have to resources (e.g., availability of

fresh water or access to ocean resources). The animals that are physically present in the local environment or are easily adaptable to it often influence aspects of human culture. For example, in Iceland there are very few land animals, but many species of fish; not surprisingly, fish have always been a pervasive symbol in Icelandic folklore, as well as in diet and economic importance (Pálsson 1990).

Moreover, the general level of animal biomass is a result of the physical environment (e.g., deserts are animal-caloric poor and people may eat insects as protein sources) and affects human dietary patterns, which can influence an individual's attitude toward animals. There is also the issue of the extent of food competitors, non-human animals competing for scarce resources of value to humans.

In India, the well-known reverence of Hindus for cattle can be contributed to environmental constraints; cattle were not always so revered. In 1800-800 B.C. the Vedas were the dominant group in India, and known as the "cattle people" who engaged in cattle slaughter as part of everyday life as well as significant religious ceremonies—cattle were plentiful. As population density increased, an increase in cattle population began to compete with the human population for food. As a result of this increasing human population, shrinking forests and grazing lands giving way to agricultural land, living conditions changed and the old Vedic religion was rejected. New religions emerged which were more compatible with the needs of the population—more people can be fed by limiting meat eating and concentrating on crops and dairying. By revering the cow, the population could then use cattle for dairying and (bulls) for labor, and not compete with cattle for nourishing

grains⁵. Today in the Hindu religion cattle are an object of worship, (even though Western eyes mistakenly see them as useless and surplus) (Harris 1987).

Similar environmental constraints exist in the Middle East and account for the emphasis on cattle, sheep and goats—ruminants which do well in an arid climate and successfully consume cellulose type vegetation. Pigs, on the other hand, are more appropriate in climates like New Guinea (Melanesian society), as they are omnivores and require well-watered, shady forest glens and riverbanks. Historically, Egyptian pig taboos reflects conflict between dense human populations in the treeless Nile and demands pigs made for plant foods. Humans could not consume the types of plant foods that pigs required and thus there was competition for growing space between human and animal food (Harris 1987).

Environment also plays a large part in dietary issues, for instance, dogs as food (versus dogs as pets). Dog-eating cultures lack an abundance of alternative sources of animal foods, such as in Polynesian which had no domesticated herbivores (Maori) and Thailand with few (Harris 182, 1987, Rabinowitz 1991). Animals that are naturally found in the local environment become domesticated, pets, and even food. Each one of these areas of animal contact contribute to shaping an individual's attitudes toward animals.

4.3 LEVEL OF DEVELOPMENT

In addition to belief systems and local environmental influences, the scale of development of the region of cultural origin is a significant factor. For example, trade networks or mechanization of production may be linked

⁵The breed of cattle that exists today in India can work long hours in semi-starved state and exist on the parts of grains and discarded foodstuffs that are not usable by people.

to attitudes due to changes in education, exposure, packaging, or source of foodstuffs. Moreover, if individuals live in a large densely populated urban environment their experiences and interactions with animals will differ from individuals in a rural setting with more access to animals.

The economy and level of technology within the urban system are also important. For example, dogs in China have been traditionally consumed as a source of protein. According to an article in Newsweek (Harris 180, 1987) the Peking (Beijing) municipal government instituted strict rules against rearing of dogs in urban households. Many of the dogs "exterminated" by the government as part of this ban were believed to have gone for consumption⁶. Traditionally dogs (for consumption) were raised in the countryside as scavengers; the ban in Peking (Beijing) suggests public health issues and attitudes towards dogs as "unclean." Yet pets are now becoming business in cities in China, for companionship and also as big status symbols.

Overall, individuals who live in large cities will have different experiences with animals than those who live and work with animals in a rural environment. For example, even studies done with Euro-American samples reveal that a decline of access to animals as beasts of burden or direct sources of food in farm or rural environments has paralleled a decline in negativistic or dominionistic attitudes (Eagles and Muffitt 1990). Also, distancing from meat production allows romanticizing of animals and commoditizing of their images.

4.4 DIVERSE CULTURAL ATTITUDES IN ONE LOCATION

While there are established variations in attitudes due to these differences in culture based on cosmologies, environmental constraints, and

⁶ One Peking restaurant stated that it averaged 30 dogs per day, as meat was in short supply.

the level of development of the area, the real question is: what happens to these attitudes when heterogeneous attitudes come together in one area, either as a result of internal or international migration, or both?

Examples of internal and rural to urban migration in the United States, can be found in the migration from the South of African-Americans to cities in the North and Midwest and throughout the United States; and in the rural to urban migration that has occurred due to the mechanization of farms. Many farm workers are of diverse cultural backgrounds, e.g., Mexican or Caribbean migrant workers; as jobs are lost these individuals migrate to more urban environments in pursuit of employment.

Historically, the United States has a long history of periodic international immigration, for example at the turn of the 19th century (e.g., Jewish immigration to New York city). However, most immigrants settled in rural areas compared to current times which now place most newcomers not in farms/rural areas, but cheek to jowl in cities. Currently, international population flows play a large part in contributing to the diversity found in urban locales. Globalization of the economy leads to various forms of international migration, primarily due to labor opportunities. Borders arbitrarily drawn on a map during colonial times have now dissolved and changed in the postcolonial, postmodern world. The fluidity of commerce, communication, and physical movement of people belies the traditional boundaries and sense of territoriality. There are changing ideas on the existence of "nation-state." "Deterritorialization" has become a better description as borders become diffused (Watts 1991). People relocate to new geographic locales but tend to hold on to customs and traditions of their point of origin in an attempt to maintain a sense of homeland and identity as they

strive for empowerment in new cultures (Kearney 1991). These traditions may then be practiced in the new location, with or without regard to the dominant culture.

It is clear that immigrant attitudes should be expected to differ (due to differences in origin), but what happens to these attitudes over time, or after two or three generations in the new location? The local dominant social group manifests itself through institutions, law and regulations, and media and can create pressures to assimilate, which can have two different effects. One reaction is the elimination of cultural traditions in an attempt to assimilate or meld with the dominant group and avoid negative reactions from the dominant group, including racialization. The other, opposite, reaction is that the pressure to assimilate stimulates the immigrants to embrace traditional cultural practices in an effort to become empowered. Some traditions might actually become stronger or exaggerated while others might be invented as a source of empowerment. Thus attitudes either diffuse due to dominant group pressure and diminish in an attempt to assimilate, or traditions and attitudes persists and/or change as an result of a group's desire to cling to ethnic identity and use traditions and cultural practices as a source of power (Hanson 1989, Gray 1993, Gilroy, 1993). In addition, the new group also affects the existing cultural groups, potentially creating a new "blend" or cultural hybridization.

Another key point of why the cultural differences exist concerns *spatial isolation*-- as found in Chinatowns or in ethnoburbs. The country people emigrate to, and where they locate when they get there, often depends on the community/culture with which they are networked. For example, a large number of Chinese have settled in Monterey Park in Los Angeles, while

Hmong have concentrated in Fresno, and Vietnamese in Long Beach. In communities such as ethnoburbs, which are relatively self-contained, ethnic groups can exist economically, socially, and culturally without having to rapidly assimilate into the dominant local culture. Language and customs are not a barrier within the environment of such a spatially isolated community. Thus cultural attitudes and traditions may strongly persist and perhaps even become exaggerated as a way of expressing ethnic identity.

In addition, poverty, class and marginalization are associated with socio-spatial issues. Accessibility to education and other resources is affected by class and socioeconomic factors. Is attendance at zoos, aquaria or marine theme parks within the budget of all immigrant groups or their children? Are wilderness areas or beach activities accessible? Moreover, very poor areas have specific "fauna" that may turn people off and affect attitudes towards animals more generally, e.g., rats and "vermin."

5. CONCLUSION

In summary, variations in attitudes towards animals in one geographic location, such as a major metropolis, can be expected not only due to standard demographics and socioeconomic differences, but also to: 1) populations flows which bring together individuals of diverse cultural backgrounds, 2) multi-generational maintenance of cultural traditions within destination locations; 3) socio-spatial issues like poverty and economic marginalization.

Some examples highlight this dynamic. Cross-cultural conflict results from these differences, putting groups whose traditional animal practices clash with the codes of the dominant society at risk of racialization. In once

case, Hmong peoples of Southeast Asia use animals, especially dogs, in healing rituals. In Fresno, California a Hmong shaman sacrificed a German Shepherd dog in a healing ceremony in an attempt to save the life of a seriously ill woman. To the shaman the dog was not only revered for this "service", but also was "given a boost" on its spiritual path as a result. However, the surrounding anglo community could not comprehend this point of view and was outraged. In another case, Mexican immigrants to Southern California went hunting off-season, and the deer they shot was kept alive in order for the meat to remain fresh until it could be butchered, as is customary in their place of origin. This created a problem in Los Angeles, when the two men were stopped by the police, and found to have an injured deer in the trunk of their car. To Los Angelenos, serious issues were raised concerning poaching, animal cruelty, and "macho" traditions. Media coverage and legal prosecution followed, impacting the broader local Hispanic community (Elder, Wolch, and Emel, forthcoming). A third and final case concerns Chinese culinary practices which involve killing animals to be eaten within an hour beforehand. The freshly killed meat shows love for their families and the desire to provide the best for them. It is also seen as more nutritious and carrying more "life" and energy. This has led to "traditional" stores selling such live animals as chickens, pheasants, fish, frogs, and turtles. While pleasing traditional Chinese customers, such practices antagonize the surrounding non-Chinese community.

Socio-spatial issues like poverty and economic marginalization are reflected in the image and characterization of communities within an urban environment, and become linked to perceptions of both the people and animals who live there. There is a heritage of people being compared to

animals and or treated like animals and the presence of such marginalized groups may lead places to acquire similar animal links (see Elder, Wolch and Emel, forthcoming). Moreover, some places acquire negative images because they harbor certain feared or disliked animals, and eventually the people who live there are linked to these images and characteristics of "dirty," "dangerous", or "feared" animals. Examples are found in the connection of rats with ghettos, and in the "piggeries" of London. These characterizations of animals with places link poor and marginalized people to images of dirt, danger, pollution, and a variety of negative characteristics (Elder, Wolch and Emel, forthcoming). Even historical heritage as slavery and segregation in which young strong black men were portrayed as "bullocks" on the plantation, influence an individual's attitudes toward animals (Spiegel 1988). Thus animal associations in the locale of residence, can create conflicts and fuel racialization.

"Piggeries," Mexican hunting techniques, Chinese fresh meat shops, shaman-sacrificed dogs—all reflect attitudes towards animals that can coexist in one geographic location. These incidents support the hypothesis of this study: various groups of people will differ with respect to attitudes toward animals; these groups may also be hostile to one another as a result of their conflicting attitudes. This provides compelling incentive for understanding diverse cultural attitudes towards animals.

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Appendix A:

ATTITUDES TOWARD ANIMALS

- Naturalistic: Primary interest and affection for wildlife and the outdoors.
- Ecologicistic: Primary concern for the environment as a system, for interrelationships between wildlife species and natural habitats.
- Humanistic: Primary interest and strong affection for individual animals, principally pets.
- Moralistic: Primary concern for the right and wrong treatment of animals, with strong opposition to exploitation or cruelty towards animals.
- Scientistic: Primary interest in the physical attributes and biological functioning of animals.
- Aesthetic: Primary interest in the artistic and symbolic characteristics of animals.
- Utilitarian: Primary concern for the practical and material value of animals or the animal's habitat.
- Dominionistic: Primary interest in the mastery and control of animals typically in sporting situations.
- Negativistic*: Primary orientation an active avoidance of animals due to indifference, dislike or fear.

**Hypothetically, the negativistic attitude can be divided into two attitude types: a Neutralistic attitude reflecting a passive avoidance of animals due to indifference; and, a Negativistic attitude characterized by dislike and fear of animals.*

(Knowledge, Affectin and Basic Attitudes Toward Animals in American Society, Phase III. Stephen Kellert and Joyce K. Berry. Yale University. U.S. Fish and Wildlife Service funded study, Grant #14-16-009-77-056, 1980. P. 42)