The Nature of Nature: South Floridian Children and their "Environmental Experience"

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THE NATURE OF NATURE:
SOUTH FLORIDIAN CHILDREN AND THEIR
"ENVIRONMENTAL EXPERIENCE"

by

Kristina Baines Myers

A Thesis Submitted to the Faculty of
The Dorothy F. Schmidt College of Arts and Letters
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Master of Arts

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PREFACE

Thanks to all the children, whose enthusiasm for the “environmental experience” makes this study worthwhile. For her help in introducing me to the children, for her belief in the project, for her wisdom and for her friendship, I would like to thank Gabriella “Eechee” Boll Unterweger. A special thanks to Michael Harris, my thesis advisor and friend, for his ongoing, fine appreciation and understanding of my work and more. A final thanks for my love, Michael, for sleeping alone while I was bunking in the woods with a bunch of ten-year olds and for thinking I’m smart.
ABSTRACT

To investigate how schoolchildren in south Florida think about their natural environment, children were observed participating in several school-organized environmental field trips. Their attitudes about, interactions with and knowledge concerning various aspects of their natural environment were observed. This study explores how these children interpret natural phenomena using their cultural tools and focuses on the interpretation of commonly-observed responses to nature. Responses discussed include: the blurring of lines between the natural and non-natural, separation and binary thinking, and fear and aggression. Reference is made throughout the study to various theoretical frameworks, including cultural-ecological perspectives, ideas from structural anthropology and other cognitive approaches.
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Chapter 1

Introduction

The Research Problem

This thesis asks two general questions: 1.) how do children react to nature? and 2.) what do children know about their natural environment? Many studies have addressed this second question in some form. However, the first question and the ideas arising from possible answers to it are less discussed and, arguably, more important. All humans must, to some extent, interact with and react to their natural world. There are degrees of subtlety in these interactions, within cultures, between cultures, between individuals, even within individuals. Children are oftentimes less subtle. Rather than noting the nuances of their everyday lives, I chose to answer the question of how they react to and interact with nature by watching them “in nature.”

The primary objective of this thesis is to examine cultural responses to ecological stimuli, with a particular focus on children’s perceptions of their natural environment and the extent to which they affect and are affected by those of the culture at large. Part of this examination was to include an analysis of ways in which children in southeast Florida come to formulate ideas about environmental issues and
how these ideas present themselves practically when they move between areas of varying degrees of cultural control. Through this examination, the thesis places children within a context of ways in which people deal culturally with specific ecological issues and pressures, and provides an anthropological reference for those investigating ecological questions outside of anthropological frameworks.

By investigating the level of natural environmental knowledge held by the children studied and how this relates to their cultural “connectedness” to the ecological realm that they are part of, this thesis will address gaps left by previous work in this area. In addition, the thesis will investigate the origin of particular responses to ecological factors including those culturally prescribed and sanctioned, those culturally produced, and those biologically or genetically rooted. The particular responses discussed will be those most frequently observed, both in the literature and among the Floridian children.

Ecology from Cultural Anthropology

South Florida is the land of strip malls. The new transplants that flood into the area every day are no doubt struck by the vast expanses of land filled with low, long buildings covered in pastel paint. Many long for the oaks and brownstones of home. Complaints are heard in every corner about how this place has “no culture.” In the anthropological sense, quite the opposite is true. The sheer number of people, immersed in the sprawling, suburban communities perched on the edge of diminishing swamplands, create a cultural setting that spawns many questions. The
same people that are at a loss to find “culture” in South Florida also have difficulty locating “nature.” Through the mosquitoes and the sunburns, it is easy to see only strip malls. The “nature” does exist, however. I am interested to know how, in every sense of the word, we in South Florida find it.

There is really nothing new about the idea of environmental awareness. Earth day celebrations, whale watches, turtle walks and beach clean-ups remain popular events where people can “do their part” and help “save our earth.” In the rush to preserve the endangered species and filter the pollutants from the water, most of the “technical work” has been left to the biologists and chemists. While there must of course be environmental scientists to investigate the technology of making things better, the human component is often left out. Either discussed in terms of the big evil that must change its ways, or as an entity which occupies a completely different world separate from that of the environment, the human population becomes dismissed more often than investigated in ecological discussions. The purpose of my research is to attempt to address this imbalance in some way.

The way ecological issues seem to be discussed generally is using similar terms to those that might be used to discuss a war in Africa. They are something that we have power, albeit limited, to do something about, but they are distinctly separate from our everyday life. This separateness enables scientists to discuss problems of ecology without really discussing humans to any great extent. Whether or not they think about themselves this way, people are part of the natural world and, in order to discuss this world in any productive way, humans must be included. In order to include them in anything other than a very superficial way, we need to know what
their thoughts are. Without research, it is too easy to assume a certain level of awareness or to anticipate a place for ecology in the culture that may or may not exist.

Children and Environmental Connectedness

Children were chosen as the informants for this research for several reasons. They have been the focus of many of those environmental campaigns that encourage us to change our ways with regard to the environment, to become more environmentally aware. Have they been affected by these campaigns and do they make the connection between them and their everyday life? Children are thought of traditionally as being more aware of their natural environments than adults because of the free time they have to explore the outdoors. Is this conception misplaced, especially in South Florida? Additionally, at this time when it seems undesirable, perhaps unfashionable, to be acutely lacking in environmental knowledge or awareness, children are likely to be less embarrassed and worried to express their perceptions and thoughts and fears. With the effort, time, money, etc. that is spent under the heading of "environmental education," it seems sensible that a prerequisite to designing programs and making policy would be to investigate how the environment is already being dealt with, conceptually and practically, by the children who are to be educated.

South Florida is ideal for this research. A place generally thought of being devoid of nature in the sense of natural beauty but celebrated for its weather, this
area is full of reminders of what can happen when nature and culture collide. The children are products of this strange collision. While the biologists work fervently measuring water levels and counting alligators, the children watch their efforts on television. I wonder if, when they actually arrive at that water and see the alligators, they make the connection. Still, the biologists work and it may seem of little consequence what the kids think. However, the kind of research that I am conducting will provide information of the kind that environmental scientists may want to consider if they intend to have the most impact with whatever policy or project they implement. If not, hopefully it will raise questions about something that, however we decide to compartmentalize it, affects us all.

Thesis Organization

Although I identify anthropological gaps left by previous research in this area, much has been written which is relevant in some way to the interpretation of my data. Chapter II outlines bodies of often-distinct scholarly literature which can be brought to bear on the problem at hand. From general environmental literature to literature focusing on children to the work of scholars in traditional anthropological schools of thought, such as structural anthropology and culture and personality, an awareness of the theoretical writings available is important. An examination of these not only provides an opportunity to interpret my findings in several productive ways, but also gives evidence to the lack of specific work in my area of interest. Because I
review literature from many disparate sources, Chapter II is not intended to be an exhaustive review, simply a highlight of the more interesting and salient ideas.

Chapter III outlines the methodology employed in this research and seeks to explain the efficacy of this. Included in this chapter are a detailed description of the setting of what is termed the “environmental experience,” discussions of how the study population was chosen, and how the data was organized to bring to light topics for discussion.

Some of these ideas are discussed in chapters IV, V and VI. Each of these discussion chapters begins with a descriptive case study. These “vignettes” give the reader a sense of how the ideas discussed further in the following chapters came to attention. The children highlighted in the case studies are then discussed with reference to behaviors noted in other children observed over the course of the research. Possible explanations for the observed behavior are discussed with reference to some of the more applicable theories outlined in Chapter II.

Chapter IV investigates the practice of blurring the lines between what is “natural” and what is not. Issues of classification are discussed and the idea that the problems of distinction, modification and classification can be explained in part with reference to traditional ethno-ecological approaches such as Bennett’s “feedback loop” (1976: 156) is explored.

Chapter V explores how this blurring can oftentimes lead to a distinct separation between the cultural and natural worlds. This chapter explains how children, lacking in cultural tools, encapsulate their “environmental experience” and provide no roads in or out of it. This distinction is discussed in terms of the binary
thought processes that may characterize children's thinking and how this either/or structure for the natural versus cultural worlds can have many results, including, most notably perhaps, fear.

Chapter VI outlines and examines fearful responses in addition to discussing aggressive or challenging ones, focusing on how they are interrelated and might be explained in many of the same ways. This chapter introduces the idea of a biological element at work with those cultural responses previously discussed. Some discussion of the possibility of applying some of the elements found cross-culturally is investigated.

Chapter VII provides a conclusion to the research and places my work in the context of its usefulness to cultural ecological theory in general and local policymakers specifically.
Chapter II
A Review of the Pertinent Literature

Introduction

The act of conducting a literature search raised an issue that seems to be becoming increasingly salient in my research - the understanding of language. Attempting to make the computer understand what is meant by words like “nature” or “environment” or “ecology” mirrored difficulties the child interviewees would also have with those words. René Dubos, in his introduction to a memorial conference entitled “Children and the Environment” (1971), devoted much time to explaining why he has decided never to use the word “environment” again. He states that it “has come to refer almost exclusively to pollution, overpopulation, noise, ... all the unpleasant things in life” rather than “the totality of forces that go into shaping a human being” (1971: 9) where he feels its meaning should lie. Indeed, 30 years later children have inherited this vocabulary that is loaded with extraneous sentiment. There is little evidence that much has been clarified for them since the flood of interest in “ecology” in the early 1970s spawned a flood of textbooks and anthologies dealing with environmental education.
Environmental Education

The 1970s gave rise to a large body of literature classified as "Environmental Education" with widely varying concerns and a trickle down effect which has lasted, albeit with decreasing intensity, for the past three decades. Much of the research is relevant to the research at hand.

Maurer (1972: 265) addresses psychological considerations in "What Children Fear," noting that "children do not fear street traffic and germs ... they fear wild animals." This reference to a rural/urban dichotomy is made often in the literature from this period. Samples (1972: 24) notes that "the interchange between urban and rural becomes an abstraction to most members of the urban society. The world of nature is restricted to parks, aquaria, zoos." Terry (1971: 49) sees environmental awareness as a reflection of a problem of sensory awareness, "in schoolrooms ... no premium is given to acuteness of the senses." Rivkin (1995: 9) notes that this has not become less of a concern noting that "since little is revealed, little is perceived." Children 20 years later are still unable to provide a sensory "unlock" of nature. These concerns that were so often expressed then seem to have clear implications for nature studies in present-day South Florida where urbanization is still a vital issue.

On a slightly more esoteric level, Cobb (1959) describes a child's "direct organic participation ... in systems of nature." "There is a special period" she states, "between the strivings of animal infancy and the storms of adolescence - when the natural world is experienced in some highly evocative way (1959: 537)."
or not children do indeed have some kind of special sense of their natural world that is "lost" or taken from them by adults is a question to consider. Indeed, Rivkin, in her book, *The Great Outdoors - Restoring Children's Right to Play Outside* (1995), outlines steps adults can take to in a sense "give back" nature to children who have a right to understand and be part of it. Her discussion of hyperactivity is particularly relevant to my work. Her identification of hyperactivity in children, particularly boys, as a symptom of too little time spent outdoors may be valid, but, ironically, the "indoor" behaviors, such as lining up and raising your hand, that she identifies as "limiting" are also required of the children in my study when they are outdoors. The bringing of essentially indoor rules to the outdoor environment creates a kind of "in-between" space and one may get the sense that children can be outdoors only if adults are "in control." Davis, in her book *Spectacular Nature* (1997), also deals with this idea as she examines the act of paying to see nature and its implications at a major theme park. The commodification of nature in order for the child to find it worthwhile is of interest amidst the shopping malls of South Florida.

Ecology aside (as if that were possible), there exists a healthy body of literature devoted to doing ethnography with children in various educational settings, however difficult it seems to define exactly what those settings are. Sutton-Smith warns that "even children in all their spontaneity do not offer themselves with naïve realism to ethnographic grasp" (1982: 188). Especially encouraging, Heath, in her article "Ethnography in Education" (1982), uncritically states that researchers in the field of education have been "particularly prone to use the terms ethnography or ethnographic to describe studies using participant observation, naturalistic inquiry
and open-ended research designs (1982:34).” Much of this type of literature focuses on the classroom rather than the field, but it gives insight into both philosophical and methodological concerns about dealing with children as research subjects. Case studies of environmental education projects in the Caribbean, Croatia and other locales may also provide similar insights as well as adding issues of politics, race and income level into the mix.

These documents are still relevant, not so much for the information contained in the text, as for the outline they provide, delineating various foci of interest and ideas for future research. The gaps in these texts are not in the biology or ecology they provide, although scientific advances have undoubtedly been made in the last 30 years, but in the interpretations of the children within that natural setting which are never fully investigated. Thus, the most obvious source of information for a study of children and their environmental, educational “experience” leaves a set of anthropological questions which may be answered only in part by looking at other bodies of literature.

Ethnoecological Approaches in Anthropology

When Harold C. Conklin stated that he was interested in emphasizing through his ethnographic work “not only the local environmental conditions and their apparent modification, but especially the determination of how these conditions and modifications are culturally interpreted” (1954: 133), he outlined the research trajectory that would be used by many interested in interpreting observed ecological
stimuli from a cultural perspective including Rappaport (1967), Vayda (1961) and Sahlin (1957). The focus of this group lay not necessarily with the observation of specific environmental knowledge among the cultures being studied, but rather with their interpretations and ways of dealing with ecological phenomena.

Jochim later reinforces this idea stating that within this school of thought “cultural behavior is studied not so much for what it is (learned patterns of behavior) as for what it does (provides one means of adaptation)” (1981: 3). This way of viewing cultural behavior provides an investigative path which has thus far been overlooked by many scholars interested in children’s knowledge of their natural environment, with the traditional focus being on the “what” rather than the “why” and the “how.” Noting what they know about and how they behave in their natural environment is only the first step in a cultural ecological line of inquiry. Investigating how these behaviors provide the means for south Floridian children to adapt to their natural environment, the second step of a cultural ecological inquiry described by Jochim above, may provide the following research with a perspective lacking in previous studies of children and nature (Mauer 1972, Samples 1972, Terry 1971, Rivkin 1995).

Bennett provides two definitions for “cultural ecology.” The first adds to the ideas of both Conklin and Jochim stating that the line of investigation is “any [investigation] into human relationships with the physical environment, including biological factors, that seeks to understand the phenomena in terms of human purposes and activities” (1976: 156). The other definition provided by Bennett is more specific and provides a workable framework for the analysis of south Floridian
children. He describes this "next step" in the cultural ecological investigation as "the study of interactions involved in the feedback loop" (Bennett 1976: 156). He defines the loop by noting that "social factors often blend with the physical and are coped with by people as much as they cope with physical phenomena." Thus, social and cultural constructs are formed by people in response to certain environmental stimuli. Rather than these cultural constructs being simply "solutions" to potential physical "problems", they themselves become issues that need to be coped with. In a sense, the solutions require solutions and the "loop" perpetuates itself. This cultural ecological feedback loop is particularly useful for the kind of research conducted in this thesis. In many industrialized societies, physical phenomena do not have to be "coped with" by the population on an everyday basis. Most of these phenomena have come to humans "pre-coped with." There are social structures in place that distance the individual from the physical. For example, paved roads navigate marshes and sugar is refined and sold for our use. Therefore, viewing human interactions with the physical world in the same manner as human interactions with the social world that has been created around and within the physical world proves a logical orientation from which to pursue the study of children in the most populated area of the state.

Localized and Universal Perceptions of Nature

Most scholars noted for their pioneering use of the cultural ecological perspective have worked among non-Western societies (Harris 1974, Rappaport 1967, Sahlins 1957). Much less of this type of research has been conducted within
specific Western societies. There is an irony here because many of the major issues related to ecological concerns originate in Western societies. Many of the original studies of non-Western societies are useful, not only as contrasting examples of how humans might deal with certain environmental stimuli, but also in drawing parallels through an anthropological analysis of what certain behaviors may mean cross-culturally, even though they may seem culturally specific.

Jochim contends that “current dangers of resource depletion, overpopulation, pollution, internal disorder and international conflicts are but special and magnified variants of similar problems that have faced pygmies, peasants, pastoralists and princes” (1981: 1). This idea might be used to create an argument for the usefulness of all past studies of societies and their environmental settings to the research at hand. If the stimuli provided by the environments are essentially the same in all areas and time periods, as suggested by Jochim, then a comparison of the reactions of various human societies to them would provide a useful study of the degree to which the reactions might be considered universal. To clarify, if children in south Florida and, for example, those in New Guinea both manifested a reaction that might be considered “fearful” to a certain environmental stimulus, an investigation into possible common determinants of the fear should be undertaken. Some specific societal studies, therefore, allow for biological predispositions to certain behaviors to be examined in addition to those cultural. Although an exhaustive examination of the extent to which certain observable behaviors can be explained by means of biology has been conducted by many (Lorenz 1966, Wilson 1978, Strayer 1992), the main focus of this study is directed elsewhere.
Commonality is an idea ripe for further investigation. While Michael E. Soule concludes that “it is apparent that no universal Western perception of nature exists” (1995: 138), Bennett asserts that the “anthropocentric orientation toward the natural world ... has characterized every civilization and nation” (1976: 5). T. C. McLuhan extends the discussion to all societies and their ideas about nature stating that “placing the cultures side by side exposes a commonality of themes [such as primacy of earth and the umbilical connection] that is illuminating” (1994: 19). Amos Rapoport, examining reactions to the built rather than the natural environment, notes that there are “ways in which certain activities or thought processes lead to specific environmental solutions” (1976: 8). In examining the children in southeast Florida, determining the ways in which they are thinking, both about their natural and built environments, and noting the solutions these thought processes produce, the issue of both inter- and intra-cultural commonality is addressed.

Nature/ Culture Dichotomy

Bearing on this idea of commonality of interpretation, it seems relevant to note the “classic antithesis between nature and culture” (Lévi-Strauss 1963: 354). Father of the idea that binary oppositions, such as nature versus culture, are reflections of innate structures of the human mind, Lévi-Strauss was able to reduce human action, particularly that which was expressed in myth, to all-encompassing dichotomous pairs. Defining culture in the Tylorian tradition, Lévi-Strauss (1963: 354) emphasizes that intrinsic to culture are the “specific differences between men and
animals." Because of these differences, nature will always be something apart from, perhaps even at odds with, culture. He points to tools and techniques that humans have devised to maintain this separation from, or even domination over, the natural world.

Douglas (1966: 3) expands on this idea of dominance throughout her discussion of pollution beliefs in *Purity and Danger*, stating that "the whole universe is harnessed to men's attempts to force one another into good citizenship." Woven into this idea of "good citizenship" is a rejection of dirt (nature) and an acceptance of hygiene (culture). This distinction provides a valuable framework for analyzing the beliefs of children in south Florida. Because south Florida is a place where the natural systems are not very easily "conquered" by cultural systems, this basic distinction between nature and culture seems to be much more salient than it might prove to be in areas where the tension was not so great between the natural and cultural systems.

Before Lévi-Strauss and Douglas made these ideas more explicit, the separation between nature and culture was implicit in many anthropological writings. For example, Kroeber (1917) wrote in *The Superorganic* how culture (the superorganic) was a distinct step up from nature (the organic). In his assessment of anthropological traditions, Horigan notes that "oppositions between nature and culture......have been used as a means for 'grounding' the human sciences" (1988:50). Discussing environmentalism in a more modern sense from an anthropological viewpoint, Milton creates a workable link between these seemingly disparate ideas. Calling her statement an "anthropological cliché," she notes that "culture is the mechanism
through which human beings interact with (or more controversially, adapt to) their environment” (1993: 4).

This last statement by Milton, although it may seem rather simplistic, is perhaps the most important to this research in the general sense. It is only by placing ideas about nature or "environmentalism" in a specific cultural context that the ideas have significant meaning. Through the use of the traditional anthropological perspectives, coupled with more recent ideas about ecological "connectedness," this thesis intends to provide meaning to certain thoughts about "the environment," making them useful in the context of the education of south Floridian children.

Adaptation - A Cognitive Approach

For the purposes of this research, environmental "connectedness" can be noted in a very tangible way - observing children actually in their natural environment, getting dirt on their hands. There is, in addition, a body of psychological literature which may contribute to a further understanding of the "environmental experience." Many scholars following this psychological tradition have outlined a three-part definition for the ambiguous term, adaptation (Lewin 1936, Harvey 1966), but this clarification is perhaps most useful as expressed by Berry (1976). Accepting the proposition that culture or behavior will change as a function of environmental change, he writes:

These varieties of change may be termed adjustment, reaction, and withdrawal and may be defined in the following way. In the case of adjustment, behavioural changes are in a direction which reduces the conflict (that is, increases the congruence) between the environment
and the behaviour by bringing the behaviour into harmony with the environment. In the case of reaction, behavioural changes are in a direction which retaliates against the environment; these may lead to environmental changes which, in effect, increases the congruence between the two, but not by way of cultural or behavioural adjustment. In the case of withdrawal, behaviour is in a direction which reduces the pressures from the environment; in a sense, it is a removal from the adaptive arena (Berry 1976: 14).

Although such a model may be criticized for its simplicity, such basic structures prove especially useful when applied to thought processes and behaviors observed in children. Folk wisdom suggests that the gap between what humans think and what we do widens as we increase in years. If indeed thought and action are closely related in the research population, then the value of cognitive approaches becomes clear.

Conclusion

There are many theoretical paths that offer insightful possibilities for research trajectories. For the purposes of this study, as the methods and data in the upcoming section demonstrate, it seemed most helpful to draw on many of these theories, especially those which, on the surface, seem the most disparate. Like children themselves, these data are not "neat." They do not slip simply into one existing theoretical framework, but rather they seem to reinforce many aspects of many of the existing works. Borneman writes:

The merit of a theory lies not in its ability to explain all objects or events under purview comprehensively, but in the fact that the theory illuminates a certain subset of objects or events in a novel way (1996: 215).
With the preceding theories and the following data, I hope to provide some novel illuminations of the behavior of south Florida's children in their natural environment.
Chapter III

Methodology

Introduction

There are several different ways and several different locations in which children’s responses to natural stimuli can be observed. In order to find out how children in south Florida think about their natural environment, I employed essentially two approaches. The first approach was to accompany various groups of schoolchildren aged eight to fourteen on school-organized but privately run environmental field trips. Children on approximately 30 trips were observed. Trips range from 5 to 34 hours in length with the majority of those on which the research is conducted being of shorter length. The trips begin at various Broward county schools at 8:00 a.m. and end at 2:00 p.m., 6:00 p.m. or 6:00 p.m. the following day. By accompanying the children on these encapsulated “environmental experiences,” my intention was to make generalized observations answering my primary question - how do children think about and behave in natural settings.

The second approach was to conduct short interviews and questionnaires with groups of schoolchildren of similar ages outside of the field trip setting to raise
questions and reinforce ideas that had arisen over the course of the field trips. This second approach allowed for greater depth that was not always achieved in the field because of time constraints. This approach not only addressed the question of how children were thinking about their natural environment, but more specifically, what they knew about certain aspects of their natural world.

Setting - The “Environmental Experience”

Amidst the strip malls of South Florida, observing children in a natural setting is more difficult than it may at first seem. Playing sports or climbing on playground apparatus out of doors, activities commonly practiced by children, added an element of human structuring to the outdoor environment that I wanted to avoid. Although observing children in natural areas on school organized field trips contains a human element of its own, and the idea of getting on a bus and going to nature creates a dynamic worthy of discussion itself, these “environmental experiences” seemed to provide an important opportunity. To have the opportunity to observe many different children, most of whom may not have normally chosen to visit these natural spaces, was ideal for this study. There are seven “environmental experiences” that teachers can select for their classes. The majority of the data was collected on the “Surfside Safari,” a school-day trip to Hugh Taylor Birch State Recreation Area in Ft. Lauderdale. All the trips are similar in flow and structure, the locations are different but are equal in their level of “naturalness.” Comments about places visited
on trips other than the “Surfside Safari” have been included later in this thesis also; however, the focus remains on this one-day trip.

Following is a detailed description of the “environmental experience” as it unfolds for the children in a sensory way. Many sentences are given up to such parts of the experience as the bus journey, the other visitors at the park and the weather. Expressing these details is important to give the reader the sense of “encapsulation” of the natural experience, which has proved a salient issue in this study and is discussed in detail in Chapter V.

“Surfside Safari”

The bus that arrives to pick the children up is large and silver, “Greyhound style,” unlike the school buses which regularly shuttle them on field trips. It chugs and hisses as it sits waiting in the bus loop in front of the school, idling while the paperwork is readied for the impending trip. The children have a significant amount of time to stare at its exterior while the logistics are dealt with. It is dirty, riddled with love bugs whose lives ended unceremoniously against the enormous vertical windshield. Large letters across the side read (ironically?) “Quality Transportation.” The windows are closed, sealed with no latches or locks and the interior is dark through the peeling tint and thinning polyester curtains. It is 8:00 a.m. and the already-blazing, South Florida sun can not elicit a twinkle from the dull metal.

Through bustling classmates and shouted instructions, the children finally enter the vehicle that will facilitate their day out of the classroom. The most organized are
given permission to get on first while the others watch and quickly try to round up friends to form a group of the specified bus loading quantity. The slower students watch through the darkened windows as the first groups of boys walk down the aisle to those coveted rear seats. The interior of the bus is cold in anticipation of the thirty kinetic children, but the bus driver is sweating as he cracks half a smile at the kids filing up the stairs towards him. The seats are covered in dark blue vinyl; torn, chewed, cracking, and there are four across the bus’s width divided by the aisle. As each group of children enters, its members are told which seats they must take. Emphasis is on speed, there is no time to assess the bus for the best seat. Adults are waving, directing the children and classmates are shuffling around, shifting seats, being reprimanded for doing so.

The seats on the bus are too big for children. There is lots of movement; everyone is fidgeting and trying to see over the seats in front of them. Three television monitors hang down from the ceiling panel above the seats, at equal distances along the bus’s length. Fingers are reaching up and pressing the knobs associated with the monitors. There is noise and excitement at the prospect that something to watch might be the result of the efforts. Nothing comes on. Mesh pockets designed for the holding of belongings on long journeys are present on the back of every seat. Across the top of the bus, there are two long shelves also to store belongings that are newly dotted with backpacks and water bottles in addition to old fast food wrappers left by previous passengers.

As the bus pulls away, a loud voice echoes and a figure with a microphone can be seen standing at the front of the bus. Children are straining their necks to see her
around the oversized seats and her voice is more easily discerned at the front of the bus. In the back, the voice is in competition with the roar of the bus tires. The smell of urine and disinfectant also competes for the sensory attention of those children who have scored the rear seats near the small toilet. As the bus gains speed, the figure at the front of the bus demands constant attention. Children are raising their hands, asking and answering questions. There is laughter. Some students are speaking to each other, but they are quickly silenced. The temperature in the bus is rising as time passes. The monitors remain unused.

Outside the windows of the bus, the residential neighborhood where the school is located flashes by. Soon, those whose attention is distracted by what is outside can see the interstate. Strip malls, factories, strip malls, gas stations are images that fly past the large, sealed windows. There is an occasional yelp of excitement when someone sees a car accident or a McDonald’s. Either event sends a wave of bodies from one side of the bus to the other to peer at the spectacle. As the bus makes the turn from the interstate to Sunrise Boulevard, the voice from the front of the bus announces that fifteen minutes of the journey remain. The strip malls and fast food restaurants are closer to the bus windows now and everything glides by more slowly. The fancy motorcycle shop, the Galleria mall, the body shampoo place are all viewed through the tall, dirty windows. The bus undulates as it mounts and dismounts the bridge over the intracoastal waterway onto the barrier island. T-shirt and teenie bikini shops replace the fast food joints and beachgoers dot the sidewalks. Those at the front of the bus might catch a glimpse of the ocean through the bug-stained windshield before the bus makes an exaggerated left hand turn into the park.
Large trees bend over the narrow entrance road to Hugh Taylor Birch State recreation area. The top of the bus brushes them audibly. The bus stops for a moment at the gatehouse where it is greeted by a ranger in an official green uniform. Off to the left, small shrubs have been planted in neat rows around the gatehouse. The right side of the bus is wilder, with clusters of trees and vines making it impossible to see more than a few feet. Inside the bus there is much scrambling and chattering. Sunblock and hats are flying around. Hands are raised with many last minute questions. The bus continues into the park and turns into a large parking lot. There are very few other cars in the lot. Some rollerbladers sit on their car fender lacing up. The bus takes five minutes to turn around in the parking lot and stop. The engine is turned off and for the first time that morning there is quiet.

Twenty feet of grassy verge line the edge of the parking lot before giving way to dense vegetation. Ant piles and purple, tubular morning glory blossoms poke out from the tufts of grass. There are no obvious pathways leading into the dense vegetation and children are milling about, some balancing on the concrete stoppers in the parking lot, others prodding ant piles with newly acquired sticks. The children are soon running to catch up with the leader who is walking quickly along the grassy verge. She ducks to the left and enters the dense vegetation. The path is wide and clearly marked by the layer of freshly laid mulch covering. It is considerably darker on the path than on the open grassy area surrounding the parking lot. There are many trees that have grown over the path, creating a tunnel effect. Large vines hang from the trees, many are dead. The ground is littered with leaves that obscure the mulch in many places. Seeds, bugs and scat are found amongst the leaves. The
sunny parking lot is still visible when the children are halted, although their backs face it.

The children remain at the entrance to this coastal, tropical, hardwood hammock path for about five minutes. To their left and right, they can see pools of still water, the lagoon, but the trees obscure a wide view. Ahead is a large, sprawling tree with large, flat leaves after which the path turns. It is difficult to tell where the path goes. They are able to see the turning and winding path as they walk, but the back of the leader's head is always in the frame. The path is irregular in its width and cut through with roots and fallen sticks. The trees lining the path are various: many textures, many leaf types, different sizes. There are stops along the path, frequent in number but short in duration, which allow brief, unobstructed views of the surrounding vegetation. The roar of the car engines on Sunrise can be heard throughout the walk, punctuated only by the occasional rustle of leaves from a falling branch or a frightened squirrel. Spider webs abound.

The hammock trail ends in the same place it began and the parking lot is vast in the oppressive sun. A flimsy rope forms a barrier between the asphalt and a large oval hole in the sand on the other side of the lot. The mysterious hole is identified as a gopher tortoise burrow and a hush sweeps over the group. Necks are stretching to peer into the dark hole. The tortoise cannot be seen. The parking lot turns into a concrete path that turns into a grassy area dotted with ornamental, well-kept trees. People with sunglasses and beach chairs pass by on the concrete. The bathroom block looms ahead. There is no soap in the state-run facilities. On the far side of the bathrooms, there lies a dark, square entranceway.
The tunnel leading to the beach runs under A1A and, when inside, the rumbling of the cars above is quite distinct. The dark entrance hides stairs that are wooden and well-worn. The tunnel has the faint smell of urine coupled with salt and fresh paint that has been applied to mask the graffiti. There is a mural inside that can be made out in the darkness: a beach scene, perhaps painted by a youth group. The children’s voices echo loudly. The tunnel opens out onto the showering area of Fort Lauderdale beach where there are German men in tight bikini swimming suits rinsing sand off their beer bellies. As they are led out onto the beach, they see a lifeguard in a tall tower to their left. Sunbathers, mostly middle-aged to older adults, are scattered thickly across the exposed sand. Quizzical looks are flashed in the direction of the children. The ocean is several shades of blue and the sand is hot to the touch and littered with seaweed and coral and plastic.

Back through the dark tunnel and the bathroom block, there lies ahead a small lagoon and several dull aluminum canoes crookedly placed on a small, sandy bank. To the right of the canoe bank, a wooden plank dock is exposed to the sun. The children are instructed to sit on the dock to eat their lunch, a process that invites visits from various local animals. From the dense trees to the right of the dock, a raccoon waddles over and stares. Children jump up and run towards it, arms extended. Adults scream at the children. No one can move from the wooden dock. The raccoon navigates around the children and hops into the garbage can. The water of the lagoon is brown but clear and very still and large fish are clearly visible beneath its surface. The occasional bird flies by across the lagoon from the dock. There is noise: giggles, gasps, chewing and slurping.
From the canoe bank next to the dock it is impossible to see the far end of the lagoon. The destination of the canoe ride remains a mystery until it is almost reached. Each canoe has two seats, forcing the third person assigned to each canoe to sit on the floor in the center of the boat. The floor is wet and muddy. The sand on the canoe bank is very fine and shoes and paddles sink deeply and quickly as the boats are boarded. Various trees line the banks of the lagoon, but the waterway is too wide to allow the branches to touch across the top, leaving the water in full sunlight. Logs from fallen trees lie in the water at various stages of submersion. Turtles sunbathe on many of these. As the canoes spread out along the length of the lagoon, there is less sound from voices. Screams punctuate the silent periods. Spiders cling to the brush on the bank. Those in the front canoes shout back sightings of birds that have long since flown away. Grand houses line the right bank of the lagoon. Lawn ornaments, barking dogs and pretty flowers fill the backyards. As the paddles of the inexperienced canoers strike the mud in the shallows, the smell of rotten eggs floats past wrinkled noses.

The walk back to the bus retraces the same route: grassy area, concrete path, asphalt parking lot. The air on the bus feels warm and sticky even though the cooler is blowing. There is laughing, storytelling and arguing, all happening simultaneously. Fingers again are testing the monitor knobs, but not as many as in the morning. Fathers are sleeping. The bus jolts as it pulls out of the parking lot and turns toward the exit. There are several ongoing narratives about the sights seen out the bus window in the five minutes it takes to leave the park. Children are standing, sitting on their feet and straining to catch a last glimpse of the elusive gopher tortoise.
before the bus makes its turn onto Sunrise. The interior of the bus is messier now, sand covers the aisle, leaves lie on headrests, waiting to be pressed into scrapbooks or forgotten. Out of the dirty, sealed windows, cars are seen lining the driveway of the school, waiting to collect the children who have spent the day in their classroom. The bus stops with a hiss and the children get off onto the carefully landscaped island in front of their school. Beneath their feet is the thick, lush grass that is not native to Florida.

The Study Population

Motivated in part by the lack of research in this area, I was interested in as general a study population as was feasible. As I conducted my research, I quickly became aware that much further research could be undertaken, concentrating on specific study populations. Particulars of ethnic and economic background, of family size and parental marital status all come to bear on issues of nature and culture. For example, over the course of my investigation, I noted that African American and Haitian children exhibited a much higher degree of fear around bodies of water than their counterparts of other ethnic backgrounds. These issues warrant further research. I, however, was in search of general trends, of the thoughts and behaviors permeating the culture of south Florida's children as a whole.

The "Surfside Safari" is not offered to every child, but it is offered to many children: from public and private schools, affluent and lower income areas, new neighborhoods and older communities, to gifted classes and those with learning
disabilities, and many others in between. I became most interested in the behaviors that were the norm across these boundaries, those elements part of the shared culture of children.

Data Collection

"Participant observation is the foundation of cultural anthropology" (Bernard 1995: 136). My role in the collection of my ethnographic data could be described as a participant observer. To my informants, the children taking part in the environmental field trips, I was part of their "environmental experience." By canoeing with them, hiking with them, seeing the same animals and laughing at the same situations, I was able to easily "get close" and "make them feel comfortable enough" with my presence so that I could easily "observe and record information" about them, all vital aspects to being a successful participant observer as identified by Bernard (1995: 136). In his appendix concerning participant observation with children in particular, Fine (1987: 223) identifies four possible roles for the ethnographer. The role that I occupied over the course of my research, he might identify as "leader." The leader is defined as having "authority over the children" while also attempting "to establish friendly relations with them" (Fine 1987: 223).

Although a position of authority might initially seem to compromise the researcher's ultimate goal of being an unbiased ethnographer, this does not seem to be the case when studying children. Adults, Fine (1987: 222) notes, cannot pass unnoticed in children's cultural settings. They must have a place that is clearly
defined in order to earn the trust and respect of their informants. My position as leader allowed me to share in the experiences of the children to a much greater extent than I might have if I had attempted to engage in participant observation without a clearly defined role. I suspect that children might have been less willing to share their insights and information with me had I not had a clear reason to be taking part in their environmental experience.

As a participant observer over the course of thirty different field trips, I initially collected my data unsystematically and later in a more carefully organized fashion. This "haphazard" early period, which according to Fetterman (1998: 35) is characteristic of the ethnographic process, served to raise questions and foster ideas that were later explored through interviews and more specific observations in the field. The searching out of "experiences and events as they come to attention" (Fetterman 1998: 35) is an accurate description of how certain avenues for exploration were arrived at.

This description is also reflected in the sampling methods used. Although the children that make up any particular class will represent many different backgrounds, those classes that are able to participate in the "environmental experience" are not randomly selected throughout South Florida. Of the students that participated, those who "came to attention" were more commonly observed than those who did not. In this sense, the sample was non-random. After the initial period, I employed what Bernard (1995: 95) calls "judgement sampling." He explains, "you decide the purpose you want an informant to serve and you go out to find one" (Bernard 1995: 95). In my study, I attempted to choose children to observe and interview who
behaved differently from each other. For example, both males and females were observed, as were children of various ethnicities. Attention was paid to both the outgoing and the quiet, those at the back of the line and those at the front, the bright and the less knowledgeable. An attempt was made to represent many children, as there is of course never a "typical" child.

Bernard (1995:95) cautions against extrapolating too far using this kind of sampling. Indeed, common sense might tell us that by seeking out certain informants, the data can be tailored nicely (and artificially) to meet the ethnographer's needs. Care was taken with this sampling methodology and the behaviors observed were considered most significant after they had been noted in many children. Although the ethnographer gets "a sense" for what types of behaviors are common, I employed a more specific methodology also. Field notes were kept. These included detailed observations in addition to phrases and comments which the children made over the course of the field trips. The comments could then be organized into categories for later analysis. Certain patterns that emerged led to further research.

The comments made by the children and recorded in my field notes either came about through informal chats with the informants, which usually took place as we were walking from destination to destination in the park, or were overheard during observation. The former method of comment extraction might be termed in some cases "informal interviewing" (Bernard 1995: 209). In addition to this informal interviewing, "unstructured interviews" were also conducted in which children were asked to respond to several open-ended questions and their responses recorded.
These types of interviews were mostly conducted on the bus on the return journey to school. I was interested, especially in the beginning of the research, in keeping "a minimum of control over the informant's responses" (Bernard 1995: 209). By doing this I was able to gain more insight into the way children were thinking about their natural environment by noting the way they interpreted the questions they were asked.

Later in the research, I conducted two sets of structured interviews or questionnaires in which a large group of children (n=52) were all asked to respond to the same, specific questions. The data collected in this fashion was used collectively with all the other data in order to reinforce existing ideas and present avenues for further field observation. Because of the nature of the information that I was attempting to uncover, that which relates to the place and conception of nature as part of the children's culture, I relied particularly on the use of field notes. The way children think about nature is indeed related to their knowledge about things natural, however the two ideas are not precisely the same. Through participant observation and the recording of comments and behaviors, I was able to gain insight into how the children were dealing with the natural experience rather than simply noting what they knew. The structured interviews pointed more to what they knew, which reinforced how they thought about it. Although time at the field site was limited, the methodology proved fruitful in bringing to light many important ideas.
Organization of Data

"The human approach to experience is categorical" (Goodenough 1981: 63, cited in Wolcott 1995: 81). This idea might be applied to both informant and ethnographer. As a way of making sense of my data, I developed a series of categories in which I could place different behavior and comments. These are fairly broad categories and emerged from looking at the many comments listed in the field notes and recognizing that many were expressing similar kinds of ideas. It is these categories that form the basis for the following chapters. Again, one might examine my data and find many other ideas and make many other categories. Those that became important to me did so because of the way they seemed to offer an interesting perspective regarding the question at hand.
Chapter IV

Nature or Culture: The Blurring of "Natural" Lines

Randy

"Have you ever been to the Everglades?" the instructor asks Randy, a plump 9-year-old boy. "Are you crazy?" he responds, with a wrinkled nose and dismissive look. The bus is late and the children are milling around. Randy has made his way up to where the instructor is standing and, as the minutes pass, seems to be getting more and more apprehensive. He is bouncing from one foot to another and twisting his body from side to side. He declares that he would rather just stay at the school and make the paper animals and stick them onto the tree that they have in the classroom. When asked if he likes real animals he makes a kind of "so-so" twitch with his lip. He goes on to explain that he likes the zoo because "you don’t have to get all muddy ... there’s something to eat there and you can use the bathroom."

A few minutes pass and Randy begins swinging his lunch around. He is by himself on the sidewalk, while most of the other children are chatting in small groups. He mutters something under his breath and the instructor asks him to repeat what he said. He says that he wishes that he could go to the Everglades by himself,
because that way no one could see him killing the animals if they jump on him.

When asked what kind of animals that he was worried about specifically, he responds that it is the thought of lions and tigers and bobcats that worry him the most. When told that there are no tigers or lions in Florida in the wild, he concedes about the tigers but swears that lions are indeed here. When the instructor will not agree with him, he shrugs and walks away, still swinging his lunch and bouncing nervously.

On the bus, his nervousness is the center of much amusement for the other children. He accepts the “class-clown” role, playing up his fright with dramatic utterances and hand-clasping-face gestures every time the word “alligator” is mentioned. This over-dramatization of his fear continues once we arrive in the Everglades. During the slogging portion of the trip, he chooses to go directly behind the instructor, grabbing her shirt and flailing his arms at every uneven portion of ground. As he screams, waves his arms and calls out “oh my god, I’m gonna die,” he turns around and investigates whether he has caught the attention of the rest of the group. Every new entrance into the water is preceded by a call of “I can’t believe I’m doing this” or “this is so disgusting.” As he walks, Randy looks down into the cloudy water and shakes his head, “what’s in here?” he asks.

On the bus journey home, Randy is smiling. When asked if he had a good time he shrugs his shoulders and answers that it was “all right, I guess.” He tells stories and laughs and jokes that show more of a positive response to the activities than maybe he was willing to admit. He continues playing to the persona that has been created for him, punctuating stories that other children are telling about him with big.

1 All names have been changed to insure the anonymity of the child informants.
sighs and hand movements and “oh, yeah!”s. As he exits the bus, he is simultaneously grumbling and smiling.

Classification Confusion

Randy’s insistence that lions do indeed live in Florida may seem strange on a first reading. Randy, however, is not the exception when it comes to understanding what types of plants and animals are actually found in the wild in south Florida. On the bus in the morning, children are asked what animals they are concerned about seeing at the park. After “alligator,” the most common responses are “pirahna,” “anaconda” and “monkey,” none of which are found in the wild in Florida. Similarly, children often see a tall tree and call it a redwood, also not native to Florida. The inclusion of non-native animals in natural settings can be explained in a number of related ways. Simply put, the children do not have an extensive knowledge of many aspects of their natural environment. More interestingly, perhaps, is the related idea that those animals found in zoos are thought of in the same way as those found in nature. For many children, the zoos have been the extent of their “environmental experience” until this point.

As the idea that children did not perceive clear distinctions between native and non-native animals and plants came to light, it seemed to warrant further investigation. As part of a structured interview of two middle school science classes, children were asked to list all the trees and all the animals found in the wild in Florida that they could. The results seemed to support the data collected in the field.
The two classes were labeled the "high" and the "low" science streams. The "high" stream, I was told, was considered to be performing on grade level in terms of science, while the "low" stream was explained as performing below their expected grade level, more on a fourth grade level. The results of the tree question were tallied by simply counting how many trees each child could correctly name and how many were named incorrectly.

The most overwhelming responses from both groups were names of fruit trees. Very few children did not include some type of fruit tree as part of his or her list, and most included more than one. When tallying the results, I did not count the instances of fruit trees due to the difficulty of classifying them. There are wild, native fruit trees in Florida like bananas and avocados, although most are grown commercially. The abundance of these types of trees included in the children's answers may indicate a lack of distinction between trees planted by humans and those that exist without human intervention. The inclusion of "orange tree" was the most common, perhaps unsurprisingly given that the children are exposed daily to the image of the orange as somehow representing Florida. From the license plate graphic to the Florida orange juice commercials on television, oranges equal Florida. Perhaps one can speculate that if children living elsewhere in the country were asked to name native Florida trees they too would have "orange tree" at the top of their lists. Ironically, citrus farmers are one of the most environmentally destructive groups operating in Florida, destroying thousands of acres of endangered scrub habitat to plant their trees. This inability to distinguish domestic from wild also became a
dominant feature when the children were asked a similar question with regards to animals and will be discussed in greater detail below.

While the mention of citrus trees is explainable in terms of their great cultural and symbolic significance in Florida, the inclusion of "apple tree" on many of the children’s lists is perhaps a little more curious. There might be several explanations for this. If children view their natural environment as existing to provide the raw material for products that are for their use, then "apple tree" would logically follow "orange tree" because the apple juice sits next to the orange juice in the refrigerator. Thinking back to kindergarten class, children are taught names of things in discrete categories. Apple and orange were in the same category - wherever a child finds an apple, there is automatically an orange. In this sense, they "go together." Little or no emphasis is given to which one grows close-by. One might assume that in the seven school years that follow the information might become more closely linked to the actual natural environment, rather than the nature of textbooks and grocery stores, but the children’s answers do not reflect this.

Excluding the fruit trees, the most commonly listed tree was the "palm tree." Like the orange, the palm is a widely recognized symbol of Florida, appearing on travel brochures and ads for suntan lotions. From a young age, children’s drawings commonly feature the sun, clouds, a boat and a palm tree. Although I accepted the generic "palm tree" as a correct answer when tallying the results, there are hundreds of types of palm tree, many of which are not native to Florida. The distinction between native and non-native palms was not made by any of the children surveyed although some included both types of species in their lists. Of the 31 children in the
higher stream, 17 listed only one tree (55%) and that was most commonly the palm tree. Eight children listed 2 correct trees (25%), the second largest category, most commonly “palm tree” and “pine tree.” Again, I accepted pine tree as correct even though there are many non-native pines in Florida. Those few children that could name more that two listed other general tree names like “oak.” The listing of these general types of trees may not reflect an intimate knowledge of Florida flora obtained from personal experience, but rather a very basic knowledge of tree types based on textbooks or stories. It seems more unlikely that the children listing “oak tree” have encountered a short, shrubby Florida oak and more likely that they have read about squirrels collecting acorns from tall, majestic backyard oaks of the northeast. I believe the consistent generalities reflect this secondhand source of natural knowledge.

Unexpectedly perhaps, the “lower stream” were able to list more correct tree species than their supposedly more talented counterparts. Out of the 21 children, five could list only one tree (24%), nine could list two trees (43%) and six could list three (29%). The types of answers were very similar. This inverse correlation between academic prowess and environmental knowledge, albeit slight, was also evidenced in the responses to the question regarding native animals discussed below. Although not conclusively supported by the data collected in the field, perhaps those children who have a minimal interest in scholarly pursuits will be less likely to be inside doing homework, surfing the net, in the library, etc. and more likely to be outdoors. Indeed, with these two classes, the “lower stream” contained more sports players and more children who had been labeled as “delinquents” because of run-ins
with the law. In south Florida, less parental supervision often means more time out of the house, some of which may, by chance, be spent in natural areas. Some of the data collected in the field does show a greater mention of things seen and learnt via the "Discovery Channel" among those children considered by their teachers to be "bright." These children, however, do not show a greater knowledge of their specific natural environment than their less "bright" counterparts.

A similar pattern emerged when I compared the "native wild animals" listed by the children in the lower and higher streams. While the greatest number of the brighter students (nine) could name only two animals correctly (29%), an equal number of the less academic students listed four or greater as listed under three (43%). Although these students seemed to have a greater knowledge of animals in general, they were less likely to make the distinction between animals found in the wild, animals found in the zoo and domestic animals. Of the animals listed, in most of cases more than half the answers were either non-native or domestic animals. The higher stream also listed these types of animals, although not as often. The most commonly listed incorrect animal across both groups was the flamingo. Like the orange and the palm tree, the flamingo is a culturally available symbol of "tropical" Florida. Unlike parrots, another tropical symbol that is non-native to Florida, there are no wild populations of flamingos in Florida. While it is conceivable that, unless taught, children may not be expected to distinguish between the native and introduced species that they observe in the wild, it is more curious that so many children listed "flamingo" after only having seen them in the zoo. Again, this reinforces the idea that natural knowledge is not acquired firsthand, but via symbols
and ideas that are incorporated into the children’s culture in a secondhand fashion from “unnatural” places.

The confusion between zoo animals and animals in the wild that came to light over the course of the field work was also noted among the children surveyed. The idea that nature is a separate and discrete place that the child can choose either to go to or to avoid makes its confusion with places like zoos easier to understand. If the outdoor environment is something that children see as wholly outside their ordinary realm of activity, if being in a natural place is a special event rather than part of their everyday existence, then confusing what is found there with zoos makes sense. The confusion between wild and domestic animals is perhaps more difficult to understand. Perhaps the children are thinking of stray dogs and cats that they see “in the wild” or dogs not on a leash or under human supervision in some way. Or perhaps it is that children instinctively think of the animals within their own homes when one mentions the word “animals.” This might explain the inclusion of “dog” and “cat” on the lists, but the inclusion of “cow” and “pig” warrants further analysis.

Similar to the inclusion of fruit trees on their lists, the inclusion of livestock indicates that the things that are foremost in the children’s minds are those things that can be used by them. Importance is placed on animals that are resources, which the children can draw a direct line from to the table. Animals such as lizards and raccoons, although undoubtedly seen more often than cows by children, are mentioned less often because they do not factor significantly in the children’s lives. They have no real meaning to them because they are outside their everyday cultural environment. Another possible interpretation of the inclusion of animals like cows
on the wild animal lists is that farm animals, like wild animals and zoo animals, are unfamiliar to children living in an environment where most fields have been replaced with strip malls. Indeed, children looking out the windows of the bus on the field trips always derive just as much excitement from seeing a field of cows as deer for example.

Just as no distinction is made between the wild and the domestic, so too can the children not seem to distinguish between the general and the specific. Lists that read "dog, cat, birds, ducks, flamingos, fishes" or similar were common among both streams. This overlap may be an indication of a lack of classificatory ability. Some children may not know that a duck is simply a type of bird. However, I believe that it is more likely an indication that the idea of what is a bird to many children differs from these specific birds. Songbirds, including doves, grackles, mockingbirds, jays, etc. are referred to with the generic "bird," while larger, more distinctive birds are differentiated. This may be a reflection of the way children are taught to recognize animals in their natural environment. From infancy, mothers can be observed saying, "Look, a birdie!" From this point until seventh grade the knowledge never gets any more specific than this. Perhaps this is because, in the cultural setting of south Florida, it never needs to.

Cultural Answers for Natural Problems - The "Feedback Loop"

Randy and the other children are certainly not alone in their anthropocentric orientation toward the natural world. By listing "apple" next to "orange" because the
apple juice is next to the orange juice in the refrigerator or the fruits are next to each other in the grocery store, south Florida’s children are simply manifesting something that “has characterized every civilization and nation” (Bennett 1976: 5). There is confusion because the children attempt to fit pieces from their world into the natural one. Many of the pieces do not fit because they have been acquired secondhand - the flamingos on the lottery billboards, for example. Perhaps the children have not been given the opportunity to receive first-hand natural knowledge. Or perhaps the possibility never existed.

Scholars as far back as Vico (1688-1744) have argued that humans can only ever have an indirect and inferential understanding about nature, that we are merely observers (cited in Kim and Berry 1993: 12). It might make sense then that pets and wild animals from Africa and native animals would not be separated in the minds of the children. To them, they are all part of an infinite unknown, thus they all are related to their world in the same way. If humans can never be part of any nature, then how can palm trees be more a part their nature than redwoods? Hayles wonders about this “traditional objectivity.” She asks that if we know reality because we are separated from it, if nature is only a social construct, why should we fight hard to preserve it?” (1995).

Many of the children could not answer that question. While many could deliver empty rhetoric about saving the natural environment, fewer actually could articulate why this was important. Debbie exemplified this awkward position. When asked why she was killing ants on an outdoor bench, she replied, “I know the environment is important and we have to save the earth, I’m just not a nature person.” Debbie’s
lack of a feeling of connection to her natural world makes it easy to make that kind of statement. Hayles (1995) is reluctant to accept this traditional display of objectivity. She proposes that we begin our discussions from the opposite premise, which postulates that we know the world because we are connected with it. Debbie is able to separate herself from nature by claiming she is not "into it." By letting it be someone else's problem, she puts herself above it in a sense. However, she admits that she realizes that a necessary connection exists between her world and the natural world - it's simply someone else's problem. Despite the evidence to support an anthropocentric orientation toward the natural world, it is difficult to rule out an explanation for these type of responses which incorporates some degree of connection between cultural and environmental factors.

The blurring of natural lines observed in the responses of the children can be interpreted as a symptom of connection as much as one of separation. When Bennett, in his discussion of the basics of cultural ecology, identifies what he calls a "feedback loop," he describes a phenomenon observed often among my informants. "Social factors often blend with the physical and are coped with by people as much as they cope with physical phenomena" (Bennett 1976: 156). Essentially, the children are not simply responding to what trees and animals and activities exist in the natural world, but also the cultural ideas that are part of those pieces of that world. Not only does Randy have to deal with the mucky water on a physical level, he is also obligated to deal with it on a social level - it is at this meeting of the worlds, these simultaneous explanations, that some blurring of both the natural and the cultural lines occur. The children attempt to incorporate what they know into an
explanation of what they do not. If they are unsuccessful, separation can become more marked.
Chapter V

Nature versus Culture: Separation and Attempts at Understanding

Craig

Smaller than most of his classmates, Craig sits in the center of the bus. His stature makes it difficult for him to ask questions because he has to hoist himself over the seat in front in order to be heard. This does not deter him, however, and his questions are matched in frequency with his comments. Most of the comments are slightly negative in tone, “I bet there are going to be tons of mosquitoes,” for example. He complains about not being able to write in his journal on the bus because he gets car sick. His voice might be described as slightly whiny and he is acting as though he is displeased, not smiling and being critical about the bus journey.

As we arrive at the park, Craig’s group is chosen to go into the hardwood hammock first. As the group walks across the parking lot, he asks “This is the hiking trail?” When the instructor responds that it is not yet the trail and points to her left to indicate where the trail is, he responds by saying, incredulously, “That!” He
continues, "but that is so messy and disorganized ... there's trees everywhere growing all over each other everywhere ... why don't they make it a neat garden?"

He seems quite surprised when the instructor assures him that nature is indeed messy and there is really no reason to make it neat. "I always though nature looked nice, like a garden," he says as he shrugs.

As they walk through the park, he continues to walk with the instructor, interjecting comments as the other children talk with her. He wants to know why there is not a gift shop in the park. While his group is canoeing after lunch, he is curious to find out why people have not built houses on the island in the center of the lagoon. He seems to be frustrated, pursing his lips, when the instructor explains that some areas of nature are and should be left alone by people. Later, before his group gets on the bus, they are asked to guess what has made the hole on the opposite side of a rope. While the other children are calling out "rabbit" and "gopher," he calls out "a shovel!" Again, he seems a little confused by everyone's strange looks in his direction.

Cultural Tools

A large number of children, faced with no other way to express themselves, use symbols and ideas from the non-natural world to express how they are thinking about the natural one. Craig was dismayed at the disorganization of the natural environment. The only idea that he had previously about what he expected to see on his "environmental experience" had come from his observations of gardens or
manicured public spaces. Similarly, a young girl described her conception of the Everglades before her field trip as “a big garden.” That there are places which are not organized in every capacity by humans is a strange concept for the children. The only way they are able to think about a natural place is in terms of their own human reference points. Another young girl exemplifies this by coloring her picture of a Key deer with McDonald’s “golden arches” and other fast food restaurant references (figure 1).

Andy, an energetic fourth-grader, responded to the instructor’s question asking who knew the secret of the sawgrass in an unexpected way. In all earnestness, he called out “The Sawgrass Mills Mall!” Some of the children chuckled, realizing that the response should have had something to do with the piece of actual sawgrass that the instructor was holding, but Andy looked dismayed. He was making a genuine connection between the question and the only other context in which he had heard the word “sawgrass.” He had no cultural tools to deal with that question other than those he used. Having never actually had the word “sawgrass” defined for him, he essentially did not really know what it was that the instructor was talking about. He could only reach into his memory and access the sole context in which he had heard the word before. The idea that a mall is very separate from the natural place he was standing in, even though it was named for part of it, is not something he had ever been taught. Because of this, he made the odd comment without making the distinction.

Francesco was chatting on the bus after his “environmental experience.” He told me that he had enjoyed the day and had fun, although he was a little scared.
When asked what he liked the most, he answered “Celebrity Death Match” followed closely by “South Park.” Unaware that we were speaking about television shows, I looked a little confused. Francesco went on to explain the premise and action in “Celebrity Death Match,” equating it with how raccoons might fight (we had seen raccoons that day). Two points struck me about this exchange. Firstly, the child made the leap from talking about his day in nature to talking about his favorite television shows without missing a beat. The transition was so obvious and effortless to him that I even missed it. Secondly, he used the natural event to explain the television show to me, as if he were translating from his non-nature language to my nature language.

Even though the child in the above example had a positive natural experience, he still referenced non-natural things when asked to talk about his favorites. His reference surprised me because I thought we were talking about nature, but he had already moved on. The “environmental experience” was over, and because of its distinctness from the rest of his life, he had already filed it away so that he could continue speaking about those things that feature in his everyday life. The combination of nature and these non-natural television shows seems quite jarring—one does not seem to flow out of the other. This is, perhaps, because they do not flow one from the other but represent two distinct spheres of life and of knowledge. Natural experiences are not a part of the culture of these children. Again, they can only seem to relate to things in nature by selecting odd cultural elements and applying them as best they can, even though they do not really fit perfectly. Without this, they encapsulate their entire experience of the natural place and form no roads
in or out of it. It is just “there,” something that they are at a loss to adequately explain, except perhaps with the use of the clichés of environmental lingo that are part of their cultural vocabulary.

The Environmental Soapbox

The environment is perceived as something “out there” that needs to be saved in some sort of intangible way and the kids are “over here” just living their everyday lives. At first listen, many children seem very aware of their natural environment. With little prodding, children will often offer comments that might show a commitment to “saving the Earth.” However, I began to notice that children were not actually behaving in ways which suggested that they either understood or believed those environmentally sound comments that they were making.

Spencer, a self-proclaimed nature lover, compared the Keys to his home by stating that “it’s so polluted up here.” When asked to clarify, he went on to state that what he was talking about was litter - that there is less litter in the Keys. He freely spoke about “lots of pollution” and how terrible it was, yet he could not really provide concrete examples of that pollution or explain why it was a bad thing. It would seem that, even though his environmental understanding was far greater than that of his classmates, he had not quite grasped the meaning of pollution in the general sense. Pollution to him was something that could be seen in the form of litter. The idea that there are many forms of non-visible pollution, which in actuality
are probably more of a serious problem than litter, is not something that he addressed.

The question then arises: how is it that children are using environmental buzzwords and phrases without really having the intimate knowledge and concern for their place in the natural environment that they seem to suggest? The answer, I believe, lies in recognizing that the children are using words and phrases taught to them via the media that reflect an environmental consciousness that had a rebirth early in the decade just past when they were very young. All their lives, these children have been participants in Earth Day celebrations and been forced to enter “Save Our Mother Earth” poster contests. It is little wonder that Eli, a plump nine-year old, would make a point of saying with the apparent wisdom of an aging man, “it’s a shame humans are wrecking this place, it used to be so beautiful.” Eli had never been to “this place” before. He assumed that it used to be beautiful, perhaps because he was incredibly insightful, but more likely (after observing a day of his behavior) because he had learned through various cultural avenues that humans wreck natural places that used to be beautiful.

Perhaps it seems rather cynical to attribute any signs of caring for their natural world expressed by the children as hollow examples of cultural indoctrination. The data, however, supports this idea. The disjunction between the soapbox that many children verbally hop on and their real knowledge of and comfort level in their natural environment is great. While south Floridian culture has a place for stating the importance of Earth Days and encouraging recycling, it does not have a place for simply coexisting with the natural environment or existing in a natural environment.
Environmentalism is part of our culture which we pass on to our children, but the environment itself is not. Quincy made a point of expressing several times that he thinks the "environment is important." He goes on to say that he likes to keep a distance from animals, prefers to go to the mall than the beach and doesn't recycle or pick up trash. The environment, to him, is only important because everyone seems to say it is. The natural environment is not actually important to him.

The fact that recycling programs and litter are such prominent features of the children's conversations and comments is curious in itself. The "environmental experience" does not actually focus heavily on these things. Rather, these are the ideas that children associate with "nature." Again, they compensate for having little knowledge or ideas about natural environments by repeating slogans from television campaigns. A twelve year old from Long Island wrote when asked if she was environmentally aware, "yes, because I recycle and give food to the needy at Thanksgiving." This answer demonstrates well how the "environment" can be viewed as simply a "cause," easily confused with other causes that need attention. "Environmentalism" should not be confused with knowledge or appreciation of the natural environment. In their discussion of traditional practices in Papua New Guinea, Gewertz and Errington (1996: 488) state that the practices are "appreciated in their generality rather than lived in their specificity ... best preserved as generic objects of veneration." This sentiment seems applicable to environmental practices in our society.
Binary Thinking

That nature is a distinct entity, separate from and existing outside culture, is not a new idea in anthropological theory. In their inability to explain the natural with their fourth grade cultural vocabularies, the children observed are exemplifying the “classic antithesis between nature and culture” discussed by Lévi-Strauss (1963:354). The children’s efforts to make sense of “nature” by forcing attributes of their “culture” onto it seem odd. The comments sound strange. This seems to reinforce Lévi-Strauss’s idea that there is a simple dichotomy between the two. Lévi-Strauss identifies “innate structures of the human mind” which are the basis for the formation of many different dichotomous pairs.

This theory seems to work especially well with children, perhaps because their thinking is generally more dichotomous. The observation that things are good or bad, right or wrong, stupid or brilliant - and nothing in between - in the minds of children is commonly observed. As one matures and subtleties become more apparent, the obvious dichotomies diminish, although, Lévi-Strauss would argue that they still form an undercurrent. Lévi-Strauss first identified his “binary oppositions” in the structure of various myths cross-culturally. In this culture, myths might be likened to a children’s fairy tale. On examining several of the more culturally salient fairy tales, one notes many elements that might be considered “binary oppositions.” These simple, moral lessons are attractive to the minds of children.

If children are predisposed to binary thinking by virtue of their age and lack of life experience and if this binary thinking is reinforced by the structure of the myths
and tales we tell them before bed, it seems to follow that nature is encapsulated as this sometimes strange, and always separate, place. This idea might be taken one step further by looking at the content in addition to the structure of these tales. “Nature,” in fairy tales, is often a place of mystery and danger. In “Little Red Riding Hood,” for example, the woods pose a hidden threat to a little girl, with a wolf lurking behind every tree. The wolf then dresses up like Grandma - the dangerous “nature” in cultural clothing. The blending of the natural with the cultural is perceived as a trick.

Indeed, the children exhibited many responses that expressed this idea that nature might be trying to trick them. Many of these were directed toward the instructors. The instructors seemed to be perceived as the cultural representatives of nature for the children - their only link to the “other world.” Just as Francesco was trying to translate from his “non-natural” language to my “natural” language, so many of the children perceived us to be hiding some kind of “natural” secret, to be luring them into something dangerous - to “the dark side” of woods and creepy-crawlies and unknown, untamed wilds. “Are you gonna make me touch something gross?” was a comment heard frequently. “What’s on the other side of the island - do we have to go there?” expresses this comment sentiment. The instructor, however, was not only temptress but also protector, being perceived as having the knowledge of the natural unknown and so having the power to overcome it.

Important in Lévi-Strauss’s explanation of the nature/culture dichotomy is this idea that there are “specific differences between men and animals” (1963:354) that allow humans to maintain separation and have a certain dominion over the natural
world. Perhaps more valuable to this research is Mary Douglas's expansion on this idea. In her definition of "good citizenship" is the idea of a rejection of dirt (nature) and an acceptance of hygiene (culture) (1966: 3). The children take hygiene on board as important to their culture and in doing so reject the dirt, the unknown, the lesser place, the nature. When they find themselves in this very separate place, some are simply at loss to explain it adequately, while others move on to conquer.
Meryl

Meryl is one of the last children to get on the bus. She was unable to organize or be included in a group of four children required to load the bus, so she and her best friend, Joley, formed a pair and sat in the last two seats. Meryl does not speak to the class or to the instructor throughout the trip. Her class is especially concerned about the threat of alligators. They discuss alligators with the instructor for a good portion of the journey. The instructor’s reply to the concerns is always that the alligators pose no real threat. Several children in the class seem unconvinced by these reassurances. Meryl does not communicate throughout these exchanges.

After arriving at the park and crossing the parking lot to the start of the hammock trail, Meryl and Joley have fallen to the back of the group. They remain last in the cluster of children as the group moves through the park. They both write in their journals and follow directions, with Joley helping the physically-smaller Meryl dodge the spider webs. As the children scatter to find their lunches and prepare to eat, Joley with Meryl in tow approaches the instructor and asks if they
have to go canoeing. The instructor seems surprised, but is busy organizing the lunch procedure and neither of the girls is very aggressive about demanding attention for their question. Joley states quietly that they have decided they do not want to go canoeing.

During lunch, the girls eat with their half of the class. Joley, who has taken on the role of spokesperson for the pair, is approached by the instructor and she agrees that she will go canoeing if she can go in the instructor's canoe. The plan is repeated several times until Joley is satisfied with it. Meryl is listening but remains silent throughout this exchange. After lunch, the children are lined up and organized into canoe teams. As Joley and Meryl are instructed to line up behind the instructor, indicating that they are part of her canoe team, Meryl begins to cry. She is quiet, but the other children in the group soon begin to notice her red face and tears. Many of the girls make attempts to reassure and console her until they are silenced by the instructor who continues with the lesson. Meryl is still silent.

After all the other children have been loaded in the canoes and are on the water, the instructor sits with Meryl to determine the reason for the tears. The child does not speak but nods when asked if she is scared. She nods when asked if she is scared of tipping over and nods again when she is asked if she is scared of alligators. The instructor looks to Joley to explain further the behavior, but Joley only shrugs in unconcerned confusion. The instructor takes Meryl by the hand and leads her into the canoe. Meryl follows without physical resistance, although her sobs and wails become audible as the canoe moves from side to side. As Joley climbs in and the
canoe leaves the bank, each movement is punctuated by a wail from Meryl, who is clinging to the side of the canoe with great intensity. Her knuckles are white.

All the instructor’s efforts to discuss the problem seem to fail as Meryl continues to cry, albeit not as loudly, until her canoe reaches the halfway point.

Joley attempts to speak to her self-proclaimed best friend, but Meryl does not answer her either. She is able to tell the instructor how old she is, however. "Ten," she says quietly through her sobs. The other children in the group ask her what is wrong as they pass in their canoes. Again, she does not answer. After all the canoes are stationary at the halfway point, it is time for the middle person to switch with the front child in order to paddle. Without any encouragement from the instructor or her peers, Meryl moves to the front of the canoe and begins paddling. Although she is no longer crying, she does not smile or speak. From her new spot in the center of the boat, Joley says, “See, it’s not that bad, is it Mer?” Meryl does not respond but continues to paddle efficiently. When Joley is asked if Meryl is always this quiet, she responds by calling her friend “shy.”

After the canoe is docked, Meryl shows very little emotion. She follows directions and heads back to the bus, again walking with Joley at the back of the group. On the bus, she chooses to read the story she has written about her day over the microphone (children are required to write stories but are not required to read them). In her story, she relates the day’s activities in an orderly fashion, finishing with the description of canoeing. She mentions that she paddled and enjoyed it. There is no mention of her fear or crying.
Cameron

Cameron’s face is immediately noticeable as the children are waiting in a jostling huddle to get on the bus. He is wearing a baseball cap that is several sizes too large with the brim sticking out to his left side. He is grinning, exposing a mouthful of large teeth that he has not quite grown into, and his eyes are wide and playful. He is standing toward the back of the group with three other boys and it becomes clear from the teacher’s comments to them and to the instructor that these four boys are expected to present the greatest behavior problem on the trip. When it comes time to load the bus, Cameron and his group are anxious and ready and arrive to the door quickly, second in line to enter. Because of their promptness, the boys are positioned toward the front of the bus, an event that leads to much moaning and groaning at the loss of the chance to sit at the back. Cameron’s friends seem more disappointed than he is. He continues chatting and flashes the instructor a mischievous grin, perhaps happy he will be sitting close to her. “Are we going to see alligators today?” he asks. She responds sarcastically and says that the alligator has been given a phone call earlier that morning and been told to wait at the third tree for them. He grins again.

During the bus ride, Cameron asks many questions of the instructor. They are roughly evenly divided between legitimate and silly. The silly questions, which are also echoed by his friends, include those like, “What do we do if an alligator jumps in our boat?” and “If an alligator bites my head off, what should we do?” A fascination with the possibility of the canoe tipping over and the boys falling into the
water also emerges during the trip. This possibility seems to delight Cameron. He seems to be the boy in his small group with the greatest environmental knowledge, judging from the legitimate questions that he answers. Often, his legitimate responses are followed by the silly ones of his cohorts. He always joins in with the ensuing laughter. The laughter generated by the boys shows indications of hiding some real fears. The boy sitting next to Cameron whispers to the instructor, “do we have to go canoeing?” Cameron overhears the boy and reassures him. He seems sincere and perhaps realizes that the boy is really scared and that, as a consequence, he should not continue joking with him right then.

The boys tumble off the bus, laughing and joking. Their group is canoeing first, much to their delight. On the way to the canoe site, Cameron and his buddies have to be reprimanded several times for running in front of the instructor, screaming, talking out of line, etc. Although they originally wanted to, the boys are not allowed to take a canoe themselves but are instead placed with the bus driver, a muscle-clad man with very little authority or influence over the children. The boys do not argue the decision as vehemently as might have been expected. Cameron sits in the center of the canoe along with the boy who shared his seat on the bus.

Throughout the journey, Cameron makes a point of showing the instructor that he is drinking the water from the lagoon. Cupping his hands over the side and splashing the water in and around his mouth dramatically, he screams, giggling, “Hey, is this water clean?” He seems disappointed when the instructor answers yes and tells him he can drink it if he likes. He tries to elicit some kind of response every few yards, eventually splashing the water all over his shirt and encouraging the
other boy to do the same. "We're all drinking this nasty water!!" he calls out and again seems frustrated by the response of the instructor who tells him that it is not "nasty" but perfectly safe to drink. At the stop, the children are asked what the gas coming from the lagoon bed smells like and Cameron responds "dog shit!" With a gleeful smile on his face, he watches the rest of his canoe-mates as they laugh. The adult chaperone in the group explodes, scolding him for his language. The instructor looks at him and says nothing. After keeping eye contact with her throughout the trip thus far, he seems to find it difficult to look at her. All the boys have stopped laughing and he apologizes under his breath. Cameron paddles back to the dock and the joyful mood is almost instantly restored. The boys want to "come in first" even though they are constantly reminded that they are not in a race. Their canoe reaches the dock second and they spend the rest of the day elaborating on how they would have been first if ....

At lunch, Cameron has the opportunity to entertain the other half of the class, which has not been canoeing yet, with stories of his canoeing prowess. By the fourth telling, the boys have tipped over (explaining their wet clothes), narrowly avoided getting swallowed by an alligator and made it back to the dock with record-breaking speed, leaving all the others in their wake. Cameron is providing all the visuals for the reenactment, leaping all over the dock. Later, on the beach, while the other children are collecting shells and seaweed, Cameron retrieves an eight-foot long two-by-four and drags it back to the instructor. "Look, barnacles," he says with wide eyes, pointing to a few small animals attached to the end of the wood. His grins again. In the hammock, Cameron carefully hides the fact that he has neat, straight
lines revealing all the correct answers that he has made in his journal. The other boys in his group are unaware what page they are supposed to be filling in. Cameron lets the instructor catch a glimpse of his paper, but quickly darts away when she begins to praise him. He creates a distraction and the boys again begin to laugh.

Predictability

Although Cameron is comfortable in the natural environment, his behaviors and comments illustrate that there are many aspects of the natural world which are essentially mysterious to him. When they arrive at the natural place, or often at the start of the “environmental experience” on the bus, children want to know what is going to happen next. Cameron’s question about the whereabouts of the alligator is common, although it seems to be more often motivated by fear than interest, as was the case with him.

What at first may seem to be simply curious, ordinary questions like “Are we going to see the alligator?” or, also very common, “Are there any more spiders?” are actually impossible to answer. The instructor’s response to Cameron about calling up and telling the alligator where to be illustrates the absurdity of asking the question. In many aspects of their daily cultural lives, the children can predict. They know what is expected of them at school and at home. They know what time science class will end and their favorite television show will start. They want, perhaps even need, to be able to predict nature in the same way. The children attempt in this way to apply their cultural laws to nature, and it does not work satisfactorily.
The observation that they ask these questions of the instructor may be more
telling than it at first seems. In a sense, it seems that the instructor personifies the
natural world. Just as the children can predict many things about their worlds, so
they expect that the instructor can predict many things about hers, the natural world.
The reality that the instructor must also use their cultural laws and that nature is
outside of this is quite foreign to them. Of course, they are correct in assuming their
leader will know more about the natural place; however, they assume that she can
know it in the same way as they know their non-natural world. The actuality that
nature is often something that cannot be predicted is not an option that is culturally
available to them. Much of the reason for this probably lies in the kinds of natural
experiences that have been available to them in the past. For example, zoos are
predictable - there is a map to tell you where the alligators are. It is with these type
of experiences with the natural world that they measure the “environmental
experience” at hand. Oftentimes the measuring stick simply is not long enough.

Competition and Aggression

If the child can predict the behavior and whereabouts of a wild animal, he or she
can keep the “upper hand.” Knowing about the “other” and its behavior puts one in a
better position. Children do not only want to predict what is happening in nature to
make sense of it in ways that are available to them, they also want to stay one step
ahead of these potential natural threats. Many children exhibit behaviors and make
comments that might be categorized as representing an interest in aggressive
competition. The most common comments made are in the canoes when the children, like Cameron, express an interest in "being first" or winning the "race."

When reminded that the canoeing portion of their program is not a race and winning is irrelevant, the children were observed commonly to continue to try to paddle their fastest unabated. Of all the canoeing sessions observed, more became competitions than did not.

Competition is expressed not only in the desire to beat one another, which is quite logically attributed to a constant cultural urging to be "better" than the next person, but also in the need to compete with natural things. Tales of alligator wrestling prowess abound. Killing spiders in the canoes is common. Although, generally, aggressive behaviors were observed with more frequency in boys, the killing of spiders was an activity engaged in with equal frequency by both sexes. The following is a short exchange between the instructor (KBM) and Jill, a fourth-grader:

Jill: Oh no, oh no, kill it smash with the paddle - do it now
KBM: Stop - why do you want to kill it?
Jill: I hate them - they're gross
KBM: How are they gross - it's not doing anything gross
Jill: I just hate them - I always have
KBM: Why?
Jill: I don't know
KBM: Why would you hate a tiny spider?
Jill: I'm scared

The focus of other aggressive behaviors was sometimes even less threatening. Cindy, a tall nine-year-old, was noted as saying to a friend, "the tree was attacking me but I beat it!" In this sense, the children's "environmental experience" can be viewed as a kind of test. The question could be, "Can you survive the day?" or "Can
you win?" It is easy to get the sense that there may be more driving these foci of predictability and competitive aggression than simply attempting to make sense of a natural world with strange cultural tools. Both aggressive competition and emphasis on predictability can be causally linked to the idea of fear.

Fear

Fear is a common response to the "environmental experience." Fear was noted as having many different manifestations. Much of the fear is directed at particular animals or, less often, plants. Often fear seems to be a result of simply being out of one's element, surrounded by nature in general. Other times, fear was noted as having as its focus the water activities, particularly canoeing. Not every fearful child was observed to cry, although more than Meryl shed tears. Some children expressed their fear through violence or refusal to participate. Others presented the instructor with a long list of questions to help combat their fear.

Like Meryl, Maria shed tears. Unlike Meryl, however, Maria was able to express clearly the cause of her wailing and crying. Again, like Jill and many others, the focus of Maria's fear was an eight-legged creature the size of a nickel. "I hate spiders!" she cried. "There's a spider in here [the canoe] and I hate them sooo much!" Each inch the daddy-longlegs moved toward Maria was punctuated by a long wail. When asked why she hated spiders, she explained that she thought they were horrible. She conceded that they probably were not going to hurt her. What at first seemed to be fear caused by a perceived threat to her physical well-being turned,
out to be slightly more complex. Maria’s fear was certainly an emotional rather than intellectual response. Fear is a culturally sanctioned response for young girls to have when faced with a spider. In homes, the places where the children would have most likely previously encountered them, spiders are intruders. Intruders are to be feared. Having never or rarely encountered spiders where they are “supposed to be,” outdoors, it would be most logical that Maria would respond in the way appropriate to seeing them in a more familiar cultural setting.

Meryl’s fear is perhaps slightly more problematic to explain. It was more difficult for her, and also for me, to pinpoint the cause of her terrified reaction to the idea of canoeing. Perhaps the idea of being so completely divorced from something that she knew made her fearful. Fear of the unknown is a common phenomenon. Raccoons, often seen during the “Surfside Safari,” are relatively unknown to the children. Being nocturnal animals, they would be rarely seen during the day in other locales. A young boy, upon noticing a raccoon walking in his direction, picked up a rock, threw it at the animal and retreated stating, “I’m a boy and I’m even scared!” That he made a point of mentioning our culture’s gender conventions with regard to fear is interesting.

Girls and boys appear to feel quite equivalent amounts of fear, the data reveal. In the hammock, on the beach and in the canoes, the actions and words that could be attributed to fear in some sense (from tentative apprehension to hysteria) came in only a very slightly higher frequency in girls. However, the ways in which this fear is expressed differs with gender. Rarely was a boy noted to cry in the same fashion as Meryl and Maria. Louis, a small, stocky boy sporting a thick, gold necklace, cried
profusely while in the canoe. When asked what the problem was, he cited a strange pain in his legs, a pain which disappeared miraculously when he was transferred to the instructor’s canoe. “I’m not scared,” he offered before being prompted, “My legs just really hurt.” The pain in his legs strangely intensified each time his captain paddled his canoe into the bushes. Louis became angry and aggressive when questioned about the strange pain, lashing out with his paddle at some passing trees. His less gender-traditional manifestation of fear (crying) gave way to a more traditional one (aggression) when he was reminded of the cultural pressures of the other children participating in his experience with him.

Refugees

Violence of the type expressed by the young boy who brought up the gender issue with respect to the raccoon is a common male expression of fear. Ross (1992: 278) calls this type of behavior “protest masculinity.” When a male is out of his immediate surroundings where he feels culturally secure, he expresses his insecurity by emphasizing the culturally prescribed gender behaviors. Fear, in our culture, is feminine and violence is masculine. That Ross observed this kind of behavior among refugees and I observed it among children in nature might lead to interesting conclusions as to just how far removed children actually are from their everyday environment when they are in nature. They are truly refugees in a sense.

While many children express this general fear of the unknown, others, like Maria, have a specific focus of their fear, usually an animal. In a response to a
question asking whether or not she was environmentally aware, a thirteen-year-old girl stated, “I wanna know why some animals turn against people.” This is a sentiment shared by many children that watch many television shows with titles like “When Animals Attack!” and spectacular news coverage of the very infrequent alligator and shark attacks. After a long explanation of why the alligator that the children might see does not pose any threat to them, many children still expressed concerns and made statements like, “Oh my God, what if the alligator comes and flips our canoe?!?” That animals, especially certain species, are essentially adversaries of humans is a belief expressed by many children. This belief is the root of much of their fear. Plants occasionally invoke similar responses. “Will I be stung by poison ivy?” is a frequently asked question. One boy, during an interview, responded thus:

KBM: How about words to do with nature, anything that’s natural
J: Oh, poison ivy, oak trees, leaves ... umm ... poison ivy

Poison ivy, one of a very few harmful plants, was seemingly foremost in his mind. Many children anticipate that their “environmental experience” will pose some kind of threat to them. Much of the fear that comes from this perception stems from an inability to define exactly what to expect out in the “wilds.” Even if the children are informed about the nature they are about to become a part of, even if they know intellectually and seem to understand (judging from the responses they give to certain questions), their actions were often noted to bypass this cultural filter. They expressed fearful and aggressive responses without really being able to articulate why.
Freud included aggression as one of the “innate drives” that could be identified in infants, particularly males. Lorenz (1966) links innate aggression to participation in combative sports, also a typical male behavior and one alluded to often when canoeing (on 28 of the 30 field trips, reference to the canoeing portion of the trip as a “race” was made). Indeed, the belief in a biological foundation for aggressive behaviors is so great that Cairns (1986:70) goes so far as to state that “the universality of aggressive behaviors across cultures and across species has been broadly accepted as proof of behavioral evolution.” Because of the many factors discussed in the previous chapters, it might be wise to place the emphasis in this statement on the word “broadly.” However, this comment does elucidate quite well the extent to which the idea of a biological basis of aggression is accepted.

If aggression is something that we are born with, we might expect to see it very early in a child's life. Parens (1977) noted aggressive behaviors in the infants that he studied. Strayer (1992), studying preschoolers of several age segments, determined that conflict was more frequent among the younger children. He (Strayer 1992: 157) stated of 1-2 year olds, “agonistic activity is a well established form of social participation at that age.” A local parent echoes this research in simpler terms, stating about his young children, “you don’t have to teach them how to fight, you have to teach them how to share.”

Strayer adds more weight to this comment, noting that in older children “competition does not always lead to aggression” (1992: 157). By these older ages,
children have been taught to share or find other ways of resolving their conflicts with each other; however, conflicts with the natural world prove to be more difficult to solve. Essentially, children in south Florida have a cultural relationship with their natural world at nine or ten years old that mirrors the cultural relationship they had with each other when they were toddlers. They have never moved beyond this infantile natural understanding, and react with the most basic of behaviors.

Girls seem to act on their aggressive tendencies as frequently as boys at a very young age; however, as they reach the end of their first decade, culturally sanctioned responses are more prevalent, as noted among the nine and ten year olds on the field trips. Indeed, aggressive comments and behaviors were noted more frequently among boys on the trips when middle-school age children were participating.

In his psychological discussion of transcultural variables, Sears notes that many overt aggressive behaviors are not culture-specific. He describes these as having a "universal reflex character" (1961: 452). If we are able to identify the environmental trigger event in each culture (which may be different), he argues, then the aggressive behaviors that form the response can be expected to be similar in character.

Therefore, in the context of this thesis, the south Floridian child’s aggressive response may be rooted deep in his or her psychological or biological make-up, but the natural experience that provokes this type of response is not universally the same.

Sears also notes that competition is a transcultural variable, discussing a "competition drive which would lead him to respond to almost any goal as an unsharable one" (1961: 453). In their cultural worlds where much is commodified and "unsharable," it is of note that the children observed had difficulty with the idea
that the natural world was indeed "sharable." There is little to "win," little to "take"
and the competitive tendency is a response to the inability to cope with this.
Where is Nature?

Defining culture from an anthropological perspective has historically alluded to a central dichotomy: nature as distinct from culture (Kroeber 1917, Lévi-Strauss 1963). With our culture, we can “improve” on what nature provides and this ability, it may be thought, makes us unique. In this study, I sought to find out if this central dichotomy still exists, not in current ethnological theory, but in the lives of south Floridian children. I wondered if, in a culture of strip malls and traffic jams, our children perceived their natural environment as something that was part of their cultural picture. I wondered what cultural tools they would use to make sense of nature, and the place that it occupied in their worlds.

The dichotomy is clear. Over the course of the observations, interviews and questionnaires, the children consistently demonstrated that the natural world is something they perceive to be distinct from the cultural world of which they are part. This dichotomy is expressed in many ways. These children have, in general, very little knowledge of natural things. This lack of knowledge forms the basis for fear: fear of the unknown. This fear, expressed in many ways ranging from tears to
violence, leads children to want to make sense of their natural world, to understand it in some way so that they can be less fearful. This attempt at understanding leads children to use words and concepts from their cultural domain, the non-natural domain, to explain what they experience in nature.

In addition to using words and concepts, children try to apply their cultural laws and norms to the natural environment, with varying degrees of success. They search for words and phrases they have heard on the Discovery Channel to describe what they see. They cling to phrases from the environmental movement that they find in their cultural vocabulary even though the actual environment seems removed from their explanations. They sense that nature is in some way important, but many do not have the time to devote to nature as a "cause." Those children that are "into" nature and are very knowledgeable still reinforce the dichotomy. To them, nature is a part of their lives but not intrinsically so. Nature is an interest that they have chosen to incorporate into their individual lives, but it still is not necessarily part of the culture that they share with other children.

What children know and how they think about their natural world is essentially learned secondhand. Nature comes to them through the television and other media and as a result, children in south Florida perceive south Florida's natural environments in what is likely to be a very similar way to how children from other states perceive south Florida's natural environments. Further research along these lines would likely yield some interesting comparative data. Studies comparing the children's natural knowledge with their knowledge of human-made structures may also be fruitful in the future. This study of how children respond to their
"environmental experience" raised many questions that have not been answered here. I wonder, particularly, how they respond to other kinds of experiences. Is fear in natural settings, for example, greater than or expressed in the same way as fear in other types of settings? Also, what about the parental contribution?

In south Florida, "environmentalism" is critical. The constant influx of people to our sunny paradise is threatening to throw the natural world into a state of collapse. Biologists can, and do, work hard to find answers. However, it seems time that someone stops to consider how all these people are thinking. If our children cannot find a place for their natural environment within the culture that they have inherited, how can they understand its importance? They cannot save an environment that is not theirs. Perhaps we can think of the word "fun" in the culture of children as being analogous to the word "important" in that of adults. Maybe by providing opportunities for children to have fun in nature, an understanding of its importance will come.

Fun

Despite their odd references and their misunderstood environmentalism, despite their fears and their inability to distinguish and make sense of the "foreign" natural world, the most common word that children use to describe their day in nature is "fun." It is a rare child who, on the return journey to school, does not relate in some way how much fun they had. The children are asked to write stories describing their day and, if desired, to read them aloud. The most frequently used adjectives in these
stories included: “extremely fun,” “exciting,” “amazing,” “the bomb,” “really cool,” “the best,” “fascinating,” “the most fun.”

Fun is important to children. Life experiences are thought about and often judged according to how much fun they provide. For the children to put aside whatever awkwardness they might feel, to put aside the actual teaching that occurs as part of their “environmental experience,” and take from the trip an overwhelming sense of fun is, at worst, curious and, at best, encouraging. The sadness comes, however, from the observation that, in their minds, the fun ends. Even given the positive response, the environment is still viewed as something that must be left. At the end of the day, standing amidst the trees and the vines of the hardwood hammock, the children are asked to stand silently and listen for ten seconds. When asked to report what they have heard, very often someone will respond, “the ocean” or “the waves.” The noise that they hear is the traffic on Sunrise Boulevard. Their world of traffic is something that never seems to touch this world of trees and the ocean. Despite the fun they have had in this world, they must go back to theirs.

A Conclusion of Change

As a final thought, I would like to refer back to a simple model outlined in Chapter II. When Berry defined the word adaptation in terms of human ecology and cognitive processes, he noted three varieties of change: adjustment, reaction and withdrawal (1976: 14). Much of the discussion in the previous three chapter has exemplified the latter two varieties. I have noted the reactions of children, their
retaliations, both physical and mental, against the environment of their “experience.”

I have noted how cultural and behavioral elements increase conflict, rather than promote congruence, between the children and nature. I have noted how children remove themselves from the adaptive arena, withdrawing from their environment mentally when they can not withdraw from it physically. I have, however, written little about what Berry calls “the most common form of adaptation” (1976: 14).

When adjustment takes place, behavioral changes move in a direction which reduces conflict between the environment and the behavior, bringing them into harmony. My research shows glimpses of this process at work. Whether having fun or tentatively enjoying their new-found adventure, many of the children are striving for harmony with their environment. If Berry is correct and adjustment is the most likely course of action when nature and culture clash, we might expect an ever-increasing number of children who are given the opportunity to follow this adaptation path. If they are offered the cultural opportunities to make the behavioral changes in a harmonious direction, adjustment might even be an inevitable result.
Figure 1. Fast food Key deer colored by a child informant
Appendix

Sample Questionnaire

1. Write anything about yourself you think is important.
2. List as many words as you can think of when I say “nature.”
3. List as many wild trees as you can that are native to Florida.
4. List as many wild animals as you can that are native to Florida.
5. Would you rather go to the beach or to the mall and why?
6. Would you consider yourself environmentally aware and why?
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