Attitudes Toward Marine Wildlife: Designing a Focus Group Analysis for Culturally Diverse Settings

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Cultural Diversity and Attitudes Toward Marine Wildlife
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The Southern California Coastal Zone consists in highly urbanized areas characterized by an increasingly diverse population which includes affluent, working class and low-income people, people of color and recent immigrants, and both suburban and inner city residents. Our Sea Grant research project seeks to clarify the relationships between cultural diversity and attitudes toward marine animals in order to provide more systematic information to marine and coastal educators and environmental managers. This working paper details the design of our focus group analysis. Following interviews with local coastal zone managers, we conducted a series of focus groups to identify the spectrum of behaviors and attitudes toward animals, and the dimensions of urban diversity (such as culture, class, socio-demographics, and ethico-political stances) which may be related to marine wildlife. Five groups defined by racial and ethnic difference and gender homogeneity, from low income inner-city communities of color (African American, Latina, Chicana, Chinese or Filipina women) in Los Angeles were organized. The group discussions were led on the basis of standard practice (in how groups were conducted), and more experimental approaches (in how they were interpreted). Participants provided us narratives and anecdotes about the cultural and social meanings of marine and other animals, and of the human activities related to them. And discussions informed us of current recreational practices relating to marine animals. Thus we obtained a rich sampling of attitudes and practices of a wide diversity of peoples, and by knowing more about where these attitudes originate and how they change, enabled us to better explain and anticipate particular human conflicts related to marine wildlife. Our final analysis resulted in the elaboration of cultural models of attitudes toward animals that reflect processes such as migration, acculturation, and cultural identification. These processes are important components of attitude formation, and their clarification helps understand the orientation, appeal and strength of perceptions, practices, and attitudes.

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

Introduction

The Southern California coastal zone is one of the state's most fundamental economic and environmental resources. Consisting of highly urbanized areas, this zone is characterized by an increasingly diverse population which includes affluent, working class and low-income people, people of color and recent immigrants, and both suburban and inner city residents. This diversity has important implications for the management of the urban-wildlife interface. Indeed ecologists and coastal park managers have reported that environmental problems linked to culture-specific traditions and diverse attitudes are on the rise.

Our Sea Grant research project seeks to clarify the relationships between cultural diversity and attitudes toward marine animals to provide more systematic information to marine and coastal educators and environmental managers. Our premise is that population subgroups living in the urban coastal zone have varying cultural traditions with respect to nature/society relationships, as well as social class and demographic differences. They can therefore be expected to hold a wide variety of attitudes toward the environment in general, and animals in particular. The understanding of these attitudes is critical to management efforts to increase access to and enjoyment of the coastal zone, while at the same time preventing damage to coastal wildlife resources.

Following interviews with local coastal zone managers, we conducted a series of focus groups in order to identify the spectrum of behaviors and attitudes toward animals, and the dimensions of urban diversity (such as culture, class, socio-demographics, and ethico-political stances) which may be related to attitudes toward marine wildlife. This working paper details the design of our focus group analysis; the purpose of the focus group study was two-fold. First, we were interested in obtaining detailed nuanced pictures of attitudes toward marine wildlife across several key cultural groups and results useful in their own rights. Second, we wanted to utilize this qualitative data to help in the design of a large sample telephone survey to be conducted during the next phase of our project. After providing a general background on focus groups as a research technique (Part 1), we describe our own focus group field procedures and the analytic

techniques we used. In the conclusion we speculate on the questions remaining for future focus group research on nature/society relations.

Part 1: Focus groups as a research tool

The technique of the focus group (or group depth interview) involves bringing a relatively heterogenous group of eight to twelve people together to discuss an issue in the presence of a moderator. The moderator elicits a range of opinions and keeps the discussion from straying off course. This technique was developed over fifty years ago by sociologists who first sought to deepen their understanding of attitudes. But it was psychologists who most advanced the method by clarifying some of the processes of self-disclosure and of group dynamics in therapy. In the 1960s, focus groups were increasingly used in market and audience research and this applied agenda promoted the standardization of practice. Today it is social scientists who are enlarging the purview of focus groups. The technique is used to explore the processes of attitude formation across groups of people. This critical influence is redefining why, when and how focus groups should be used.

There are many advantages to focus groups: they can generate ideas and insights, provide an avenue for investigating complex behaviors and motivations, and offer a valuable opportunity for feedbacks (Morgan et al., 1993, 15). For social scientists they are most useful in providing a specific background of information on which to base survey questionnaires that are more sensitively designed, as was our purpose. Since the mid 1940s focus groups have been used to assess people's opinions, attitudes and motivations. Early works can be traced to Bogardus in the 1920s, but Merton and Kendall are more generally credited with the technique's origin in the 1940s (with work on the effectiveness of radio morale messages during WWII). Today researchers across many fields use focus groups, but with few exceptions, the literature they have produced has been limited to specialized articles and 'how-to' books. Over the last ten years however this trend has been changing.

When sociologists Merton and Kendall began to use and promote focus groups, they believed

that the technique could clarify mechanisms of attitude formation and thus bypass some of the problems of survey questionnaires. By the 1950s, psychologists employed in advertising agencies began to conduct focus groups for marketing and audience research. Since then, focus groups have been widely used for everything from keeping a finger on the pulse of American consumers to institutional evaluations, political polling, museum visitor studies, and jury selections. At first groups were run in the homes of researchers or in hotel rooms, but now they may take place in elaborate facilities equipped with one-way mirrors and audio-visual equipment. By the late 1980s, practitioners Goldman and McDonald wrote that focus groups were "one of the most important, the most widely used, and arguably, the most psychologically valid tool of market research" (1987, 1).

Clinical psychology has had a significant influence on focus groups. Indeed Stewart *et al.* (1990, 141) noted that "there are few areas in the social sciences that have been studied as carefully and intensively as the dynamics of small groups." And by the 1960s this research had been enhanced by psychotherapeutic research on the characterization of personality types (Goldman *et al.*, 1987, 3) and by work on nonverbal aspects of group interaction (ibid., 46). According to Goldman *et al.* (ibid., 3), the legacy of psychotherapy in the development of focus groups has been "the pursuit of unconscious motivation and their application of probing techniques designed to expose those motives without altering them." In the 1970s, with the emphasis on quantitative analysis in the social sciences, focus group research became increasingly experimental and arguably more detached from people. In the mid 1980s however, sociologists and anthropologists were turning to qualitative methods, in their quest for more "insightful findings and ecologically valid, interpretative techniques" (Lunt *et al.*, 1996, 79), and this search led them to a reconsideration of focus groups.

A radical trend emerged from this qualitative shift in the social sciences whereby the focus group discussion is today understood as a 'socially situated communication.' This characterization has been in response to the reductionist concerns of the perceived psychologism and functionalism of early approaches. Such concerns were in the offing in sociology, beginning perhaps with

Blummer in the late 1960s (van den Hoonard, 1997, 6) and taking full shape in psychology by the 1980s (see Farr and Moscovici's edited volume entitled *Social Representation*, 1984). More recently, critical advances have been made by researchers such as Lunt and Livingstone in communication studies (1996), and by human geographers in an issue of *Area* (1996) that was devoted to innovative and/or critical uses of the technique. Their interpretation is typically based on the belief that the formation of attitudes is dynamic and reflects social processes, and that group discussions can reveal how beliefs and convictions emerge from dialogical processes. In this respect, Stewart *et al.*(1990, 141) write that the "focus group is itself a research instrument." Importantly, some focus groups are increasingly understood as potentially forming a basis of empowerment for participants in the research process (Swenson, 1992, 463). Thus focus groups are undergoing a conceptual reappraisal, a reappraisal with specific consequences for how they are structured and analyzed.

In sum, focus group research was shaped by early emphasis on quantification, followed by a greater appreciation for qualitative research. The influence of practitioners in sociology, marketing and psychology have played the most central role in this evolutionary process. A broad spectrum of trends can be identified today, from mainstream practice which relies on psychological models and quantitative data, to a more critical approach inspired by more sociological models of attitude formation and by a reconceptualization of research (including researcher and research participants) in society. Both traditions are present in social geography's relatively recent use of focus groups, with some geographers leading the assertion of the focus group as a legitimate tool of new critical social research.

Using focus groups

A braiding of traditions has given shape to how focus groups are conducted and interpreted today. Academics have new expectations of focus groups, and the nature of participants has even changed (they are more heterogenous and research-savvy). As a result, there is little consensus on how to structure focus groups or how to analyze results, and this methodology stands at a defining moment. After we sketch out standard practice in focus group research, we then

examine new trends shaping current approaches.

Standard focus group practice

Most practitioners of focus groups initially turn to 'how-to' books for a review of standard practice. These are based on experience, anecdotal evidence, and group research in psychology. According to such books and manuals, ideal groups are homogenous in demographic composition, and consist of eight to twelve people who are strangers to one another. Participant recruitment is achieved by telephone or written communication. Discussions last for up to two hours and the moderator is expected to lead unobtrusively.[1] Questions are semi-structured and, as a rule of thumb, four group meetings suffice to saturate the topic satisfactorily (Billson, 1994, 35). The selection of appropriate facility and seating arrangements (usually participants face each other) receive key consideration (see for instance, Basch, 1987). Discussions are taped, transcribed, and analyzed. This analysis may then be 'triangulated' with other (usually quantitative) methods, or less frequently stand alone as research results.[2]

According to this mainstream perspective, the main advantages of focus groups over individual interviews are that they are quicker than individual interviews and that participants feel more comfortable in a group (Basch, 1987, 434-5). In this light, focus groups are also advantageous in that they allow participants more time to reflect on what is being said, and thus they can add or amend pertinent points. This may spur other thoughts and memories and lead to the emergence of contrasting perspectives or consensus (Lofland *et al.*, 1995, 21). How much information people divulge is assumed to depend on their level of comfort. Typical of this view, Stewart *et al.* (1990, 33) describe three influences that bear on a successful discussion: intrapersonal or demographic

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[1] This topic is typically the object of extensive discussions. It is worthwhile to note that although women have played an important role in developing focus group research, their acting as moderators would have been considered suspect until the 1960s -- even by a female researcher of professional notoriety (for example, see Axelrod in Higginbottam, *et al.*, 1979, 52).

[2] In 1966 Morgan found that 40% of all focus groups were used alone (in Minnis *et al.*, 1997, 41)

characteristics, interpersonal or social characteristics that inform inclusion and exclusion, and environmental conditions.[3] Focus groups are intended to take place in a comfortable setting where all will feel free to share opinions, beliefs and values, "while observers attempt to infer unconscious motivations from their interactions" (Goss, 1996a, 113). Finally focus groups can be used to garner information on which to build survey questionnaire, in terms of providing a background of relevant concerns and the appropriate popular language to express these.

According to critics, this standard use of focus groups is problematic in two important ways. First, there is the problem that discussions cannot be replicated, and relatedly, that accuracy is difficult to ensure. Indeed, as Merton long ago warned, participants may partake in heated discussions over topics to which they normally "ascribe little importance" (Lunt *et al.*, 1996, 91), thus giving a false impression of their interests. Second, there is a problem of representability since focus groups only provide a small sample of opinions. Traditionally the dilemma of reliability and of representability have been negotiated by combining focus groups with other methods, by linking focus groups to support quantitative findings or vice versa.

Critical focus group research

Social scientists have addressed the inherent problems of mainstream practice by focusing on validity instead of reliability and by providing explanations in the context of postmodern analysis. Post-positivist ethnography and feminism have had especially important influences. Critical focus group research emphasizes properties such as discourse, meaning and power, dramaturgy, and the effects (including beneficial effects) of research on participants. A key interest of this research lies in the social construction of attitudes, in aspects of collaborative performance in group discussions, and "on meanings, narratives, explanations, accounts and anecdotes" (Longhurst, 1996, 143). Interpretative methods are being rethought of in terms of relationship between researcher and researched, with an increased emphasis on trust building. In addition Goss (1996b) sees a clear advantage in focus groups that "allow participants to negotiate

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[3] Lofland et al. (1995, 21) note that persons may not be in the same physical environment, and instead 'meet' via electronic media.

a story in order to reach a representative consensus, or at least to 'agree to disagree' " (115). So if on one hand reliability is forgone in qualitative research (due to sample size), validity on the other hand is improved.

Focus groups that are designed along these critical premises are used with fewer logistical constraints. This is in part due to an effort on the part of researchers to be more sensitive to difference and context (and thus each case and topic), and in part to their greater willingness to be experimental in order to arrive at more nuanced meanings. Opinions range widely but the intentions behind this flexibility are interesting to note. On the topic of demographic composition, Vaughn *et al.* (1996, 62-63) favor keeping group characteristics homogenous and caution that mixing genders can lead to conformity, while groups of same gender participants lead to the emergence of leaders. While this result is not in dispute, researchers such as Burgess (1996, 131) and Holbrook *et al.* (1996, 137) note that these dynamics can clarify real life processes of attitude formation, and thus that heterogenous groups can produce useful results. The same goes for the number of participant groups should have, and for whether participants know each other or not. In fact, Agar *et al.* (1995, 79) noted that recruitment strategy (such as the 'snowball' technique which relies on networks of acquaintances from research support agencies or participants themselves) can make it inherently difficult to get participants who are strangers to each other, and thus that researchers should think through the impact of participant familiarity with one another. Meanwhile Kitzinger (1994, 105) notes that there are advantages to having participants who are familiar with each other, in that they may readily express themselves.

The role of the moderator is also being reconsidered. Vaughn *et al.* (1996, 85-87) write that this person should be familiar with the topic of discussion, but not act as expert. Others even insist that the moderator act as if he/she knew little and learning from the group. But Goss *et al.* (1996b, 119) believe that discussions are more productive when it is the main researcher who acts as moderator, and this is substantiated by Zeigler *et al.* (1996, 125). Similarly there is great variance of opinion on how many meetings are generally required to saturate a topic, and agreement only on that it depends on the topic or conceptual framework. Again Goss (1996a,

114) emphasizes that the method can sustain greater flexibility than 'how-to' books intimate.

The choice of facility is, on the other hand, given less debate, although the literature reveals examples of innovative solutions, Burgess *et al.* (1996,131), for instance, in their work on fear and wilderness, combines the method of focus group with that of participant observation, and walked participants through nearby woods before beginning the sessions. What is most often discussed in critical focus group research is how discussions should be interpreted. As with mainstream focus group research, discussions are generally taped and transcribed. Also an assistant records broad themes and directions as well as facial expressions and other demeanors. These notes facilitate a debriefing period (with or without participants) immediately afterward. Texts are transcribed as soon as possible, and are reviewed by as many who were present as possible. Indices are then produced, and a report is group written. Final interpretations are read by people in several fields (Burgess et al., 1988a, 321-2).

Both how groups are conducted and discussions interpreted vary widely. Some analyses rely on psychoanalysis, in an effort to clarify the social construction of the discussions. As Burgess *et al.* write: "[p]sychoanalytic theory proposes individuality is constructed within the social world" (1988a, 313). She frames this by adding that "empirically, group analytic practice explicitly recognizes the significance of *context* in any interpretation of discourse; it argues that the *content* of conversations within a group is inseparable from the *social structures* and the *processes of communication* within which it is spoken" (it. in text) (Burgess *et al.*, 1988, 457-8). Other analytic tools are semiotics and more often today discourse analysis.

To summarize, while some problems exist with the focus group approach, the technique is now used to explore complex topics and this work is very promising. For instance in geography, Zeigler *et al.* (1996, 124) examine not only attitudes before and after a natural disaster, but also the coping strategies that people deploy when catastrophy strikes. Focus groups are also used with more specific objectives in mind than had been the case earlier, such as to clarify potential conflicts for instance. Meanwhile, other researchers are taking on slippery topics that mesh

societal trends, such as changing attitudes toward nature, with ethnic and cultural difference. In the social sciences the critical rethinking of focus groups has opened new topics and freed methodological strategies.

Part 2: Designing a focus group study of cultural diversity and attitudes toward marine wildlife in Southern California

Our research clarifies the relationship between culture, class and attitudes toward animals by focusing on the Los Angeles metropolitan region where massive immigrant flows from Mexico, Central America, and Asia as well as socioeconomic polarization have led to some of the highest levels of population diversity in the nation. To do this we have employed both well-tested and newer, more flexible approaches. Because focus group research is in a critical transition, whereby theory may well have outpaced practice, we have carefully considered the very flexibility with which we employ the method. These considerations are discussed in this section, with first an examination of the segmentation, recruitment and moderation of focus groups where diversity is highlighted. Second, we explain how the discussions were interpreted and analyzed.

Conducting cross-cultural focus groups

We gave careful consideration to the segmentation of our groups' participants. Our focus groups were composed entirely of women for three reasons. First and as mentioned earlier, attitudinal research has documented some differences in the dynamics of mixed vs. single gender groups. We decided to control for these variations by having all participants be of the same gender. Then, females were selected in particular because, although gender differences in attitudes toward animals have long been noticed, it is only recently that women's attitudes have been investigated. Finally our moderator is female and thus differences between the person posing the questions and participants were minimized.

According to standard practice, participants of each focus group should share a high degree of cultural and ethnic homogeneity, in order to allow for free-flowing discussions and to facilitate analysis. This was also of importance to us since we sought to garner information on culturally

specific behaviors and attitudes of the various groups that, according to the 1990 census, best reflect the Los Angeles population. We conducted five groups of up to eleven participants, with each group being entirely composed of African American, Latina, Chicana, Chinese or Filipina women, living in the inner city and whose whose income is low. Also, researchers such as Lunt *et al.* (1996, 91) support a segmentation that is based on shared interests and one that can establish confidence, provide more analytical input, and give an opportunity to explore contradictions. By selecting participants of the same gender, ethnicity and class for each group we helped foster rich discussions that were of topical interest to most in every group.

To elicit information that is specifically culturally relevant, we gave careful consideration to the recruitment of participants. Indeed in her work with African American participants, Jarrett argues that recruitment is the single most important factor in engaging hard-to-reach populations (such as ours) (1993, 199). As with Jarrett's recruitment strategy, our participants were pooled through community groups and affiliate agencies that provide various housing and social services to local low-income residents, instead of through random sampling, telephone calls, or letters of invitation. The 'snowball' technique was then used to further recruit the requisite number of participants. We considered whether it would be a problem if people knew each other (as people often do when they belong to the same community organizations), and decided that, as long as participants did not know each other on the basis of a shared interest in the environment or about animals, their familiarity with each other would not hinder them from speaking.

To remind them of the focus group date, participants were telephoned on the evening before, and given further reassurance as to the confidentiality of the discussion. Once they arrived on site, they filled out a basic information sheet (see appendix A) inquiring into whether they knew each other, their age and education, place of birth and length of Los Angeles residency, membership in an environmental organization, and interactions with animals (through work or pet ownership). This provided us basic demographic information insuring that each participant indeed belonged in the target group. It also gave us a general idea about their background, and enriched our interpretative conclusions. Socio-economic status and inner-city residence were assumed from

the participants' relationship to the community center from which they were recruited. Such assumptions were made to reduce both redundancy and the potential for invasive questioning.

Next we faced the particular challenge posed by moderating such ethnically and linguistically diverse focus groups. According to mainstream focus group research, the ethnicity of the moderator and of participants should be the same (Vaughn *et al,* 1996, 152). Being that each of our group is ethnically and culturally different from the other, and that having a different moderator for each group would introduce more complexity, we could not follow this advice. In fact, Goldman *et al.* (1987, 149-50) argue that simply because the moderator is of the same ethnicity as the respondents does not mean that a rapport will emerge between them. And Morgan has pointed that there are advantages to the moderator being 'different:' for instance this may allow him or her to ask 'basic' questions that are useful to clarify basic attitudes and apply particularly well to research about 'taken for granted' values and categorizations (1998, 69). We believe that, on the basis of these related works and given a non-judgmental atmosphere and sensitively crafted questions, we successfully downplayed the importance of the ethnicity of our moderator (white American female), and provided participants with a desire to explain fundamental and culture specific values by highlighting their cultural identity instead. Because the moderator acted as a detached but expert observer, and because all participants were of a similar background in each group, competing views emerged but were given wide berth by all present. However we had to use a translator to act as moderator in the Latina and the Chinese groups in order to garner stories and anecdotes from people who spoke little English. In the first instance, the moderator had been a participant of the Chicana group and was thus well prepared for her task. In the second instance, a professional translator was hired and trained. For four of the five groups, a note-taker and technical audio equipment assistant were present. For the Latina focus group a Spanish speaker was hired to take notes of speaker order.

Beyond considering how we would conduct these different groups in terms of participant composition, recruitment and moderator role, we decided to follow mainstream practice in all other aspects. We selected the facilities where focus groups were conducted to insure that they

were non-threatening and private, and close to participants' residency or workplace. Most groups met in community agency premises, a community center meeting room for example. Participants were given an honorarium of $25.00 to make up for any transport and childcare costs. Discussions lasted up to two hours and light refreshments were served. Participants (and our community agency liaisons) were promptly thanked in a letter, and a transcript of the discussion was later mailed to those who expressed interest in receiving a copy. Except for some technical difficulties and some inexperience on the part of the professional translator of the Chinese group, we consider all focus groups to have been a success: participants were informative and we were provided rich and sensitive material. More over, participants seemed to enjoy the process: participation was nearly complete, discussions were lively and in most instances lasted longer than scheduled due to general enthusiasm.

Interpreting cross-cultural focus groups

In conducting focus groups we aimed to augment the cross-cultural information on attitudes toward animals, and to increase the understanding of attitudes and behaviors among low-income, inner-city communities of color, especially those of women. Particular effort was devoted to eliciting finely-textured accounts that put attitudes into cultural and social class context, delineating linkages between attitudes and behavioral interaction patterns, and (in the case of immigrants) in understanding how and why culturally-based attitudes and behavior would attenuate with duration of residence in the U.S.

Our interpretation of the focus group discussions was based on both mainstream and critical approaches. Standard procedure was applied in terms of obtaining direct information about the participants' practices relating to animals, identifying their knowledge, and classifying their attitudes, for instance. By conducting a group of Chicana and a group of Latina women, we were provided separate but related perspectives on animals as well as how these perspectives are tied to traditions, family life, and life in the US, according to age, immigration (from the same country or comparable region) and acculturation. But within this we also clarified factors that emerged through group reflexivity and the dynamics between participants. In groups where

leaders emerged (a typical feature of single sex groups) we observed how this characteristic arose, whether and how this challenged others in the group or consolidated agreement instead, and how contradictory views were handled. This occurred in the African American and Filipina groups in particular and provided us an opportunity to better understand how people justify their attitudes and how these are related to broader cultural models, about what it means to be of a particular ethnic group or to be 'different' for instance. All groups imparted valuable (and sometimes surprising) perspectives on mainstream Anglo American life as it relates to animals, especially marine wildlife. In the following sections, we give a step by step description of the methods that guided us in the interpretation of the group discussions, namely (1) how the questions were designed and discussions coded, (2) how we selected and made use of a qualitative analysis software package to help identify variants of animal-related themes, and finally (3) how we identified cultural models of attitudes.

Designing the questions and coding scheme

As described in the previous section, participants filled a brief demographic questionnaire that also included questions about 'pet ownership' and work experience with animals (see Appendix A). This and all other questions were piloted in an ethnically mixed group which provided us excellent feedback. Once the written questions were answered, the moderator opened the discussion by introducing herself and the assistant(s), presenting the topic, and insuring participants of their anonymity (see Appendix B). Participants were then invited to introduce themselves, and the moderator put forth two warm-up questions on the desirability of owning wild animals as pets, and on reactions to wild and potentially dangerous animals roaming city streets. Both of these questions were based on current news events (as were most of our questions) and served to guide and funnel the discussion toward the widest possible range of animal-related interactions (with animals at home, in the city, in the wilderness), while eliciting more and more personal anecdotes, recollections and attitudes.

The questions that followed were based on six topics, namely "Interactions with Southern California marine wildlife," "Background training, family and cultural traditions," "Cultural

conflicts," "Cultural practices of others[4]," "General environmental values," and "Gender differences." Most of these dealt with a marine issue, such as family fishing practices, or remedial actions during and after natural hazards such as El Niño. Each topic was addressed through several questions and cues. Most of the time, few questions were necessary to generate a discussion between several participants at least, and thus not all questions (within a topic) were asked. The group discussion was concluded with a brief statement of thanks and an offer to send participants a transcript of the session. In nearly all instances the discussion was prolonged by up to a half hour of open questions and comments from participants. Some of these were particularly revealing and were incorporated in transcripts and in our interpretations. Thus some topics, such as human sex with animals or the permission granted an indigenous group to hunt for whales, might only be encountered in one group. Discussions were transcribed (and in the case of the Latina discussion, translated) and checked by assistant(s) who had helped administer the focus groups.

A coding tree was produced in anticipation of the coding of the discussions (see Appendix C). Aside from general demographic information, three categories of statements were identified to best serve the research objectives as well as make the extremely rich data more readily usable. These categories were: Experiences and practices, Perceptions and knowledge, and Values and attitudes. In addition, we devised a 'Marine' category to enable an in-depth focus on this topic about which little research has been conducted. And in the course of coding the transcripts, other topics emerged which we eventually organized in a 'Construction of animals' category. These categories were then subdivided into topics and subtopics, a complete listing of which is presented in Table 1.

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[4] Two versions of this question were fashioned according to the groups' ethnic identity: in the Chinese and Filipino groups, a Latina practice was described (rodeos) instead of an Asian practice (so-called 'pet' eating).

Table 1. Categories of information and statements about animals

Category	First topic	Second topic
1. Speaker	Focus Group	Name of the participant
2. Basic Information	Age; Education; Member of animal related organization; Experience with animals; Residency in the US and in Los Angeles	No second topic
3. Practice toward animals	Individual Family-Social network Gender Cultural Cross-cultural	Religion Recreation Food Service Companion Elimination Male or female (for the Gender related topic only) Other (medicine, magic, slaughter)
4. Perception/ knowledge of animals	Individual Family-Social network Gender Cultural Cross-cultural (including change since arriving in the US)	Male or female (for the Gender related topic only)
5. Value/attitude toward animals	Individual Family-Social network Gender Cultural Cross-cultural	*Anthropocentric*: Negative, Utilitarian/dominionistic, Aesthetic, Animal welfarist, Utilitarian/stewardship, Other (Anthropomorphising, Supernatural) *Biocentric*: Environmentalist/naturalist, Animal rightist, Environmental/stewardship, Other (Coexistence)
6. Marine related	Experience/practice; Perception/ knowledge; Value/attitude	No second topic
7. Construction of animals	Domestic; Wild; Food vs. non food	No second topic

Speakers were listed in terms of the focus group they were part of and were renamed (for the sake of anonymity). Basic information about them came to us through both the written questionnaire and statements made during the discussion (ie. a pet they may have forgotten to list). 'Education' was identified as formal education, but the topic was further elucidated in

questions about their animal-related backgrounds, as well as whale watching tours they may have joined or television programs about nature they watched. Length of residency in the US and in Los Angeles was subsequently divided into categories of under and over five years.

The first discussion questions especially provided information about practices related to animals. In our coding, these were organized by whether they tended to be individual, family, gender-based, cultural or cross-cultural practices. An individual practice was limited to an activity undertaken by the person herself, a family or social network practice tied to activities conducted as a family, while gender-based practices were more directly related to statements about gender divisions, such as catching fish (males) vs. cleaning fish (females). Meanwhile, cultural practices were understood as culture-wide patterns and cross-cultural practices were those practiced by people outside of one's own cultural context. Anecdotes and comments might fall in one or more category. But always, when in doubt, we erred on the 'conservative' side and did not ascribe, for instance, a gender-based category simply because we were told that it was a man or a woman who had fished. Instead we looked for statements that attributed particular practices more specifically to one of the genders, such as "It was always the men who ..." Our coding then also recorded in a second category ('Second topic') whether the practice had been male or female.

Other practices were also cross-coded with 'Second topics,' such as religion, recreation, food, service or work animals, companion animals, elimination of animals and an 'other' category which came to include animals as medical remedies, animals related to magic, and the slaughter of animals. 'Religion' was used to record practices related to formal ritual or custom in Catholicism for instance, while 'Magic' (in the 'Other' category) was reserved for everyday practices that gave animals a magical role, such as crickets bringing good luck. 'Recreation' was saved for practices that provide both humans and animals a shared sporting release, like walking one's dog, while more human-centered activities such as raising chickens for food or cockfighting fell under the 'Service' category. 'Food' was used to denote statements about the preparation of animals for human consumption, and discussions about health related practices, such as the eating of freshly killed fish for health reasons, were assigned to the 'Medical remedy'

category in the 'other' category. Practices related to pet keeping were compiled in the 'companion' category. 'Elimination' dealt with the dispatch of undesirable animals, such as trapping rats, while 'slaughter'(in the 'other' category) pulled together more cruel practices such as holding rats by the tail over pots of boiling water then drowning them in it. Again, some practices could fall in several of these subtopics.

The Perception/ knowledge category deals with what people understand and know about animals. Perception and knowledge is likely to have been gained through formal channels such as schooling, but more specifically our questions inquired into everyday forms of knowledge that emerge through experience of animals and of culture. These insights were organized along the same 'first topic' as described for practices, with the exception of the 'cross-cultural' category. Here, we specified a cross-cultural focus as both including cross-cultural views of other people's practices as well as reports of changes in the respondent's own understanding of animals since arriving in Los Angeles (for immigrants), or differences between the respondent's thinking and that of her parent (for US-born children of immigrants). The Perception/ knowledge category was not designed to identify subtopics, such as religion or recreation, and only recorded the gender of a gender-based type of Perception/ knowledge, such as "women are kinder to animals."

Values and attitudes are understandings that have undergone a socio-psychological process and thus have become more firmly entrenched than perceptions and knowledge. In fact they may well be contradictory to knowledge but be held as more meaningful. Values and attitudes may indeed serve other purposes, such as those supporting an ethnic identity. They are substantively held by an individual or within any of the other social categories that we use to characterize 'Practices toward animals' and 'Perception/ knowledge of animals.' In this instance we return to our early definition of 'cross-cultural' as simply meaning values or attitudes attributed to others.

Our subsequent characterization of Values/attitudes category is largely guided by those identified by Stephen Kellert in the mid 1970s[5]. This typology has been amended by Kellert himself, other

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[5] For one of Kellert's typology of values given to animal, see Appendix D.

researchers and ourselves, to accommodate changes in scientific thinking about attitudes and in attitudes toward the environment and animals known to have occurred over time. For instance, within 'Anthropocentrism,' we collapsed Kellert's 'Utilitarian' and 'Dominionistic' category into one, namely 'Utilitarian-dominionistic.' This reconceptualization identifies a utilitarianism that is linked to the belief in human superiority and thus control. Meanwhile, our category 'Utilitarian-stewardship' is mindful of a utilitarianism that is based on human wise use of animals and thus has different consequences. Similarly, under 'Biocentrism' we broke down Kellert's 'Ecologistic-scientific-naturalistic' categories into 'Environmentalist-naturalist' and 'Environmentalist-stewardship.' This concretizes the philosophical differences between those who favor preserving the natural environment as is vs. those who believe that nature must be administered by humans for its own good, through restoration for instance. We recast Kellert's 'Humanistic' and 'Moralistic' values and call them 'Animal welfarist' (in the Anthropocentric realm) and 'Animal rightist' (in the Biocentric realm). This more specific appelation better reflects the tenor of the statements. In his more recent typology of values (see Appendix D), Kellert moves away from what he had called the 'Aesthetic' category to what he now understands as the 'Symbolic' value. We instead distinguish between visual and more magical considerations by retaining the 'Aesthetic' category and, in our 'other' category keeping track of 'Supernatural' ascriptions. This allows us to differentiate statements about the beauty of birds vs. those expressing the belief that doves are God-sent emissaries. Our 'Other' category also records anthropocentric attitudes in the 'Anthropomorphizing' category; and correspondingly in the Biocentric realm, the 'other' category included attitudes having to do with 'Coexistence' with animals. 'Coexistence' relates to statements made about the ability to live peacefully with others such as animals, despite differences. These changes served us well in that we were able to more specifically categorize statements while providing lee-way for some not generally expressed in a more mainstream context. And by being mindful of the 'Anthropocentric' / 'Biocentric' divide we were better able to appreciate the relationship between seemingly contradictory attitudes, such as 'Animal welfarist' and 'Utilitarianist-dominionistic' that often existed within the same statement.

Four questions specifically addressed issues about marine wildlife and a separate coding category was assigned to the topics of Experience/practices, Perceptions/knowledge, and Values/attitudes toward marine animals. By keying these statements we were provided an early understanding of the importance of the marine environment for participants. Of course, marine-related statements were also coded according to the more general schema.

Finally, three more important topics arose in the discussions and we thus elected to code them. They are distinctions between animals constructed as 'wild' or 'domestic,' 'pet' and 'not pet,' and as 'food' or 'not food.' The discussions relating to these topics clarified the social construction of particular animals and were thus categorized as such.

In sum, the shaping of our coding tree was defined by our focus on the cultural contexts of attitudes toward animals. The coding of the transcripts was an important step in the interpretation of the focus group discussions, by helping us identify themes, and ultimately some of the cultural models underlying these attitudes.

Using the computer software (NU*DIST) and emergence of animal-related themes

NU*DIST (Non-numerical Unstructured Data Indexing Searching and Theorizing) is a qualitative software package that came well recommended to us. After installing and becoming familiar with the program we input the coding tree (divided into 'root' and 'nodes'), the discussions' transcriptions and the coding we had assigned to all statements.

In brief, NU*DIST is designed to retrieve statements within a wide and complex range of search limits, and this across all group discussions. For instance it may recall all statements made by women who do not have a high school degree, and who made Utilitarianistic/ dominionistic attitudinal statements and statements about marine-related practices. The complexity of the search is thus dependent on the number of statements made per category. Our next step was thus to identify nodes with no or few statements, or 'empty' nodes. This step furthered our interpretation by leading us to ask how variables (such as the Aesthetic Value/attitude), which

had been of significant relevance to other research on attitudes toward animal, generated so little response at all levels (individual, family/social network, etc) in our discussions[6]? Was it an error of coding or a question bias? Or was the Aesthetic attitude related to one other or more variables which was/were not encountered among participants? On the other hand, topics which had emerged as we had coded the transcripts (and had been temporarily categorized as 'free node' but then reined in and categorized as e.g. issues in the 'social construction of animals') enriched our understanding of their meaningfulness for participants. In this manner, the software package not only offered us flexibility and a shortcut to the tedium of a hand based analysis, but also made a significant contribution in helping us form questions about our data early on.

The reports that NU*DIST provided in response to our queries quickly allowed us to identify animal-related themes through the discussions as well as clarify variants of these themes. More so, we could count the statements and identify which category of statements were made most often according to topics and subtopics. We could verify how leaders had emerged by identifying the category and topics of statements they made most for instance. We were also enabled to readily compare statements across groups. This was especially useful in terms of obtaining an understanding into the varied usages participants make of the coastal zone and how this usage is tied to family practices, such as tidepool collecting.

Finally processes such as acculturation could be considered, on the one hand by retrieving and linking direct answers to our question about changes in Perception/ knowledge since arriving in the US with demographic information from the participants; and on the other hand, by contrasting practices and attitudes between first and second generation immigrants. But once practices, perceptions and attitudes had been identified, counted and recorded, further questions arose about their place in the socio-cultural contexts of the participants. How important were these in shaping and justifying attitudes? We turned to the reports of statements made by each

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[6] The Aesthetic attitude was however present in the case of marine wildlife, when questions became more species-specific. This indeed may have been a determining factor in our groups' non-expression of an Aesthetic attitude.

participant and to the immediate textual context of the statements. This allowed us to develop narratives of explanation by individual. In order to understand how these 'figured in' in cultural resonance however we had to consider group dynamics at a broader level.

Identifying cultural models

By returning to the transcripts and focusing on the group dynamics that were at play through the discussions, when for instance attitudinal statements were made, we could more reliably appreciate their meaningfulness to participants. This process is similar to the ones that cognitive anthropologists have used to fashion what they call folk models, folk theory, cultural wisdom, explanatory system, and more recently, cultural models. The concept of cultural model encapsulates how individual attitudes are related to people's way of making sense of the world in general, an important function of culture. As Kempton et al. (1997, 10-11) explain in their study of American environmental values, "people organize their cultural beliefs and values with what we call mental models or cultural models ... In the process of learning, people do not just add new information to a loose accumulation of facts in their heads. Rather, like scientists theorizing, they construct [...] models that make sense of most of what they see. Then people can use these models to solve problems or make inferences, based on seemingly incomplete information."

In order to reconstruct these models we reviewed the arguments used by participants to justify values and attitudes. We also considered the reactions that were provoked by attitudinal statements, such as consensus or challenge, how they resonated within the group, and how the tone of the discussion changed (more often than not resulting in laughter!). By tying these to the coded statements and demographic data, we learned how attitudes (and/or their basis) vary across cultures, and how culturally significant they can be. In this manner our analysis integrates how attitudes are bolstered by culture, or how culture is used by participants to argue in favor of a viewpoint. Instances of this occurred when participants discussed one of their culturally significant practices that did not fit in mainstream society. This analytical process is not only critical in adding a layer of explanation to our initial interpretation, one that allowed us to go far beyond a listing of attitudes present in the discussion, but is also mindful of participants as active

shapers of their own attitudes and views of the world.

Conclusions

There are several reasons behind the rising interest in focus groups as a social science methodology. Perhaps the most important is that such discussions can shed critical light on complex attitudes, such as attitudes toward animals. Rather than striving for reliability, such a method emphasises greater validity. However as standard focus group practice is made to accommodate more and more complex topics, earlier methodological guidelines are being stretched, especially in a contemporary ethnically diverse environment. As Jarrett writes, "this entry into cultural and ethnic diversity is a methodological challenge of increasing magnitude that must be given more attention"(1993, 200-1). Our project has clarified some of the more contentious issues in doing cross-cultural focus group research.

Our project primarily consisted of clarifying the social construction of attitudes toward animals, and for this we elected focus groups as the methodology that best clarifies a broad and rich range of attitudes, in terms of promoting the recall of class and culture based practices and attitudes that participants take for granted. Our approach is largely derived from mainstream focus group research, with some important modifications. We incorporated more contemporary approaches by retaining (and even highlighting) important socio-demographic characteristics while downplaying others, in both group segmentation and moderator role. More so we underscored shared interest in our questions and achieved a more sensitive account of attitudes and their socio-cultural basis, one that specifically can inform our upcoming survey. With the combination of standard and more critical focus group practice, we made several adaptations, on the basis of our research objectives. Beyond informing our survey instrument, these focus group discussions brought a rich and substantial array of attitudinal differences to light.

By focusing on the attitudes toward marine wildlife of culturally diverse residents of Southern California, our focus groups are both innovative in topic and in group composition. Five groups defined by racial and ethnic difference and gender homogeneity, from low income inner-city

communities of color in Los Angeles were organized. They were led on the basis of standard practice (in how groups were conducted), and more experimental approaches (in how they were interpreted). In this way we underlined what Goss (1996b, 118) writes is a special appeal of focus groups, namely that they can "provide [...] the researcher with insight into the manner in which knowledge is produced, or reified into social truth, and in which social decisions are made in the local context." From the discussions we identified contexts in which attitudes emerge specifically. This was especially enriched by group interactions, as participants challenged or lent credence to each other's viewpoints. From these exchanges we have clarified the social construction of animals, particularly marine wildlife. Participants also provided us narratives and anecdotes about the cultural and social meanings of marine and other animals, and of the human activities related to them. And, discussions informed us of current recreational practices relating to marine animals. We obtained a rich sampling of attitudes and practices of a wide diversity of peoples, and by knowing more about where these attitudes originate and how they change, we can better explain and anticipate particular human conflicts related to marine wildlife. Our final analysis resulted in the elaboration of cultural models of attitudes toward animals that reflect processes such as migration, acculturation, and cultural identification. These processes are important components of attitude formation, and their clarification helps understand the orientation, appeal and strength of perceptions, practices, and attitudes. Future research should investigate these questions further, by reshaping methodologies that can more sensitively demonstrate how attitudes vary across cultures and how subtle differences are important. Such an objective will bring about more equitable ways of living together, both between humans and between humans and other animals.

Bibliography

Agar, Michael and James MacDonald (1995) "Focus groups and ethnography," *Human Organization*, 54(1), pp. 78-86.

Basch, Charles E. (1987) "Focus group interview: an underutilized research technique for improving theory and practice in health education," *Health Education Quarterly*, 14(4), pp. 411-448.

Billson, Janet Mancini (1994) *Conducting Focus Groups: a manual for sociologists on the use of focus groups as a tool in social and market research*, American Sociological Association, Washington, D.C.

Burgess, J., M. Limb, and C.M. Harrison (1988a) "Exploring environmental values through the medium of small groups: 1. Theory and practice," *Environment and Planning A*, 20, pp. 309-326.

Burgess, J., M. Limb, and C.M. Harrison (1988b) "Exploring environmental values through the medium of small groups: 2. Illustrations of a group at work," *Environment and Planning A*, 20, pp. 457-476.

Burgess, Jacquelin (1996) "Focusing on fear: the use of focus groups in a project for the Community Forest Unit, Countryside Commission," *Area*, 28(2), pp. 130-135.

Farr, Robert M. and Serge Moscovici, Editors (1984) *Social Representations*, Cambridge University Press, Cambridge, United Kingdom.

Goldman, Alfred E. And Susan Schwartz McDonald (1987) *The Group Depth Interview: principles and practice*, Prentice-Hall, Inc., Englewood Cliffs, New Jersey.

Goss, Jon (1996a) "Introduction to focus groups," Area, 28(2), pp. 113-114.

Goss, Jon (1996b) "Focus groups as alternative research practice: experience with transmigrants in Indonesia," Area, 28(2), pp. 115-123.

Holbrook, Beverley (1996) "Shopping around: focus group research in North London," Area, 28(2), pp. 136-142.

Holland, Dorothy and Naomi Quinn (1987) *Cultural Models in Language and Thought, Cambridge University Press*, Cambridge, United Kingdom.

Jarrett, R. L. (1993) "Focus Group Interviewing with low-income, minority populations: A Research Experience." In D.L. Morgan, editor, *Successful Focus Groups: Advancing the State of the Art*, Sage, Newbury Park, California, pp. 184-201.

Kellert, Stephen R. (1993) "The Biological Basis for Human Values of Nature," in *The Biophilia Hypothesis*, edited by Stephen R. Kellert and Edward O. Wilson, Island Press, Covelo, California, pp. 42-69.

Kempton, Willett, James S. Boster and Jennifer A. Hartley (1997) *Environmental Values in American Culture*, MIT Press, Cambridge, Massachusetts.

Kitzinger, J. (1994) The Methodology of Focus Groups: The Importance of Interaction Between Research Participants," *Sociology of Health and Illness*, 16, pp. 103-121.

Lofland, John and Lyn H. Lofland (1995) *Analyzing Social Settings*, Wadsworth, San Francisco.

Longhurst, Robyn (1996) "Refocusing groups: pregnant women's geographical experiences of Hamilton, New Zealand/Aotearoa, Area, 28(2), pp. 143-149.

Lunt, Peter and Sonia Livingstone (1996) "Rethinking the Focus Group in Media and Communications Research," Journal of Communication, 46(2), pp. 79- 98.

Minnis, Donna L., Robert H. Holsman, Lisa Grice and R. Ben Payton (1997) "Focus groups as a human dimensions research tool: three illustrations of their use," Human Dimensions of Wildlife, 2(4), pp. 40-49.

Morgan, David L., Editor (1993) *Successful Focus Groups: advancing the state of the art*, Sage Publications, Newbury Park, Ca.

Stewart, David W. and Prem N. Shamdasani (1990) *Focus Groups: theory and practice*, Sage publications, Newbury Park, Ca.

Swenson, Jill Dianna, William F. Griswold and Pamela B. Kleiber (1992) "Focus groups: method of inquiry/Intervention," Small Group Research, 23(4), 459-474.

Van den Hoonard, Will C. (1997) Working with Sensitizing Concepts: analytical field research, Sage publications, Newbury Park, California.

Vaughn, Sharon, Jeanne Shay Schumm, and Jane Sinagub (1996) Focus Group Interviews in Education and Psychology, Sage Publications, Thousand Oaks, Ca.

Zeigler, Donald J. and Stanley D. Brunn (1996) "Focusing on Hurricane Andrew through the eyes of the victims," Area, 28(2), pp. 124-129.

Appendix A:

Basic questionnaire

Thank you for participating in this discussion on animals. Your opinions are of great help to us. Before we begin, please tell us:

Overall, how well do you know the others who are in the room this evening?
___ not at all?; ___ somewhat; OR ___ very well

How old are you? _____

What is the last school year/grade you completed?
___ Grade;
___ High School Degree;
___ some college;
___ College Degree (please tell us which _____)

How long have you lived in Los Angeles? _____
Where were you born? _____
Are you a member of an environmental or animal rights organization? ____ yes; ___ no
Have you ever worked with animals? (Indicate all that apply)
___ on a farm;
___ in a stable;
___ in a pet store;
___ at a vet;
___ in a park or zoo;
___ in a slaughterhouse;
Elsewhere? Please tell us where: _____
Have you ever owned a pet or raised animals? ____ yes; ___ no
If so, what kind?
___ a dog:
___ a cat;
___ a bird;
___ a snake or a turtle;
Any other? Tell us which: _____

Thank you!

Appendix B:

Focus group questions on attitudes toward marine wildlife and animals in general

Opening

Hi I'm Jennifer Wolch and, first, I want to welcome you and thank you for participating in this group discussion. We're from USC and we asked different community leaders like (...) to help us set these kinds of meetings up. As you know, what we'd like to hear about are people's different opinions about animals - both positive and negative, stories about animals, both good and bad - and how people relate to animals - for example, raising **farm** animals, **fishing**, **hunting**, keeping **pets**, animals in **labs**, insect collecting, or feeding wild animals like pigeons, ducks or squirrels. There are no right or wrong answers, and negative comments are as important as positive comments. Now, if you feel that you've never had experiences with animals, that's fine too. We're not trying to put you on the spot or sell you anything. We'll cover different topics and the discussion will be relaxed and fun. Unna is one of my students helping me. She gave you your name tags and questionnaires and will be taking notes when we start. Alec is our technician, he makes sure that the tape recorder is running. As you know, this is strictly confidential and your names will not be used, but we don't want to miss anything you're saying. So we're taping our discussion, but the tapes will be erased after we're done. For the same reason, we ask that you talk one at a time, but we want this to be a conversation amongst all of us and not just talk to me. I don't have any answers! We brought some refreshments, please help yourself. After the meeting ends you'll receive $25.00 as a thank you for participating.

Any questions before we get started?

Transition Now, tell us your name and where you are from, and how long you've been in the US and in LA.

WARM UP

a. Did you hear in the news the story of the **pet snake** that escaped, then ate someone's pet dog? Can someone recall that story?

Here's the article.

It says: "*Flossie Torgerson vowed Sunday to prevent a repeat of the horror she witnessed on her patio the day before when a boa constrictor crushed her tiny chihuahua and swallowed it whole...*"

Was that just bad luck or is the owner of the snake responsible?

Cue: What kinds of animals come to mind when you think about pets?
Have any of you owned a pet or raised animals before?
Has anyone here raised or kept an animal that might be considered strange even in LA, like crickets, ants, or some kind of odd fish.

b. Now, you may have seen on TV that wild animals like coyotes, bears, and **cougars** are sometimes seen walking around in the suburbs, even on LA city streets.

Here's one in the Valley.

The article says: "*Jim O'Neal was showering when he peered out his window and spotted the cougar ... it was just walking down the street on its merry way. It never did run...*"

What if one of those creatures showed up here in your neighborhood? What would you think?

Cue: Why do you think these animals are coming so close to people all of a sudden?

Key topic 1 **Interactions with Southern California Marine Wildlife**

a. Now its not uncommon for people in LA to interact with wildlife at the beach.

When you've gone to the beach, what kind of animals and birds have you noticed?

Cues: Does anyone here have a special memory of seeing an animal at the beach? Like seeing

dolphins, seals, whales, pelicans, sand worms, jellyfish, or the like? For instance, I remember once seeing a seal on the side of the road, right near the beach.

b. Many people go to the beach to collect food items, like crabs, fish, and clams, which they then take home and cook later. Have you ever done that? Have you done it a lot?

Cue: What do you fish? Mussels? Shellfish?

Key topic 2 **Background training, family and cultural traditions**

a. When you were a kid, did your relatives ever fish, or hunt, or trap wild animals, or keep chickens or raise other animals for food, even bees or worms for bait?
Did your people ever kill animals that were seen as a danger, like a predator, snake or pest?
Did you help them with that?
Did you do that with your Mom or you Dad?

b. How about other animal-related outings, like going birdwatching, or whalewatching, did you do that? Or did you watch animal-related programs on TV or movies?

c. Did you have animals around the house, in the yard or out back in stables? Like dogs or turtles, ant farms, or horses in the barn.

d. When you were a kid, did grown-ups tell you about animals? Does anyone here remember a specific story? (For example, my Mom used to collect starfish at the beach ...)
How about traditional stories that get told about animals ..... or fairytales or fables or folk stories?

e. What about religion, are there some religious teachings you learned that concern animals? For instance, in some religions, animals are almost equal to people, while in others they may be sacrificed.

Key topic 3 **Cultural Conflicts**

a. Looking at it now, what do you think of traditional ideas you grew up with?
(If **disagree** with traditional ideas)

Can you remember the time or even an event in your life when you began to think about animals in a different way from your parents or relatives, or from when you were a child?
Why do you suppose you think differently now?

Do you think living in the US or in a city like LA has influenced how you think about animals?

(If **agree** with traditional ideas)

In a city like LA where there are so many people who may not share your ideas or background, how easy or difficult has it been to keep to your traditions?

Does your participation in community activities make a traditional lifestyle easier for you?

Key topic 4 **Cultural Practices of Others** (version used in the African American, Latina, Chicana focus groups)

Talking about traditional practices, sometimes people from other cultural backgrounds do things to animals that we might not like or that we find odd. For instance, not too long ago two people were arrested for eating a dog.
Do you think it was fair to arrest them, considering that where they came from it's considered perfectly

OK to eat dogs?
Are there things that people with different traditions do to or with animals that you object to? If so what?

Key topic 4 **Cultural Practices of Others** (version used in the Chinese and Filipina focus groups)
Talking about traditional practices, sometimes people from other cultural backgrounds do things to animals that we might not like or that we find odd. For instance, off and on there has been a big uproar about people who've had rooster and dog fights. Do you think this uproar is fair, considering that where they came from it's considered perfectly OK to have rooster and dog fights?
Are there things that people with different traditions do to or with animals that you object to? If so what?

Key topic 5 **General Environmental Values**
During this past year, because of the El Nino, unhealthy sea animals from large to small, from whales and seals to birds and fish, were appearing on our beaches.
How should people respond to this kind of situation?
Do we, as humans, have responsibility to animals during times like these? Why or why not?
Does the kind of animal affected make a difference?

Key topic 6 **Gender Differences**
OK Ladies! We're almost done! Just one more question!
Some research has shown that women and men have very different ideas about animals.
Do you think that's true or not? What are some examples that come to mind?

Transition / Ending
Do you have any questions for us?

Thank you for participating in this research and for being patient with our questions. If you'd like to review our write-up of this discussion, please leave us your address and we'll mail it to you. Now, we have envelopes for each of you. Thank you again!

Appendix C. Coding Tree

1. BASIC INFORMATION

1 Base information
11 Base information/ Member of an animal related organization
111 Member of an animal related organization
112 Not a member of an animal related organization
12 Base information/ Age
121 Age: 18-30
122 Age: 31-55
123 Age >55
13 Base information/ Education
131 Education: <High School
132 Education: High School degree
133 Education: >High School
14 Base information/ Animal experience
141 Base information/ Animal experience/ Yes
1411 Base information/ Animal experience/ Yes/ Companion
1411 Base information/ Animal experience/ Yes/ Farm
1411 Base information/ Animal experience/ Yes/ Wild
1411 Base information/ Animal experience/ Yes/ Work
15 Base information/ US residence
151 Base information/ US residence/ Born in US
152 Base information/ US residence/<5years
153 Base information/ US residence/>5years
16 Base information/ Los Angeles resident
161 Base information/ Los Angeles resident/ Born in Los Angeles
162 Base information/ Los Angeles resident/ in Los Angeles <5yr
163 Base information/ Los Angeles resident/ in Los Angeles >5yr

2. PRACTICE

21 Practice/ Individual
211 Practice/ Individual/ Religion
212 Practice/ Individual/ Recreation
213 Practice/ Individual/ Food
214 Practice/ Individual/ Service
215 Practice/ Individual/ Companion
216 Practice/ Individual/ Elimination
217 Practice/ Individual/ Other (medicine, slaughter, magic)

22 Practice/ culture
221 Practice/ Culture/ Religion
222 Practice/ Culture/ Recreation
223 Practice/ Culture/ Food
224 Practice/ Culture/ Service
225 Practice/ Culture/ Companion
226 Practice/ Culture/ Elimination
227 Practice/ Culture/ Other (medicine, slaughter, magic)

23 Practice/ Cross-cultural
231 Practice/ Cross-cultural/ Religion
232 Practice/ Cross-cultural/ Recreation
233 Practice/ Cross-cultural/ Food
234 Practice/ Cross-cultural/ Service
235 Practice/ Cross-cultural/ Companion
236 Practice/ Cross-cultural/ Elimination
237 Practice/ Cross-cultural/ Other (medicine, slaughter, magic)

24 Practice/ Gender
241 Practice/ Gender/ Male
242 Practice/ Gender/ Female

25 Practice/ Family-social network
251 Practice/ Family-social network/ Religion
252 Practice/ Family-social network/ Recreation
253 Practice/ Family-social network/ Food
254 Practice/ Family-social network/ Service
255 Practice/ Family-social network/ Companion
256 Practice/ Family-social network/ Elimination
257 Practice/ Family-social network/ Other (medicine, slaughter, magic)

3. PERCEPTIONS/KNOWLEDGE
31 Perceptions-knowledge/ Individual
32 Perceptions-knowledge/ Cultural
33 Perceptions-knowledge/ Cross-cultural (change since being in new culture)
34 Perceptions-knowledge/ Gender
341 Perceptions-knowledge/ Gender Male
342 Perceptions-knowledge/ Gender Female
35 Perceptions-knowledge/ Family-social network

4. VALUE/ATTITUDES
41 Value-attitudes/ Individual
411 Value-attitudes/ Individual/ Anthropocentric
4111 Value-attitudes/ Individual/ Anthropocentric/ Negative
4112 Value-attitudes/ Individual/ Anthropocentric/ Utilitarian-dominionistic
4113 Value-attitudes/ Individual/ Anthropocentric/ Aesthetic
4114 Value-attitudes/ Individual/ Anthropocentric/ Animal welfare
4115 Value-attitudes/ Individual/ Anthropocentric/ Utilitarian-stewardship
4116 Value-attitudes/ Individual/ Anthropocentric/ Other (anthropomorphising)
412 Value-attitudes/ Individual/ Biocentric
4121 Value-attitudes/ Individual/ Biocentric/ Environmentalist-naturalist
4122 Value-attitudes/ Individual/ Biocentric/ Animal rights
4123 Value-attitudes/ Individual/ Biocentric/ Environmental stewardship
4124 Value-attitudes/ Individual/ Biocentric/ Other (coexistence)

42 Value-attitudes/ Cultural
421 Value-attitudes/ Cultural Anthropocentric

4211 Value-attitudes/ Cultural Anthropocentric/ Negative
4212 Value-attitudes/ Cultural Anthropocentric/ Utilitarian-dominionistic
4213 Value-attitudes/ Cultural/ Anthropocentric Aesthetic
4214 Value-attitudes/ Cultural/ Anthropocentric Animal welfare
4215 Value-attitudes/ Cultural/ Anthropocentric Utilitarian-stewardship
4216 Value-attitudes/ Cultural/ Anthropocentric Other (anthropomorphising)
422 Value-attitudes/ Cultural/ Biocentric
4221 Value-attitudes/ Cultural/ Biocentric Environmentalist-naturalist
4222 Value-attitudes/ Cultural/ Biocentric Animal rights
4223 Value-attitudes/ Cultural/ Biocentric Environmental stewardship
4224 Value-attitudes/ Cultural/ Biocentric Other (coexistence)

43 Value-attitudes/ Cross-Cultural
431 Value-attitudes/ Cross-cultural/ Anthropocentric
4311 Value-attitudes/ Cross-cultural/ Anthropocentric/ Negative
4312 Value-attitudes/ Cross-cultural/ Anthropocentric/ Utilitarian-dominionistic
4313 Value-attitudes/ Cross-cultural/ Anthropocentric/ Aesthetic
4314 Value-attitudes/ Cross-cultural/ Anthropocentric/ Animal welfare
4315 Value-attitudes/ Cross-cultural/ Anthropocentric/ Utilitarian-stewardship
4316 Value-attitudes/ Cross-cultural/ Anthropocentric/ Other (anthropomorphising)
432 Value-attitudes/ Cross-cultural/ Biocentric
4321 Value-attitudes/ Cross-cultural/ Biocentric/ Environmentalist-naturalist
4322 Value-attitudes/ Cross-cultural/ Biocentric/ Animal rights
4323 Value-attitudes/ Cross-cultural/ Biocentric/ Environmental stewardship
4324 Value-attitudes/ Cross-cultural/ Biocentric/ Other (coexistence)

44 Value-attitudes/ Gender
441 Value-attitudes/ Gender Anthropocentric
4411 Value-attitudes/ Gender Anthropocentric/ Negative
4412 Value-attitudes/ Gender Anthropocentric/ Utilitarian-dominionistic
4413 Value-attitudes/ Gender Anthropocentric/ Aesthetic
4414 Value-attitudes/ Gender Anthropocentric/ Animal welfare
4415 Value-attitudes/ Gender Anthropocentric/ Utilitarian-stewardship
4416 Value-attitudes/ Gender Anthropocentric/ Other (anthropomorphising)
442 Value-attitudes/ Gender Biocentric
4421 Value-attitudes/ Gender Biocentric/ Environmentalist-naturalist
4422 Value-attitudes/ Gender Biocentric/ Animal rights
4423 Value-attitudes/ Gender Biocentric/ Environmental stewardship
4424 Value-attitudes/ Gender Biocentric/ Other (coexistence)

45 Value-attitudes/ Family-social network
451 Value-attitudes/ Family-social network/ Anthropocentric
4511 Value-attitudes/ Family-social network/ Anthropocentric/ Negative
4512 Value-attitudes/ Family-social network/ Anthropocentric/ Utilitarian-dominionistic
4513 Value-attitudes/ Family-social network/ Anthropocentric/ Aesthetic
4514 Value-attitudes/ Family-social network/ Anthropocentric/ Animal welfare
4515 Value-attitudes/ Family-social network/ Anthropocentric/ Utilitarian-stewardship
4516 Value-attitudes/ Family-social network/ Anthropocentric/ Other (anthropomorphising)

452 Value-attitudes/ Family-social network/ Biocentric
4521 Value-attitudes/ Family-social network/ Biocentric/ Environmentalist-naturalist
4522 Value-attitudes/ Family-social network/ Biocentric/ Animal rights
4523 Value-attitudes/ Family-social network/ Biocentric/ Environmental stewardship
4524 Value-attitudes/ Family-social network/ Biocentric/ Other (coexistence)

5. MARINE
51 Marine Practice
52 Marine Perception-knowledge
53 Marine Value-attitudes
54 Marine Experience

6. SPEAKERS
6 Speakers
61 Speakers
611 Speakers/ African American / Aa
612 Speakers/ African American / Ba
613 Speakers/ African American / Ca
614 Speakers/ African American / Da
615 Speakers/ African American / Ea
616 Speakers/ African American / Fa
617 Speakers/ African American / Ga
618 Speakers/ African American / Ha
619 Speakers/ African American / Ia
6110 Speakers/ African American / Ja
6111 Speakers/ African American / Ka
62 Speakers/ Latina
621 Speakers/ Latina / Chicana
6211 Speakers/ Latina/ Chicana/Ab
6212 Speakers/ Latina/ Chicana/ Bb
6213 Speakers/ Latina/ Chicana/ Cb
6214 Speakers/ Latina/ Chicana/Db
6215 Speakers/ Latina/ Chicana/ Eb
6216 Speakers/ Latina/ Chicana/ Fb
6217 Speakers/ Latina/ Chicana/ Gb
6218 Speakers/ Latina/ Chicana/ Hb
622 Speakers/ Latina/ Immigrant
6221 Speakers/ Latina/ Immigrant/Ac
6222 Speakers/ Latina/ Immigrant/Bc
6223 Speakers/ Latina/ Immigrant/ Cc
6224 Speakers/ Latina/ Immigrant/ Dc
6225 Speakers/ Latina/ Immigrant/ Ec
6226 Speakers/ Latina/ Immigrant/ Fc
6227 Speakers/ Latina/ Immigrant/ Gc
6228 Speakers/ Latina/ Immigrant/ Hc
6229 Speakers/ Latina/ Immigrant/ Ic
62211 Speakers/ Latina/ Immigrant/ Jc
63 Speakers/ Asian

631 Speakers/ Asian/ Cantonese/Ad
632 Speakers/ Asian/ Cantonese/Bd
633 Speakers/ Asian/ Cantonese/Cd
634 Speakers/ Asian/ Cantonese/Ed
635 Speakers/ Asian/ Cantonese/Fd
636 Speakers/ Asian/ Cantonese/Gd
637 Speakers/ Asian/ Cantonese/Hd
638 Speakers/ Asian/ Cantonese/Id
639 Speakers/ Asian/ Cantonese/Jd
6310 Speakers/ Asian/ Cantonese/Kd
6331 Speakers/ Asian/ Filipina/Ae
6332 Speakers/ Asian/ Filipina/Be
6333 Speakers/ Asian/ Filipina/Ce
6334 Speakers/ Asian/ Filipina/De
6335 Speakers/ Asian/ Filipina/Ee
6336 Speakers/ Asian/ Filipina/Fe
6337 Speakers/ Asian/ Filipina/Ge
6338 Speakers/ Asian/ Filipina/He
6339 Speakers/ Asian/ Filipina/Ie

7. ANIMAL CONSTRUCTION

71 Animal construction/ domestic (vs. wild)
72 Animal construction/ wild (vs. domestic)
73 Animal construction/ Food vs. non food

Appendix D:

Kellert's Table of Biophilia Values (1993, 59)

Term	Definition	Function
Utilitarian	Practical and material exploitation of nature	Physical sustenance/security
Naturalistic	Satisfaction from direct experience/ contacts with nature	Curiosity, outdoor skills, mental/physical development
Ecologistic-Scientific	Systematic study of structure, function, and relationship in nature	Knowledge, understanding, observational skills
Aesthetic	Physical appeal and beauty of nature	Inspiration, harmony, peace, security
Symbolic	Use of nature for metaphorical expression, language, expressive thought	Communication, mental development
Humanistic	strong affection, emotional attachment, "love" for nature	Group bonding, sharing, cooperation, companionship
Moralistic	Strong affinity, spiritual reverence, ethical concern for nature	Order and meaning in life, kinship and affectional ties
Dominionistic	Mastery, physical control, dominance of nature	Mechanical skills, physical prowess, ability to subdue
Negativistic	Fear, aversion, alienation from nature	Security, protection, safety