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VIEWING GRIZZLY BEARS IN CAPTIVITY:
AN EXPLORATION OF VISITOR DIALOGUE AND MEANINGS
ASSOCIATED WITH THE EXPERIENCE

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Master of Science in Recreation Management

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S-31-01
Date
ABSTRACT

Kearns, Stefanie A., M.S., Recreation Management, May. 2001

Viewing Grizzly Bears In Captivity: An Exploration of Visitor Dialogue and Meanings Associated With The Experience

Committee Chair: Michael E. Patterson

Efforts to recover grizzly bears in the lower 48 states have been underway since 1975 when the species was listed as 'threatened' under the Endangered Species Act. While recovery efforts have succeeded in increasing grizzly numbers since then, human-caused mortality still poses a substantial threat to the long-term survival of grizzlies. Human-caused mortality is a complex problem, and social aspects of this phenomenon are often overlooked in traditional bear conservation research. In order to ensure the stabilization of grizzly populations, more research is needed to examine human-caused mortality from a social science perspective and increase understanding about the ways in which people relate to and interact with bears. This study provides insights on how people interact with and relate to grizzly bears in a captive setting.

The specific site chosen for the study was a bear and wolf preserve. The Grizzly Discovery Center, in West Yellowstone, MT. The site was chosen because of its location within the Greater Yellowstone Ecosystem recovery area as well as its use of naturalistic habitats to display the animals. The data collected for the study was qualitative in nature and consisted of transcripts of 35 in-person, on-site interviews. The interview transcripts were analyzed using a systematic process which involved development of a system to organize themes which emerged from the data. Four major themes were explored in the data analysis: 1) Description of Sample; 2) Visitor Typology Based on Character of Encounter; 3) Perceptions of Bears; 4) Ethical Discourse.

Specifically, it was found that Grizzly Discovery Center visitors held different perceptions for bears depending on the context in which they were viewed. In addition, factors which may have contributed to the frame of reference from which the visitor experienced the bears were identified. A visitor typology was also developed which aided in categorizing visitors according to the character of the bear encounter that they were seeking. Lastly, an ethical discourse was found to emerge in the data and an idiographic analysis was completed in order to explore the ethical thought processes engaged in by visitors during their Grizzly Discovery Center experience.
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CHAPTER 1: INTRODUCTION

Wildlife Viewing Trends

Wildlife viewing is becoming an increasingly popular activity in the United States and occurs in a variety of forms (Duda et al., 1998). Opportunities to view and interact with wildlife occur in many settings including zoos, refuges, preserves, rehabilitation centers, national parks and other public lands. Vital to some communities in stimulating economic growth through tourism, wildlife viewing also serves other functions including education, recreation, and connecting people with their environment. As wildlife viewing continues to grow in popularity as one of the nation's top wildlife activities, the body of research about the phenomenon is growing as well.

Wildlife viewing research has been approached from multiple perspectives and disciplines. For instance, several studies have been conducted regarding the setting in which wildlife viewing takes place and how that affects the visitor experience (Coe, 1985; Finlay et al., 1988). In addition, the environmental education literature includes studies regarding wildlife education opportunities and techniques (Orams & Hill, 1998; Kimmel, 1999; Rath & Brown, 1996; Morgan, 1992). The tourism literature also explores wildlife issues in the contexts of wildlife ecotourism, economic value, sustainability and wildlife as tourist attractions (McCool, 1996; Ryan, 1998; Shackley, 1995, 1998). In addition, there is a large body of literature developing in human dimensions of wildlife which examines the relationships between people and wildlife (Phillips, 1994; Sutherland & Nash, 1994; Rolston, 1992; Bright & Manfredo, 1996; Wilson & Heberlin, 1996). Despite this work, however, there is still little substantive knowledge to help managers of wildlife viewing facilities understand the type of visitor
experience they are providing. Without a thorough understanding of experience, it is difficult for managers to understand how these experiences relate to education, conservation, and recreational goals.

**Extinction Crisis and Grizzly Conservation**

Successful attainment of education, conservation and recreation goals is becoming increasingly important to wildlife managers in light of current wildlife crises around the globe. With an increasing number of species becoming endangered or threatened due to habitat loss, poaching or other factors, it is progressively more important for the public to view, learn about and connect with wildlife. In the face of the current world extinction crisis, the survival of many species depends upon public awareness and support of wildlife conservation activities. Many species around the world are in crisis due to human-caused problems such as hunting, predator eradication, habitat destruction, pollution and poaching. The key to preserving species and biodiversity is in reducing these destructive activities. In contemporary society, wildlife viewing, conservation and education opportunities have been shown to be an effective means of raising awareness and engendering the public support needed to address these problems.

The western United States is a particularly important region with respect to this crisis. As wildlife habitats in the Rocky Mountain west are increasingly shrinking with continuing development, several species are at risk including the grizzly bear. This keystone species has been under federal Endangered Species Act protection since 1975 and is still listed as 'threatened' today. In 1982, a Recovery Plan was implemented by the U.S. Fish and Wildlife Service (USFWS) with the goal of creating self-sustaining
grizzly populations in six key ecosystems in the American Northwest. Grizzly conservation efforts are still guided by that plan today.

Currently, conservation efforts in two of the above mentioned ecosystems have encountered considerable controversy. In the Selway-Bitteroot Ecosystem in southwestern Montana, a plan to re-introduce grizzlies to the area has been the subject of considerable debate. Some local citizens oppose the re-introduction as the presence of this mega-predator in their backyards will greatly affect their way of life. Due to opposition from local citizens, the Bush administration recently announced plans to review the re-introduction plan. Environmentalists and other government wildlife agencies support the re-introduction as it will increase overall grizzly population numbers.

Controversy has also emerged in the Greater Yellowstone Ecosystem (GYE) as the USFWS is taking steps to remove the grizzly from threatened status in that area. The USFWS claims that population numbers have increased to a level where the bear is no longer threatened in that ecosystem. However, some scientists charge that the USFWS population statistics are inflated which would mean the bear is still at risk due to low numbers (Wilkinson, 1998). Environmental groups and scientists have been debating this de-listing in the GYE for several years and the debate is still continuing today.

If the intended management actions are passed in these two areas, public education and awareness regarding grizzly conservation issues will become increasingly important to ensure the survival of grizzlies in these ecosystems. Because grizzlies have no natural predators, humans pose the greatest threat to this species. Therefore, educating citizens to increase compliance with regulations such as bear-proof garbage disposal and
campaing practices is essential to the continued existence of grizzlies. Hunter education is also important in preventing accidental deaths of grizzlies during black bear and other hunting seasons.

**Wildlife Viewing and Conservation**

A variety of wildlife viewing sites around the United States provide opportunities for citizens to enjoy viewing the grizzly bear and also learn about ways in which they can help preserve its future. These wildlife viewing sites range on a continuum from free and unrestricted to caged and controlled. An example of the free and unrestricted viewing site would be the Bob Marshall Wilderness in northwestern Montana where hikers often encounter free-range grizzlies in the backcountry. An example of a caged and controlled viewing site would be a traditional zoo which houses the animals in glass or barred cages. Many types of sites fall in between these free and caged poles including managed wildlife refuges and protected areas like the National Bison Range in MT, game farms, rescue facilities and captive preserves.

Closer to the "caged" end of the continuum, a popular medium is emerging in wildlife preserves which utilize naturalistic habitats instead of cages. These habitat enclosures allow visitors to view the animals in an environment which is more like their own. In addition, more naturalistic settings which display multiple animals often give visitors an opportunity to observe more natural animal behavior. In addition, these naturalistic facilities are often located in or near the animal's natural habitat area which allows visitors to learn firsthand about the animal's resident ecosystem (Coe, 1996).

Because of this format's recent rise in popularity, this type of facility was chosen as the context for the study. The Grizzly Discovery Center, a naturalistic bear and wolf
preserve, was the chosen study site. Further discussion of this site and its selection follows in the methodology section of this paper.

Management Challenges

From a management perspective, the challenges of operating facilities like the Grizzly Discovery Center are numerous and paradox ridden. The naturalistic facility manager is charged with providing an opportunity for people to interact with, enjoy and learn about wildlife. The main management challenge is in educating people to ensure the longevity of the species, while taking care not to overstress or harm the animals and their habitat. An additional challenge is ensuring the visitor’s safety in the presence of unpredictable and potentially dangerous wildlife such as grizzly bears while also meeting the visitor’s expectations for a quality experience. The line between preservation and impact, safety and restriction creates a unique management environment for facility managers worldwide.

As mentioned above, wildlife viewing managers have a mandate which involves managing for the well-being of the animals while simultaneously managing for the education and enjoyment of the visitor. Oftentimes, it is fairly straightforward for managers to assess their success in the animal aspect of their job through collection of empirical data on habitat, growth rates, animal health, etc. However, it is considerably more difficult for managers to directly measure success in the visitor component of management which includes two aspects, education and recreation.

Undeniably, these two aspects of the visitor component are highly interconnected and dependent upon each other. As education requires an individual to first engage in the topic and become open to learning, a positive recreational experience oftentimes helps
put the visitor into learning mode (Morgan & Hodgkinson, 1999). In addition, many outdoor recreationists, such as those who visit wildlife preserves, value learning about the environment and wildlife as part of their recreational experience. Therefore, the manager must provide quality recreational and educational opportunities to ensure the interdependent success of each aspect of the visitor experience.

**Purpose and Research Questions**

This study seeks to explore these aspects of the wildlife viewing experience in order to better understand the ways in which visitors interact with and relate to captive wildlife. Traditionally, recreational experience has been studied in one of two ways: 1) by examining components and factors which make up the actual experience itself, or 2) by describing the meanings which individuals hold for the experience. This study seeks to study experience on a middle ground between these two approaches – the visitor’s dialogue about the experience.

Visitor thoughts and perceptions regarding the experience will be revealed through the dialogue that they co-create with the researcher during an interview at the site. By studying the dialogue, insights may be gained in both of the experience dimensions named above. It will be possible to gain insights on what makes up the experience as well as the meanings that the visitor holds for it. In addition, the visitor’s dialogue will be influenced by their own past experiences and current mind set which comprises the frame of reference from which they will engage in their experience. Components of the visitor’s frame of reference will also be revealed through the dialogue.
The purpose of this study is to provide insights regarding how people interact with and relate to captive wildlife at a naturalistic preserve setting. This study will achieve these insights by studying the dialogue that visitors are having about their experience at the chosen viewing site, The Grizzly Discovery Center. By studying visitor dialogue, understanding can be increased about the ways in which people experience and relate to wildlife in captive settings.

Specific research questions are as follows:

1) What kind of thought processes does the bear viewing experience elicit (e.g. cognitive, emotional, ethical, etc.)?
2) What is the visitor’s frame of reference regarding bears?
3) How does the visitor’s frame of reference affect the dialogue about the experience?
4) What meanings does the visitor access regarding the experience and the bears?
5) Does the visitor connect this bear viewing experience with the conservation of bears in the wild?

Benefits of Research

Several groups are expected to benefit from the research including visitors, managers of wildlife viewing sites like the Grizzly Discovery Center, society in general and the scientific community. Visitors will benefit from the study because they will be given a chance to reflect upon their experience at the Grizzly Discovery Center. In addition, information gleaned from the study will help increase the quality of the visitor experience at the site in the future.
As Grizzly Discovery Center managers become more informed about the type of experience they are providing, they will be able to better meet their management and educational goals by increasing their ability to meet the expectations and needs of the visitors. Managers of facilities like the Grizzly Discovery Center will also benefit as understanding of the visitor experience and how visitors relate to animals at naturalistic preserves is increased.

The scientific community will benefit because the study will increase understanding of the nature of wildlife experiences. In addition, the study will provide an opportunity to further develop and refine a qualitative approach in wildlife studies. There is a growing body of literature on the nature of wildlife experiences, although very little work has been done from a qualitative perspective. Additionally, there is an opportunity to realize greater societal benefits as a result of this study. Increased support for wildlife, habitat protection and restoration, and endangered species protection may also be garnered.
CHAPTER TWO: LITERATURE REVIEW

Overview

This literature review provides an overview of the status of grizzly bear conservation efforts and it reviews different approaches that have been used to understand the relationships and interactions between humans and animals. First, the history of grizzly bear recovery and grizzly bear conservation research will be examined. Second, the role of captive facilities in grizzly conservation will be explored. Following that discussion, topics related to understanding human–wildlife interactions from several fields of study including recreation, tourism, human dimensions of wildlife, ethics, and environmental education will be explored. Specifically, three concepts will be examined in depth: social constructionism, approaches to studying recreation experience and animal ethics. Finally, the literature review will conclude with a brief explanation of where this thesis stands in relation to the literature.

History of Grizzly Bear Recovery

In the early 1800’s, it is estimated that 50,000 grizzly bears roamed the western United States between the Pacific Ocean and the Great Plains. Today, fewer than 1,100 wild grizzlies remain in the lower 48 states (USFWS, 2000). Humans and their activities have been the primary influences in the severe decline of the grizzly bear. Over the last 200 years, grizzlies have been shot, trapped and poisoned for sport, protection of human life, livestock predator control, and commercial hunting. In addition, humans severely impacted the grizzly’s habitat through development and encroachment of civilization (Tixier, 1988).
In 1975, as grizzly numbers reached an all time low, the U.S. Fish and Wildlife Service placed the grizzly bear under federal protection in the lower 48 states. The grizzly bear (*Ursus arctos horribilis*) was listed as a threatened species, enabling the agency to begin developing the Grizzly Bear Recovery plan under the Endangered Species Act. The main objective of this recovery plan is to achieve self-sustaining wild grizzly populations that could prosper without Endangered Species Act protection. In 1982, the first Grizzly Bear Recovery Plan was released, and subsequently, in 1983, the Interagency Grizzly Bear Committee (IGBC) was formed to coordinate recovery efforts (USFWS, 2000).

For the last 18 years, IGBC recovery activities and research have focused on six grizzly ecosystems in Idaho, Montana, Wyoming, Washington and Canada. Those six ecosystems are the Greater Yellowstone, Northern Continental Divide, Selkirk, Cabinet-Yaak, North Cascades and Selway-Bitterroot ecosystems. The Selway-Bitterroot ecosystem is the only area which does not have a grizzly population in residence, although a controversial proposed re-introduction is in the final planning stages.

Recovery activities implemented in these ecosystems include public education, reduction in bear access to human food and garbage, evaluation of road densities, research on availability of grizzly foods, and other studies of bears and their habitat. As a result of these activities, IGBC reports that grizzly populations have grown considerably since the inception of the Recovery Plan. In fact, the committee estimates that there are currently between 400-600 bears in the Greater Yellowstone ecosystem alone. Based on these population estimates, the IGBC deemed the recovery plan a success in that area and proposed de-listing of the grizzly from ESA protection in the GYE. Delisting the grizzly
in Yellowstone would mean that management would be continued under a new Conservation Strategy which is currently in the final stages of development (USFWS, 2000).

While the IGBC is actively pursuing grizzly delisting, many conservationists and scientists oppose this action and charge that the plan is based on flawed assumptions and corrupted by political meddling (Wilkinson, 1998). At the heart of the controversy are questions regarding the accuracy of population estimates. Wildlife biologists have been in conflict for decades regarding how many grizzlies inhabit Yellowstone. Scientists who assert that the IGBC's estimates are too high believe that delisting the grizzly at this point in time would be premature (Kaiser, 1999). Delisting opponents also question whether or not the grizzly would be adequately protected under the new Conservation Strategy once ESA protection is removed and the states take over the management reins (Wilkinson, 1998).

As the controversy regarding delisting rages on, the grizzly bear continues to maintain protected status under the ESA. However, with delisting of the grizzly eminent in the near future, researchers continue their work to understand the technical and social aspects of grizzly bear conservation to better ensure the future of the grizzly in the Greater Yellowstone ecosystem and the western United States.

**Grizzly Bear Conservation Research**

A considerable amount of research has been completed regarding the technical aspects of grizzly bear conservation. Scientists have completed a multitude of studies on grizzly bear related topics including but not limited to habitat, mortality, ecology, behavior, food sources, and distribution (Eberhardt & Knight, 1996; Green et al., 1997;
Mattson et al., 1992; Mills et al, 1996). This type of biological research is essential in the development of technically sound recovery and conservation efforts.

However, research in disciplines other than wildlife biology is equally essential for successful grizzly bear conservation. Specifically, there is a lack of research aimed at understanding the social, cultural, political and educational aspects of grizzly bear conservation. Primm (1996), for example, attributes the need for research in these disciplines to the fact that human-caused mortality has been one of the greatest problems facing grizzly bears.

Citing Mattson et al. (1996), Primm states that “the essential problem for Rocky Mountain grizzly bears is that people kill them,” (p. 1027). Citing Goodman (1987), Primm adds that human-caused mortality is a deterministic factor that prevents grizzly bear populations from maintaining positive growth rates and stable sizes, which keeps small populations vulnerable to random forces. Because of the serious effects of human-caused mortality including reduction in grizzly population sizes and limitation of dispersal, Primm argues that grizzly conservation efforts will be hindered greatly until human-caused mortality issues are adequately addressed.

Primm identifies several dimensions of human-caused mortality including physiographic and ecological as well as cultural and political dimensions. Because of the complexity of the cultural and political dimensions which include human behavior and policy considerations, technically sound grizzly conservation programs have the potential to be thwarted by feedback from human systems. Thus, Primm argues that standard conservation approaches such as the Interagency Bear Committee’s Recovery Plan and Wilderness designations designed to limit human activity in bear habitat areas are
inadequate due to the complex nature of the conservation problem. Primm suggests a more pragmatic, participatory approach to conservation featuring a localized focus and significant public involvement in conservation efforts. He believes this focus to be particularly appropriate for the Greater Yellowstone ecosystem where grizzly conflicts and mortalities tend to be localized.

One of the staples of Primm's (1996) site-specific conservation plan is raising awareness of grizzly bear presence and appropriate human behavior to avoid unnecessary "self-defense" kills. In discussing grizzly conservation efforts, Tixier (1988) also recognizes the importance of increased awareness and public education, citing the need to educate those who live in and visit grizzly country to prevent conflicts with humans and subsequent grizzly deaths. Bechtold (1985) cites the need for education as well, especially in teaching backcountry users how to adopt camping habits which are appropriate for bear country in order to reduce conflicts with backcountry users such as hikers, hunters and outfitters. Without these educational efforts, human-caused mortality will remain at high levels and threaten the long-term survival of the grizzly.

The Role of Captive Facilities

As previously discussed, education is an integral part of grizzly bear conservation efforts. In order to decrease human-caused mortality, citizens must better understand the grizzly and its habits, and social tolerance for this species must be increased through raised awareness and positive perceptions in order to facilitate successful co-existence. However, providing citizens with opportunities to learn about grizzly bears has been a challenge for managers and educators. Aside from interpretive displays, signs, flyers and occasional presentations by rangers in or around grizzly country, many wildlife and land
management agencies cannot embark on extensive grizzly education campaigns due to budget, time and personnel restrictions (Bechtold, 1985; Tixier, 1988). However, an alternative supplemental educational opportunity is available in the form of informal learning settings such as zoological parks, nature centers, natural history centers and related institutions which provide excellent opportunities for conservation education. These non-traditional educational venues provide both adults and children opportunities to improve their understanding of human relationships with grizzlies, foster positive attitudes toward grizzlies and promote environmental action such as appropriate behavior in grizzly country. In the last decade, the zoo and similar captive facilities have emerged effective informal learning environments (Gutierrez de White & Jacobson, 1994).

In considering ways to educate the public regarding grizzly conservation issues, informal learning settings such as the zoo or other captive animal facilities should not be overlooked as these sites offer many advantages. Ramey-Gassert et al. (1994) identify the following potential advantages of learning in informal environments such as zoos or museums: nurturing curiosity, improving motivation and attitudes, engaging the audience through participation and social interaction, and enrichment (p. 351). Additionally, although the educational lessons learned have the potential to be short-term in nature, these sites prove to be extremely successful learning environments because they are motivational, engaging, enjoyable, non-threatening, hands-on, experiential and personal (Ramey-Gassert, 1997). For these reasons, many educators and researchers recognize the zoo and similar facilities as a powerful educational tools which can be used in promoting conservation education.
Although contemporary zoos and other captive animal facilities are recognized as educational institutions today, these facilities have not always been viewed from this vantage point. Just as the species displayed at captive facilities have adapted and evolved to suit the changing world, so has the zoo itself. As early as 3,000 B.C., the first zoo developed in Mesopotamia as the king collected and displayed wild animals such as lions and hippos (Croke, 1997). Since then, societies and cultures around the world have continued to collect exotics and display them for the enjoyment of the citizens. However, in the last 5,000 years, the zoo has evolved into a facility with a dual mandate which includes not only entertainment, but education as well (Morgan & Hodgkinson, 1999). Although the zoo's mandate has changed, many wildlife professionals remain skeptical of the zoo's role in conservation education due to the prior entertainment focus of the zoo.

However, as an extinction crisis plagues modern times, the zoo, with its dual mandate, has been recognized as a key player in the survival of the world's species. Today, approximately 3 species per day are lost to extinction, primarily from rainforest ecosystems (Conway, 1996). According to Conway, this can be attributed to the modern human's growing confusion about wildlife such as the grizzly. Increasingly, humans agonize over the humane treatment of specific animals such as the bear cub saved from last year's Montana forest fires, but ignore the wrongs such as habitat destruction which are inflicted upon entire species. Few perceive the difference between the well-being of a creature and the survival of a species, and this lack of perception is contributing heavily to the world extinction crisis (Conway, 1996). As confusion about wildlife increases, wildlife professionals must recognize the vital role of the zoo as modern society becomes more urbanized and increasingly disconnected from the natural world.
Recognizing these trends, zoos have evolved in response to the changing world and its effect on animals. As opposed to the Mesopotamian zoo geared towards entertainment and enjoyment, the modern zoo is a proactive conservation education park focusing its central efforts upon the preservation of nature (Conway, 1996, p. 33). Captive facilities provide one of humankind's most important connections to the natural world by offering environmental conservation education through programs designed specifically to promote ecological and environmental literacy. Explaining how nature works and how all organisms are directly tied to the intricate web of biological diversity is the task of the modern zoo (Maruska, 1996) in addition to raising awareness and fostering positive attitudes towards conservation. The grizzly bear is undeniably part of this web.

As the role of the modern zoo is continually being refined and re-defined, research has been completed to increase the zoo's abilities to meet conservation education goals. Researchers have offered many recommendations and changes to increase the educational effectiveness of the zoo. Hancocks (1996) asserts that zoos must become more like "gardens of ecology" revealing holistic views of nature through examination of entire ecosystems, rather than focusing on individual animals or a limited number of popular species. Croke (1997) states that zoos must emphasize "connections — to the wild, to other humans and to a kind ethic of conservation and care," (p. 247). To create these connections, Croke asserts that zoos must place less emphasis on technology and allow visitors opportunities to interact with zoo keepers. Lastly, Croke advocates the inclusion of comfortable, quiet resting spots near animal viewing areas to allow visitors to spend more time with the animals and reflect on their experiences and interactions.
Other researchers cite a need for more social research in zoos due to the fact that two of the purposes identified by the American Zoo and Aquarium Association (AZA) relate directly to visitors: recreation and education (Morgan and Hodgkinson, 1999). Keekok (1997) also recognizes the recreational role of the zoo citing entertainment as fundamental to attracting visitors and ensuring the long-term survival of the zoo. Often placing more emphasis on visitor education rather than recreation, contemporary zoos must recognize that visitor learning is dependent upon enjoyment of the experience to foster engagement in learning. Therefore, it is necessary for zoos to further explore this relationship between education and recreation to better meet their goals. Understanding of this relationship can be achieved through social research which explores the recreational and social motivations, goals, expectations and experiences of the visitor (Morgan and Hodgkinson, 1999).

An example of social research at zoos is Morgan and Hodgkinson’s (1997) study which describes zoo visitors in regards to their primary motivation (recreation vs. education) and social orientation (intrinsic vs. altruistic). Citing Field and Wagar (1973), Morgan and Hodgkinson express the need for more social research of this nature aimed at better understanding the visitor: “Meeting the needs of visitors is contingent on knowing what they are. Resource managers in parks and other outdoor locations need to develop a better understanding of social behavior in order to effectively communicate with their clientele,” (1999, p. 236). In this estimation, becoming more familiar with the visitor will aid zoo administrators and designers in more effectively meeting their own goals as they learn to better serve the visitor as well.
In summary, captive animal facilities have been recognized as effective venues to facilitate conservation education for species such as the grizzly bear. In addition, researchers have identified the need to complete social research in captive animal facilities to increase understanding of the visitor and the visitor experience. Lastly, zoos have evolved in recent years with newer zoos utilizing naturalistic habitats, and very little work has been done in this “new zoo” setting. For these reasons, a naturalistic captive facility was chosen for this study – The Grizzly Discovery Center in West Yellowstone, Montana.

Relevant Fields of Study

When considering social research regarding visitor interactions with captive animals such as grizzly bears at the Grizzly Discovery Center, several fields of study are relevant including environmental (conservation) education, recreation, tourism, ecotourism, human dimensions of wildlife and ethics. The following sections will examine contemporary work in these fields regarding visitor interactions with animals, themes addressing what should be studied regarding these experiences and how these concepts have been studied. Specifically, social construction, the nature of recreation experience and animal ethics will be explored.

Social Constructionism

Social constructionism is a concept which has emerged over the last two decades in a number of fields of study. Social constructionism refers to the process by which individuals or cultures confer meaning to an object or phenomena by giving it form from a particular angle or vision and through a special filter of values and beliefs, (Greider & Garkovich, 1994). The tendency for humans to place socially constructed meanings on
nature and parts of the natural world has been discussed widely in the literature (Arluke & Sanders, 1996; Keekok, 1997; Dizard, 1993; Robertson, 1994; Peterson & Horton, 1995; Cronon, 1995). The study and understanding of these socially constructed meanings is imperative to understanding people’s perceptions of natural things such as bears.

**In Environmental Education**

A more thorough understanding of social constructions can be presented through an examination of how it has been developed in specific fields. The use of this concept in the field of environmental education will be examined first. In the discussion below, the first task is to explore the definition of environmental education. Following, an examination of the three dominant conceptual approaches to research in environmental education will be offered in order to provide a better understanding of where social constructionism relates within broader attempts to understand environmental education. The three approaches are the positivist, behaviorist and constructivist approaches.

In the simplest of terms, environmental education can be defined as any educational experience whose ultimate aim is to promote environmentally responsible behavior (Ramey-Gassert, 1997). The constitution of the North American Association for Environmental Education states that "environmental education’s purpose is to assist in the development of a citizenry conscious of the scope and complexity of current and emerging environmental problems and supportive of solutions and policies which are ecologically sound," (Archie & McCrea, 1998). Although the formal discipline of environmental education is fairly young, scientists have identified and studied three approaches to environmental education: behaviorist, positivist, and constructivist
approaches. The constructivist approach is of particular interest to this thesis because it includes the study of how visitors construct knowledge during their experiences.

A brief explanation of these three approaches follows including a discussion regarding the ontology and epistemology of each approach. Ontology is the set of normative commitments about the nature of reality, human nature, and the nature of human experience. Epistemology refers to the methods, limits, and nature of human knowledge (Patterson & Williams, 1998).

The first approach which will be examined is the behaviorist approach which is epistemologically parallel to the positivist approach. Behaviorist researchers concentrate on manifest observable behaviors that are readily quantifiable and suited for statistical analysis and offer well-defined conclusions that are generalizable (Robertson, 1994, p. 22). Ontologically, the only reality thought to be “knowable” is defined as that which can be outwardly observed (e.g. overt behavior). The focus on outward behavior in this approach means that the student’s cognitive or conceptual activity goes unexplained. For example, a student could be thinking and motionless, but the behaviorist might deem that they are not behaving in an educationally relevant manner (Robertson, 1994).

Despite these limitations, the behaviorist approach is still used to study visitor interactions with wildlife. For example, Orams and Hill (1998) used the behaviorist approach to effectively evaluate an education program designed to teach tourists how to behave properly during a wild dolphin feeding program. Orams and Hill measured visitor learning through changes in behavior during dolphin-tourist interactions. The education program was found to be successful in that it reduced the deliberate touching of dolphins and other inappropriate behaviors during feeding sessions as well as the number
of staff cautions given. As learning was immediately evident in whether or not the tourists complied with the regulations, this methodology was appropriate for the research question at hand.

The second approach which will be examined is the positivist approach. Historically, environmental education research has been approached from a positivist-empiricist view of knowledge. This positivist approach holds reality as that which can be experienced through the five senses as it is heard, tasted, smelled, seen or touched. Scientific knowledge, then, is acquired primarily by evidence of the senses and must be proven or confirmed through observations and logic as well as accumulated inductively. However, the normative commitments underlying this approach maintain that cognitive activity (beliefs, perceptions, attitudes, etc.) can be observed indirectly, and therefore studied scientifically. For example, responses to statements are “manifest” indicators of mental activity such as attitudes, beliefs or motivations. In adopting this approach, environmental educators were able to emulate the natural sciences by taking an applied-science approach (Roberston, 1994).

An example of positivist research relating to wildlife is Reading et al.’s (1994) study to determine the knowledge and attitudes of residents in the Greater Yellowstone Ecosystem. Residents were given a true/false examination to test their knowledge on various subjects including grizzly bears. In this examination, residents were asked to respond to statements such as ‘At least 50 people have died in grizzly attacks in the last ten years’ or ‘Grizzlies feed on plants and rarely eat meat.’ Based on residents’ responses to questions such as these, Reading et al. concluded that some residents
demonstrated significantly different or greater knowledge about the Yellowstone ecosystem than others (Reading et al., 1994).

A third approach to environmental education research is the constructivist approach. Epistemologically, the constructivist approach focuses on the processes by which knowledge is created as opposed to focusing on the quantifiable facts or behaviors measured in the other two approaches. In the constructivist view of learning, individuals construct their own knowledge in an interaction between their present conceptions and input provided from outside (Henriksen, 1998, p. 91). Therefore, on an ontological level, reality is not an absolute, but co-constructed by an interaction between the learner and various stimuli. As this interaction occurs, learners construct their own understandings.

There are two levels on which constructed knowledge can be studied: at a personal level (as in an individual learning or coming to know) and at a social level. These two levels distinguish between the individual and group processes that create knowledge.

However, much constructivist research focuses on what knowledge has been constructed rather than how it was created (Roberstson, 1994). Citing Snively (1986), Robertson acknowledges that people enter new experiences with a complex cluster of ideas, beliefs, values and emotions which they use to understand the world. These ideas serve as a conceptual “filter” by which all humans interpret sensory impressions and new experiences (Roberston, 1994, p. 25). One goal of interpretive education research has been to probe and characterize the learner’s pre-existing knowledge – the what. Of particular interest in constructivist research is the learner’s pre-existing constructions regarding a phenomenon (Henriksen, 1998). These pre-existing constructions affect the learner’s “world view.”
Specifically, environmental education researchers are interested in identifying "misconceptions," beliefs or ideas that individuals or groups hold about a phenomena or concept which are incompatible with current scientific knowledge (Robertson, 1994). These misconceptions provide a challenge for educators when teaching students about science. Learners are often reluctant to "think outside the box" and let go of their pre-existing constructions, and therefore are disinclined to adopt new constructions which are consistent with scientific knowledge. However, researchers have found that the best way to encourage thinking "outside the box" is to address learners’ misconceptions directly in educational materials (Henriksen, 1998). Therefore, research is necessary to identify learner’s constructions regarding various environmental phenomena and the misconceptions which may lie within these constructions. Such misconceptions can make teaching the facts about bears and the environment a challenge for environmental educators. For example, if a student has the misconception that bears are man-eaters, he or she may develop inappropriate constructions of bears on a broader level as a result.

Borun et al. (1996) point out that educators must recognize that learners bring a rich background of prior knowledge and experience to their learning experiences. According to constructivist theory, learning must begin from conceptions or constructions that the learner already has (Henriksen, 1998). As learners’ misconceptions are directly addressed and challenged in a meaningful way, they are apt to replace them with correct environmental conceptions as they experience conceptual change (Robertson, 1994). For example, a park visitor may believe grizzly bears are a docile creature. However, upon viewing a video of a grizzly attack, preconceived notions are challenged and the visitor is forced to construct new knowledge about grizzlies.
Ballyntyne and Packer (1996) define effective learning as that which involves not only a change or growth in understanding, but also a willingness to depart from previously held attitudes and beliefs and to make commitments to a new way of looking at the world (p. 29). Citing Marton and Ramsden (1988), Ballantyne and Packer recommend a number of general learning approaches which would help develop students' environmental conceptions. These include "making students aware of the different conceptions they hold, comparing the relevance and relative merits of different conceptions, highlighting the inconsistencies within and the consequences of learner's conceptions and creating cognitive conflicts with the learner," (p. 30). Applying these approaches in grizzly education could help conservationists change citizens' misconceptions regarding the bears.

While the constructivist approach to environmental education research has been gaining in popularity, there is still need for further research. Specifically more research is needed in analyzing, defining and mapping the range of environmental constructions held by individuals (Ballantyne & Packer, 1998, p. 31). This study will deal in part with identifying the social constructions held by individuals regarding grizzly bears. It will attempt to characterize the pre-existing ideas Grizzly Discovery Center visitors bring with them regarding grizzly bears.

**In Other Disciplines**

Social constructionism has also been addressed in human dimensions of wildlife research and literature. While the environmental education literature focuses on the "what" regarding knowledge construction, other disciplines focus on the "how." Disciplines outside of environmental education have been successful in developing
conceptual frameworks which address the processes through which knowledge is constructed. Specifically, three different types of processes will be examined below. These include cultural processes (e.g. myths), individual processes (e.g. naming) and context-related processes.

It has been found that animals in particular are often given a cultural identity as people try to make sense of them, understand them, use them or communicate with them as animals are brought into civilization and transformed accordingly and their meaning is socially constructed (Arluke & Sanders, 1996). Socially constructed meanings for animals and other natural things often surface culturally in the form of myths constructed through a group process. A myth is defined as a world vision and historical sense of a people reducing centuries of experience into a constellation of compelling metaphors. The study of myths originated in the field of speech communication (Peterson & Horton, 1985). In lay terms, a “myth” is often considered to be something like an “old wives’ tale,” or a questionable truth (e.g. touching a toad will give you warts). However, this type of old wives’ tale is actually a misconception and not a myth as defined by Peterson and Horton above.

Cultural myths provide a frame of reference that serves as a basis for interpreting situations in life. Because myths are shared by members of a social group and passed down, they provide a basis for common understanding and a sense of identity or belonging. In addition, myths are generalizable because they apply to more than just the individual. These myths express what is real to people and grow up with their cultures displaying incredible resiliency against outside influences (Peterson & Horton, 1985).
The grizzly and other bears are deeply embedded in the myths and social constructions of American society. The Science Museum of Minnesota (1990) devoted an entire exhibit to this topic. In the exhibit the museum explores the various meanings ascribed to the bear by our culture. For example, children often grow up reading or hearing stories about bears including *Goldilocks and the Three Bears*, *Winnie the Pooh* and *The Bernstein Bears*. In addition, one of the first toys children often receive is a cuddly teddy bear. Bears are also portrayed on the big screen and TV appearing in movies such as Disney’s “The Bear” and cartoons such as Hannah Barbara’s “Yogi the Bear.” In addition, the bear is heavily intertwined throughout the mythology of the American West in legends of great bear hunters such as Davey Crocket. Through a lifetime of exposure to such myths and bear images, individuals and groups develop constructions of the bear which may or may not be consistent with scientific knowledge (SMM, 1990).

Culturally generated social constructions have also been addressed in the zoo literature. Especially regarding animals such as the bear whose images are widely dispersed throughout society, it has been found that zoos must take extreme care regarding social constructions. As some parts of cultural myths are contrary to scientific knowledge, zoos must be certain that their exhibits do not perpetuate or reinforce these stereotypes (Coe, 1985). For example, due to its portrayal in cartoons, the bear is often stereotyped as slow, lazy and stupid. In addition, the teddy bear stereotype portrays bears as cute, cuddly, tame and pet-like (SMM, 1990). Reinforcement of these stereotypes at the zoo may have dire consequences if the visitor encounters a bear in the wild and underestimates the bear’s potential to hurt them. Alternatively, many people believe that
bears are ferocious man-eaters as portrayed in many pioneer legends (SMM, 1990). Reinforcement of this stereotype also has negative consequences. If overly aggressive behavior is viewed at the zoo, visitors may fear the bear too much to support its conservation.

In addition to culturally generated stereotypes, research has also found that zoos must be aware of social constructions arising from individual processes as exemplified in the case of naming. It is common practice in some zoos to name animals such as bears. Through individual construction of knowledge, zoo visitors anthropomorphize named bears because they can be distinguished as individuals. According to Phillips (1994), "naming is considered a social practice which created meaning of a particular kind, that of narrative coherence, which forms the essence of biography," (p. 119). The naming of an individual animal allows the creation of social biography and individual personality, engendering a mix of ideas and behaviors unique to one individual, thus serving to give the animal more "human-like" qualities. Recognizing that names cause humans to relate to animals differently, NASA has stopped naming monkeys which fly on space missions to lessen public attachment to the animals and decrease opposition by animal rights groups (Phillips, 1994). Naming also has an effect in zoos by encouraging visitors to anthropomorphize named animals. Human's confusion about animals and tendency to focus on individuals while ignoring the species as a whole demonstrates potential negative consequences which may occur as a result of naming (Rolston, 1992; Conway, 1996; Hammit et al., 1997).

The context in which bears and other animals are viewed has also been found to affect the process in which visitors construct the animals. Among studies regarding
context are those which focus on understanding how the zoo setting affects visitors’
perceptions of the animals (Finlay et al., 1988; Coe, 1985; Tunnicliffe, 1998). Prior
research suggests that the actual setting and manner in which the animals are presented
greatly affects visitors’ perceptions regarding the animals. For example, Finlay et al.
(1988) conducted an experiment in which they examined perceptions in three different
zoo settings: wild, naturalistic zoo or caged zoo environments. Visitors viewed and rated
slides representing each of these settings. The purpose of the study was to investigate the
way, and extent that differing zoo enclosures affect visitor’s perceptions about the
animals. Finlay et al. (1988) found that visitors perceived zoo animals to be restricted,
tame and passive while wild animals were characterized as free, wild and active. In
addition, animals viewed in naturalistic zoo settings were rated more positively than
caged zoo animals, but not as favorably as wild animals. However, if any barrier such as
a moat fence or wall were visible in any of the naturalistic zoo settings, the animals were
rated as equally restrictive, tame and passive as their caged zoo counterparts. As a result
of these findings, Finlay et al. concluded that designers must lessen the perceptual cues
that remind people that they are in a zoo.

In addition to physical context, research has also been completed regarding how
social context affects social constructions of phenomena. This social component
including family interactions is a major theme in research on informal science education
settings (Ramey-Gassert, 1997). As family members differ in age and maturity, much
work has been done regarding the development of exhibits which are more conducive to
families and learners of all ages (Borun & Dristas, 1997; Borun et al., 1996; Wineman et
al., 1996). As a result, a wealth of information is available to guide designers in the development of family friendly exhibits in informal settings such as zoos.

Research has also been completed in an attempt to characterize group learning in a social context. In seeking to evaluate family learning, Borun et al. (1996) struggled with possible ways to obtain a meaningful measure of learning at museum exhibits. Among their considerations was a traditional cognitive test which they concluded would be too problematic because it would have to be administered individually and would not be a good measure of family learning. In the end, recognizing that families bring a rich background of prior knowledge and experience to their visits, they decided to observe visitors at exhibits as well as conduct family interviews which involved a group discussion of the family's reactions to and perceptions about the exhibit. The researchers' efforts were successful as they were able to document a relationship between learning levels and observable behaviors (Borun et al., 1996).

In summary, social constructionism is an important concept relevant to understanding visitor interactions with wildlife. As shown in the environmental education and the human dimensions of wildlife and zoo literature, learner's pre-existing social constructions must be characterized and addressed in order for learning and conceptual change to occur regarding grizzly bears. This learning is crucial to grizzly conservation because humans must be better educated on how to co-exist with the grizzly in order to decrease human caused mortality, the leading threat to grizzlies today. This thesis, in part, will attempt to characterize Grizzly Discovery Center visitors' social constructions regarding bears.
Studying Experience

One area of social research which has been widely overlooked in zoos and other recreational and educational facilities is understanding the visitor experience. As managers understand the dimensions and nature of the visitor experience, they can better meet visitor needs to increase the enjoyment and satisfaction of the visit. As the quality of the experience increases, visitors will be more engaged and receptive to the educational messages that the zoo has to offer (Morgan & Hodgkinson, 1999). Therefore, studying the visitor experience in depth is critical to the success of the zoo in meeting its goals and objectives. Study of human experience has been explored in a number of disciplines including recreation, tourism and psychology (Arnould & Price, 1993; Patterson et al., 1998; Mannell & Iso-Ahola, 1987; Omodei & Wearing, 1990). The following discussion reviews the ways recreation experience has been studied in these disciplines in the past.

In studying experience, recreation researchers have generally relied on two paradigms to guide their work: 1) The Goal Directed Paradigm and 2) The Emergent Experience Paradigm. These divergent paradigms give different insights into experience and its relationship to situational and setting characteristics (Patterson et al., 1994). Following is a brief description of both of these paradigms and their respective conceptual frameworks. In addition, a discussion of where this study falls in relation to these paradigms is also included.

Goal Directed Paradigm

The Goal Directed Paradigm, the dominant basis for studying recreation experiences since the 1970’s, is guided by a conceptual framework that sees human well-
being and happiness as rising through the attainment of desired end-states (Omodei & Wearing, 1990). Stated differently, it is assumed that humans seek certain experiences in order to reach a pre-determined goal, or end-state (Patterson et al., 1998). In psychology, the end-states in the goal approach are considered to reflect relatively numerous personally chosen (idiosyncratic) goals (Omodei & Wearing, 1990). In recreation, goals are assessed along with expectations, motivations and cognitive judgments. These factors are then compared with outcomes actually realized to measure satisfaction (Patterson et al., 1998). This perspective underlies Recreation Experience Preference scales developed by Driver and colleagues (Manning, 1999).

The goal directed approach has generated useful research and led to important management frameworks like the Recreation Opportunity Spectrum (Driver et al., 1987). However, beginning in the 1980's, a growing recognition has emerged regarding limitations of this approach. First, while people may articulate their goals objectively (e.g. to “enjoy nature”), goals tend to be somewhat abstract and generic. The measures used in this approach (e.g. experience preference scales) do not capture the deeper diversity and meanings intended by the individual when they state “to enjoy nature,” (Patterson et al., 1998). “Enjoying nature” may include very different dimensions or objectives between individuals. In other words, the short goal-statement does not characterize the feelings, emotions, or processes that go along with realization of the goal. For this reason, goals may be a somewhat incomplete basis for understanding experience. Second, goals can oftentimes be vague or non-existent, especially for first time participants in an activity. Third, experiences are emergent in nature and oftentimes
the most enjoyable or memorable parts of the experience are quite unexpected and could not have been articulated as pre-determined goal (Patterson et al., 1998).

**Emergent Experience Paradigm**

As a consequence of these critiques, researchers began to focus on the development of an alternative perspective, the Emergent Experience Paradigm. This paradigm is guided by a conceptual framework which assumes that the value of human experience is in the nature of the activity itself rather than the end-state toward which such activity might be directed. In other words, human happiness resides in progression toward, rather than in attainment of, an end state (Omodei & Wearing, 1990). Within the emergent experience perspective, there are several different approaches to research including those grounded in concepts such as situated freedom (Patterson et al., 1998), extraordinary hedonic experience (Arould & Price, 1993) and immediate consciousness (Mannell & Iso-Ahola, 1987), all of which have been empirically explored. Additionally, Coe (1985) and Rolston (1987) offer more philosophical discussions of the emergent experience perspective which have yet to be empirically evaluated. A brief description of these five approaches follows.

The situated freedom approach to the emergent experience perspective operates under two assumptions: 1) experience is best understood as a whole rather than a sum of its parts, and 2) specific nature of experience is best characterized by the concept of situated freedom. Situated freedom maintains that the environment sets boundaries on particular experience, but within those boundaries, one may experience the world in highly individual, unique and variable ways. Therefore, experience is seen as emergent rather than predictable under these conditions (Patterson et al., 1998).
While this approach relies on the concept of situated freedom, it also includes several other key ideas. First, the world is seen as being comprised of mutually defining aspects which make up the whole. Therefore, when the whole is reduced down to its specific elements, meaning is lost. In addition, reality consists of intangible, subjective meaning assigned through personal and cultural experience. As mentioned before, experience is also viewed as an emergent narrative rather than a predictable outcome. Lastly meaning of experience is constructed actively by individuals or groups through self-expression. These ideas make up the backbone of any emergent experience research approach (Patterson et al., 1998).

Because it is relatively new, the situated freedom approach is still a somewhat undeveloped approach to studying experience in outdoor recreation. However, a recent study demonstrated successful implementation of this approach. Patterson et al. (1998) successfully utilized this approach in their analysis of the visitor experience at Juniper Prairie wilderness area in the Ocala National Forest in Florida. Through analysis of visitor interviews, they found the situated freedom approach to be very effective in exploring the nature of visitor experiences in this wilderness area (Patterson et al., 1998).

Arnould & Price (1993) have also successfully implemented the emergent experience approach in their analysis of “extraordinary experiences” on commercial, multi-day river rafting trips in the Colorado River basin. The “extraordinary experience” entails a sense of newness of perception and process and is triggered by unusual events and characterized by high levels of emotional intensity and experience. Implying neither superior levels of effort nor an independent rational mode, an important trigger for this experiential state is interpersonal interaction (p. 25). The study was successful in
identifying experiential themes and relationships between themes which afforded the researchers important insights regarding the complex relationship between visitor expectations and satisfaction (Arnould & Price, 1993).

Another approach which falls under the emergent experience perspective is coined the “immediate conscious experience” by Mannell and Iso-Ahola (1987). In this approach, experience is defined by the individual’s stream of consciousness which accompanies the phenomenon. The main research question of this approach is “What is the actual content of experiences accompanying behavior and what are factors within the individual and immediate environment that influence these?” (Mannell & Iso-Ahola, 1987). An important point to make here is that this approach includes both the positive and negative qualities of experience. In addition, it seeks to understand experience through the meaningful aspects of the individual’s life and the phenomenon itself.

In examining factors that influence behavior, Mannell & Iso-Ahola (1987) consider Csikszentmihalyi’s (1975) concept of flow as a specific example of an immediate conscious experience approach. Csikszentmihalyi defines flow as the deep involvement and effortless progression humans feel when an activity goes smoothly. In the context of grizzly education experiences, when visitors experience flow, they are motivated to spend time doing something that has no reward other than the activity and resultant learning. Flow is achieved as visitors observe and investigate natural objects, phenomena and live specimens in ways that textbooks cannot allow (Ramey-Gassert, 1997).

While the situated freedom, extraordinary experience and immediate consciousness approaches are empirical in nature, other discussions are more
philosophical. Rolston, an environmental ethicist, wrote a philosophical essay (1987) about the aesthetic experience of wildlife viewing. In his essay, Rolston states that the experience of viewing landscapes versus wildlife differs aesthetically. While landscapes such as mountains and rivers are viewed as objects, wildlife such as grizzly bears or squirrels are subjects. Specifically, Rolston attributes this to sentience, the capability for animals to feel and perceive things. As “windows of life,” wildlife subjects offer reciprocity and create a human desire to understand their point of view. Therefore, sentience allows humans to relate to and experience wildlife on a more individual level as they search for kinship with this wild “other” (Rolston, 1987).

Coe (1985) also engages in a philosophical discussion regarding emergent experience. His work makes a connection between experience and social construction through his consideration of zoo exhibit design. Coe discusses various exhibit design factors, how they affect the visitor experience and how visitors perceive or construct animals during their experience. For example, exhibits which do not present animals as tame pets encourage visitors to lengthen their viewing time. If animals are constructed as dangerous, visitors experience arousal (or an adrenaline rush) and become more engaged in the viewing experience (Coe, 1985).

Another example involves the animal’s position in the exhibit and the visitor’s tendency to anthropomorphize animals, or transfer human characteristics and motives onto them. When visitors perceive animals as human-like, they begin to apply human conceptions of social order and dominance to the animal. If the visitor must look up at the animal, the animal is perceived as being in a dominant position. Once the animal is
perceived as dominant, the visitor constructs the animal as something which is worthy of respect (Coe, 1985).

In summary, there are two paradigms relevant to studying experience: the goal-directed and emergent experience paradigms. Within the emergent experience paradigm, several approaches have been developed including the empirically proven approaches of situated freedom, immediate consciousness and extraordinary hedonic experience. In addition, several philosophical discussions have been embarked upon including Rolston’s windows of life essay and Coe’s discussion of zoo exhibit design. This thesis is grounded primarily in the situated freedom approach.

Specifically, the approach employed by this study falls between the experience-based and meaning-based models of the emergent experience paradigm. While experience-based models study only the experiential factors which combine to create certain mental states, the meaning-based models study the meanings that people hold for experience and how the experience fits into their own personal life. By studying the dialogue that people have about their experience, this study seeks to understand the thought processes that people engage in as they view captive wildlife. Thought processes include both factors which contribute to the creation of the individual’s own unique experience as well as the meanings that the individual holds in association with their experience. Because this study will focus on the dialogue about the experience, rather than the experience itself or meanings associated with the experience, it will make a new contribution to experience research.
Animal Ethics

As society becomes increasingly aware of animal use, management and suffering, any discussion involving wildlife topics would be incomplete without touching on ethics. Just as knowledge construction regarding a phenomenon is affected by previous ideas and experience, ethical perceptions are determined by a person’s background as well as knowledge of ethical theory and expectations regarding the situation (Rollin, 1999). This section will explore ethical thought processes which visitors may experience while viewing captive wildlife. Specifically, the anatomy of an ethical decision-making process will be dissected with emphasis on understanding the different types of ethics, moral principles and theories people appeal to during ethical thought processes. In addition, how ethics have been applied to animals will also be examined.

Defining Ethics

According to Rollin (1999), there are two senses of ethics. Ethics₁ involves the set of moral principles “that govern view of right and wrong, good and bad, fair and unfair, just and unjust,” (p. 8). This sense of ethics can be viewed on three levels which will be examined further in a subsequent section: social, personal and professional ethics. The second sense of ethics is a branch of philosophy, the discipline which flushes out the assumptions on which societal rules are based by identifying what the assumptions are and asking what they ought to be. Specifically, Ethics₂ involves the logical, rational study and examination of ethics, which may include an attempt to justify the principles of ethics (Rollin, 1999, p. 13).
Ethical Decision-Making

When considering ethics, many people become confused or intimidated as a result of the media's influence and portrayal of the ethical decision-making process. Often, the media portrays ethical decisions as "dilemmas - very dramatic situations wherein one is faced with two extreme mutually exclusive choices that exhaust all possibilities, yet neither of which seems wholly correct or incorrect" (Rollin, 1999, p. 18). However, Rollin (1999) rejects this polarized portrayal and defines ethical resolution as finding middle ground between conflicting moral principles. Instead of being caught in a no-win struggle, Rollin suggests that ethical decisions can be made rationally and systematically through completion of the following steps: 1) Isolate all ethically relevant questions and components; 2) Consider whether issues fall under social, personal or professional ethics; 3) Adduce all of the relevant moral or ethical principles that could be applied; 4) Appeal to one's or society's ethical theory for prioritizing moral principles. These steps will be examined in further detail below to better understand how people make ethical judgments about animals.

First, ethically relevant questions and components regarding a situation are isolated. Ethical questions concern what ought or ought not to be done (or to have been done). This step can be difficult as oftentimes one may recognize that something is problematic about a situation, but may have trouble saying exactly what the problem is due to the complex nature of ethical problems. However, discussing situations with others forces oneself to go beyond current mind-set and expectations regarding the situation and view the problems from a fresh vantage point. Through examination of the
problem from several points of view, ethically relevant questions will often emerge (Rollin, 1999).

The second step is to decide whether the questions identified fall under social, personal or professional ethics. Social ethics are rules which are socially objective and universally binding on all members of society. Laws are one example of social ethics. Personal ethics are rules which guide certain areas of behavior which are left to the discretion of the individual. For example, personal ethics govern what a person chooses to read or watch on TV. Professional ethics are consistent with social ethics and guide behavior in a specialty area of expertise beyond general social knowledge. Doctors, veterinarians and other professionals are governed by their own sets of specialized ethics (Rollin, 1999). If the problem is not solved by appealing to the social consensus ethic, one must progress to the third step.

The third step is identifying the moral principles which apply to the situation at hand. Moral principles are "ethical generalizations that we learn primarily from our parents, but also from peers, teachers, books, etc. as we grow," (Rollins, 1999, p. 22). Gert (1988) identifies 10 such moral principles which should be obeyed in order to avoid evils or suffering: 1) Don't kill; 2) Don't cause pain; 3) Don't disable; 4) Don't deprive of freedom; 5) Don't deprive of pleasure; 6) Don't deceive; 7) Keep your promise; 8) Don't cheat; 9) Obey the law; 10) Do your duty. Because moral principles such as these often conflict with each other, a way of prioritizing these principles is needed. The fourth step involves appealing to ethical theory which serves to prioritize the moral principles. The following section is a brief overview of ethical theory.
Ethical Theory

There are two major groups of ethical theories: teleological and deontological. Consequentialist or teleological theories stress goodness and badness and emphasize the results of actions. Teleological theories include Mill's classic Utilitarianism in which decisions are made according to what produces the greatest happiness for the greatest number, wherein happiness is defined in terms of pleasure and pain (Rollin, 1999). Aristotle's Virtue ethics are also teleological in nature with the objective of each person reaching their own potential for perfection. Under Aristotle's theory, as all individuals act morally according to their virtues and become great citizens, they will create a great society.

Deontological theories stress rightness and wrongness (or duty) and emphasize the intrinsic properties of actions. The most common deontological ethical theories are theologically based; an action is obligatory because it is commanded by God. Kant's Categorical Imperative is also deontological in nature. This theory requires all rational beings to judge their intended actions by the test of universality (regardless of good or bad consequences in the given case). The test of universality involves thinking through what would happen if everyone behaved in the way you are considering behaving. For example, what would happen if everyone told white lies? (Rollin, 1999, p. 24). As the two types of ethical theories have been identified, the discussion will shift to an application of these concepts to animals.

Practical Application of Ethics to Animals

In considering ethics in regards to animals, the concept of moral community must first be discussed. None of the classical philosophers prior to the twentieth century
included animals within the moral community to which their theory applied. In Aristotle’s time, the moral community included only white males thirty-five years and older. However, as society has developed, the moral community has expanded to include women, minorities, the disabled, and fetuses, among others. In recent years as society has recognized changing use patterns regarding animals, non-humans are also beginning to be included in the moral community. As new members are included in the moral community, society exports existing ethics to apply to the new members such as animals (Rollin, 1999).

Given that ethics always builds on and grows out of previously held ethical beliefs, it is necessary to identify the ethical beliefs held by society and individuals which will likely be applied to animals as they become part of the moral community. The social ethic functions mostly by making decisions in a utilitarian way, but also contains a strong deontological component designed to protect individuals from being harmed or opposed for the sake of general welfare. This component is the concept of rights which protects those elements which we believe to be essential to a person’s human nature – speech, religious belief, assembly, property – from being eroded by utilitarian concerns. Rights, therefore, protect a person’s nature or “telos” the “humanness” of a person (Rollin, 1999, p. 42).

Rollin (1999) states that animal welfare issues have long been a concern of the social ethic (p. 15). However, as evident by law which often voices the social ethic, traditional animal ethics have been limited to issues of animal cruelty (p. 20). Historically, the notion of animal welfare has meant the fulfillment of those needs and wants of an animal compatible with and demanded by our use of that animal (p. 44).
However, technology has allowed for changes in traditional agricultural practice and animal husbandry which increases production but also increases suffering to the animal.

No language in traditional anti-cruelty ethics accounts for this type of suffering caused under non-malicious circumstances such as industrialized agriculture and medical research. Recently, society is beginning to articulate an ethic for animals that goes beyond cruelty as awareness is increasing about animal suffering that occurs in modern animal uses. Therefore, a need for a new ethic has emerged (Rollin, 1999).

In the face of societal changes in which public awareness of the systematic violation of animal telos in agriculture, zoos, and laboratories is increasing, society has called for a new ethic which includes animal rights. There is a new and growing social concern for animals which demands that animals’ natures not be violated and the rights flowing from those natures be guaranteed. The new ethic is abolitionist about many uses that are thought to be frivolous and yet produce significant animal suffering such as trapping, prairie dog shoots, roadside zoos and animal shows. Such activities have come under scrutiny under the new ethic (Rollin, 1999, p. 43). The recent emergence of the export of the notion of rights to animals is an augmentation of the traditional notion of animal welfare in the face of this century’s technological, profit-oriented change in animal use (Rollin, 1999, p. 44).

While the application of rights theory to animals is a fairly recent occurrence, the concept of indirect duty has been applied to animals since the time of St. Thomas Aquinas. Aquinas (1956) did not consider animals as worthy of concern in and of themselves because they had no soul. However, he cited the need to obey an indirect
duty towards animals. Through this duty, cruelty to animals must be prevented because those who perform cruel acts will graduate to being cruel to people (Rollin, 1999, p. 33).

Kant (1980) also says that we have no direct duties to animals because they are not self-conscious and are merely there as a means to an end. Kant states that our duties to animals are merely indirect duties to humanity because animal nature has analogies to human nature. Therefore, by doing duty to animals in respect of the manifestations which correspond to human nature, we indirectly do our duty towards humanity (Kant, 1980, p. 239).

The application of ethical theory to animals is an ongoing process which is continued by contemporary philosophers. By speaking to society through their work, a series of philosophers have helped to shape, articulate and draw out the emerging ethic for animals (Rollin, 1999). Philosophers who have engaged in such discussions are Peter Singer who advocates liberating animals from suffering in his book Animal Liberation (1975). Tom Regan (1983) also addresses animal ethics through a discussion of rights in his book, The Case for Strong Animal Rights. Bernard Rollin has been engaged in a discussion of animal ethics for two decades. His most recent work, Veterinary Medical Ethics: Theory and Cases (1999) examines ethics in the context of the veterinary profession. Paul Taylor (1986) also attempts to provide an ethical framework for dealing with animals by including them in his biocentric ethic. These examples represent a portion of the work done in the area of animal ethics; the discussion is still ongoing.

In light of a growing social consciousness regarding the treatment and well-being of animals as they are subject to new patterns of use in our technologically advancing society, an examination of ethics is appropriate for this thesis. As the focus of the thesis
is identifying the thought processes which people engage in and the meanings they access when viewing captive animals, it is expected that an ethical dialogue may emerge in the data due to societal trends and an increasing sensitivity to the well-being of animals. Thus, the previous discussion on ethical decision-making and theory will be applied in an ethical analysis of the data in the results/discussion section of the thesis.
CHAPTER THREE: METHODOLOGY

Selection of Study Site

As previously mentioned, the specific site chosen for the study was the Grizzly Discovery Center (GDC), a bear and wolf preserve in West Yellowstone, MT. The Grizzly Discovery Center was chosen as the study site because of its progressive facility design and proximity to Yellowstone National Park as well as the unique opportunity that it provides for grizzly bear viewing. There are few facilities in the nation where visitors can watch bears interact with each other in such a unique setting. Although there are two species which may be viewed at GDC (bears or wolves), the scope of the study focused on the bear viewing experience to make the research process more manageable. In addition, the Grizzly Discovery Center administrators requested that the scope be limited to bears because the wolf experience is in much earlier stages of development.

Bears were also selected as the species of choice at the Grizzly Discovery Center because of the timeliness of bear-related research. As the grizzly population in the nearby Greater Yellowstone Ecosystem approaches de-listing and a new population may be introduced into the Selway-Bitteroot ecosystem, insights which can aid in conservation efforts and increase understanding of how people relate to bears are needed. As mentioned previously, conservation efforts rely heavily on effective education which can take place at wildlife viewing sites, thus studying the experience at sites like the Grizzly Discovery Center is a very relevant endeavor at this time.

Study Site Description

The Grizzly Discovery Center is a bear and wolf preserve which opened to the public on August 23, 1990. Prior to opening, the center was a subject of debate and
received media coverage due to several issues. First, concern was expressed about the center’s location adjacent to Yellowstone National Park. Second, the center was envisioned, funded and owned by private, for-profit business entities. Last, the GDC would work with grizzlies, large mega-predators, in an area synonymous with grizzlies. As a result of these issues, it took three years of permit processing and public hearings before the center was actually opened. Agencies that expressed concern about the center included the U.S. Fish and Wildlife Service and Montana Fish, Wildlife and Parks.

The Grizzly Discovery Center was the first development in a newly annexed addition to the town of West Yellowstone, MT which serves as a gateway community to Yellowstone National Park. The owner and developer envisioned the center as an alternative for “problem bears” that were otherwise being destroyed in West Yellowstone. However, the federal agencies denied placement of bears from the lower 48 states in the facility. Therefore, the center received its first bear from Denali National Park in 1990. Additional bears which were removed in management actions (i.e. bears which would have been destroyed otherwise) were obtained from Alaska and Canada in 1994, 1995 and 1996. These bears brought the center to capacity as it was only equipped to handle six bears, and the state permitting process set the center’s quota at this amount. However, two more animals were permitted for the facility and a den addition was completed in 1996. In 1998, two more cubs were obtained from Alaska. After an additional permitting process, wolves were added to the facility in 1996.

During this time, management changed hands several times. Because the developer of the center was engaged in further development of adjacent properties including the IMAX theater, the center was sold to Ogden Entertainment in 1995. Ogden
was a New York based corporation which managed another bear facility in Florida. In 1999, Ogden decided to divest themselves of their entertainment division holdings. GDC management was notified in June 1999 that the center would be sold or closed by September 1999. Three long-term staff members incorporated as a not-for-profit facility in August 1999 and submitted an offer to buy the facility that was accepted by Ogden.

The facility is currently being managed by these individuals as an educational bear and wolf preserve and receives approximately 125,000 visitors each year. The mission of the center is as follows: “The Grizzly Discovery Center’s primary mission is to provide visitors to the Yellowstone area an opportunity to learn about, view and ultimately appreciate the grizzly bear and gray wolf. Grizzly bears that are unable to live in the wild have a second chance. By helping with the education of visitors, their lives may help other bears remain in the wild. The greatest threat to grizzlies and wolves is the loss of desirable, life-sustaining areas to raise their families. Wilderness is not a renewable resource. If it is possible for humans and wildlife to co-exist, we must endeavor to know as much about their needs to minimize the negative impacts of our environment.”

Within the last year, the center has developed relationships with several organizations and agencies including the National Park Service (NPS) and Defenders of Wildlife. NPS interpretive rangers visit the center twice a week during the summer season to facilitate interpretive programs. According to the Defenders of Wildlife website, the new relationship between the two organizations is defined by the theme “Discover grizzlies and wolves – Defend their place in the wild,” (Defenders of Wildlife Website, 2000). Managers from both organizations hope that this new relationship will
allow the Center to expand the reach of its educational message and expand its conservation efforts.

In further considering the research site, an examination of the physical characteristics must also be included. A bronze statue of a grizzly bear and a large teepee are located outside the center. As visitors walk past these displays, they pass under a large sign displaying the center’s name and move into the entranceway of the center. This entranceway is filled with posters and information about wildlife issues and conservation. Applications for conservation organizations and donation boxes are available as well as information about some of the wolf and grizzly bear recovery populations in Yellowstone National Park. As the visitor continues through the entranceway, they pass the fee desk where adults pay $8.50 for a day pass to the center. All visitors receive a wrist-band which allows them to leave the center and return as many times as they choose throughout the day.

After passing through the turnstile, the visitor may choose to turn right into the theater to watch an educational film about wolves or bears. Alternatively, the visitor may choose to go straight into the interpretive display area. Interpretive displays are set up in the walkway which must be passed through to reach the animal viewing areas. Displays provide biological information about the bears, information about the bears’ current status in North America, and information on human’s involvement in the decline of the bear. Other display topics include how to survive a bear attack, how to identify a grizzly, and the problems associated with exotic animal product sales. The newest display is comprised of a large stuffed polar bear donated by a deceased hunter’s family.
After taking in the interpretive displays, the visitor then exits the building and moves outside into the wildlife viewing area. To the right is the ¾ acre wolf viewing enclosure where the resident wolf pack lives. Nine wolves reside there including Lamar, Aztec, Selway, Hayden, Granite, Katimik, Naya, Lakuna, and Alyeska. Although the pack is in captivity, they have a complicated social structure which can be observed by visitors. The pack spends most of its time outside in the enclosure, but occasionally retires to their den during the day. Most of the enclosure is surrounded by a chain-link fence, but there is a covered viewing platform on the upper half of the enclosure from which visitors can look down on the wolves with a clear, fence-free view.

In the center of the main viewing area is a heated shed for viewing the animals in the winter. On the outside of the shed, a schedule is posted detailing events of special interest that occur throughout the day. These events include feeding times, enrichment activities, interpretive programs, and educational movies. As the bears are rotated to the outside habitat in various groupings throughout the day, the schedule also details which bears will be outside at different times of the day.

The bear enclosure is on the left side of the heated viewing area. The back and side of the enclosure are surrounded by a chain-link fence while the front of the enclosure has several barriers including a chain-link fence and a deep concrete moat separating visitors from the bears. On one of the inner fences, interpretive signs are displayed which list the names and biological histories of each of the GDC’s eight bears including Fred, Toby, Revel, Stoke, Sam, Illie, Kobuk and Nakina. Visitors observe the bears interacting with each other in their 2-acre habitat complete with a wading pool and standing tree cuttings. An interpretive staff person is available at all times in the main viewing area to
answer visitor questions, and interpretive signs scattered throughout the enclosure also provide interpretive information.

To exit the center, visitors pass through the gift shop where they may buy various wolf, bear and other wildlife related products. Souvenirs are available including t-shirts, mugs, magnets and other novelties. Educational materials are available as well including photographs, books, videos and children’s toys. A new addition is slated to be added to exit-way of the center within the next year. A formal Defenders of Wildlife information booth will be available to give visitors an opportunity to actively support bear conservation.

**Methodological Approach**

Selection of the methodological approach for this study was driven by three issues: the nature of specific questions motivating the research, assumptions about the nature of the phenomenon being studied, and judgments about the relative importance of different research goals in combination with the relative significance of different threats to validity (Patterson & Williams, 2000, p. 60). Because the study seeks to understand the wildlife viewing experience in a holistic sense, a reductionist quantitative methodology would not be ideal for answering the research questions. In addition, the purpose of this study is to explore visitor experience and some of the meanings associated with that experience, therefore, an interpretivist approach was used. A qualitative interpretivist approach is increasingly being employed by researchers to better understand meaning and experience (Peterson & Horton, 1995; Arluke & Sanders, 1996; Lange, 1993).
Sampling

The following section discusses the rationale behind the sampling scheme chosen for this study. This discussion includes explanation of key principles underlying the sampling scheme as well as strategies for operationalization.

Given the assumptions about experience underlying the research, the goal of the research is to gain a deep, in-depth understanding of individual's experience. This research goal creates difficulty with respect to sampling. This is due to the fact that the more in-depth the understanding of the individual becomes, the less generalizable the understanding is to others. Additionally, the more extensive the data collection becomes for specific individuals, the more overwhelming the overall amount of data turns out to be. This issue is of particular concern in light of the nature of qualitative analysis underlying the thesis (discussed below in the section on data analysis). Therefore, it is necessary to rely on fewer data points and talk to a fewer number of individuals.

This tension between depth of understanding, generalizability, and cognitive limitation on the amount of data that can be handled represents the fundamental sampling dilemma in interpretivist research. One resolution has been conceiving of samples in terms of representative types. The concept of representative types refers to the idea that the description of the experiences represents a detailed understanding of actual individuals rather than an aggregate characterization of some non-existing average individual. In addition, this concept is used to emphasize the idea that the data "represent" a possible type of experience in relation to the context of the setting rather than a statistically generalizable, law-like result (Patterson & Williams, 2000, p. 67). Under the concept of representative types, a common sampling strategy is to seek
diversity. That is, the population is represented by capturing a diverse array of individuals that represent the range of experiences, meanings, etc. within the population.

Operationalization of this sampling scheme begins with setting a sample size. As discussed previously, a small sample size was used in order to allow in-depth representation of each subject while avoiding cognitive inundation that would inhibit the ability to effectively process and analyze the data. Based on previous research exploring visitor experiences using this research approach (Davenport, 1999; Patterson et al., 1998), a sample size of 35 interviews was deemed large enough to meet sampling goals and provide insight into the phenomenon while at the same time being cognitively manageable given the nature of the analysis.

The second task in operationalizing the sampling scheme entails choosing the specific individuals who make up the sample. Diversity was the most important factor in choosing subjects in order to identify and describe representative types. Types were not pre-determined for this project, but emerged as the sampling progressed. For each successive interview, the researcher screened potential subjects through a brief conversation at the site. After this initial interaction, the person was selected for an interview if they appeared to be different or unique from the rest of the subjects in the sample. Subjects differed in areas such as marital status, geographic origin, type of trip, attitudes toward animals, and past experience with animals, among other factors. Alternatively, a subject could also have been selected based on characteristics which were physically observable as well such as age, race, gender, or type of group. A description of study relevant characteristics of individuals in the sample is presented in the first results section (Description of Sample).
Given the small sample size, diversity was seen as being best achieved by purposeful sampling rather than random techniques. Because the population was represented using purposive sampling, certain limitations apply. Specifically, the ability to say how different types of experiences are distributed across the population is lost. For example, it would not be appropriate under a purposive sampling scheme to conclude that 80% of GDC visitors have an ethical response to the bear viewing experience because 80% of the sample illustrated this response. However, due to the diversity principle underlying the sampling approach, it would be appropriate to conclude that an underlying ethical response is widespread within the mental dialogue of visitors.

Sampling was competed in three segments with interview trips conducted on the following dates: 1) September 2-4, 2000; 2) November 23-26, 2000; 3) January 18-26, 2001. These trips were conducted on or near three respective holiday weekends including Labor Day, Thanksgiving and Martin Luther King, Jr. Day. While this sampling scheme produced diversity within the sample, several groups were not represented within the data set including visitors who came to GDC during peak summer season or late spring. Although this demographic was left out due to logistical constraints, sufficient diversity was achieved despite this exclusion.

Diversity was evident between individuals as well as between interview trips. During the September trip, visitors generally seemed to be in a hurry and had less time or energy to devote to the interview process as they passed through the center and West Yellowstone. Those visitors interviewed in November and January stayed in West Yellowstone for longer periods of time and were generally willing to put more time into the interview. In addition, many visitors spent more than one day at the center. As a
result, their responses regarding their observations and thoughts about their experiences at the center seemed to be slightly more developed.

Data Collection

Data for this study is qualitative in nature and was collected through in-depth interviews. In order to explain the rationale behind data collection techniques, the nature of the interview must be explored as well as the role of the interviewer. In addition, the concept of story telling and its relevance to the study must be examined.

Citing Kvale (1983), Patterson et al. (1998, p. 428) state that the role of the researcher in this type of interview is “to lead respondents to certain themes and to clarify ambiguous responses without directing them to express specific meanings.” By not limiting the manner in which the respondents could describe or express these themes, the researcher allowed the interview to unfold in a conversational style (Patterson et al., 1998). However, it was also the role of the interviewer to ensure that the interview was conducted systematically so that comparable responses would allow for linkages to be made across individuals later in the data analysis. If at the end of the interview, the researcher felt like some areas needed to be clarified, more directive questions were asked. In addition, the interviewer also pointed out contradictions in the interviewees' responses and asked for clarification.

This balance between leading the respondent to discuss themes without limiting the subject's ability to express their experience relative to the study themes was achieved through the use of an interview guide. The interviews for this study were considered an emergent process and were conducted using the interview guide in Appendix One. The interview guide was comprised of open-ended questions revolving around relevant
themes. Using the guide, lead-in questions were asked first to encourage the interviewee to discuss themes. As the interview progressed, the researcher asked probing or clarifying questions to improve understanding of the individual’s experience. In this way, the researcher and the interviewee co-produced the story that was being told.

Previous work suggests that this conversational style facilitated by the interviewer helps to encourage the interviewees to form their answers in narrative form. This story telling response style has produced some of the most successful interviews rich with insightful, informative responses. This is due in fact to the way that stories allow people to represent happenings of life into understandable form. Anecdotes from real life can be seen as parables of sort, allowing people to provide different lessons every time they are heard or recalled (Jackson, 1997). By incorporating story telling into the interview process, the researcher allowed the subjects to share some of their life lessons and meanings through narrative.

For this study, interviewees were contacted on-site as they were approached in person by the researcher. Only subjects who were 18 years or older were asked to participate in the study. They were asked if they were willing to participate in an in-person interview concerning their wildlife viewing experience at the site. Subjects were assured that their participation was entirely voluntary and that if they chose to participate, their confidentiality would be protected. Interviews were conducted at the site and were tape recorded with the subject's permission. The interviews ranged in length from 8 to 38 minutes. The mean interview length was 18 minutes. Interview tapes were transcribed verbatim and identified by the date, interview number, and a pseudonym. Tapes were only listened to by the researcher and the transcriptionist in order to protect
subject anonymity. Additionally, interviewees' real names were not used in the paper and their names and addresses were not associated with the data in any way.

Data Analysis

The process described below was followed when analyzing data. The empirical data consisted of interview transcripts as described above. Data analysis was centered around development of an organizing system which aimed to identify predominant themes through which interviews could be meaningfully organized, interpreted and presented (Patterson & Williams, 2000, p 75). The following steps were followed in completing the analysis.

1) **Tape record, transcribe and proofread interviews.**

Once interviews were tape recorded and transcribed, the tapes were listened to again while proofreading the transcription. This insured an adequate and accurate database as the starting point of analysis.

2) **Develop a numbering system to reference the location of specific units of text.**

Once the written, textual database was established, a numbering system was used to reference the location of specific units of text. The sentence was used as the primary unit of organization and each sentence was numbered. See example below from Interview #29:

88 INTERVIEWER: How would you describe these bears that you've seen here at the Center?
89 UNA: They are playful, the ones that I've seen.
90 They're always playful and glad to get outside and the way they rotate them around and let them get outside more than once a day.
91 I think they are lucky to be here really because the future of the ones that are here, there was no future.
92 But, this way, they are carefree and providing a lot of entertainment for other people.
The numbers served solely as a referencing system to retrieve and locate text and were not part of the analysis. The referencing system was put in place with the aid of a computer software program called QSR NVivo Nud*ist.

3) **Read interviews in their entirety one or more times.**

After the interview was referenced, it was read in its entirety at least two times by the researcher to gain familiarity with the interview.

4) **Identify and mark meaning units within the transcript.**

Once familiarity was established, the researcher began identifying and marking meaning units within the transcript. Meaning units are segments of the interview that are comprehensible on their own, and are typically not words or phrases but groups of sentences. There were many meaning units in the interview, but not all were relevant to the phenomena being studied. Therefore, the researcher focused only on those that provided insight into the phenomena at hand. However, the interview was read and re-read after the initial assignment of meaning units to ensure that relevant units were not overlooked as the researcher gained more insight on the phenomena as the analysis progressed.

Refer to the example presented above from Interview #29 for the following examples of meaning units. Lines 88-90 reflect a meaning unit about the playfulness of the bears. Line 91 reflects the meaning that the bears have been rescued. Line 92 reflects two meanings: that the bears are happy and that they are entertaining.
Develop thematic labels under which the meaning units can be grouped.

After identifying meaning units, thematic labels were then developed in order to organize the meaning units. In considering the meaning units above, the following thematic labels were developed and the following meaning units organized beneath them:

GDC Bears/ Playful: Lines 88-90
GDC Bears/ Saved: Line 91
GDC Experience/ Dimensions/ Entertainment: Line 92
GDC Bears/ Happy/Content: Line 92

While meaning units are empirical units derived directly from the data, thematic labels were the researcher’s interpretations of the meaning units in order to understand the phenomena. Because the researcher was immersed in the phenomena and had prior conceptual understanding, she identified themes or labels which were not raised directly by participants (Patterson & Williams, 2000, p. 79). In addition, the thematic labels could not be considered mutually exclusive as meaning units could fall under more than one label as in Line 92 of the example above.

Meaning units were coded according to which themes they fell under. Initial interviews were coded by hand until a coding system was developed which was useful in categorizing the meaning units of interest. This coding system (See Appendix Two) was entered into a qualitative software program, and meaning units for each interview were coded into the database software.
6) **Develop a visual aid to help organize the themes and their interrelationships.**

Once themes were identified, interrelationships were explored between the themes. To assist in organization, a visual aid in the form of a chart or a figure was used (See Table 2).

7) **Write a discussion of the interpretation which incorporates the empirical evidence.**

Once relationships between themes were mapped out, a discussion of the researcher's interpretations was written. Because the themes and organizing systems were based heavily on the researcher's own interpretation, excerpts from the qualitative data were included so the reader may make a relatively independent judgment about the warrants for the researcher's interpretation. In order to address concerns about selective use of data, the discussion included an explanation of how the excerpts were selected and how they represented the overall database. In addition, to avoid selective use of data, contradictory or ambiguous excerpts were included in the written analysis to provide an accurate representation of the themes within the sample.

8) **Complete idiographic analysis first, then focus on nomothetic analysis.**

Because the objective of the interview was to understand the individual, each individual interview was given sufficient attention and time so the researcher could develop an idiographic understanding. Therefore, an analysis of each interview on an idiographic level was completed before moving on to the next interview. As understanding of several individuals was achieved, themes began to emerge which were relevant across individuals or maybe even across the whole sample. The nomothetic
analysis was an extension of the idiographic analyses as it aimed to understand the phenomenon rather than the individual (Patterson & Williams, 2000, p. 82-83).

An issue which must be addressed is ensuring that combination of the data excerpts that are presented on a nomothetic level are representative of the entire database. Some approaches recommend an audit of the entire database by an external reviewer to redress this problem. However, this method is often not realistically feasible and does not provide the readers with access to the data in order to form an independent judgment. Short of providing the reader with the entire database, there is not a conclusive solution to this problem. However, the researcher can provide some evidence that the data was not used selectively (Patterson & Williams, 2000).

First, attempts were made to show the overall range of variation within the phenomenon. For example, consider the range of perceptions regarding bears in different contexts (Table 2). Second, a range of variation with respect to how different individuals expressed a particular theme was also presented when warranted. For example, consider the range of individual perceptions of bears as human-like within the discussion of perceptions of GDC bears. Lastly, a category of exceptions to the pattern was also included when appropriate. Consider the discussion of those visitors who viewed their zoo experience as a positive one in the zoo bear perceptions analysis. By taking these steps, the researcher attempted to redress the selectivity problem. Such evidence was provided in this thesis.
CHAPTER FOUR: RESULTS / DISCUSSION

This chapter will begin with a brief review of the data analysis process in order to revisit how the themes presented in this chapter were selected. During the data analysis, themes and sub-themes from the interviews were organized in the broad categories of frame of reference, bears, GDC experience, connection to conservation efforts and thought processes (Appendix Two). As demonstrated in the methods section, meaning units from the interviews were coded into theme and sub-theme nodes within these categories producing an extensive database from which excerpts could be organized and retrieved. All themes were explored during the analysis process by retrieving and reviewing the meaning units within each node. Ideally, all of the themes and relationships between them would have been discussed in the study. However, due to the large amount of coded data, all of these themes could not be addressed within the limitations of this thesis.

Therefore, in the thesis, certain themes were selected for discussion while others were omitted from the formal, written analysis. The themes chosen for presentation in the thesis emerged during analysis of the interviews. As the researcher became more familiar with the data, certain patterns, themes or sub-themes emerged as stronger or more coherent than others. These themes, a total of four, are the ones discussed in the thesis and presented in this chapter. The themes are as follows: 1) Description of the Sample; 2) Visitor Typology Based on Character of Encounter; 3) Perceptions of Bears; and 4) Ethical Discourse. The presentation of each of these themes, along with the excerpts and data that form the foundation of the themes, represents the results of this
study. Discussion of these results will be addressed immediately after each theme presentation.

1. Description of the Sample

The goal of this section is to describe the nature of and the composition of the sample. It will describe the characteristics of the interviewees including demographic information as well as background characteristics (Table 1). This information is important for two reasons. First, as a non-random sampling procedure was used in order to purposefully increase diversity in the sample, exploration of these characteristics demonstrates the diversity achieved in the sample. Second, this information provides insights regarding the visitor's frame of reference, or conceptual filter through which they perceive and experience grizzly bears.

The first two columns in Table 1 include the interview number as well as the pseudonym assigned to each respondent. These allow the reader to match the data excerpts presented in the results sections below to the respondent's characteristics. It should be noted on the table that there is a gap in the interview numbers (#6 and #28) due to the fact that two interviews were incomplete and not included in the sample. Pseudonyms were randomly assigned to each respondent. Thirty-five interviews were included in the sample. Some interviews were conducted with single respondents while others were conducted with groups. No group was larger than two individuals. Interviews are separated on the table by bold-faced lines. Group interviews are shaded gray. A total of 51 respondents participated in the interviews.

As indicated in Table 1, 53% of the respondents were male and 47% of the respondents were female. Ages of respondents were estimated by the interviewer and not
asked of the respondents directly. The largest age range represented was 30-39 years comprising 31% of the sample. The next largest age ranges were 40-49 years representing 37% of the sample and 50-59 years representing 14% of the sample.

The fifth column represents the type of group in which the respondent was a member. A family is defined as a multi-generational unit of related persons. A couple is defined as two people who are life partners with no kids. A group is defined as a group of unrelated people such as friends or members of a tour group. Solo is a person visiting alone. Some respondents were members of groups within groups. For example, a couple could be within a family or other group. However, their primary group status was a couple. Respondents visiting with family comprised 25% of the sample, while 14% of respondents were visiting with a group. Respondents traveling as part of a couple only comprised 33% of the sample. Couples traveling within a larger family group (i.e. adult couple with parents) comprised 8% of the sample. Couples traveling within a larger group of friends or a tour group made up 18% of the respondents. Respondents visiting solo or alone made up 2% of the sample.

Within the sample, fifteen states were represented as well as one foreign country (Table I). A total of 35% of respondents were from Northwestern states including ID, MT and WA. Respondents from Northeastern states including RI, NH and MA represented 17% of the sample. Respondents from Southeastern states including DE, WV, GA and FL comprised 20% of the sample. An equivalent number of respondents were from the Southwestern states including CO, UT, NV and CA totaling 20% of the sample. Two respondents were from the Midwestern state of IL comprising 4% of the sample. Two respondents (4%) resided outside of the U.S. in England.
With the exception of age range, the demographic information discussed above was gathered from the interview texts and/or field notes taken while interviewing. The remaining information on the table was gathered from the coded interview texts. These remaining columns include various background characteristics of each respondent including whether they were a repeat visitor to the Grizzly Discovery Center, whether they had previously viewed bears in a zoo or free-range setting, and whether they were involved with any wildlife organizations. All of these characteristics represented the visitor’s past experiences and activities which contributed to the frame of reference. Serving as a filter through which the visitor engaged in bear viewing at the center, the frame of reference influenced the way the visitor related to and experienced the bears. Specific factors which seemed to contribute to the respondents’ frame of reference are discussed below.

The seventh column of the table labeled ‘REPEAT’ includes information on which visitors have visited the center previously. “Yes” means that the respondent was a repeat visitor while “no” means that they had not been to the center before. A total of 27% of the respondents had been to the center before, while 73% were on their first visit. The eighth column of the table labeled ‘ZOO’ tells whether or not the visitor had viewed bears in a zoo environment. “Yes” means that they had viewed bears at the zoo, “no” means they had not, “dnr” means they did not recall and “unk” means that it was unknown. A total of 84% of the respondents had seen bears in zoos, while 6% had not. Additionally, 2% did not recall seeing bears in a zoo, and it was unknown whether 8% of respondents had seen bears in zoos.
The ninth column labeled 'FREE-RANGE' includes information on whether or not the visitor had viewed bears in a free-range context. A free-range context is defined as one in which the bears were not confined in any way. "Yes" means that the visitor had viewed free-range bears in an unspecified location. "Yes (BC)" or "Yes (FC)" means that the visitor had viewed free-range bears but also that they indicated whether the viewing took place in a backcountry (BC) or front county (FC) setting. A backcountry setting was defined as a trail or other area away from roads or developed areas. A front country setting was defined as a developed area such as a campground, road, or residential area. "No" means the visitor had not viewed free-range bears, while "unknown" means that it was unknown. Of the 51 respondents, 27% had viewed free-range bears in an unspecified location, 18% had viewed them in a front country location and 10% had viewed them in a backcountry location. Therefore, a total of 55% of respondents had viewed free-range bears.

The last column on the table labeled 'ORGANIZATIONS' holds information regarding wildlife related organizations and activities in which visitors participated. Information on these organizational activities was gathered directly from the interview texts, specifically from responses to questions such as the following: "Do you have a broader interest in bears or wildlife? How do you pursue that interest?" A blank cell means that the respondent did not indicate that they were involved with any wildlife organizations or activities. All other cells contain the name or type of organization with which the respondent is affiliated. Visitor involvement in these organizations varied from none to volunteer work, or memberships to monetary contributions.
A total of 24% of respondents were involved with a wildlife related organization. Of those, 14% were involved with captive facilities including the Grizzly Discovery Center, Mission Mountain Wolves and World Wildlife Fund Adoption/Rehabilitation Programs. The remaining 10% of respondents were involved with various environmental or political groups or government agencies. An additional 4% of the sample was involved with personal rescue or rehabilitation of wildlife. Although this activity was not affiliated formally with an organization, it is still noted because it demonstrates the respondent’s relationship with wildlife.
2. Visitor Typology Based on Character of Encounter

The Grizzly Discovery Center offers one of many different ways of encountering a grizzly bear. While the GDC provides an opportunity to encounter captive bears in a controlled environment, zoos, drive through wildlife parks and other captive facilities provide similar opportunities. Alternatively, people also seek encounters with free-range grizzlies in natural areas such as national parks, national forests or designated wilderness areas. Whether in a captive or free-range setting, how a person evaluates the acceptability of, or relates to, their bear encounter depends in part on the character of the interaction they are seeking. In evaluating visitor interviews at the Grizzly Discovery Center, a framework describing differences among visitors in regard to the character of the visitor's bear encounter emerged. The following paragraph provides an overview of the different characterizations of the encounters, while subsequent sections will offer a more detailed and empirically grounded discussion.

Differences in the character of the encounter sought by visitors at the Grizzly Discovery Center can be categorized on three different levels (Figure 1). At the broadest level, there is a distinction between “checklist” encounters and a desire for interaction. Specifically, visitors either sought to check viewing a grizzly bear off a “tick” list, or they sought a more involved interaction. For those seeking an interaction, the significance of the context in shaping the nature of the encounter emerged as a second dimension that distinguished among different types of visitors. For some visitors, the context was irrelevant as long as an interaction with a bear occurred. However, others recognized the context as “captive” and distinguished this encounter from a wild encounter. Finally, a third dimension which distinguished visitors dealt with the comparison of the GDC
encounter to a wild encounter. Some visitors felt the GDC encounter was different than a wild encounter but just as good, while others found the two encounters to be non-substitutable.

**Checklist Encounter**

The checklist encounter was characterized as one in which the context, length or quality of the encounter was relatively insignificant to the visitor. The main goal of the visitor was to check the grizzly bear off a Yellowstone National Park or species viewed “checklist.” It was sufficient just to catch a glimpse of the bear. It must be noted, however, that while the visitor was seeking a checklist encounter during this particular visit, they may seek a different type of encounter on subsequent visits depending on their current mindset and circumstances. Carol’s comments regarding her experiences at the Grizzly Discovery Center illustrate a checklist encounter.

(Excerpt 2-1: Interview #7, Carol, Lines 104-106, 267-269)

**INTERVIEWER:** What’s the draw for people, why do they come here to see bears?

**CAROL:** Well, I know what happened with us is that we knew what animals we might see in Yellowstone and we saw every one but the bear. So this was a chance to see the ones that we didn’t see out in the wild, you know (Lines 104-106). But we came [to Yellowstone] because we wanted to see a buffalo and we saw that, and a moose and we saw that, and the elk and we saw that. And then we didn’t see the wolf or the bear. So, it’s just kind of like cross the last two things off your list, you know, and like you go home happy (Lines 267-269).

Wanda and Vic were also seeking out this type of Checklist encounter. Like Carol, they were also visiting the Grizzly Discovery Center as part of a larger trip to Yellowstone National Park. They did not see bears during their snowmobiling trip, so they came to GDC to see them instead. The main impetus of their visit was simply to see the bears.
INTERVIEWER: How did you decide to come to the Grizzly Discovery Center?

WANDA: Today, we just wanted to come and see some bears, I guess, and we had the day off from the snowmobile trip. So we just thought we would come over here and spend time cause we didn't see any in the park (Lines 1-3).

WANDA: We're just here and it's part of the attraction, I think, for Yellowstone. Don't you?

VIC: Yes.

WANDA: It would have been nice to see one on the snowmobile ride yesterday, but maybe not this time of year (Lines 119-122).

INTERVIEWER: So what were you looking for when you came in here? What was the most important aspect of your visit?

WANDA: To see the bears.

VIC: Bears. Yeah. The wolves are just kind of an added feature (Lines 190-195).

Interaction Encounter: Context Irrelevant vs. Context Recognized

Those seeking a more involved encounter with a grizzly bear fell into the interaction category. These people were seeking more than a glimpse of a bear or a chance to check a grizzly sighting off a list. To the contrary, they were seeking an interaction of a certain character such as clarity or closeness of view; length of time of encounter, adequate photo opportunity, etc. However, within this interaction category, responses indicated different levels of significance towards the context of the encounter. For some, the context of the interaction was irrelevant as long as the desired criteria were met during the encounter. For others, the context in which the encounter took place was recognized and the visitor made context-based judgments regarding the quality of the GDC encounter compared to other types of encounters.

Categorizing visitors within this dimension proved to be more complex. Because a single response from the visitor did not provide sufficient information to clearly place the visitor in one category or another, one singular quotation could not be used to categorize a person. Consequently, it was necessary to consider the visitor's whole
interview and the stories told by the visitor in order to make connections from different parts of the interview. Consider the process used to categorize Ann below.

Ann was placed into "context irrelevant" category. The following excerpts from Ann’s interview justified this determination as she described several wild encounters and then went on to discuss her experiences at the Grizzly Discovery Center. In the following excerpt Ann described an encounter in Yellowstone which did not meet her criteria for a desirable encounter because she was too far from the bear and unable to get a good photograph.

(Excerpt 2-3, Interview #4, Ann, Lines 25-32)

ANN: The last time we were here [Yellowstone] a few years ago, we saw a couple of cubs at a distance, but haven't seen any more since then.
INTERVIEWER: Could you tell me about that when you saw the cubs?
ANN: They were up on a hill and it was just two cubs and they were just playing and eating. And we went back to the ranger station and reported it because, at that time, they were asking you to report bear sightings. But we really weren't even close enough to get a good picture. We took a picture but only we knew what that was.
INTERVIEWER: Did you spend a lot of time watching them?
ANN: Not a huge amount, no, because we couldn't see them that clearly.

When asked to compare her GDC encounter with the Yellowstone encounter, Ann expressed that she believed the GDC experience was better because she was able to see and watch the bears at close range.

(Excerpt 2-4, Interview #4, Ann, Lines 35-42)

INTERVIEWER: How does this experience here compare to [your experience in Yellowstone]?
ANN: This is awesome just being able to see them this close and I thought it was really sad that they were in captivity until I found out that they were rescued. Were they not here, they would be dead. But this is just much better.
INTERVIEWER: What did you enjoy about [the bears]?
ANN: Just watching them. They are just beautiful. Look at them!
Ann also told the story of her encounter with a grizzly on a tour bus in Denali National Park. Again, she was pleased with this experience because she was able to get close to the bear and also take a “beautiful picture.”

(Excerpt 2-5, Interview #4, Ann, Lines 89-99)

ANN: I have never seen them in the wild except... well, we did see, we saw one grizzly at Denali National Park. In fact, we were on a tour bus. That's the only way that they'll let people see Denali is just tour buses. The bear actually came up to the bus and put its paws up on the bus. We were right there. Just one grizzly.
INTERVIEWER: What was that like?
ANN: Oh, it was awesome! We got a beautiful picture. Had it blown up!

Ann clearly favored experiences in which she was able to get close to the bear and also have the opportunity to photograph the animal. The two experiences that she described as “awesome” occurred in very different contexts, the GDC and a tour bus. Despite the difference in contexts, Ann was pleased with both encounters because they met criteria that were important to her. Therefore, it can be concluded that the actual context of the encounter was irrelevant to Ann. Rather than placing priority on the context, Ann placed priority on how close she could get to the bear and whether or not the encounter provided a good photo opportunity.

In assessing whether a bear encounter was pleasing to him or not, Lou also placed little priority on the context in which the encounter occurred. Instead he placed emphasis on being able to see the bear and get close to it. Below, Lou described his experiences at a drive through bear park and compares that experience with his encounter at GDC. In discussing both experiences he commented on how close he was able to get to the bear.

(Excerpt 2-6, Interview #21, Lou, Lines 8-17)

LOU: We were at Bear World which is in Idaho and you get up close but you can't get out of your car. [GDC] is made for, well, really not hands on, but you can get close to them. So it's good. I like it.
INTERVIEWER: So, how else is [GDC] different than the Bear World in the car other than being able to get closer?
LOU: That's a good question! It's colder for one! I don't think really I was one-on-one with the animals. It's not really that different other than the fact that you can see them without looking through the glass windscreen. I really don't think it makes much difference but you can really get close to the bears now.

Lou saw little difference between these two experiences except that he could get closer to the bears at GDC. In discussing the benefits of the GDC experience, Lou also compared the GDC encounter with a Yellowstone encounter. Again, he stressed the importance of getting close to the bear.

(Excerpt 2-7, Interview #21, Lou, Lines 47-49)

INTERVIEWER: So what do you think it does for people to come into a place like this and see these bears?
LOU: I think it gives them a greater wildlife experience to get to see them close. Cause I mean spotting a bear driving through Yellowstone or wherever, you don't really see them and here, they are right there in front of you, you can see them.

In speaking about zoos, Lou also stressed the importance of being to see the animals. He came to the GDC for the same reasons he would choose to go to a zoo.

(Excerpt 2-8, Interview #21, Lou, Lines 60-64)

LOU: You know, it's like going to the zoo. Why do you go to the zoo? You go to the zoo to see the different animals. You know, that's why we came here. To see the bears and to see the wolves.

In Lou's case, whether it was the Grizzly Discovery Center, a drive through park, Yellowstone, or the zoo, the primary criteria for a satisfactory encounter was being able to see the bears and get close to them, although the contexts of the encounter could vary.

**Context Recognized Encounter: Just As Good vs. Non-substitutable**

Some visitors like Lou and Ann discussed above were concerned that their encounter met certain criteria, like being in close proximity to the bear, while the encounter context seemed irrelevant. For other visitors, the context in which their
interaction took place was relevant and acknowledged. Specifically, visitors recognized that the context of the Grizzly Discovery Center encounter was different than that of a wild grizzly encounter. In this Context Recognized group, visitors were separated into two sub-categories: those that felt the Grizzly Discovery Center encounter was different than a wild encounter but worthwhile in its own right versus those who felt the encounter was non-substitutable for a wild interaction. Again, this categorization was made by considering the visitor's interview as a whole, rather than just one or two quotes.

In placing visitors in the "Just as Good" category, responses indicated that the visitor recognized the difference between a wild and a captive encounter, yet still appreciated each type of experience for its own uniqueness and benefits. Don lived near Yellowstone and had many grizzly encounters in the wild, yet he had also been to the Grizzly Discovery Center over 20 times. In the excerpt below, Don discussed his reasons for coming to GDC, which included learning and aesthetics as well as an opportunity to watch the bears interact with each other.

(Excerpt 2-9, Interview #9, Don, Lines 74-78, 166-168, 172-174)

INTERVIEWER: What do you enjoy most about the Center here?
DON: This! Being able to watch them, you know, being able to see them close. Like I said, they are so majestic and powerful. It's very interesting to see how they interact with one another (Lines 74-78).

INTERVIEWER: What personal benefits do you get from coming here?
DON: Personal? Just the beauty of it more than anything... (Lines 166-168).

INTERVIEWER: If you had to sum up the most important aspect of your visit here, what would you say that is?
DON: I would say the learning, overall, the learning about the animals. That would be the most important thing. The visuals, you know, not only the signs but the animals themselves are very important because the learning/education of it would be the most important aspect (Lines 172-174).

Although Don appreciated the unique viewing opportunities the Grizzly Discovery Center offered, he saw the GDC encounter in a different light than a wild
encounter. In comparing the two, Don cited a difference in intensity between the two types of encounters due to being one on one with the animal in the wild.

(Excerpt 2-10, Interview #9, Don, Lines 18-19, 22-28)

DON: We've seen a lot of grizzlies in the park and we have taken a lot of photos of grizzlies and some of them actually scary close. I have actually been very close to them like from here to the wood pile [points to woodpile in enclosure], about 20 yards or whatnot in the wild and it wasn't real scary but it was intense, let's put it that way.

INTERVIEWER: So how does this experience compare to a wild experience?

DON: Compare? I don't really think it does compare. Only because of the wide-open factor, you know. You know, we'll say, mano y mano with the bear. You know they are not in a pen kind of thing so you have to be a lot more aware of your surroundings and respect their boundaries. So, I don't know that it really compares.

Despite the fact that Don clearly distinguished the two types of encounters as very different in character, he continued to seek out the GDC encounter as evidenced by his high number of repeat visits to the center. It can be concluded that he felt the GDC encounter was just as worthy of his time as a wild encounter.

The "Non-substitutable" encounter was one in which the visitor held the wild encounter as the ultimate interaction. To visitors in this category, seeing a grizzly bear at the Grizzly Discovery Center was no substitute for a wild encounter. This category included visitors who had actually experienced a wild encounter, but also included visitors who only experienced captive encounters yet and still sought out their ultimate goal of a wild encounter. Amy and Bev both experienced encounters with bears and other predators in the wild. In the excerpt below, they discussed the differences between a captive and a wild encounter, pointing out that captive encounters lacked a certain amount of excitement and anxiety.
INTERVIEWER: So how does this [GDC] experience compare to a wild encounter?

AMY: Very different. This is kind of whimsical and fun and you can watch them at peace. Where, you know, if you have any kind of wild encounter with an animal, especially when it's an animal that you know is a predator, you know you have that certain amount of excitement and adrenaline.

BEV: And anxiety.

AMY: And anxiety, right, even though you're marveling at it and it's going to be a fabulous experience to see the animal. It's just that it's a whole different set of circumstances, you know. Because you do have that vulnerability.

Amy and Bev could clearly distinguish and articulate the differences between a captive and wild encounter. In the following excerpt, they discussed their own difficulties in trying to duplicate a wild encounter in a captive setting.

(Excerpt 2-12, Interview #34, Amy and Bev. Lines 80-87)

BEV: But, you know, it's very different when you see them in the wild. It's really hard to duplicate when I get into a zoo setting again or the Discovery Center just because I feel safe here.

AMY: Well, you're not really encountering them either. You don't have the potential to encounter a wild animal here. You are behind a wall or wire or a pond and you know that that is going to be the case. And you have to make a pretty keen effort to change that. Where as in the wild, you know, that an encounter is possible and, that again, that animal is making some choices. These animals aren't really interested in people and they are pretty much ignoring us, where as a wild animal would look at you and be more wary of your presence.

Although both Amy and Bev visited zoos and other captive facilities, both sought out wild encounters with bears and other predators. Amy, in particular, perceived these encounters as valuable and well worth the wait as indicated in the excerpt below.

(Excerpt 2-13, Interview #34, Amy and Bev. Lines 135-138)

AMY: You know, I don't do a lot of hiking. Although I have been just dying to see a mountain lion. I'm from California. So I'm waiting for that experience

Visitors who recognized the wild experience as non-substitutable did so because of how different the captive encounter was compared to the wild encounter. In a wild
encounter, the animal was viewed as autonomous and in control of the situation. Also, there was a certain feeling of excitement and anxiety associated with the encounter. Visitors oftentimes felt vulnerable during the wild encounter as well.

In summary, visitors could be placed into a typology based on their reaction to the character of the GDC encounter. At the broadest level, the categories within the typology differed between a desire for a checklist encounter versus an interaction. Those individuals desiring an interaction either recognized the context in which the encounter took place or dismissed the context as irrelevant. Those who recognized the context either found the GDC encounter to be just as good as a wild encounter or non-substitutable.

Categorizing visitors in this way has several implications. Manfredo and Larson (1993), explore the usefulness of a visitor typology in wildlife viewing management. Typologies are useful to managers for selecting types of development, facilities, interpretation, and education which increases the probability that opportunities for specific experiences which the visitor is seeking is available. For example, while the checklist visitor is only interested in seeing the bear, it is questionable whether they will get involved with passive interpretation such as sign reading. Thus, more active types of interpretive presentations might be more appropriate such as naturalist talks or slide shows to encourage their participation in learning more about the bears. Knowing that many visitors have had wild bear encounters, the center can maintain a higher quality experience for those visitors by keeping the habitat and bears as natural and real as possible (Coe, 1985). In addition, for those visitors who hold the wild encounter in the
highest regard, learning opportunities can be offered at the center to increase their knowledge about habitat and other bear related issues.

Another use for a typology is to offer guidance in establishing cooperative strategies with land management agencies. By agreeing to the general type of wildlife viewing experience to be provided at a certain site, different agencies or organizations could develop common ground for management action (Manfredo & Larson, 1993). For example, if wildlife managers recognize that visitors are looking to meet certain criteria such as closeness, safety or a photo opportunity when seeking an encounter with a grizzly, they can better direct visitors to an appropriate viewing activity. For some people seeing a bear in captivity is acceptable. Therefore, wildlife managers could refer visitors to this alternative when appropriate, thus decreasing visitor-bear conflicts in areas such as Yellowstone National Park. By working with the GDC to help meet visitor needs which may or may not be met during a visit to surrounding managed lands, wildlife managers may be able to reduce bear-human conflicts and increase visitor satisfaction. In addition, by working with captive facilities to develop and execute interpretive programs, wildlife managers could ensure that visitors are taking away perceptions about bears that are consistent with their agency’s desired perception of wild bears.
3. Perceptions of Bears

As discussed in the literature review, individuals ascribe meaning to phenomena, objects, living things and places. Socially constructed meanings are influenced by many factors including but not limited to context, past experience and culture. During the interviews, visitors were encouraged to discuss their experiences with bears at zoos, the Grizzly Discovery Center, in the wild and in general. As a result, visitors expressed some of the meanings and perceptions they held about bears in these various contexts. A pattern emerged in the data indicating that visitor perceptions about bears vary greatly according to the various contexts in which they are viewed or considered. Specifically, visitors were found to perceive traditional zoo bears differently than they perceived Grizzly Discovery Center or wild bears. Additionally, when considering bears in an overall or general manner with no context associated, visitors expressed different perceptions as well.

Table 2 maps out the range of visitor perceptions regarding bears in three different contexts: traditional zoo, GDC and free-range. In addition, the range of perceptions visitors hold for bears in general (i.e. when they are not associated with a context) is also included in the table. Because not all visitors discussed their perceptions of bears in all four contexts and variation emerged across individuals within each context, the perceptions listed on the table represent the range of different perceptions dispersed throughout the sample.

**Traditional Zoo Context**

In describing their zoo experiences, most visitors referred to traditional zoos or those now considered "old zoos." The "old zoo" is characterized by Croke (1997) as
little more than a series of small enclosures which display pacing animals that are cut off from their place in the wild. The “old zoo” sharply contrasts the “new zoo” which is more naturalistic and features innovative programs in reproduction, enrichment, conservation and education. The range of visitor perceptions of bears in the “old zoo” or traditional zoo setting fell into three main areas: physical condition, psychological condition, and unnatural/not real.

Regarding the physical and psychological conditions of zoo bears, most visitors perceived the bears to be stressed or discontented in some way. For example, Hanna visited a zoo in Gatlinburg, Tennessee. She perceived the bears she saw there to be stressed and prisoner-like because they paced endlessly in a concrete enclosure. She also perceived them to be in poor health and mistreated because their fur was falling out and there was rotten food in their pen. Lastly, she perceived them to be human-like as she compared the bears to prisoners in solitary confinement or children in Russian orphanages. Thus, she anthropomorphized the bears as demonstrated in the excerpt below.

(Excerpt 3-1, Interview #14', Hannah and Frank, Lines 81-101)

INTERVIEWER: So you saw bears in captivity in Gatlinburg?
FRANK: Gatlinburg, Tennessee.
HANNA: It ought to be outlawed the way they have it done. These little black bears, I'm not so sure it wasn't just an old empty swimming pool that they had drained and put the bears in there. They threw them food and you'd see the rotten food laying on the bottom of food bowls. And the rest of the time the bears paced, they walked around and around and around. They just paced. And you could tell their fur was falling out in patches. It was pathetic! I mean, if we had more money, I would help get rid of these bears! It was horrible. I mean, literally, I think they would be better off dead. It was just awful. The whole place was awful... It's just like if you put a human being in solitary confinement, I mean, that's exactly what these bears were doing. They would walk for miles. The ones that weren't pacing were rocking. They were doing just like children in the cribs
in Russia. I mean I don't how the humane society hadn't gone in and gotten those bears.

While some visitors like Hannah had very strong feelings about their zoo experience, others like Pat, simply recognized that they preferred the Grizzly Discovery Center bears over zoo bears for one reason or another. Pat, for example, perceived zoo bears to be unnatural or not real because their behavior differed from that of natural bears. Therefore, she preferred to watch bears in settings like the Grizzly Discovery Center as demonstrated in the following response.

(Excerpt 3-2, Interview #24', Pat and Nick, Lines 112-118)

INTERVIEWER: So do you think spending time near these [GDC] bears has changed your ideas about bears at all?
PAT: Not what we've already known about them, no. I am just glad that I can see them this way rather than, like you say, in a zoo. I really am enjoying this encounter a lot more than just going to a zoo and saying "yeah, I saw a bear." You know, I think it's neat seeing them find their food and playing with each other. Usually, if you see a bear in a zoo, it's only one or two in a cage and I don't think you're really seeing the real bear. Not that they will ever be tame but they're just not doing natural whatever.

In her observations about Sea World, May discussed an example of the unnatural, tame behavior Pat alluded to when she described polar bears playing with a ball.

(Excerpt 3-3, Interview #20, Ken and May, Lines 78-79)

MAY: I went to Sea World and they have a zoo there and they have polar bears there. And you know, they play and they frolic and they give them a ball and they love to play and throw the ball and toss it back and forth.

Pat believed that seeing bears exhibiting this type of behavior in a zoo made them less "real."

Donna also expressed more positive impressions of the Grizzly Discovery Center bears when compared to zoo bears. For her, zoo bears were perceived to be unhappy and
apathetic in their captive situation. On the other hand, she perceived Grizzly Discovery Center bears to be happy and well-groomed.

(Excerpt 3-4, Interview #8, Donna, Lines 101-102, 139-142)

DONNA: You know, a lot of times if you see animals in captivity and they haven't cleaned themselves, you can pretty much guess that they're, psychologically, they are very unhappy with being where they are at. But, these bears, their coats are always clean so you know that they are happy (Lines 101-102). I remember when I was a kid, the Toledo Zoo was horrid. Oh it was awful. They were on concrete. They were very unhappy (Lines 139-142).

In discussing bears in a captive setting, other visitors also commented on the bears’ physical appearance which seemed to influence their perceptions of the animals greatly.

Don, who tried to see bears in zoos whenever possible, also cued in on the bear’s physical traits to help develop his perceptions of the bear. He perceived the bears at GDC to be “well-kept” as opposed to some zoo bears that he saw. Below he describes some of the visual cues which shaped his perceptions that the zoo bears were in poor health or mistreated in some way. In addition, Don felt the GDC bears were progressing or developing in a positive way in between his visits.

Excerpt 3-5, Interview #9, Don, Lines 96-107

INTERVIEWER: What do you think about the bears here [at GDC]? DON: They seem to be well-kept. You know, I have been to zoos where bears don't look good at all. You know, they are definitely very well taken care of here. They all seem to be progressing. Every time we come here, you know they seem to have progressed quite a bit between times that we come here. They seem to be very good and very well.
INTERVIEWER: What are there some signs that you look for to see if an animal is well taken care of? DON: Their coats, depending on the age of the bear obviously, how big their stomach is, how long they've been here. Some bears in some zoos, because of their enclosure, for some reason, they're not getting fed properly. Their growth is stunted. The claws...sometimes if they are kept in a bad enclosure, they tear their paws trying to get through cement or metal or other things of that nature.
In addition to physical appearance, visitors also noticed the behavior of the bears which seemed to influence their overall perceptions of the animal. By watching the bears' behavior, visitors developed perceptions that zoo bears are inactive, lazy and bored compared to those bears at the Grizzly Discovery Center. Aidan and Bryce, who preferred the GDC bears over zoo bears, perceived zoo bears to be lazy.

(Excerpt 3-6, Interview #3', Aidan and Bryce, Lines 120-129)

INTERVIEWER: Have you ever seen bears in Yellowstone or at a zoo?
AIDAN: Yeah.
BRYCE: Yeah, I’ve seen them at the zoo in town, in Pocatello. But they aren't, they're definitely different than here.
AIDAN: Right.
BRYCE: Yeah they are. They kinda just sit around and...
AIDAN: They're lazy.
BRYCE: Yeah, they are lazy. Yeah, these ones seem really active to me.

Quinton and Paul perceived zoo bears to be bored and inactive based on their behavior. This contrasted with their perceptions of Grizzly Discovery Center bears which they viewed as stimulated. They attributed these differences in the bears to the different environments they lived in. They considered the zoo environment to be stagnant and non-stimulating as opposed to the Grizzly Discovery Center environment which they saw as dynamic. This dynamic environment seemed to be more pleasing for the visitor and the bear.

(Excerpt 3-7, Interview #25, Paul and Quinton, Lines 25-31)

PAUL: This facility [GDC] looks like it spends a lot of time to make excitement for the bears rather than just a pen where they don't have anything to do. And it looks like it has changed from the last time we were here. It looks like they are constantly trying to make it different and appealing to the bears.
QUINTON: I like the way they rotate the bears [at GDC] cause in a zoo, you pretty much can go there every day... and you see the same bears out there all day long, in the pen sitting there doing the same thing. So they seem to be changing the activities a little bit.
INTERVIEWER: So you like more of a variety?
QUINTON: Yes. Well, look at them out there playing. You go to a zoo, you don't see them playing as often. They're just sitting there.

To summarize the range of perceptions regarding bears viewed in zoo settings, visitors perceived zoo bears to be in poor psychological condition because they were stressed, unhappy, bored and acting like prisoners. These perceptions were developed from behavioral cues. In addition, visitors perceived zoo bears to be in poor physical condition because they were in poor health and mistreated by the zoo in some way. These perceptions were developed from visual cues such as the bear's appearance and the appearance of the enclosure. Lastly, visitors perceived zoo bears to be unnatural or not real as they were inactive and displayed unnatural behavior such as playing with balls.

While the excerpts above included generally negative comments regarding zoos, some interviews contained more positive comments and perceptions of zoos and zoo bears. However, these comments were less frequent. Some visitors perceived zoos and the animals there to be pleasant in recalling their visits to zoos as children or more recent trips to "new zoos." Some visitors simply did not associate any negative perceptions with their zoo visit or the animals there. Lastly, other visitors such as May (Excerpt 3-3) simply made observations about zoo animals and these comments were more neutral, neither negative or positive in nature.

**Grizzly Discovery Center Context**

In exploring the range of perceptions regarding Grizzly Discovery Center bears, an interesting pattern emerged. Especially in regards to physical and psychological condition as well as the naturalness or realness of the bears, many of the perceptions between the traditional zoo and GDC settings were mirror opposites, as some of the excerpts in the preceding section (Excerpts 3-1, 3-6, 3-7) have already indicated. For
example, while zoo bears were seen as unhealthy, sickly in appearance and mistreated, GDC bears were viewed as healthy, beautiful and well cared for. These parallel but opposing perceptions will be explored in further detail below. In addition to these mirror opposite perceptions, a variety of other perceptions were also noted and will be further explored as well.

Many visitors shared their thoughts regarding zoo versus GDC bears by presenting narratives which compared and contrasted the bears in the two different settings. Oftentimes, as mentioned above, the perceptions of bears were opposites (Table 2). For example, while zoo bears were considered stressed, unhappy and not natural by some visitors, GDC bears were perceived to be comfortable and content with their situation which includes a more natural setting. Paul expressed these opposing perceptions in the following response. (Italicized phrases will be discussed in the results section exploring perceptions in free-range context).

(Excerpt 3-8, Interview #25, Paul and Quinton, Lines 32-39)

INTERVIEWER: How would you describe these bears that you've witnessed here? ...
PAUL: Probably content and relaxed as far as... A lot of times, especially in zoos, you see them pace back and forth using the same trail and these guys don't seem to be, probably, aware of what their situation is. They probably look, to me, that they are more content with life and as close as to being in the realistic setting that they could be, considering what their alternative would be for these guys. I probably would say the fulfilling part of this is the fact that they seem to be so content. And it is more realistic, about as realistic as we can get without actually seeing them out in the wild. This is just much more appealing as far as feeling good about seeing them in this way.

Additional opposite perceptions occurred regarding the health of the bears as well as their level of stimulation. In describing GDC bears, Brad shared his perceptions that
they looked healthy as opposed to “mangy” Florida zoo bears. He also perceived GDC bears to be stimulated (as opposed to bored) as well as happy and playful.

(Excerpt 3-9, Interview #35, Dee and Brad, Lines 73-87)

INTERVIEWER: How would you describe these [GDC] bears?
BRAD: They look healthy. That's for sure. They look happy and playful.
INTERVIEWER: How can you tell they're healthy?
BRAD: Well, their appearance. You know, their bodies look good and solid. Like I said, I've seen some bears that looked pretty mangy down in Florida or some of these zoos, their coats don't look good. You know, they just don't look healthy. They look gaunt, lethargic and even the expressions on their faces, they look stressed. Their ears are back. Their eyes are like, you know, really they give the appearance that they're caged prisoners, you know. You know, [these GDC bears] look healthy. They react to stimulus. They react to the birds and the sounds and they're playing and they're just being bears, I guess. To me, they look healthy...

Vic had similar perceptions of GDC bears and also perceived them to be well cared for.

(Excerpt 3-10, Interview #32', Wanda and Vic, Lines 37-39)

VIC: I would think that it appears to me that the animals are in good flesh and they're well taken care of and seem content here. I've been around animals most of my life and I can tell by looking at the animals that these seem pretty content. They're in good health.

While some visitors such as Brad and Hannah (Excerpts 3-1, 3-9) perceived zoo bears to be prisoner-like in their situations, GDC bears were perceived by them and other respondents as “saved” or lucky to be in their current circumstances. Una considered GDC bears to be lucky, carefree and playful in light of their alternative future, or lack there-of, in a wild setting.

(Excerpt 3-11, Interview #29', Una, Lines 88-92)

INTERVIEWER: How would you describe these bears that you've seen here at the Center?
UNA: They are playful, the ones that I've seen. They're always playful and glad to get outside and the way they rotate them around and let them get outside more than once a day. I think they are lucky to be here really because the future of the
ones that are here, there was no future. But, this way, they are carefree and providing a lot of entertainment for other people.

Mirror opposite perceptions also emerged when visitors perceived the GDC bears to be active and powerful as opposed to inactive or docile like zoo bears. In discussing his GDC visit, Frank perceived the bears to be powerful like a "closed spring" as well as beautiful.

(Excerpt 3-12, Interview #14, Frank and Hannah, Lines 182-186, 307-314)

INTERVIEWER: What have you guys gained personally from your visit here [to GDC]?
FRANK: I think they are beautiful animals. I mean I really think there is something majestic about [the bears], especially the size of them and their power. I mean, you can look at them and it's like looking at a closed spring.

In addition to perceptions that were mirror opposites associated with zoo bears, a broader range of constructions of Grizzly Discovery Center bears was expressed. These additional constructions showed considerable variation among visitors as they individually created their own unique perceptions of the bears. Oftentimes, these perceptions were diverging from the types of perceptions otherwise mentioned; the constructions under the diverging perceptions category could not be organized under the other three parallel categories used to compare and contrast zoo and GDC bears. For example, Frank perceived the GDC bears to be wild as demonstrated in the excerpt below.

(Excerpt 3-13, Interview #14, Frank and Hannah, Lines 307-314)

FRANK: You know, in circus tents they push balls around, and here they’re pushing pumpkins around. So just the fascination of seeing a wild animal. You know, they are still wild even though they are in a cage. Still, they're not domesticated like a dog or cat. It's fascinating. Like right now, they are still playing with that pumpkin. Beautiful.
In further exploring the competing perceptions listed on the table, while some visitors perceived the GDC bears to be wild, others visitors perceived them as tame or domesticated. For example, while Ike watched the bears wrestle and interact, he commented that the bears are domesticated.

(Excerpt 3-14, Interview #18, Ike, Lines 31-33)

IKE: Hey, that's great! I think it is great to see them fight and in a situation like this [GDC] where they are more or less domesticated. They are especially interesting because they aren't just hiding out.

Still other visitors considered the GDC bears to be representative of the wild, not wild in and of themselves. In commenting on how her zoo experience differed from her experience at GDC, Gwen stated that GDC bears and setting were more representative of wild bears and the wilderness.

(Excerpt 3-15, Interview #13, Gwen, Lines 7-11)

INTERVIEWER: How is the zoo different from here [GDC]?
GWEN: I think that for one thing the difference in the bears. You are looking at the grizzlies that are here and you know that those are impossible to see under normal circumstances. And they are so much more representative of the wild that used to be and that is fast disappearing. And I think that this enclosure and the environment around here is less cultivated than most zoos are so it is a more outdoor natural experience.

Alternatively, other visitors perceived the GDC bears to be cute and cuddly, much like popular teddy bear toys. Amy shared several perceptions regarding the GDC bears; she kept coming back to the idea that they were cute.

(Excerpt 3-16, Interview #34', Amy and Bev, Lines 109-116)

INTERVIEWER: How would you describe the bears that you've seen here?
AMY: Cute. Yeah, they look great. They look like they are happy and they're healthy. Not overfed. Quite content. It's cute watching them forage and they are just cute, what can I say? You know, it's that classic that you want to go in and stroke them on the belly but you know you can't.
On the other hand, some visitors such as Ellen perceived the bears to be ominous or "scary-looking" creatures who also have "warm personalities."

(Excerpt 3-17, Interview #10, Ellen, Lines 24-30)

INTERVIEWER: So how do you describe these bears? You mentioned their action.
ELLEN: They are phenomenal! Just the size and the girth and it's like kind of unbelievable mass of beast. They are beautiful. They are eerie. They are scary-looking but yet they have just warm personalities and they're all unique.

In addition to perceiving the GDC bears as big, beautiful and scary, Ellen also perceived them as unique, distinguishable individuals. Perhaps due to the public naming of the bears and the placement of signs near the habitat which tell each bear's biography, visitors perceived the bears to be separate individuals with different personalities. Ron perceived the bears to be individuals in his response below and also anthropomorphized the bears by comparing them to people in bars or buildings.

(Excerpt 3-18, Interview #27, Tara and Ron, Lines 122-130)

INTERVIEWER: How would you describe these bears here?
RON: It's like you walk into any building or in a bar, there's like different personalities and different looks. They're all just individuals. Very individual. When you think of the bears and the wolves, you have one image of it and that's not the case. They're all different. They're awesome. They're majestic. They're awesome.

Like Ron, other visitors anthropomorphized the GDC bears by projecting human characteristics on them; 43% of the interviews included anthropomorphic statements. For example, Bryce and Aidan said the bears were human-like and described behaviors of the GDC bears which they considered to be human-like.

(Excerpt 3-19, Interview #3, Aidan and Bryce, Lines 261-270)

BRYCE: ... just being mammals and stuff like that, it's kind of neat to see their behaviors and relate it to human behavior, I guess. They're human-like.
INTERVIEWER: So what kind of human-like things did you see them do today?
BRYCE: Oh, the two little ones were playing around just like two brothers would do or something like that. I guess...
AIDAN: Sitting down. They just sit down and eat like a normal person would and different things like that. You know, they have thought patterns, I guess. You know, they're not just roamin' around, you know.

Fran also anthropomorphized the GDC bears as she likened them to her own kids as they wrestled.

(Excerpt 3-20, Interview #11, Fran, Lines 51-57)

FRAN: Funny, I mean, you just sit and watch them and you just laugh. They are like a bunch of kids. They're like a bunch of... those would be like my two boys wrestling.
INTERVIEWER: What makes them kid-like?
FRAN: They just seem to be very playful, they don't have much cares. They are just very child-like. You know, you could almost forget that these are wild animals and that they could really do some damage.

While some visitors were reminded of people by the GDC bears, others were reminded of pets as well. Ellen was reminded of children playing and also of her pet cats while watching the GDC bears.

(Excerpt 3-21, Interview #10', Ellen, Lines 18-23)

INTERVIEWER: So what do you like about [the GDC bears]?
ELLEN: Oh, their facials and just their little antics and when you watch them like that and goofing around. They remind me of my cats because I have four cats and they are always just kind of picking fights and it is just amazing. It is very heartwarming so to speak. I mean you can just relate to that, you know? In the play yard, you know, they are just little kids playing.

In summary, several patterns emerged while exploring the range of perceptions regarding bears in the Grizzly Discovery Center context. First, perceptions regarding the bears' physical and psychological conditions as well as their naturalness or realness were nearly mirror opposites of the perceptions in those categories regarding zoo bears. In addition, opposite patterns and contradictory perceptions emerged within the range of Grizzly Discovery Center bear perceptions. For example, some visitors thought the bears
were wild while others thought they were tame or domesticated. Additionally, some visitors found the bears to be cute and cuddly while others found them to be scary. Lastly, visitors were inclined to anthropomorphize the Grizzly Discovery Center bears as they ascribed human traits such as personality to them as well as compared them to their own family members or children.

There are several implications regarding the patterns which emerged regarding visitor perceptions of GDC and zoo bears. First, past work has been done regarding the role that setting plays in determining visitor perceptions of animals (Finlay et al., 1988). However, in examining visitor perceptions regarding GDC versus zoo bears, the data suggest that the observable physical characteristics and behavior of the bears also play a pivotal role in shaping visitors’ perceptions and knowledge construction regarding the bears. For example, in Excerpts 3-1, 3-4 and 3-5, visitors mention physical traits of bears which influence their perceptions of the animals such as condition of coat and size of their stomach. In Excerpts 3-2, 3-6, 3-12 and 3-14, visitors discuss the bears’ behavior such as playing or sitting around which aids in their construction of knowledge and perceptions about the bears.

These findings may have implications for future research regarding visitor perceptions of animals in a captive setting. Finaly et al. (1988) asked visitors to rate slides of captive animals shown in different settings to define their perceptions of the animals. However, this methodology may not evoke a valid perception of the animal in the slide as the visitor must rely solely on static, two-dimensional cues. The slides may not allow visitors to make detailed observations about the appearance of the bears as discussed above. In addition, visitors cannot make observations about animal behavior.
when viewing slides as opposed to viewing a live animal. As physical traits and behavior were identified as factors which shaped Grizzly Discovery Center visitor's perceptions of bears, more research is needed to determine the ecological validity of the slide methodology to gauge visitor perceptions.

In addition, although visitors at GDC viewed bears in the same setting, variation was noted as diverging perceptions emerged. Visitors perceived the bears in very different ways from tame versus wild to cute versus scary. Some of this variation may be due to the time of day of the visit as the bears vary in their activity levels and different bears are on display throughout the day. A visitor who observed the youngest bears, Kobuk and Nakina, might perceive GDC bears as cute, while visitors who observed the larger adult bears may perceive them as scary. Lastly, the background and prior knowledge of the visitor which shapes their frame of reference regarding bears may also account for some of the variation. A visitor from an urban, east coast city may perceive the bears differently than a visitor who grew up in grizzly country.

Lastly, in the two captive contexts of the Grizzly Discovery Center and the zoo, visitors related to the bears on an individual level by recognizing the uniqueness, personalities, moods of the bears (Excerpts 3-1, 3-4, 3-18, 3-21). Constructions of these bears as individuals were based in part on their psychological state, physical appearance, behavior and captive status as a "saved" animal or "prisoner." The naming of the bears at the GDC also seemed to play a role in visitors relating to the bears on an individual basis. As staff and signs at the center referred to the bears by name and told stories about each bear, visitors were able to create a social biography for each bear. This biography allowed them to relate to the animals on a more personal level (Phillips, 1994).
In addition, as visitors perceived the bears as sentient beings capable of feeling and perceiving, they related to the bears as “windows of life,” (Rolston, 1987). Viewing the bears as kindred beings, visitors anthropomorphized the bears and related to them like people. For instance, comments about the bears stated they were like kids, human-like, or wrestling like brothers. This identification with humans allowed visitors to relate to the animals on an individual, personal basis.

As visitors relate to the bears on a more personal level, the compatibility of this relationship with the overall goals of the captive facility must be examined. While visitors develop a connection with the bears on an individual basis through their anthropomorphic relationship with the animals, this connection may not be consistent with the conservation education goals of the facility. As the visitor places emphasis on the individual animal, he or she may not view the animal as part of a species which is threatened or endangered. In this individualism, the visitor may lose sight of speciesism and the larger conservation picture (Coe, 1985; Hammit et al., 1997; Rolston, 1992). This creates a challenge for conservation educators. While encouraging people to relate to the animals and become engaged in the experience, it is also crucial that visitors do not become so immersed in the individuals on display that they neglect to consider the conservation of the individual’s species as a whole. Speciesism should therefore be aggressively promoted and reinforced through interpretive materials and programs.

**Free-Range Context**

The term free-range is used to refer to a context in which the bear is not confined in any way. The term “wild” was not used to describe this context because of the relativity of the term (Dizard, 1993) and the fact that unconfined bears were at times
constructed by respondents as something other than wild, as illustrated in subsequent excerpts. Free-range contexts might include national parks, national forests or other natural areas where bears might be encountered. When considering free-range bears, visitors either spoke from their own experience, spoke hypothetically or spoke of others' stories and experiences regarding bears. Meanings associated with bears in the free-range context reflected a departure from the range of meanings described in the zoo and GDC contexts. Empirical evidence for, and further discussion of, these perceptions of bears in a free-range context follows.

Overall, the range of perceptions in the free-range context was organized into two main categories (Table 2). The first category deals with people's perceptions of bears as foreign or alien "others." GDC visitors perceived free-range bears to be autonomous and in control as well as a presence. In addition, visitors perceived bears as wild and elusive. The second category deals with people's perceptions of free-range bears as pests. Specifically, visitors perceived free-range bears as bandits or nuisance animals. Bears as others will be discussed first, followed by an example of why "wild" was not used to describe this context and a discussion of bears as pests.

The first theme, bears as others, will begin with perceptions of those visitors who have actually viewed bears in the wild. In sharing her perceptions of bears, Amy related an encounter with a bear while backpacking. Amy viewed the bear as a wild animal who tolerated her presence in his environment. By stating that she wore bear bells during the hike and was glad that the bear went in the opposite direction, she constructed the bear as in control of the situation and potentially dangerous. In describing the experience as one of being in "bear country" "with wild animals," "experiencing each other's presence,"
Amy portrayed the bear as something foreign. This portrayal suggests a more “psychologically distant” type of interaction than the descriptions of experiences of interactions in a captive context.

(Excerpt 3-22, Interview #34', Amy and Bev, Lines 45-63)

INTERVIEWER: What was your wild encounter like?
AMY: It was really interesting. We were with a group of people hiking through Denali and we of course had bear bells and we were talking a lot because we knew we were hiking through bear country. And the bear must have heard us coming and he went down into the river creek that we had just climbed up through, to get away from us. But, that's true, we were making way too much noise for him to tolerate our presence there. But it was really nice to see him and know that he was right where we were headed and it was just very exciting. But he was headed in the opposite direction which was the right direction. Perfect bear encounter... But it was really fun hiking around and seeing these huge gigantic bear tracks and knowing that you're out with these wild animals and you're safely experiencing each other's presence.

Jay also had significant experiences with bears in a free-range context as a hunter. He perceived bears to be autonomous others which were independent of humans as they “did their own thing” if left alone. He also perceived the bear to be dangerous and a cause for worry in certain situations such as encountering a mother with cubs. (Italicized text will be discussed later in this section).

(Excerpt 3-23, Interview #19', Lynn and Jay, Lines 64-78)

INTERVIEWER: Have you ever seen [bears] in the wild?
JAY: I have seen them in the wild. I do a lot of hunting and while I don't go out and shoot bears, I do see a lot of those animals.
INTERVIEWER: So what are the wild encounters like?
JAY: I'll tell you what, you leave them alone and they will leave you alone. You just let them do their thing and, you know, keep your distance and they're fine. Most of the time, if the bear does see you, the bear will go the opposite direction. I have never had an encounter with a bear. I've seen a lot of them out in the wild but they are doing their own thing, you know. I know if I bumped into a couple of cubs in the spring, things are gonna be a lot different. I haven't had that. I don't want that either. I think that is the only time you really have to worry about it.
Visitors who described second-hand encounters with bears also perceived them as others. Olive's perceptions of bears were expressed in a story she related about her husband. She also perceived the bear to be autonomous as he was "on his way someplace" and not distracted despite the human presence. Olive also viewed the bear as dangerous as she said her husband realized it could have been dangerous trying to take a picture of the animal. (Italicized text will be discussed later in this section).

(Excerpt 3-24, Interview #23, Olive, Lines 58-64)

INTERVIEWER: Have you ever seen a bear in the wild?
Olive: No, my husband has though and it happened just this fall and totally unexpected. The people that he was with, they said it was very unusual to see one where they saw it. He said he was walking and just happened to look up and, fortunately, he didn't panic or anything. He started making noise and the bear just kind of looked at him but, and it was a grizzly. He walked off and he said it was the bear was on his way some place else so he wasn't distracted by anybody. He did manage to get a picture of it but, yeah, he was like "Oh, that could have been kind of dangerous."

Carol is another visitor who had not personally seen a free-range bear, but also constructed the bear as an "other" in a second-hand story. As she related her story, Carol viewed the "wilds" and the bears within to be foreign or alien to her. She expressed fear at the thought of hiking in bear country where the bear was in control of the situation and people had to wait for the bear to retreat until they could run away.

(Excerpt 3-25, Interview #7, Carol, Lines 82-88)

CAROL: I just actually, sitting last night I was having a drink at the Old Faithful Inn, and there was a girl sitting across from me. It turned out that she is like a news anchor, I don't know, in Oklahoma, you know. But she was with two girlfriends. They were walking around Jenny Lake in Grand Tetons and she said she was leading and she showed us like maybe from here to the end of the fence, a mother brown bear with two cubs came toward her. So she said, they just kind of like all backed up down the path and then like when they were far enough away, they ran, you know. I was like, I wouldn't go hiking in the wilds by myself. I would be too afraid.
Other visitors did not tell stories about second hand encounters, but expressed that they had never had a free-range encounter yet sought one out. Brad has sought out bears in Yellowstone National Park on several occasions. However, he was unsuccessful in sighting a bear on these occasions and thus perceived free-range bears to be elusive others. He would consider himself lucky if he ever had the opportunity to see one.

(Excerpt 3-26, Interview #35', Brad, Lines 88-94)

INTERVIEWER: Have you ever seen a bear in the wild?
BRAD: No, I've never seen a bear in the wild. That's one of the things I was disappointed about when we made our trips up here, three times in the park, actually four times in the park, a couple times. We've never seen a bear in the wild. So, you know, that's unfortunate but, you know, maybe one of these days we will be lucky enough to come across one or see one.

While some visitors constructed free-range bears as others – non-human and dangerous, other visitors constructed them as pests. Ike's perceptions of bears as pests illustrates why the term "free-range" was used to describe this unconfined context. "Wild" would not be an appropriate term for the front country context in which Ike described his encounter with a free-range bear.

(Excerpt 3-27, Interview #18', Ike, Lines 15-20)

IKE: And, as a child, I made the trip to West Yellowstone fishing about five or six times from the time I was about 9 until I was 15 or so.
INTERVIEWER: Is that where you had the experience with the bears walking on car windows and things?
IKE: Well, they actually pushed on the car. They would jump on the car. They would jump up if you didn't see them. They'd shake your car and if you threw something out, then they would get down on the ground and eat it (Lines 15-20).

As a result of these and other experiences with bears, Ike constructed bears as bandits calling them the "thieves of the world." As a child, Ike saw these bandits as some sort of opponent or challenge saying that they would "come up against them."

Ike's perception of the bear as a bandit is demonstrated in the excerpt below.
IKE: But they're kind of the thieves of the world, the bandits. There are a thousand different species of black bears in the world. Did you know that?
INTERVIEWER: No. Wow.
IKE: So you can spend your whole life studying black bears, the original thief (Lines 163-167). ... what we had, as children, is that experience of actually coming up against the bears in a live situation. We actually had them around and they were in the camp and occasionally you would hear of someone being injured by them (Lines 207-208).

Una also constructs free-range bears as pests and considers them to be a nuisance in camping situations. She was actually chased by a black bear that tried to take food from her campsite. She perceived the bears a nuisance as they tried to get into the coolers and take food. However, Una and her companions wouldn’t give their food to the bears.

UNA: Oh yeah, we had black bears chase us. ... we were camping several years ago when they used to come into the campgrounds more frequently than they do now.
INTERVIEW: In Yellowstone?
UNA: No, this was in the Smokies and they will come in and open the coolers. And we just cooked our spaghetti supper and they tried to get our stuff and we wouldn’t give it to them. Oh, but they don't have many come into the campgrounds in the Smokies anymore because they protect the bears, just like here. Try to keep them away from the containers and food.

Donna also experienced an encounter with a bear in a campground and perceived the animal as a nuisance. She said that the work crews there were getting disgusted with the bear because he was making himself at home in their tents.

DONNA: We did see a bear when we were in Yosemite, one year, a couple years back, and he was walking through the campground. And he apparently had been there for several days because the work crews there were getting a little bit disgusted with him because he was invading their tents and knocking things over. He was making himself at home.
In summary, visitors constructed free-range bears as others or as nuisance animals. This range of perceptions differs from the way in which visitors perceived bears in captive contexts. This variation in constructions may be due to differences in the way visitors relate to the bears. As previously discussed, visitors related to bears in captive facilities on an individual, personal level similar to the way in which they would relate to other humans with personalities. However, in a free-range context, respondents’ comments suggest that they perceive the bears to be foreign or alien “others,” something less akin to the human race. Perceiving free-range bears as “others” greatly affects constructions of these bears when compared to captive bears.

Visitor perceptions in the free-range context differed from those in captive contexts as visitors perceived bears to be an “other” or something different from themselves. While this “otherness” was not always explicitly stated by the visitor, this sense of otherness was apparent when people were discussing their encounters with free-range bears. Sometimes this sense of otherness could be found in the visitor’s choice of words such as Amy’s use of “bear country” to describe the bear’s habitat.

The language visitors used to refer to the bears also differed between the captive and free-range context in many instances. For example, Paul referred to the bears as “these guys” in Excerpt 3-8. This choice of words demonstrates a more familiar relationship with the bear. However, in Excerpt 3-24, Olive repeatedly referred to the bear as “it” which implied an impersonal, distanced relationship with the bear. Jay (Excerpt 3-23) spoke of “the bear” repeatedly and seeing “them” out in the wild. By referring to the animal in this way, Jay also speaks of the bear as an other. However, this use of language was not consistent across all interviews.
This sense of "otherness" which emerged from visitors perceptions of free-range bears provides empirical evidence of concepts presented Rolston's (1987) philosophical discussion of sentience. While Rolston states that humans can relate to wildlife as kindred beings which serve as windows of life, he also recognizes that humans view animals as others. Rolston states "... humans can only imagine what it must be like to be a duck, a chipmunk, an elk, a plover. There is an alien subjectivity that stands against human subjectivity, mysterious others with differences both of degree and kind." This perception of animals as "others" emerged in the interviews regarding visitor perceptions of free-range bears, while in captive contexts bears were constructed as human-like. Thus, this study not only provides empirical evidence supporting Rolston's philosophical discussions of human's interactions with animals, it also offers insights into the role of the context in influencing the nature of interactions and constructions of animals.

In General

Thus far, visitor perceptions of specific bears (actual individuals or specimens) in various contexts have been discussed. However, throughout the interviews, visitors also discussed bears in a more abstract sense. In these discussions, visitors commented on such things as the bear's place and status in the world, conservation of the bear, and personal meanings and values they hold for the bear. These discussions of bears in the absence of a context allowed visitors to express more conceptual notions of the bear.

These perceptions of bears in the abstract were organized into two main categories. The first category includes constructions that are related to the notion that bears are symbolic of ideas broader than characteristics of a specific individual. Visitors perceived bears to symbolize things such as nature, humility, spirit/culture and the
conflict between humans and wildlife. The second category includes perceptions of bears as a special creature. In this category, visitors perceived bears to be wild, worthy of respect and rare. Some visitors perceived bears to be their most favorite animal.

Regarding perceptions of bears as a symbol of something greater than themselves, a variety of themes emerged. Some visitors perceived bears to be a symbol of nature. For example, Harry perceived the bear to be the “epitome of nature.”

(Excerpt 3-31. Interview #16, Harry, Lines 13-17)

HARRY: They're very special creatures. If I could come back as something else, it would probably be a bear. Not only the attraction of not having any natural enemies, well besides man, but at the same time just the way that they are very isolated creatures and they are in the woods and in the mountains. They are kind of like an epitome of nature, as far as the way they eat and survive and are one of the few in nature that have a pseudo-hibernation state. I am enamored by it, I guess.

Other visitors perceived the bear to be a symbol of humility. Ed shared a Native American legend regarding the bear and humility in the excerpt below.

(Excerpt 3-32. Interview #12, Ed, Lines 132-139)

INTERVIEWER: Do you consider bears to be special animals?
ED: Yeah. I guess I do. I think all animals are special but I think that bears are... I'm trying to think how to put it. I remember reading an old Indian legend one time. They were talking about grizzly bears and it said that a certain...tribe...saw grizzly bears as being put on this earth to keep men humble. And I think that is a good way to look at it.

Some visitors perceived the bear to be a symbol of spirit or culture. Ron perceived the bear as a symbol of power or re-birth to the Native American culture. He felt he could use this symbol in his city life.

(Excerpt 3-33, Interview #27, Tara and Ron. Lines 138-141)

RON: Well, [bears] represent, you know.... You can look at Indians, American Indians, and, you know, bears are held in high regard as a symbol of power and
maybe re-birth from hibernation, stuff like that. I don't know, it's a symbol that I can use in my city life, I guess.

Other visitors perceived the bear to be representative of the conflict between humans and wildlife. However, this symbolism was implied rather than directly stated unlike the symbols above. Visitors often discussed the bear in association with human-wildlife conflict issues which implied that they perceived the bear as representative of these conflicts. For example, Ellen discussed livestock predation by wolves and bears and perceived that this conflict was due to human fault.

(Excerpt 3-34, Interview #10, Ellen. Lines 75-78)

INTERVIEWER: So do you have a broader interest in bears outside of just this place?
ELLEN: Well, you know, locally we have the issue of the bears and the wolves coming into ranches and eating the livestock and stuff. And, so I mean I am always interested in how they solve those problems because I mean it is kind of our fault that we are so close to their habitat and that's offering food. And it is not really the animals' fault but the people's fault.

Hannah and Frank also perceived the bear to be representative of conflicts between humans and wildlife. Frank in particular believed that wildlife often lost in conflict situations with humans. In considering bear management at Glacier National Park, Hannah implied that these conflicts are representative of the bear's struggles with people.

(Excerpt 3-35, Interview #14. Frank and Hanna, Lines 18-24)

HANNA: I just think it is amazing you can look up in the hills and see bear, and antelope and everything else. Yeah, Montana's amazing.
FRANK: It's sad that they're being depleted the way they are, even with all the protection that they got. They're still, you know, when it comes to choice between humans and bears, the bears lose. They killed a half dozen at Glacier alone this summer. Of course, there were more attacks I think last summer than they had in the last ten years.
HANNA: I think that was because there were too many people.
In addition to perceiving bears as symbols, visitors also held meanings for bears which caused them to perceive these animals as special creatures. For example, Don regarded the bear as one of his favorite animals due to their majesty, power, playfulness and visible emotions. The bear, therefore, had special meaning in his life.

(Excerpt 3-36, Interview #9, Don, Lines 45-53)

INTERVIEWER: So do you have a broader interest in bears outside of the Grizzly Discovery Center here? DON: I think I do, yeah. The two animals that really attract me are bears and killer whales. They're probably my two favorite animals. SAK: What makes the bear one of your top two? DON: Just it's majestic being so to speak. It's powerful, it's playful and the emotions kicking in, you know, you can literally see the emotions that they go through. They are just so interesting to watch.

Adam and Cass also perceived the bear to be a special creature. In discussing the bear’s endangered status and limited opportunities to view bears, they perceived bears to be rare creatures.

(Excerpt 3-37, Interview #30, Adam and Cass, Lines 360-366)

INTERVIEWER: Would you say that bears are special? ADAM: Yeah, I would say they are cause they're so different to us because you can never see them. CASS: Yeah, they're special. Plus, they're endangered. The grizzly is on the threatened list. Yeah, I would definitely say they're special. I mean, we don't get to see them where we live so we think it's special to be able to see them. We just had the opportunity because, you never know, if we don't come back out here again, we may never see another bear ever as long as we live.

Brad also perceived the bear to be a special creature which is worthy of human's respect. His perceptions of the bear as a dangerous and large animal caused him to perceive bears as worthy of respect.

(Excerpt 3-38, Interview #35, Brad and Dee, Lines 174-183)

BRAD: So all of the creatures in the woods are special. So, in that respect, I respect them all. Well, bears, they are the largest one or one of the largest
mammals in the woods so you gotta respect them and they are special. Like I say, she said, they can be aggressive and they can be dangerous. It's not like a, you know, a lumbering move. You know, if you don't bother them, they won't bother you. Or white tailed deer, you know, they are a pretty common thing and they're not going to bother us. The bear can take your life if you're not careful. And you have to respect them. They are special.

Lastly, some visitors perceived the bear to be a wild animal which is special because it plays a unique part in the natural world. Donna credited her upbringing for her perceptions of the bear as a wild animal.

(Excerpt 3-39, Interview #8, Donna, Lines 146-157)

INTERVIEWER: Your experiences here at the Grizzly Discovery Center, have they changed your ideas about bears at all?
DONNA: No, no. I think I have always had a great respect for them and understand that they're wild. Yes, that was just the way we were taught and I think that is a lot of it. If you are raised that way, if you are raised to understand that wild animals are wild animals whether they are little squirrels or great big bears. They are wild animals.
INTERVIEWER: Would you say that bears are special animals?
DONNA: All animals are special. I can't say bears are special. All animals are special. They all are, even the nasty little gnats and mosquitoes, they are all special. They all have their part to play.

In conclusion, visitors expressed perceptions which were more abstract in nature when speaking about bears in a general sense or when not associated with a context. As there was not a specific animal or situation on which to base their observations, visitors spoke of larger concepts such as their meanings as special creatures or functions as symbols of greater ideas. These abstract perceptions of bears differ from the perceptions voiced by visitors when discussing bears within a context.
4. Ethical Discourse

Throughout the interviews, several different types of discourses emerged including emotional, cognitive, spiritual and ethical discourses. However, of these types of discourse, the most common or widespread was the ethical discourse; 80% of the interviews included dialogue of an ethical nature regarding animals. This ethical discourse was spontaneous in nature due to the fact that no questions in the interview were specifically aimed at eliciting visitor ethics regarding captive bears. However, many visitors made statements that revealed how captive animals fit into their personal moral framework.

In examining these ethical statements, analysis was limited to an idiographic level due to the complexity and personal nature of moral judgments. Below, the ethical dialogue about animals in captivity is analyzed for three different interviews. These three interviews do not demonstrate or exhaust all of the different types of ethical discourse emerging within the sample. The inclusion of this analysis is provided to offer some examples of ethical discourse in which GDC visitors engaged.

Interview #12 (Ed)

In discussing his zoo and GDC experiences viewing bears, Ed was bothered by the fact that the bears are in captivity. He realized that the captive environment was much smaller than the bear's natural range. Therefore, he said he feels bad for the bears because they were "confined too much." Ed had a problem with captivity for this reason and could not come up with a way to make it better for the bears. However, he tried to justify it to himself by recognizing that captive animals provided an opportunity for people to learn. Ed expressed these ideas in the excerpts below.
INTERVIEWER: So, the other bears that you have seen, even though they weren't grizzlies, in the zoo, how did that compare to this type setting?
ED: I don't know. I always feel bad for the bears because, you know, even though this is a big area and it is nicely set up, they're used to a range of thousands and tens of thousands of miles depending on the kind of area. And so, I always feel kind of bad for them in that, you know, they are confined too much. You know, for us, it seems like a large area but, to a bear, this is nothing.
INTERVIEWER: So, what would you do to make this better?
ED: I don't know that you could do anything to make it better. I think that it is important to have this area here though just because it is a good place where people can learn about the animals.

Ed perceived animals living in captivity as an ethical problem. In trying to make a moral judgment regarding the captivity of these animals, Ed appealed to several moral principles which appear on Gert's (1988) list. Ed said that the bears were "confined too much" which indicated that he believed captivity violated the 'Do not deprive of freedom' principle. In addition, Ed described psychologically disturbed bears which could indicate that he believed this disturbance is a violation of the 'Do not deprive of
pleasure’ principle. In trying to justify the violation of these moral principles to himself, Ed also attempted to identify a greater good that came out of this situation. He said that it is important for people to see the bears and learn about them, therefore the education of people would be the greater good.

However, Ed was unable to justify captivity to himself as he said he still feels bad for the bears. This is due to the fact that Ed was appealing to competing ethical theories to resolve his problem. In trying to identify a greater good and focusing on the end result, Ed appealed to a teleological Utilitarian theory. However, in appealing to his moral principle regarding freedom, Ed was operating under a deontological theory which stresses the intrinsic properties of actions. Because Ed was appealing to two competing theories, he was unable to make a definitive moral judgment regarding the captivity of the bears to resolve this ethical problem in his own mind.

Interview #22 (Nan and Matt)

Nan was immediately troubled by the captivity of the animals at the Center when she arrived for her visit as she stated in the excerpt below. She found the circumstances of the animals sad until she found out that the only other alternative for the animals placed at the center was euthanasia.

(Excerpt 4-3, Interview #22, Nan and Matt, Lines 8-26)

INTERVIEWER: So, what's your visit been like here at the Center? NANN: Coming through, we just sort of wandered in and really did very little inside. And then when we came out, I think we were probably both struck with the wolves thinking that it was so sad that they were kind of hanging out in the pen. That it wasn't that large and looked like maybe they ought to be up roaming around. They looked so lethargic over there. So, I actually found that pretty sad. I also found out from the volunteer here that, were they not here, they would have been euthanized. So, probably the alternative is being here. INTERVIEWER: What kind of reaction did you have when you saw the bears?
NAN: The same sort of thing as far as the bears are concerned. That they were in captivity and they are the kind of animal that probably ought to be roaming free. But then finding out that all of the bears that you have here have been orphaned and that it would be difficult to place them. So they are probably better off here.

INTERVIEWER: So if somebody asked you to describe the bears that you have seen here, what would you say about them?
NAN: Well, they look pretty content. That their every need is definitely taken care of. They are beautiful. They look a lot gentler than I imagine they really are if I encountered them outside their fences.

Nan’s use of the word “ought” in two different places indicates that the captivity of these animals posed an ethical dilemma for her. She was struggling between what was at the center and what she thought ought to be. She said the wolves were in a small pen and were not active. She thought they “ought to be up roaming around” instead of being lethargic. Perhaps, Nan believed that the wolves were being deprived of pleasure which caused them to be inactive. Regarding the bears, Nan said they “ought to be roaming free” indicating that she believed their captivity was in violation of the ‘do not deprive of freedom’ principle. However, for both the wolves and the bears, Nan also realized that their placement at the center was an alternative to death and that “they were probably better off” there. In her belief that the animals are better off in captivity rather than dead, Nan prioritized the ‘do not kill’ principle over the other violated principles which were mentioned earlier. In this way, Nan attempted to achieve ethical resolution for the problem of the GDC animals living in captivity.

When asked if she would change anything about the center, Nan responded in the following way.

(Excerpt 4-4, Interview #22, Nan and Matt, Lines 137-141)

INTERVIEWER: Is there anything that you might change or that you don’t like?
NAN: I’d like to see the habitat be a little bit larger if possible. It seems confined. I don’t know how it is for a bear. I don’t know what the pens look like
or whether it is a difficult pen for them to be inside, in the very small enclosure as long as they are.

In saying that she would make the habitat larger because it seemed confined, Nan indicated again that she believed the freedom principle was violated. Also, Nan expressed concern for the welfare of the bears as she worried about them having a difficult time in their pens inside. These comments concerning the animals' welfare and possible suffering indicated that Nan seemed to feel some duty to preserve the well-being of the animals. Whether she felt a direct or indirect duty to the animals is unknown.

Nan's ethical comments above may appear to contradict perceptions of GDC bears presented in earlier sections of the analysis (e.g. well cared for, happy, content). Such a contradiction would indicate selectivity in the use of the data. However, Nan’s ethical judgments of the captive situation were separate from her perceptions of the bears. When asked to describe the bears immediately after she engaged in the ethical dialogue, Nan offered perceptions of bears which were within the range of perceptions presented on Table 2 (See end of excerpt 4-3 above). This may indicate that some visitors were able to put aside ethical thought processes once adequate resolution was reached in order to free their minds and actively engage in the experience at hand. Nan's resolution may have been the prioritization of the 'do not kill' principle over 'do not deprive of freedom.'

**Interview #32 (Wanda and Vic)**

In commenting on her visit to the center, Wanda immediately said that she didn't like to see the animals in captivity. In making a normative statement that “it’s always better to see [animals] where they are supposed to be,” Wanda implied that she believed that it was wrong to deprive animals of freedom and take them out of their natural environment. Wanda's comments of this nature are included in the excerpt below.
INTERVIEWER: So how's your visit been? What's it been like inside the Center?
VIC: We were just in there briefly. Picked up our tickets and came right out here.
WANDA: I don't know. I think it's nice. Kind of small. *I like to see animals but I don't like to see them in captivity.* You know what I mean? Kind of sad. I always go to zoos, you know, and I feel the same way when I go to the zoo. *It's neat to see the animals but it's always better to see them where they are supposed to be.* That's kind of how I feel about it.

Wanda is bothered by seeing animals in captivity, however, it seems that she has come to some kind of ethical resolution regarding this issue due to the fact that she chose to come to the Grizzly Discovery Center and “always [goes] to zoos.”

In addition to sharing some of her ethics regarding animals in captivity, Wanda also shared parts of her ethical framework which governed the way she treated animals in general. Specifically, she said that she tried to avoid running over animals in the road in the excerpt below. This would imply that Wanda ascribed to the following moral principles: do not kill, do not cause pain, and do not disable.

INTERVIEWER: You said that you love animals. How do you pursue that interest in animals?
WANDA: Well, I have a pet. And, generally, I am pretty conscientious about, like I slow down if there is a squirrel in the road. I don't run them over. You know, that type of thing.

However, Wanda later contradicted herself on the ‘do not kill’ principle as she discussed her husband’s hunting of bears. She implied that hunting was not for her as her husband “got the whole hunting thing.” However, while she was opposed to running down an animal with a car, Wanda would not be opposed to having a bear rug “laid out on the floor.” Therefore, she herself ascribed to a ‘do not kill’ principle regarding
animals, but she did not impose that principle on her husband. Further, she did not oppose using material goods or products such as a bear rug which were obtained through violation of that principle. (Wanda also wore a fur coat during her interview). Wanda’s comments which demonstrate her contradictions regarding the ‘do not kill’ ethic are below.

(Excerpt 4-7, Interview #32, Wanda and Vic, Lines 134-144)

VIC: I'm a hunter and I like to hunt. I don't have any problem with shooting a bear.
I think that it is important to keep the balance of nature in check.
WANDA: He's got the whole hunting thing, I guess. Oh look, he went into his cage.
INTERVIEWER: If there was an open grizzly season, if there were in Washington. do you think you would participate?
VIC: Yeah.
WANDA: Yeah, he would.
VIC: Probably once, probably just one. You know, I'd get it and that would be it.
WANDA: I would like to have one of those laid out on the floor.

In later responses, Wanda directed her ethical dialogue back to captive animals by saying she wanted bigger pens for the animals. In other words, Wanda felt that the pens that were there were not as they ought to be. Her wish for larger pens could indicate that she was concerned for the welfare of the captive animals. In this case, Wanda may have felt a duty to preserve the bears' well-being just as she felt some duty to the squirrel in the road.

(Excerpt 4-8, Interview #32, Wanda and Vic, Lines 210-211)

INTERVIEWER: Is there anything about this place that you don't like or that you would like to see changed?
WANDA: Just more room for the animals, bigger pens I guess.

In summary, the analysis offered above demonstrates the emergence of an ethical discourse within the interviews. The emergence of this discourse is significant as it
reflects visitor sensitivity or consciousness regarding the welfare of animals. This sensitivity is consistent with recent trends as society is becoming more aware of and concerned with the treatment of animals. For example, in recent years, new uses for animals enabled by advances in technology such as industrialized agriculture and medical research have increasingly come under scrutiny for causing unnecessary suffering to animals (Rollin, 1999). This heightened sensitivity reflects the inclusion of animals in the moral community.

Managers of wildlife viewing facilities must be aware of this sensitivity as it may negatively affect the visitor experience. If the visitor is unable to resolve ethical issues regarding the way animals are kept or treated at the facility, they may be unable to engage fully in the viewing experience. The inability of visitors to engage in the experience would hinder the attainment of management goals including the provision of a quality visitor experience. In addition, lack of engagement would also hinder conservation education efforts as the ability of the visitor to engage in and enjoy the experience is essential to learning. Therefore, managers must be aware of the social ethic regarding animals and ensure that all practices at the facility are consistent with this ethic to avoid creating an ethical problem for visitors.

In the three interviews discussed above, the visitors were able to come to adequate resolution of their ethical dilemmas in order to stay engaged in the GDC experience. This may be due in part to the efforts of the GDC to provide visitors with information regarding the bears’ previous status (scheduled to be destroyed) and current educational role in conservation; visitors used this information in executing their ethical decision making process. However, while these visitors may have had ethical issues with
captivity before their visit, these issues were not pressing enough to cause them to rule out a visit to GDC. As all respondents in the study were able to engage in the experience and get past any ethical issues they might have had, it may be the case that people with very strong ethics against captivity self-selected and decided not to come to the Grizzly Discovery Center at all. Therefore, visitors whose ethics would prevent them from entering into a captive setting may not be represented in the sample.
CHAPTER FIVE: CONCLUSIONS

The concluding discussion will be organized into three sections. First, the research questions presented in Chapter One will be directly addressed. Second, implications for management will be discussed. Lastly, the need for future research will be explored.

Research Questions

The purpose of this study is to provide insights regarding how people interact with and relate to captive wildlife in naturalistic settings through examination of visitor dialogue. On a broad level, the study was successful in providing insights in these areas, particularly by increasing understanding about how people relate to bears in different contexts and what type of encounter they are seeking at the Grizzly Discovery Center. A discussion of insights the study provided regarding each research question follows.

1) What kind of thought processes does the bear viewing experience elicit (e.g. cognitive, emotional, moral, etc.)?

During analysis of the interviews, meaning units which represented different types of thought processes were coded including those of a cognitive, emotional, and ethical nature. The most common or widespread type of thought process that emerged was an ethical thought process. As discussed extensively in Chapter Four, a high percentage of the interviews (80%) contained some form of ethical discourse. Because of the complexity and personal nature of ethical discussion, the analysis of this ethical discourse was completed at an idiographic level. Three interviews were analyzed from an ethical standpoint to demonstrate the types of ethical discourse in which respondents engaged. A future paper using this data might include a full ethical analysis of all of the
interviews and a subsequent nomothetic analysis to examine patterns of ethical discourse which emerge within the sample.

Evidence of emotional thought processes also emerged from the interviews. Recall from the perceptions of bears analysis that visitors projected emotions onto the bears in the captive settings. Specifically, in Excerpt 3-4, Donna perceived zoo bears to be unhappy while she perceived GDC bears to be happy. Amy perceived GDC bears to be happy as well in Excerpt 3-16. Paul, in Excerpt 3-8 perceived the GDC bears as being in a state of contentment; Vic also found the bears to be content in Excerpt 3-10. Another way emotional thought processes emerged was in the emotions visitors described when talking about bears in a free-range context, or in general. For example, Carol, in Excerpt 3-25, expressed fear at the thought of encountering a bear, while Hannah felt amazement when she thought about the presence of bears in Montana (Excerpt 3-35). Lastly, Don attributed being able to see the emotions that bears go through as one of the reasons that the bear is his favorite animal (Excerpt 3-36).

Cognitive thought processes emerged from the sample as well, although this theme was not a focus of the analysis because it was not as prominent as the ethical discourse in the data. Although some interview questions were geared towards understanding how the Grizzly Discovery Center experience changed visitor’s ideas about bears, the nature of the responses to these questions was extremely varied ranging from “it didn’t” to statements of specific things visitors learned. Therefore, the theme lacked the same coherence which emerged in the ethical discussion and was not included in the thesis. Examples of specific things people said they learned included the role of habitat destruction in the decline of the grizzly, how to survive a bear attack or what bear
sign looks like. In addition, some visitors said they dispelled previously held myths during their visit by watching the animals in person. For example, some visitors said they realized that the bears were powerful animals, not docile teddy bears as they watched the bears move boulders and wrestle with each other. Other visitors said they learned that grizzlies weren't vicious killers as they watched them play in the enclosure with other bears and ravens. As some of the visitors talked about learning at the center, it was clear that they were experiencing cognitive activity as they absorbed and processed new information during their visit.

2) What is the visitor’s frame of reference regarding bears?

During the interviews, respondents mentioned various past experiences or other personal characteristics which formed the frame of reference from which they related to, thought about and interacted with bears. Past experience that shaped frame of reference included participation in various forms of media. Many visitors spoke of watching documentaries about bears on television. Specifically, the Discovery Channel, Animal Planet and National Geographic programs were mentioned as sources of ideas about bears. Visitors also spoke of bears that they saw in movies such as “The Bear” or the IMAX film, “Yellowstone.” Other respondents talked of reading about bears in newspapers, magazines or books.

Past experiences or encounters with bears also seemed to shape the visitor’s frame of reference. Respondents mentioned viewing bears in captive facilities such as zoos, or in free-range settings such as wilderness areas or national parks. A few visitors also mentioned viewing bears in the circus or other trained animal facilities. Other visitors mentioned seeing stuffed specimens at museums or other exhibits. These experiences
with bears served as a reference point from which to compare and contrast subsequent bear encounters as indicated in the perceptions of bears analysis where visitors oftentimes voiced their constructions of zoo bears within their constructions of GDC bears (Excerpts 3-5, 3-6, 3-7, 3-8).

The place of the respondent’s current residence also contributed to frame of reference. Visitors who were from areas outside of “grizzly country” had less experience with grizzlies and the issues surrounding these animals. Visitors from regional areas with resident grizzly populations nearby had more firsthand experience with bears in addition to more exposure to media coverage. This increased exposure may have influenced their knowledge and ideas about bears as well.

Other things visitors spoke of that helped form their frame of reference regarding bears were fairy tales, stories and toys. Some visitors mentioned hearing stories as children which made bears seem like ferocious man-eaters. Others mentioned reading fairy tales which included bears. Others referred to owning or collecting teddy bears which caused them to associate cute and cuddly qualities with bears. Some respondents talked about bear ‘rumors’ such as being able to outrun a bear downhill, or that bears are dumb and slow.

Membership, participation in or affiliation with various organizations also likely contributed to visitors’ frame of reference regarding bears. Some visitors were involved with wildlife advocacy organizations such as the World Wildlife Fund. Their ideas regarding wildlife seemed to be influenced by these organizations as sometimes they included organizational rhetoric in their dialogue. For instance, one man used the WWF slogan that “extinction is forever.” People who were involved in supporting or
volunteering with captive facilities also referred to their experiences there when talking about bears.

3) **How does the visitor’s frame of reference affect the dialogue about the experience?**

When the research was initiated, it was thought that frame of reference would be a primary influence in shaping visitor constructions regarding the experience and bears. However, during the analysis process, the context in which bears were viewed emerged as the predominant theme influencing visitor constructions. Therefore, the results section focused primarily on the role of context in shaping visitor constructions of bears, while the analysis of the frame of reference data was primarily aimed at providing a characterization of the sample. However, in the discussion regarding how context influenced visitor perceptions of bears, components of visitor frame of reference were evident especially in discussions of the different contexts in which visitors viewed bears. For example, those visitors who had past experience with food-stealing bears in campgrounds perceived bears as nuisance animals (Excerpts 3-29, 3-30).

In addition, the character of the encounter sought by visitors provided a frame of reference from which they judged the satisfactoriness of their GDC and other bear encounters (as demonstrated in the typology section). For example, for those visitors like Ann or Lou who sought to be close to the animal, the context of the encounter was irrelevant in how they determined the adequacy of their encounter. In addition, those visitors who believed a wild encounter was the ultimate way to interact with an animal found the GDC encounter to be non-substitutable for a wild encounter. Therefore, the kind of interaction that a visitor was seeking provided the basis from which to judge the GDC and other bear encounters.
4) What meanings does the visitor access regarding the experience and the bears?

The discussion of visitor perceptions of bears in various contexts and Table 2 dealt with this research question. Specifically, it was found that visitors accessed different meanings for bears depending on the context in which they were viewed. When viewing bears in the zoo or naturalistic setting like the Grizzly Discovery Center, visitors’ perceptions of bears were centered around similar clusters of attributes. However, while the clustering of the perceptions was fairly parallel between the two contexts as they centered around psychological condition, physical condition, and realness, the perceptions themselves were mirror opposites. Overall, zoo bears seemed to be perceived in a more negative manner while GDC bears were perceived in a more favorable manner.

In both of these captive contexts, visitors related to the bears on an individual, personal level. In the free-range context, perceptions indicated that the visitor related to the bear as an “other” rather than an individual with a personality. Therefore, a different set of meanings was accessed when considering free-range bears as opposed to captive bears. In addition, bears were often perceived as nuisance animals in the free-range context. Finally, in a general context, people related to bears as symbols of something outside themselves. In speaking about bears in general, people spoke in more abstract terms accessing broader or more global concepts. In symbolizing the bear, visitors ascribed to yet another set of meanings.

5) Does the visitor connect this bear viewing experience with the conservation of bears in the wild?

This question was not addressed directly during the analysis. However, during the coding process, dialogue regarding bear management, habitat, public education.
ecosystem management and other topics related to conservation were coded. While a formal written analysis of this conservation-related dialogue was not included in the thesis, some components of the analysis provided insights in this area. In particular, as discussed in the 'in general' context section of the perceptions of bears analysis, visitors seemed to associate the bear with conflicts between humans and nature. This indicates that some visitors were thinking about the plight of bears and their species outside of the Grizzly Discover Center. However, it is unknown whether the interview questions prompted this dialogue or whether the visitors would have engaged in this dialogue spontaneously as a result of the GDC experience itself. As some visitors talked of learning specific things about habitat and other conservation issues at the center, it would seem that for some the GDC experience itself did provide a connection to larger conservation issues.

Management Implications

Typology

This study revealed that how a person evaluates the acceptability of or relates to a bear encounter is associated with the character of the interaction they are seeking. In evaluating visitor interviews, several ways to characterize the nature of the visitor's bear encounter emerged. At the broadest level, there was a distinction between "checklist" encounters and a desire for interaction. Specifically, visitors either sought to check viewing a grizzly bear off a "tick" list, or they sought a more meaningful interaction. For those visitors seeking an interaction, some were not particular about the context in which the interaction happened while others recognized context and distinguished captive encounters from wild encounters. Further, for those visitors who recognized the context
of the encounter, some felt captive encounters were just as good as wild encounters while others felt the wild encounter was non-substitutable.

Categorizing visitors in this way has several implications. First, visitor typologies, such as the one discussed above, are useful to managers for selecting types of development, facilities, interpretation, and education to increase the probability that the opportunities for specific experiences which the visitor is seeking are available. In addition, typologies offer managers guidance in establishing cooperative strategies with other organizations and land management agencies. By being familiar with the different types of wildlife viewing experience provided at a various sites, different agencies or organizations are able to develop common ground for management actions (Manfredo & Larson, 1993).

Regarding the Grizzly Discovery Center specifically, this typology can be used to guide the development of interpretation and facilities. In realizing that there are different types of encounters sought by visitors, the Grizzly Discovery Center can design interpretation and facilities in an attempt to meet the needs of these different types of visitors as best as possible. In addition, the Grizzly Discovery Center can use the typology to find a common ground for management with surrounding bear management agencies and environmental organizations. For example, the Grizzly Discovery Center provides a captive experience which may not satisfy those seeking a wild encounter only. On the same token, Yellowstone National Park only provides a wild encounter which can sometimes be problematic as visitors get too close to bears and cause conflict. By working together, the Grizzly Discovery Center and YNP managers can make management decisions which help match or direct visitors to the type of encounter they
are seeking. For example, those visitors who are seeking a context irrelevant encounter could be referred from the park to the Grizzly Discovery Center. Likewise, if a GDC visitor wants to see a wild bear, they could be referred to a specific ranger or station where they could receive bear safety and location information.

Working together in this way would help the park alleviate stress on wild bears and develop a more educated bear-viewing visitor. A cooperative relationship between the park and GDC is already being developed. Yellowstone National Park rangers offer interpretive programs at the center twice a week. However, the relationship could be expanded and defined even further. The agencies could work together to define the specific types of encounter they are able to provide at their sites. Once it is determined what types of encounters are available, management action at each place could be taken to refer visitors to the appropriate location for the encounter they are seeking. This typology may not be useful in every situation, however, as visitors are not always consciously aware of the type of experience they are seeking.

Conservation Education

Constructivist research in environmental education recognizes that people enter new experiences with a complex cluster of ideas, beliefs, values and emotions with which they use to understand the world. Serving as a conceptual “filter,” humans experience new things and sensory expressions through these previously held beliefs and ideas. (Roberston, 1994, p. 25). In order to learn about the environment or other topics, the learner must increase their understanding of the subject, but also be willing to depart from previously held beliefs in order to adopt a new world-view. This learning process can be enhanced through several educational techniques geared towards making students
aware of the conceptions they hold and highlighting the inconsistencies within and consequences of those conceptions (Ballantyne and Packer, 1996). Therefore, one goal of interpretive education research has been to probe and characterize the learner’s pre-existing knowledge or conceptions— the what.

This study has dealt in part with identifying the what in grizzly conservation education. Specifically, the study has provided insights on constructions and perceptions visitors hold towards bears in various contexts. Identifying this what has several implications for the Grizzly Discovery Center and other wildlife education facilities. First, by recognizing that visitors hold different types of perceptions for animals in various contexts, educators can identify the context in which they are asking students or visitors to consider bears, and thus identify the types of perceptions the visitors are likely to hold about bears in that context. The educational materials can then be designed to address those perceptions directly to increase the probability that students will adopt the new perceptions which the educators desire.

Specifically for those educators working in captive facilities like the GDC, the fact that visitors tend to relate to bears on an individual level within that setting can pose an educational challenge. As visitors relate to the bears on an individual level, the compatibility of this personal relationship must be examined in regards to the overall goals of the captive facility. As visitors place emphasis on the individual animal, he or she may not view the animal as part of a species. The visitor then loses sight of speciesism and the larger conservation picture (Coe, 1985; Hammit et al., 1997; Rolston, 1992). Thus, while encouraging people to relate to the animals and become engaged in the experience, it is also crucial that captive facility managers take steps to help visitors
recognize that the animal is part of a species as well. These steps might include specific interpretive programs geared towards reminding visitors that the captive animals are members of a larger species.

**Ethics**

The emergence of ethical dialogue and thought processes from the interviews at the Grizzly Discovery Center provides insights into the visitor experience at such facilities. As 80% of the visitors engaged in some type of ethical dialogue, managers of captive facilities must recognize that viewing captive animals is a source of tension and inner struggle for some visitors. In addition, potential visitors may choose not to come to the facility at all because keeping animals in captivity conflicts with their moral principles. By recognizing that the way the animals are kept may influence the visitor experience negatively as they are confronted by ethical problems, managers can take steps to provide information which helps visitors in their ethical thought processes. For example, many Grizzly Discovery Center visitors were troubled by the fact that the bears were in captivity. However, the Center publicized that the bears would have been destroyed otherwise and this helped some visitors rationalize the caging of the bears on a moral basis. When visitors are able to resolve their ethical decision making process, they can focus on engaging in the experience and learning, which is consistent with the management goals of most captive facilities.

**Future Research**

In examining visitor perceptions regarding GDC versus zoo bears, it was concluded that observable physical characteristics and behavior of the bears played a pivotal role in shaping visitors' perceptions and knowledge construction regarding the
bears. These findings have implications for future research regarding visitor perceptions of animals in a captive setting. Finlay et al. (1988) asked visitors to rate slides of captive animals shown in different settings to define their perceptions of the animals. However, this methodology may not evoke a valid perception of the animal in the slide as the visitor must rely solely on static, two-dimensional cues. The slides may not allow visitors to make detailed observations about the physical characteristics of the bears or their behavior. As physical traits and behavior were identified as factors which shaped Grizzly Discovery Center visitor’s perceptions of bears, more research is needed to determine the ecological validity of the slide methodology to gauge visitor perceptions.

In addition, the conclusion that visitors perceive bears differently in various contexts was based upon analysis of the visitor’s perceptions in their current context (GDC) versus their recollections of bears during past experiences. More study is needed in order to confirm these different sets of perceptions. For example, the same visitors could be interviewed within the different contexts mentioned in this study to see if perceptions are consistent with those perceptions identified at GDC when visitors were recalling experiences at other sites. In addition, visitor perceptions of a particular animal could be identified at several similar sites (several zoos, for example), to determine whether perceptions are consistent across like facilities. Also, in order to validate the findings of this study in which visitors displayed diverging perceptions between captive and free-range settings, in situ interviews should be conducted in a free-range setting to confirm these differences.

More research is needed to explore the what, or the types of constructions that visitors hold regarding bears. As understanding of visitor’s pre-existing knowledge is
increased, educational efforts can be adjusted and designed accordingly to address these beliefs and increase the effectiveness of educational efforts. In addition, work is needed to understand the process by which visitors construct knowledge in settings like the Grizzly Discovery Center – the *how*. Such research would require a study design which involves pre-visit, in situ, and post-visit testing.

Regarding ethics, more work could also be done to understand the ethical dilemmas visitors may experience at captive facilities. Additional interviews could be conducted at the Grizzly Discovery Center which are aimed specifically at understanding visitors' ethics regarding the animals there. Similar interviews could also be conducted at other captive sites and the results could be compared and contrasted to understand how ethical discourse may differ between facilities.

Additional analyses could also be completed using the data set compiled during this study. As previously mentioned, a complete idiographic analysis of the ethical discourse in the interviews could be completed followed by a nomothetic analysis to identify any patterns. In addition, relationships between how visitors are characterized within the typology and the nature of their ethical discourse could also be completed.

In conclusion, this study may further grizzly conservation efforts by providing information which could help further the conservation mission of the Grizzly Discovery Center. As this thesis provides empirical evidence regarding the ways that visitors perceive and experience bears at the site, GDC managers can make an assessment about the compatibility of these findings with management goals. Should any inconsistencies be identified, the appropriate management decisions can be made to rectify the situation and increase effectiveness of conservation education efforts. In addition, as the GDC is
continually developing new partnerships and alliances with other organizations and agencies, this study provides insights on the type of experience the GDC is providing. By sharing results of this study, the GDC may help other organizations make more informed decisions regarding partnerships and alliances which may help further the missions of all organizations involved.

Lastly, the grizzly bear is a species which is in a state of crisis in the American West. As scientists struggle to further the recovery of this animal, research which seeks to understand the relationship between grizzly bears and people is often overlooked. This oversight could be fatal for the grizzly as human-caused mortality continues to be the biggest problem facing these bears today. In order to begin decreasing human-caused mortality, we must understand the complex relationship between people and bears to help foster appreciation and positive attitudes towards these animals. This study ultimately provides insights regarding how people relate to and interact with grizzly bears and increases scientific understanding of conservation issues from a social science perspective.
APPENDIX ONE: INTERVIEW GUIDE

Could you tell me about how you decided to come to the Grizzly Discovery Center today? Probe: Was the visit part of a larger trip? What kind of vacations/trips do you usually take? Have you been here before? Where are you from? Is that a rural or urban place?

Could you tell me about your visit?

If your friends are planning a trip to the Grizzly Discovery Center, what will you tell them about it? Probe: What sticks in your mind most about the visit? What did you enjoy most? What did you enjoy least?

How did you spend most of your time at GDC?

What do you think a place like GDC does for people? What did it do for you? OR How does a place like GDC benefit people?

I am not just interested in bear viewing here at GDC. I'd like to hear about your other bear experiences. Where else have you viewed grizzly bears? What was that like? How does this compare? Probe: Zoo? National Park? Drive through park?

How would you describe the bears that you saw today? Probe: Wild? Dangerous?

What is your opinion regarding the bears at GDC?

Has your experience at GDC influenced your thoughts about bears? How?

Do you have an interest in bears beyond the Grizzly Discovery Center? Tell me about it. Probe: How do you pursue your interest?

Why do you think people come here to see the bears?

Are bears special animals? Why?

Did you have any expectations about GDC coming into your visit? If yes, did the visit live up to your expectations?

Will your behavior in grizzly country change as a result of your visit? How?

If not covered earlier in the interview, ask the following questions:
What was the most important part of the visit for you? Probe: Entertainment? Education? Socializing?

What did you like or dislike about the setting? Probe: Signs? Habitat areas? Displays? Staff? Other people? Gift shop?

Closing question:
The purpose of this study is to understand the bear viewing experience at places like Grizzly Discovery Center and how bear viewing affects people. Is there anything else you would like to add to help me understand your experience or how it affected you?
## APPENDIX TWO: CODING SCHEME

1 **Thought Processes**
   1-1 **Cognitive**
      1-1-1 Problem prevention
      1-1-2 Bear facts
      1-1-3 Habitat preservation
   1-2 **Emotional**
      1-2-1 Joy/Happiness
      1-2-2 Sadness
   1-3 **Spiritual**
      1-3-1 Connection with Nature
   1-4 **Moral / Ethical**
      1-4-1 Captivity is wrong
      1-4-2 Animal welfare justification
      1-4-3 Nonprofit justification
      1-4-4 Education justification
      1-4-5 Saved justification

2 **Frame of Reference**
   2-1 **Hometown**
      2-1-1 In bear country
      2-1-2 Other
   2-2 **Wild Encounters**
      2-2-1 Front Country
      2-2-2 Backcountry
      2-2-3 Pleasant
      2-2-4 Unpleasant
      2-2-5 Frightening / Intense
      2-2-6 Avoidance / Awareness
      2-2-7 Took photos
      2-2-8 One on one
      2-2-9 Sought out
      2-2-10 Unduplicated
   2-3 **Zoo**
      2-3-1 Zoo Setting
      2-3-2 Zoo Bears
      2-3-3 Not impressionable
   2-4 **Visitor Myths**
      2-4-1 Teddy bear
      2-4-2 Tame
      2-4-3 Slow / lazy
      2-4-4 Outrun downhill
   2-5 **Corrected Myths**
      2-4-1 Not tame
      2-4-2 Not ferocious killers
2-6 Motivation
2-6-1 Recommended
2-6-2 Free pass
2-6-3 Love animals
2-6-4 Repeat visitor
2-6-5 To be entertained
2-6-6 To learn
2-6-7 Sharing

2-7 Expectations
2-7-1 No cages
2-7-2 Like zoo
2-7-3 None
2-7-4 Already knew

2-8 TV/Books/Other Sources
2-8-1 TV
2-8-2 Books
2-8-3 Movies

2-9 Organization involvement
2-9-1 GDC contributor
2-9-2 Wildlife advocacy
2-9-3 Environmental

3 GDC Experience
3-1 GDC dimensions
3-1-1 Closeness / clear view
3-1-2 Safety
3-1-3 Staff
3-1-4 Variety
3-1-5 Photo opportunity
3-1-6 Action
3-1-7 Guaranteed sighting
3-1-8 Entertainment
3-1-9 Unique opportunity
3-1-10 Wolves
3-1-11 Interpretation
3-1-12 Social interaction
3-1-13 Time
3-1-14 Personal Learning

3-2 Association with Yellowstone National Park
3-2-1 Confusion
3-2-2 Close proximity
3-2-3 Part of YNP experience
3-2-4 No bears
3-2-5 Saw bears
3-3  **GDC Setting**  
3-3-1  Real / natural  
3-3-2  Captivity  
3-3-3  Close to natural habitat  
3-3-4  Better than zoo  
3-3-5  Wild  

3-4  **GDC Improvements** (ways to enhance experience)  
3-4-1  More bears  
3-4-2  More space  
3-4-3  More trees  
3-4-4  More stimulation  

4  **Bears**  
4-1  **Wild Bears**  
4-1-1  Intimidating  
4-1-2  Dangerous  
4-1-3  Beautiful  
4-1-4  Elusive  

4-2  **GDC Bears**  
4-2-1  Human-like (Anthropomorphism)  
4-2-2  Playful  
4-2-3  Size  
4-2-4  Saved  
4-2-5  Healthy / Well-kept  
4-2-6  Happy / Content  
4-2-7  Power  
4-2-8  Docile / Tame  
4-2-9  Active  
4-2-10  Cute / Cuddly  
4-2-11  
4-2-12  Names / Biography  
4-2-13  Interact  
4-2-14  Scary  

4-3  **Meaning of Bears (in general)**  
4-3-1  Conflicts with people  
4-3-2  Special animals  
4-3-3  Respect  
4-3-4  Favorite animal  

5  **Connection to conservation efforts**  
5-1  **Bear management**  
5-1-1  Hands on  
5-1-2  Hands off  

5-2  **Inherent value**  

5-3  **Public education**
5-4 Ecosystem
   5-4-1 Bear essential part
   5-4-2 Fragility
   5-4-3 Habitat

5-5 Role of GDC bears

5-6 Hunting
   5-6-1 Anti
   5-6-2 Pro
LITERATURE CITED


**TABLE 1: DESCRIPTION OF SAMPLE**

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<td>yes (BC)</td>
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<td>group</td>
<td>WA</td>
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</table>

(1) Denotes type of group with which respondent is visiting. 'Couple' is two life-partners with no kids. 'Group' is a non-related group of persons (e.g. friends, tour group). 'Family' is multi-generational group or related persons. 'Solo' is a person visiting alone. 'Couple/group' or 'couple/family' means the respondent is part of a couple, but also part of a larger family or group unit. (2) Denotes whether or not respondent has visited the center previously. 'Yes' is repeat visitor; 'no' is first-time visitor. (3) Denotes whether or not respondent has viewed bears in a zoo. 'Yes' means they have viewed zoo bears; 'no' means they have not; 'DNR' means the respondent did not recall; and 'unk' means unknown. (4) Denotes whether or not visitor has viewed free-range bears. 'Yes' means they have viewed free-range bears in an unspecified setting; 'Yes (BC)' or Yes (FC) means they have viewed free-range bears in either a backcountry or frontcountry setting respectively; 'unknown' means it is unknown.
FIGURE 1: VISITOR TYPOLOGY BASED ON CHARACTER OF ENCOUNTER

Checklist vs. Interaction

- Context Irrelevant
- Context Recognized

Overall

- Significance of Context
  - Just As Good
  - Non-substitutable

Link to Wild Encounter
### TABLE 2: PERCEPTIONS OF BEARS

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<thead>
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<th>Context Associated</th>
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<tr>
<td><strong>Psychological Condition</strong></td>
<td><strong>Psychological Condition</strong></td>
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<tr>
<td>Stressed</td>
<td>Comfortable With Situation</td>
</tr>
<tr>
<td>Unhappy</td>
<td>Happy/Content</td>
</tr>
<tr>
<td>Bored</td>
<td>Stimulated</td>
</tr>
<tr>
<td>Prisoners</td>
<td>Saved/Lucky</td>
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<tr>
<td><strong>Physical Condition</strong></td>
<td><strong>Physical Condition</strong></td>
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<tr>
<td>Poor health</td>
<td>Healthy</td>
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<tr>
<td>Mistreatment</td>
<td>Well-Cared For</td>
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<tr>
<td>Sickly Appearance</td>
<td>Powerful</td>
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<tr>
<td></td>
<td>Beautiful</td>
</tr>
<tr>
<td><strong>Unnatural / Not “Real”</strong></td>
<td><strong>Natural / “Real”</strong></td>
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<td>Active</td>
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<tr>
<td>Play With Balls</td>
<td>Playful/Interact</td>
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<td>Domesticated/Tame</td>
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<tr>
<td>Cute/Lovable</td>
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<td>Scary</td>
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<td>Unique Individuals</td>
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<td>Human/Child-like</td>
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<td>Remind of Pets</td>
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