

Reciprocity as Principled Argument: The Ethics of Human-Nature Interactions for the Letuama

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Abstract

Every culture has a system of beliefs that guides their interaction with nature. The literature suggests that indigenous communities rely heavily on the pursuance of an ideal of natural justice, which leads them to have a balanced relationship with nature. In this paper we seek to deepen the understanding of indigenous people's concept of natural justice and morality systems guiding their interaction with nature. An exploratory case study was conducted in which we gathered qualitative data through in-depth interviews and participant observation in a Letuama village from the Colombian Amazon. We conducted a grounded analysis of the data in search for subjective moral norms guiding environmental behavior. The six basic principles that emerged recurrently were: Economy, Reciprocity, Antagonism, Cleverness, Parallelism, and Tradition, with Reciprocity being common across all other categories. We found enough evidence to suggest that among the Letuama, Reciprocity is a culturally rooted moral principle acquired through the socialization process that strongly drives their human-nature as well as their social relationships. Some implications for future research and current theories are discussed.

Keywords: *morality towards nature, indigenous communities, Amazon region, Colombia, Letuama people, natural justice, justice conceptions, reciprocity, ethics*

Introduction

The human relationship with nature is guided, at a psychological level, by our conceptions about what nature is, and how we view ourselves in respect to it. Among the most influential mental representations of the natural world are moral beliefs about the correctness and incorrectness of our actions toward it. Moreover, we define moral beliefs not only in terms of humans' judgments about their actions toward nature but also in terms of judgments about the way nature acts and reacts to them.

An ideal of "natural justice" or "fairness toward (and from) the natural world," although critical for the first human groups that inhabited the earth, is not a prevailing value anymore in most contemporary western cultures. This is probably due to the fact that people in developed nations see themselves as separate from nature due to urbanization and industrialization and to the fact that most western cultures emphasize the cultural value of dominance over nature (Kluckhohn 1953; Altman and Chemers 1984). We recognize that all societies have contact with the natural world in one way or another (e.g., exposure to weather, water, air, living species) but *conceptually*, if not practically, western societies seem to have virtually abandoned it because their well being does not appear to depend directly on those resources. Indigenous groups, in turn, are more dependent on the natural world than most western groups because they derive their main needs such as shelter, food, and spiritual well being directly from plant and animal resources.

This idea leads us to hypothesize that, in cultures with a close contact with nature, the pursuance of justice with respect to the natural world still plays a vital role in defining individual and collective beliefs about, and behaviors toward, nature. If this were true, then, we would anticipate that in such contexts these kinds of justice beliefs might be powerful forces in determining the community's social actions and its individuals' behaviors.

A brief review of the concept of natural justice takes us to the context of law, where it is defined as the basic underlying principle upon which the world punishes criminal behavior within communities, societies and the environment (Rodger 1985). Furthermore, natural justice is presented as a concept of essential justice. That is, it describes the baseline for determining normality and abnormality in the social context according to the natural occurrence of behaviors, and to responses to those behaviors (for a discussion of this see Fabunmi 1974). In these definitions, the concept of "natural" means "inherent" and is applied to describe the baseline of a justice system founded in our ethical understanding of human actions. Although these definitions may seem quite distant

from our reference to “natural justice” as the justice framework within which human-nature interactions occur, they provide us with a background of the concept and shows us the potential breadth of the concept.

Moral beliefs about the natural environment are developed, in a phylogenetic or evolutionary sense, as an adaptive response to the characteristics and demands of the different environments humans have inhabited. The resulting “ecological” moral beliefs are then passed from one generation to another through the socialization process. Hence, both the moral principles and the mechanisms of cultural transmission of those norms are the result of complex processes of human-nature and social interactions that vary geographically, historically and culturally. In a human’s individual development (or ontogenetically), ecological morality appears and develops along with the social morality that children acquire.

We will explore first whether the concept of natural justice has been suggested by other studies conducted among indigenous communities in Latin America and other regions of the world. Then, we will explore whether the pursuit of a natural justice ideal is a cultural value/goal among the Letuama people from the Colombian Amazon, and on what principles their ecological morality is based.

The Meaning of Nature

In western culture the concept of nature describes several things. Ellen (1996) argues that nature first means a “thing,” that is, the non-human aspects of the world. Second, it means an “other,” or in other words, all that exists “out there.” Third, nature refers to an “essence” that can be either human (e.g., the nature of humans is very complex) or situational (e.g., the nature of those acts is based on altruism). In other cultures these definitions may vary (MacCormack and Strathern 1980). However, as a starting point we will take nature as the two former definitions and, consequently, the concept of natural justice should be derived from these definitions of nature.

Nature and Justice

Researchers have linked these two constructs through a variety of angles. The most common concept that links both constructs is environmental justice. This concept addresses the question of the equality or inequality of the distribution of environmental resources and threats among different social groups. However, when we think about natural justice in a psychological context, this concept remains inadequate to address how nature and justice are linked in an individual’s mind. Opatow and Clayton used the concept of green justice to describe individual beliefs of fairness toward the natural world. They argue that green justice consists of “justice beliefs that shape our behavior toward the natural features of

the environment such as forests, wetlands, animal species, and such widely-shared common resources as water and air” (1994, 1). A person’s justice beliefs are intrinsically related to her morality (Kohlberg 1981). Therefore, they are expected to shape both her attitudes and her behaviors toward nature.

The notion of a natural justice system emerges from religious and philosophical beliefs about how we see ourselves with respect to nature. Kluckhohn’s (1953) analysis provides one of the most noted descriptions of the philosophical principles that govern our relationship with nature. He claimed that humans think of themselves as being 1) subjugated to nature, 2) an inherent part of nature, or 3) separate from nature. Each of these views shapes a particular natural justice belief and thus a distinct moral stance toward nature. Some cultures emphasize their submissiveness to nature and would tend to adopt a morality of divinity. Others emphasize their harmonious relationship with nature and would tend to adopt a morality of caring. Still others emphasize their control over nature and would tend to adopt a morality of justice (Miller 1997; Shweder et al. 1997).

In the context of ecological anthropology (e.g., Rappaport 1979; Moran 1990; Biersack 1999), indigenous communities have traditionally been described as seeing themselves as an inherent part of nature (see also Escobar 1999). Therefore, we would expect that they tend to adopt a morality of caring, which implies that they act toward nature on the basis of duty.

At this point it is important to make clear that one of our purposes here is to evaluate moral tendencies as they are “subjectivized” in individuals who belong to an indigenous culture. Rappaport (1979) argues that our image of nature is culturally constructed so that there may be a discrepancy between the cultural image of nature and the actual organization of nature. Ingold (1996) uses the same distinction, referring to it as the two versions of nature: the *really natural nature* and the *culturally perceived nature*. Even though this distinction might be useful for making sense of the incoherence humans sometimes have between beliefs and behaviors toward nature, it seems to be strongly shaped by the Cartesian notion of separation between subject and matter that has been seriously criticized by post-structuralist and post-modern philosophers. For the purpose of this paper, when discussing about nature and natural justice we will use the second of Ingold’s conceptualizations; culturally perceived nature.

Ecological Worldviews of Amazon Indigenous People

Several studies that attempt to relate cosmological beliefs to indigenous peoples’ relationship with nature have been conducted with the Oriental-Tukano and Arawak descendant groups in the Colombian Amazon (e.g., Reichel-

Dolmatoff 1982; Hugh-Jones 1979; Von Hildebrand 1987; Reichel 1987; Van der Hammen 1996). These studies have focused mainly on the impacts of ethnoastronomic beliefs on human ecological and social behaviors. With these studies we are able to better understand the symbolism that these groups attach to stars, constellations, animals, plants, and forest sites that somehow model their actual behaviors. However, there seems to be a gap in the explanation of how ethnoastronomic beliefs are turned into such behaviors, which is a psychological question. We suggest that cosmological values are turned into moral principles and that these moral principles are then turned into ecological and social behavioral patterns that the indigenous people must follow in order to thrive.

Morality principles consistent with the search for an ideal of natural justice, although not mentioned explicitly, are suggested by most ethnographies conducted among contemporary native groups from the Colombian Amazon. These include those developed among the Letuama (Palma 1984); the Uitoto (Candre and Echeverri 1996); the Barasana and Desana (Reichel-Dolmatoff 1996, 1997); the Tanimuka or Ufaina (Von Hildebrand 1987); and the Yukuna-Matapi (Reichel 1987; Van der Hammen 1996). For groups such as the Makuna from the Apaporis region, for example, humankind is seen as a “particular form of life participating in a wider community of living beings regulated by a single and totalizing set of rules of conduct” (Arhem 1996, 185). The idea of reciprocity, which we define as the mutual dependence and commitment between humans and nature, has been traditionally seen as one of the most central rules of conduct that guide indigenous peoples’ interactions with the environment. If this were true, then, the idea of reciprocity would appear constantly in the specific norms that guide their behaviors towards nature and in their expectations in regard to how nature would affect them. At the most basic level, humans give something to nature in order to receive something they need from it. This conception of humans exchanging goods with the natural world to keep equilibrium seems to be shared by many indigenous groups but we lack the knowledge as to how indigenous people cognitively represent the processes that lie behind reciprocity.

Another question is how these norms are acquired. Rappaport (1979) argues that participation in rituals entails obligation and that it is through these obligations that moral standards (such as the idea of reciprocity) emerge in human beings. Consistent with Rappaport, Georgas (1993) argues that the concept of justice may be more likely to be shaped by local cues than by abstract cognitive categorizations or concepts. For example, he argues that perceptions of justice and fairness among indigenous peoples in Greece are shaped by the community whereas “laws and the judicial system are

sometimes perceived as hostile inventions of the central government” (1993, 68). It is likely then that local communities pay more attention to local rituals and to their most immediate leaders’ behaviors and prescriptions than to a set of external rules for shaping their moral beliefs.

A previous study on the psychological representations of nature and human-nature interactions in a Letuama community from Northwest Amazonia (Cristancho 2001) used a grounded approach to identify the most relevant themes in their interactions with nature. The themes were cosmology, nature’s essence, ecological calendar, organization of nature, natural justice, and nature care taking. From the six themes identified, natural justice was suggested as perhaps the most significant one as it permeated all the other themes. We want to pursue that finding due to its apparent cultural centrality to the Letuama.

In sum, we believe that the search for natural justice should be approached as a psychological process that involves essential cognitions and moral beliefs. Our assumptions include that this process takes place in the individual’s as well as in the community’s shared system of beliefs. Moreover, the process is dynamic in the sense that it may change over time due to normal variances across individuals and as a result of cultural transformation. We also believe that culture affects individuals’ representations and those individual representations, in turn, affect culture in a process of permanent and mutual reconstruction. Our next purposes are to examine whether the search for natural justice as a prevailing cultural value/goal exists in the contemporary Letuama culture, to examine the moral principles that guide their behavior toward nature, and to determine the actors and dynamics associated to such moral principles.

Method

In the framework of a qualitative cultural psychological methodology (Ratner 1997) we used participant observation and in-depth interviews to collect information regarding natural justice. Although the presence of outsiders will always have both desirable and undesirable impacts in any community, we took measures to minimize it. These included asking the community members to define the type of participation expected from the researcher who conducted the interviews, ensuring that he adhered to community norms and lifestyle, ensuring his responsiveness to requests made by the community (e.g., to help procure medicines, physical check-ups by a physician, workshops on health policy, and facilitating local projects). By arrangement with the headman, who was concerned that modern devices could alter their traditional cultural practices or thought, we also endeavored not to leave western devices behind.

The Letuama culture comprises about 200 members of two indigenous communities located in the upper Mirití-Paraná River basin, Northwestern Amazon in Colombia. We selected this group because it is one of the less acculturated native groups in the zone. They also willingly accepted the first author's presence during the fieldwork period due to their familiarity with his health services work in their community from 1996 to 1999. Letuama traditions reflect to a great extent the richness of their cultural past, something that is unusual to find in other neighboring communities that have been transformed considerably through their contact with western colonizers. The distance and the geographical barriers that make travel into the community quite difficult have played a major role in keeping much of their culture intact. Moreover, Letuama people live in the midst of the Amazon

rainforest, potentially providing us with an idea of how closeness to nature leads a culture to develop mental representations of human-nature interactions that have been crucial for both their daily life and their long-term successful environmental adaptation.

Setting

About 200 Letuama are settled in two small independent villages known as Oiyacá and Paromena. The former, where this study was conducted, has a population of 115 people settled beside the upper portion of the Oiyacá stream between the Mirití-Paraná and the Apaporis rivers in a very remote village. This territory belongs to the Mirití-Paraná Indigenous Preserve (see Figure 1) constituted legally in the 1980s. Its territorial extension is 6,500,000 hectares¹ (GAIA 1993).

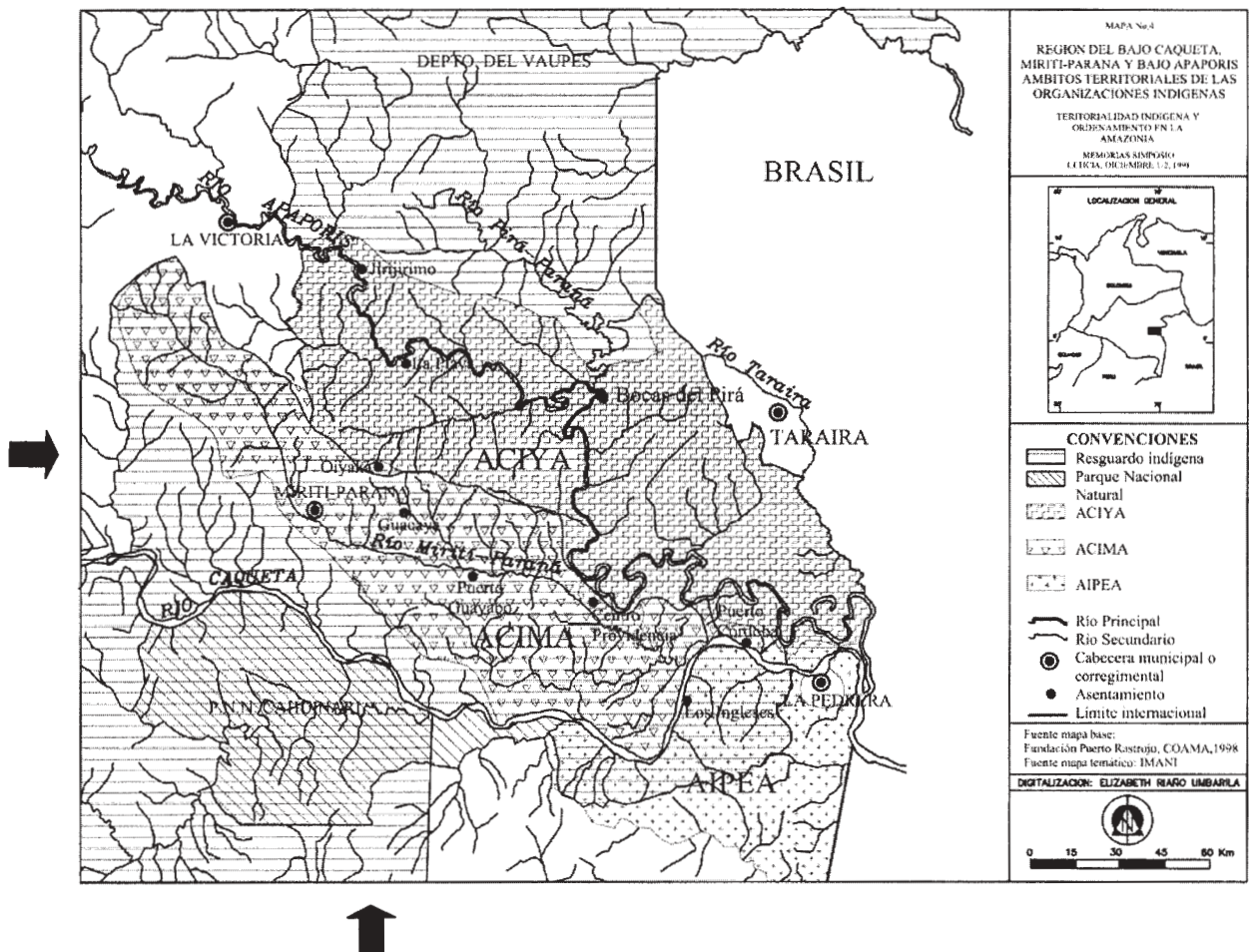


Figure 1. Location of the Letuama community of Oiyacá.*

*See where the two arrows converge. Shaded areas indicate indigenous reservations in the zone.

Original map title: Lower Caquetá, Mirití-Paraná and Lower Apaporis Region — Indigenous organizations' territorial domains. Used with permission from the Universidad Nacional de Colombia, Sede Leticia — Instituto Amazónico de Investigaciones, Imani (Vieco, Franky and Echeverri 2000).

The preserve is located within the political boundaries of the “Departamento del Amazonas” in Colombia. The total indigenous territory in Colombia is 25,447,348 hectares (22.28% of the Colombian territory). In the Amazon it is 18,724,540 hectares (46,380,685 acres). The Mirití-Paraná indigenous preserve accounts for 25.54% of the national indigenous territory.

On a broad scale, the Mirití-Paraná Indigenous Preserve comprises mainly ambrophylic low tropical forest vegetation developed under slightly undulatory moderately dissected surfaces (Puerto Rastrojo 1998 cited in Forero 2003). Many small streams have contributed to these dissected surfaces that make the forest surrounding the Letuama village quite hilly. The Letuama’s immediate landscape can be divided into residential open areas, forest pathways, *chagras* (community gardens), streams and stream banks, and dense rainforest. Each of these landscapes contains different vegetation and wildlife. Fruit trees and shrubs generally surround the open areas. Forest pathways and dense forests contain exuberant vegetation that ranges from the smallest plant species to huge palms and old-growth forest. Community gardens are typically planted with manioc (*Manihot esculenta*), pineapple (*Ananas comosus*), tobacco (*Nicotiana tabacum*), coca (*Erythroxylum coca* var. *Ipadu*), chili peppers (*Capsicum* sp.), caïmo (*Pouteria caimito*), yam (*Dioscorea trifida*) and plantains (*Musa sapientum*). Wildlife species include jaguar (*Pantera onça*), tapir (*Tapirus terrestris*), peccary (*Tayassu* sp.), paca (*Agouti paca*), deer (*Mazama* sp.), parrot (*Amazona* sp.), and a variety of ophidians and monkeys. Fish are scarce in streams due to pronounced variations in water levels from flooding patterns throughout the year. Only small fish can be found, mostly sardines (*Triportheus* sp.) and picalones (*Pimelodus clarias*). The climate consists of hyperhumid forest (average of 99% humidity) with warm temperatures (average of 26 degrees C), except for the *friafe* or cold wave that lasts about a week between June and July. The Letuama divide the year into 13 seasons, six of which fall into the rainy season called ‘*puea*, which takes place roughly from April to July. The remaining seven seasons fall into the dry season called ‘*ijia* which takes place roughly from August to March.

Neighboring ethnic groups include the *Tanimuka*, *Yukuna*, *Matapí*, *Makuna*, and *Barasano*. The Letuama people’s name in their native language is *Wejeñememajâ*, which means “people from the navel of the world.” The Letuama people consider themselves descendants from the boa.

In all Letuama villages there are traditional community houses or *malokas*. Letuama *malokas* are round wooden houses with conical roofs and triangular apexes. They are located in the rainforest highlands close to a stream and interconnected with trails. A *maloka* location is established to

facilitate fetching water and catching the limited amount of fish that the streams of the region supply. The *maloka* housing system favors community living and therefore collectivist cultural features. As is the case with other indigenous groups from the Amazon, the spatial distribution of the Letuama *maloka* (Letuama 2000) and a layer-by-layer analysis of its structure (Cristancho 2001) resembles their cosmology. Other peripheral housing alternatives include familial wooden units.

The Letuama village of Oiyacá possesses a headman, who is the political and spiritual leader in his community. He performs simultaneously the roles of headman, sage and shaman (traditional healer). The headman succession usually falls to his eldest son. However, destination, temperament, social support, and social legitimization of the new headman play roles in validating the eldest son’s election. Because of the small size of the community, most people have kin ties with the headman. Not surprisingly, the headman’s main apprentices are his closest relatives. Apprentices are chosen by their kinship with the headman and among those, the ones to be most intensively trained are those designated by his visions and from the consultations he holds with various spiritual figures.

Letuama social structure is mainly divided on the basis of gender, and is decidedly masculine, patrilineal, and virilocal. The pattern of marriage is based on a brother-sister exchange with their “cousins,” the Tanimuka. Even in a contemporary village, marriage occasionally occurs through the betrothal of young girls (sometimes infants) to older men. The Letuama practice monogamy. Their social structure and functional relationships can be defined as rather complex and they resemble cosmological and ecological dynamics.

In Letuama culture, childhood ends when adulthood begins (Palma 1984). There is not an adolescence stage, or a transition between childhood and adulthood. Insofar as the Letuama boy shows consistent ability to understand and abide adult conversations in the *maloka*, he will deserve his status as an adult. Likewise, when the Letuama girl gets her first menstruation, she will be initiated as an adult woman through a ritual specifically performed for that purpose. From then on, a Letuama man can marry the girl whom he chose or betrothed years ago and may start having children with her. In other words, both fertility and maturity define adulthood.

The Letuama culture nearly disappeared in the time of war with the Tanimuka, when one of the few remaining Letuama survivors was cared for and socialized into a Tanimuka community at the age of ten. (Later in life this individual found and gathered other Letuama survivors and pulled his culture back together again.) As a result, the two groups share important cultural icons and practices such as

the Yurupari ritual. Also their languages are quite similar to the extent that the language spoken by the Letuama people is called Tanimuka/Letuama or *Tanimuka-Retuará*, (ASCII 9; Code: TNC). This language belongs to the Oriental-Tukano Family, Arawak linguistic group, and Chibcha conglomerate.

Although native speakers argue that there are slight linguistic variations between Letuama and Tanimuka, the basic language structure and vocabulary is shared. Besides regular vowels used in English and Spanish, the *Tanimuka-Retuará* has five nasal vowels and several guttural sounds. Moreover, it has a very rich vocabulary and its syntax structure follows a subject-object-verb model (Strom 1992). Nearly 40% of the population also speaks Spanish, mostly middle-aged adults. Most elders and young children speak only *Tanimuka-Retuará*.

In spite of the similarities between Letuama and Tanimuka, members of both groups argue that they are different from each other in the origins of their people, in some of the deities they worship, and perhaps more importantly, in the nature of their traditional thought. We respect their view and although some conclusions may be generalizable to both groups, we only intend to make statements about the Letuama.

Participants

We selected interview participants via an agreement with the headman of the community (the headman is the one who determines who is allowed to speak and about what). Because speaking about certain aspects of nature is taboo in the Letuama culture, only the four people with the most important traditional roles were allowed to formally respond to the interviews. These were the three oldest sons of the headman, who are his closest apprentices, and one of his nephews who holds the role of traditional chanter. As we anticipated, women, young men, and children were not allowed to participate in the in-depth interviews by strict order of the headman. This is because they are considered to have neither the wisdom nor the maturity to speak properly about the sacredness of nature (see definition of sacred for the Letuama in the Procedure section). Even if women and children had been available as research participants, they would have preferred a female researcher to interview them and none was present at the time. As a consequence, we acknowledge that the views herein presented reflect mostly masculine ideas and that the implications of gender on the morality and ethics of the human-nature interactions for the Letuama remain outside the scope of this study. However, other members of the Letuama culture were observed during the naturalistic observational phases of the study and thus their behavior is represented even though it is not verbal.

Upon receiving the headman's authorization, partici-

pants verbally consented to participate in the study. Additional data came from informal interviews of 20 other members of the community and from ethnographic notes of naturalistic observational phases of the study. Information from these two sources is not quoted directly in the results but contributed considerably to their interpretation.

Instruments

Several in-depth interviews were conducted with each participant during summer 2000. We established a basic interview protocol that included questions regarding the human-nature relationship and then probed for depth (see Cristancho 2001 for a complete list of questions). We designed questions to address moral beliefs, attributions, subjective norms, and decision-making in regard to natural behaviors. Questions were based on similar types of studies in the literature and on the first author's previous experience with the Letuama. We also developed original questions to test concepts about relationships with nature. We tried to place the questions in a logical order in which there were no significant order effects. We also kept the questions relatively broad so we could stimulate a discussion and probe for further information. Questions included the following:

- Who or what takes control over nature overall?
- When do you think it is right to inflict harm to nature and why?
- What are the most important rules governing your relationship with nature?
- How does the community control that the basic rules in this regard are applied?
- What are the punishments?
- In your community who decides what to plant, when to gather or harvest, or when to go fishing and hunting?
- How do you personally decide that you are going to perform an action such as harvesting, fishing or gathering?

Procedure

The first author conducted the interviews mostly in Spanish. Sometimes translations to and from *Tanimuka-Retuará* were necessary in which case these were provided by one of the headman's sons. The participants chose to be interviewed in the *maloka* because, according to their tradition, this is the place where all the sacred aspects of Letuama culture are to be spoken. Inside the *maloka* were several shaman's artifacts that the *Letuama* see as protective against evil sent by nature spirit owners, witchcraft from other sorcerers, or *cariba's* (white or western people) diseases or bad intentions. Therefore, it is a safe place to speak about sacred things. For the Letuama, the sacred refers to knowledge or

objects that were initially handed down to them by their deities with specific and very strict spiritual regulations regarding their use, as well as the people and the circumstances under which such knowledge or objects should be shared. Sacred knowledge and objects are to be managed only by people who have the specific training to do so. Mismanagement of the sacred may bring illness and even death to the individual who mismanages it and to his family or community.

The headman was always present in the *maloka* when the conversations occurred, arguing that his presence would ensure that accurate information was provided to the interviewer. Besides the interviews, extensive field notes were taken as part of the participant observation regarding native systems of meaning and nature representation discussed during informal conversations. All of the information was first transcribed, then translated into English and analyzed.

During data collection for this study, the first author lived with the Letuama for six weeks. He participated in many of their daily activities, conducted informal conversational interviews, and had an opportunity to observe the workings of Letuama society. He also had the opportunity to observe Letuama Society during the three years he was a health care worker in the area. Because he was welcome in the *maloka*, he was privy to sacred discussions there.

Data Analysis

Following a grounded approach (Charmaz 2000), we opted for what Kim, Park, and Park (2000) call a psychological analysis of indigenous concepts (instead of an indigenous analysis of psychological concepts, which corresponds more to a hypothetic-analytic approach). Not having any pre-established categories, we searched for the principles, dynamics and imagined actors related to natural justice that emerged recurrently from the dataset.

We analyzed the transcribed data in order to find the most salient and recurring units of meaning. Our analysis consisted of categorizing the text according to the main themes that appeared consistently through the raw data (Ratner 1997). In order to improve reliability and validity of the categorization both authors reviewed the raw data. Content categories were then agreed upon and the text data were coded accordingly. The units of analysis were paragraphs of nearly unitary meaning as we parsed them.

The quotations presented below are illustrative samples chosen from the text of the interviews with the four individuals. In some cases we present more than one quotation in order to show some slight variations from participant to participant within one theme, and to better illustrate the point made with complementary information from two participants or from two parts of one participant's interview.

We assessed the extent to which the four interview participants agreed on each theme. The agreement was always at least 75% (or three of four) unless otherwise indicated.

Results

Because the word "nature" was used in the wording of the questions posed in the interviews and in participants' answers, we begin by presenting our Letuama participants' definition of nature. We then will present Letuama notions about whom or what is ultimately in control of nature. This will enable us to better understand the system of attributions they use to explain the occurrence of different natural events, and their relationships with human thoughts, behaviors and health. Then we will examine the Letuama's description of the natural justice system in order to understand their ideas and beliefs about the interconnectedness between the different elements in the system. Furthermore, we will draw on the morality principles derived from these ideas of natural justice. Finally, we will outline a model of individual and social decision-making with respect to nature related behaviors that results from their justice conceptions.

Concept of Nature

We begin by establishing the Letuama participants' concept of nature:

For us, nature is all what we live together with. It is all what we see surrounding us. It is the jungle, the animals, the rivers. It is a whole.

Nature is all what surrounds us. We live out of what we take from it. It protects us all and allow us to be here...Ok. ...It covers it all. We are born from nature.

Nature is for example the jungle in general. Whatever is surrounding this place; surrounding us.

As is evidenced in the quotations above, the Letuama see nature both as part of them (we are born from nature) and as separate from them (it is all that surrounds us). This dialectical reasoning style (Peng and Nisbett 2000) shows us that in the Letuama culture, as perhaps opposed to the western culture, ambiguity is accepted as a possibility of truth. The fact remains that in spite of this difference, there seemed to be a basic agreement with our operational definitions of nature.

Who Controls Nature?

The general perception among the Letuama is that there is one Supreme Being who takes control over nature. This is Yuruparí, who is considered the "master of masters of nature" (Reichel-Dolmatoff 1996, 1997; Palma 1984; Von Hildebrand 1987) and he is the link between the earth *ñama'tuka* and the

spiritual worlds governed by the four powerful ancestors *imari'makana*. Below Yuruparí, in this hierarchical structure are the masters of nature and the headman. The overall importance of Yuruparí as the overall controller of nature is exemplified in the following quotes:

For us it is the same as it is for the white people. There is a supreme being that controls everything: The one we call Yuruparí, that is, the ritual. Everything started from him, everything! Everything that happens is because of him.

It is just one... The world's Master.... The Yuruparí. He remained here in order to prevent us from the most serious things that exist.

Yuruparí controls nature through the subordinate masters and through the headman, the latter being considered as the mediator, or “secretary,” between Yuruparí, the masters of nature, and humans. Since communication with Yuruparí only occurs during the ritual period, the headman keeps communications more regularly with those masters who are available on a daily basis.

There are two beings that take control over nature. One of them is the ritual [Yuruparí]. He is the one who controls the entire natural world, all the Masters of the bush, the environment, all... all. Second, as his secretary, it comes the headman, who is the headman, the one who knows how to manage nature. He will appear as though he were speaking [to Yuruparí] and understanding all what he thought. Likewise, he will understand what Yuruparí said through the signals [he sends to him]. They have a direct relationship between themselves. Those two [Yuruparí and the headman] control everything, the entire environment, the women, the plants, the soil, the animals, and the beings from the water, all... Those who are sorcerers have the power to do so, not just one but all of them and the Yuruparí also, it is just those two.

One of them is the headman, who has a direct relationship with the Masters over there. The headman, that is the sorcerer, is the one who is related with the Masters. They are the ones that keep nature. One of them is the...[headman], but the other one is the Master of nature [Yuruparí]. He has direct relationships with both [the headman and the Masters]. That is the key that keeps indigenous people alive.

Thus, previous literature, plus our formal and informal interviews and observations, have revealed that the Letuama believe that Yuruparí controls what happens in the natural world through his relationships with the masters of nature

and the headman. Moreover, it is his justice system that governs all human-nature interactions as Yuruparí is thought of as the most important and immediate moral-principles-enforcement agent. The headman is the person mediating between the “master of masters of nature” and the people in the community. Hence, he has two main responsibilities. First, he must ensure that his community obeys Yuruparí's norms. Second, he must take the community's petitions to Yuruparí. Masters of nature, in turn, are hierarchically inferior to Yuruparí but in a slightly superior spiritual level to the headman. Like the headman, they have their own community and serve as mediators between their people (animals, plants, and other natural elements), and Yuruparí.

Letuama's Theory About Human-Nature Interactions, Natural Justice, and Reciprocity

When a Letuama person needs something from nature, he (we use masculine pronouns here because we are referring to male individuals who invariably interact with the headman) must ask the headman or a trained person to serve as mediators in his communication with the masters of nature. By doing so he will obtain permission for taking whatever he needs. The best way to do that is for the person and the headman to *mambe* (chew coca), snuff tobacco, and burn *breo* (natural black tar). *Mambeing* for the Letuama also means “thinking” in a spiritual sense and “figuring out” best ways to approach issues that demand great attention. *Breo* is extracted from the exudation of certain tree species in the jungle. The artisan melts the *breo* in order to handle it as a sort of glue in the construction of the blowguns, the heron's leg bone used to snuff tobacco, and other material objects. During most ritual ceremonies the headman burns the *breo* and then blows its smoke on physically or spiritually ill people. There may be slight practical variations for women as they are not allowed to *mambe* coca, snuff tobacco or burn *breo*. However, their conceptualization of this process seems to be the same as that of men. Here the Letuama explain the reasoning behind their natural justice ideal in their own words:

*...[People] must cast spells, and say the reasons [why they need something from nature] through their thought in order to ask nature for permission. For example, in a maloka, nature is managed with all the cultural aspects. Hence, you must give your coca and tobacco to one [Master], and then to another and another. Through that, you ask them for the things you want to negotiate, like products, you know? So, it depends on the headman what you offer because he is the one who knows what can be given, and how much. For instance, if you take *cumare* [vegetable fiber used to make thread from the *Astrocaryum aculeatum* palm], you ask the Master and he will tell you the limit of what he thought was enough*

for you. So, he may tell you “you can only take four [palms].” Therefore, you must only take those four. For example, *canangucho* [*Mauritia Flexuosa*] also has its Master, so you prevent through *mambe* and ask the Master “one, two, three, four.” He says “no, you can only knock down one palm.” Thus, you must only knock down one palm. If you don’t obey after you do the prevention and if, for example, he tells you to take only one and you take more than five, this will create a problem.

People do that mistake because they believe those are regular plants. They think it is like a game as youth is. Since they are young, they don’t believe in our own traditions. What is true and what is not? Nor do they believe what the old men say. That’s why that kind of things happen.

Well, we manage nature in the following way. As I already started to tell you, all kind of nature has its Masters. Therefore, in order to have a crop, a *chagra*, you must take some *breo* and accommodate the world, and ask for a place, a small part of land where you can live, and not just to fool around. By doing so you get the permission [to grow your crops]. Then you have to walk and burn the place, one starts clearing, looking where the *cananguchales* [forested area where there are many *canangucho* palms] may be located, all that. Then you can [do it] because you got the permission to do so. You can use whatever you need. It is through casting spells and [burning] *breo* that you do that.

...Listen, if one is going to clear-cut a piece of jungle for a *chagra* [community garden] one doesn’t just do it because one wants to destroy the jungle. One must assume a limit in one’s thought and say “until here it will be useful, but from this part on it won’t be useful.” Then, one casts a spell to nature in order for one not to harm it and ask the Master through *coca* and *tobacco*... We give him the most we can... This is like a business in which we ought to pay something. White people have their currency and say “Take this and I can use that piece of land.” It is the same but we pay with *coca* and *tobacco*.

From the standpoint of negotiation with the masters of nature and surviving within the demands of the forest, *coca* (*tā’āpika*), *tobacco* (*mi’rōā*), and *breo* (*māēā*) are probably the three most important natural products. These products are thought of as currency for negotiating with the masters of nature for any kind of environmental need. The plants from which these products are extracted are the “tools” that the Letuama inherited from their ancestors for surviving in the forest. Through offering *coca*, *tobacco* and *breo* Letuama are

indirectly offering the most valuable goods to the masters, who in turn, by being pleased, are expected to respond positively to their request. The attribution of reciprocal human features is not limited to the masters of nature: plants, animals, streams, and other natural features are also treated in a similar reciprocal manner but at a lower hierarchical level as it is illustrated here:

*What exists out there in the environment are [not just plants and animals but] people. They are another group... those who live there in the environment [in the jungle]. That’s why I told you, they are the Masters of sacred sites. However, one of them may be a starving or a crazy person because they are like people. If you go on a trip they may kill you because they see you as a tiger, as a threatening being and they can kill you: “he means nothing to us” [they can say]. So you may kill him [in order to protect yourself] and his thought goes there [points the jungle] and they [the Masters] ask him “what happened?” he says “I was killed.” They ask “why?” he says “because I killed his dogs.” So they are likely to say “ahh! it was you who sought your fate, so there is not a problem [you deserved it].” Similarly, when the snake is starving, it may start pulling out soil looking for a prey. When it finds a dog or a hen... pumm! It kills it. The snake comes to his home and they ask him “what happened?” He says “I was killed because I was fooling with their dogs,” [so they tell him] “ahhh! you deserved it.” So it is. For example, if you happen to be anywhere and you see a tiger coming to you, he will just look at you but he couldn’t do anything to you and he disappeared. But if you see it and you shot it, then you are in trouble because immediately he gets there [his *maloka*] and they ask him “what happened to you?” He says, “I was killed.” They ask him “why?” he says “just because I was around and he looked at me, I looked at him without doing anything, and then he killed me.” Now the Masters get ready to recover him [the tiger’s life]. They come through a storm or thunders, well, there are many ways to get rid of them. But, when they see that a young man is about to die, they just take him and kill him as revenge. It is like if I kill your brother, then you must kill me.*

We think likewise. If any of them harms us, the sorcerer has to heal [prevent illnesses through casting spells] the entire world and all the Masters of sacred sites. Through casting spells he makes them appear as though they really were in this world. Those animals become tamed [when you are hunting] so that when you find one of them you may just kill it easily, without any problem. The same happens to them [to humans].

Letuama people also receive instruction from the masters of nature about the quantity of natural goods they are allowed to trade. This instruction is given through what the Letuama refer to as emotions, defined as a set of signals in the person's body. Upon receiving the approval and thus the signals, Letuama people may fearlessly extract whatever natural product they asked for.

To break the natural laws means to take something without its master's permission, or to offend Yuruparí by not following his strict norms. One can also break a natural law by challenging the authority of the headman by taking (hunting, gathering, using) something without his permission.

Punishments for breaking natural laws are physical and/or psychological. Depending on how serious the offense was, a punishment could be applied to either the person, to his/her family, or to the entire community. Physical punishments consist of sending ailments, or even worse, causing the death of either the offender or one of his significant others. Psychological punishments include introducing feelings of permanent sadness, anger, or insanity in the person who directly offends nature or in a significant other such as the spouse, children, or other relatives.

In summary, we have seen that the Letuama employ a reciprocal system of justice in which they must give something valuable for every thing of value they take from nature. This justice system is enforced through strong norms that are taught from an early age and that are enforced through sanctions. A strong sense of morality emerges from the Letuama's own descriptions of what is right and wrong and how they thrive or suffer as a result of their actions.

Normative Systems

The Letuama's pursuance of natural justice is mainly guided by general rules or principles.

Everything has rules. There are laws that are generalized to nature as a whole regarding nature management. They exist in order to prevent nature from being excessively harmed in activities such as hunting, fishing, over harvesting the fruits of plants and palms. This is the way in which it is ruled everything in order to give a proper management to it, in order to take care of ourselves because we live from it, so it must have some rules. These rules are formalized and legalized among us.

Participant observation and interview results supported the initial assertion that the headman teaches these norms to children through a socialization process. Hence, even though Yuruparí and the masters of nature established the norms originally, it is the headman who rules and promotes them within the community.

...It is through the headman, though, that those rules are established.

Drawing upon the data, we summarized six basic moral principles that guide Letuama's human-nature interactions. These principles are also used by the Letuama to judge the morality of the behavior of nature toward humans.

Moral Principle 1: Economy. "I will use what I need from you and won't accumulate any surplus. Whatever I use from you has to be paid for in advance by me or by my community."

Through their thought the old men say that they will pay what they need to take. They do it through breo... It was like two dealers doing business: "he is buying me this." The Master just throws it and says "take it!" and that is how it suddenly appears here. "Because you paid, you will suffer no harm..." One must pay what the Masters want one to pay. With this [he points at the coca] we pay, this is what we give them, with these [coca and tobacco] we buy. If one gives him that, he will give one what one asked for. We must do it always...

Moral Principle 2: Reciprocity. "If you give me something good or bad, I'll give you back something good or bad." Not only does nature provide people with something in exchange when receiving something, but also it specifically provides people with something of the same essence (positive or negative) as what it receives.

Those who want can become Tapir. They live in a house like this one [a maloka]. If you keep killing them they may realize that you are killing them and hurting them so they take you and of course [they revenge what you did to them]!

Moral Principle 3: Antagonism. "You are both my ally and my enemy at the same time." Letuama concepts of both natural justice and human relationships with nature may be defined as rather antagonistic. This seems to be true also for other indigenous communities in the Amazon such as the Uitoto (i.e., Echeverri 2000). The relationship is antagonistic insofar as nature is conceived of as not only positive and protective but also as negative and threatening.

Nature is our ally...it protects us because we are born from it.

Nature may be really dangerous...Nature can kill us when we don't follow the rules.

Moral Principle 4: Cleverness. “If I am clever enough, I will be able to strategically get from you what I want without you being able to find out. Likewise you can fool me.” Under special circumstances the norms can be “fooled” for one’s own benefit, which indeed requires tremendous cleverness from the human who does it. This principle applies only to restricted circumstances, times, natural objects pursued, and the person’s level of traditional training. Likewise, nature is thought of being clever enough to be able to fool humans. In response to the question, “Somebody here told me that the wolf was also a very sacred animal, is that true?” one participant answered:

Yes, it is a very hazardous animal even though it is not as sacred as the boa and the tiger. If it happens to harm you in any way, you are allowed to kill it. But, be careful. If you kill him you must not remain there looking at him after you shot him because he will know who killed him. You just should shoot him and run away without even touching it after it dies. Likewise, if you blow a dart from your cerbatana [blowgun] and it kills the animal, he may answer back if he gets to see who killed him. This happens because the animal that is shot goes to his maloka [each group of animals gathers in a maloka and become people inside there] and carefully takes out the dart in order to identify whose dart hurt or killed him. If you haven’t done prevention of that, he may kill you later on. If after killing him you stay there looking at him, he will use the same arrow to kill you! That’s the case of the wolf. You can fool with it by hiding yourself.

Moral Principle 5: Parallelism. “I treat you as I treat my fellow humans and can expect from you that you treat me as you treat your fellow humans.” The same moral system that governs human-nature interactions is the one that governs social interactions with other people in Letuama culture.

For example, if I kill a tapir today and tomorrow again, the day after tomorrow again and so on, in a daily manner [that would not be fair]. This is very delicate and sacred. Sometimes you can kill them; sometimes you cannot because those animals are sacred as well. They are like human beings.

Moral Principle 6: Respect for Tradition. “I treat you as my ancestors treated you. You treat me as you treated them.” This last principle of natural justice has a conservative tone. Letuama people should behave toward nature as their ancestors did. Any modification to traditional practices, if needed,

should nevertheless be consulted with the ancestors before being implemented. However, they should not be far away from or contradict the actions taken by their ancestors to similar circumstances in the past.

First, it is mandatory to respect our tradition in all senses. We must have good relationships with the other indigenous people, learn how to do it, know how much wood can we get, or if we can’t get it, know if something has a Master, etc. If we do the things just according to our volition, we may affect negatively indigenous people. We may destroy it [the resource] and therefore be mistaken. Hence, we must have a good relationship with the Masters since the very beginning in order to understand what we are allowed to do, when, and how. This will lead them to respect nature and help take care of indigenous people.

Here we have seen six moral principles that guide Letuama interactions with nature, notably similar to their rules for dealing with each other, set up the rules for reciprocity in dealings with nature, and reach back to ancestors for wisdom and guidance.

Discussion

Our purposes with this paper were to examine whether the concept of natural justice has been described for indigenous communities in Latin America and other regions of the world, and, more specifically, whether the pursuance of a natural justice ideal is a cultural value/goal among the Letuama people from the Colombian Amazon, as well as the moral principles that guide Letuama behavior toward nature.

In an attempt to answer our first question, our results and literature review suggest that the Letuama, as well as other indigenous communities from the Amazon (e.g., Arhem 1996; Palma 1984; Reichel 1987; Reichel-Dolmatoff 1996, 1997; Von Hildebrand 1987; Candre and Echeverri 1996; Van der Hammen 1996) do pursue an ideal of natural justice. As a system, natural justice encompasses a set of expected contingencies, dynamics, actors, and beliefs. As a value/goal natural justice constitutes both an ideal of human behavior toward nature that ought to be pursued and a precious legacy of their past. The value/goal of natural justice seems to be culturally encoded into moral norms that are transmitted from one generation to another through the socialization process. Natural justice guarantees health and well-being for the individual and an ecologically sustainable future for the region they inhabit.

Now, let us answer our second research question regarding the moral principles guiding the human relationship with

nature. The subjective norms guiding human-nature interactions among the Letuama seem to be based on the reciprocal reinforcement of six basic moral principles: economy, reciprocity, antagonism, cleverness, parallelism, and respect for tradition. These principles have in common a commitment to reciprocal obligations, actions, and relationships between humans and nature. The Letuama make a commitment to giving to nature things that compensate for what they have received or wish to receive from it. This mutual exchange defines what we mean by the principle of "reciprocity." Thus, "reciprocity" seems to be a principle that is present across all other moral principles that we found. Moreover, maintaining a reciprocal relationship with nature is essential for pursuing the other moral principles of economy, antagonism, cleverness, parallelism, and respect for tradition in the sense that all these principles involve mutual agency and commitments from both human's and nature's perspective.

These findings are consistent with Århem's idea of reciprocity among the neighboring Makuna from Northwest Amazonia that he illustrates as follows:

Men supply the Spirit Owners of the animals with "spirit foods" (coca, snuff, and burning bees wax). In return, the spirits allocate game animals and fish to human beings. (1996, 192)

In the Letuama the reciprocity principle is not only limited to the hunter-prey relationship between humans and animals but also extends to other levels of the human-animal and of the human-plant relationship as well. Furthering Århem's arguments we could say that the reciprocity principle involves five different sets of interactions: between humans and spirits, between spirits and animals, between humans and animals, between spirits and plants, and between humans and plants. The particular conception and expression of reciprocity in each of these interactions is to be further explored.

To a great extent, the community's ability to keep a harmonious relationship with nature depends on the headman's ability to cure through casting spells (*bejoke'raka*), foods, plants, animals and natural objects that are necessary for their adaptation to the environment and, ultimately, for their survival. This assumption implies that Letuama have elaborate ways of thinking about natural events as well as a different logic of causality with which they explain natural events. Moreover, the notion of *bejoke'raka* implies having strong ideas about the potential of human agency for preventing natural disasters, epidemics, and spiritual perils. This markedly contrasts with the significance they give to Yuruparí as the overall controller of nature because it adds individual responsibilities and thus dispositional attributions surrounding human-nature behaviors. And so it is interesting to note that the Letuama's attributional style seems not to be predomi-

nantly situational, as it would be expected for a collectivist culture (Choi, Nisbett and Norenzayan 1999).

With respect to theories of environmental values, Letuama value of natural justice presents a balance between negative and positive connotations attributed to the human-nature interaction. This balance goes far beyond the typical romanticized versions of indigenous people as achieving harmonious relationships with nature by being completely subjugated to it. For example, as Kellert's (1993) typology of environmental values tends to emphasize the positive dimensions (*naturalistic, ecologicistic-scientific, aesthetic, symbolic, humanistic, moralistic*), it avoids dealing with more complex and dialectical values such as antagonism and reciprocity, which are acknowledged by the Letuama as essential. This is typical in dialectical reasoning styles (Peng and Nisbett 2000) in the sense that both nature's and human's demands can be seen as both oppositional and complementary.

Our findings support the transactional/dialectic approach to human-nature interactions research proposed by Werner, Brown, and Altman (2002) in which both humans and natural world are seen as receiving and demanding outcomes from each other. To illustrate, we found that the Letuama are concerned about diminishing game and fish in their territory, although they expected it to happen. Population pressure from their own and other neighboring communities in the region have depleted game for more than 30 years. Fish have always been scarce due to the high variability in the water levels of the Oiyacá stream. Also, the large amount of litterfall and biomass that drop to the stream from the forest makes it almost impossible for fish to swim upstream to their region. The most immediate solution that the Letuama are undertaking is moving to Popeyacá, their ancestral territory, which is located some 10 hours further walk from their present location. In this new site both game and fish are expected to be more plentiful. This mobilization is part of a larger cycle of land rotation they have traditionally practiced in order to preserve the natural resources in the long run.

In the short term, however, the Letuama practice food taboos dictated by the headman according to gender, age, social hierarchy, health status, and ecological season. They also smoke fish and other types of meat in order to make them last longer and avoid unnecessary extra hunting. These practices help alleviate human pressures on the ecosystem but they will not solve problems associated with population pressure, so migration to other areas is necessary. Food taboos and related traditional conservation practices are good examples of how cultural features result from environmental demands. Likewise, these cultural outcomes affect the environment (e.g., more sustainable game, new cultivation sites) thus creating a dynamic process of mutual transformation. At this point these solutions are not working well because the

30-year cycle of land use is reaching its end. Thus, migration is the best solution for them.

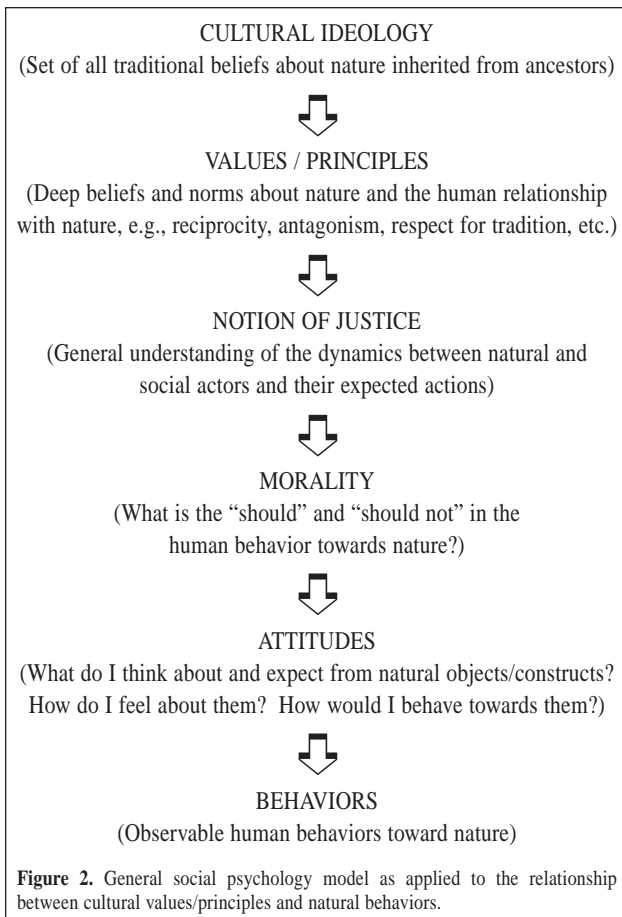
How do the moral principles and the pursuance of natural justice influence people's actual behavior toward nature? In Figure 2 we draw on a general social psychology model to help explain the relationship between the concept/value of natural justice, ecological morality principles, attitudes, and behaviors toward nature. Each culture emphasizes certain values or principles based on their historic tradition and their environmental adaptation needs. From those principles, a notion of justice (in this case a notion of natural justice) is constructed. This notion of justice includes the beings, roles, competences, processes, and punishments related to that particular conception of justice. Therefore, beliefs and judgments about the fairness or unfairness of humans' behaviors toward nature and about nature's behavior toward humans are dictated by this conception of justice. That is, ecological morality is defined and based upon the conception of natural justice. Moral beliefs in an individual drive the transformation of general cultural principles into attitudes, the latter being responsible for ultimately increasing or decreasing the

likelihood of occurrence of certain human-nature and human-human behaviors.

The Letuama idea of a natural justice kept under the surveillance of very powerful spiritual and human individuals leads us to believe that they assume a natural state of things that, upon disruption, leads toward concatenate consequences for the sources of disruption. This notion is very similar to the concept of essential justice used by lawyers, which implies "good conscience" and "equity" (Fabunmi 1974). An important question is whether the concept of natural justice, as understood by Letuama people, once existed but lost relevance in western cultures due to the ever more distant relationship people have with nature.

Although we believe that the reliability of the data we collected in this study is high due to the specialized knowledge of the individuals interviewed, the fact remains that much of it came from only four individuals. Those individuals were all adult men of elite status, highly central to the culture of the community, which is why the interviewer was directed to them. We triangulated much of the data with informal interviews and unobtrusive observation and thus have good confidence in our results. However, future research might examine cultural consensus including the natural justice concepts held by other members of the community including women and children. Studying the latter might also reveal the manner in which traditional ecological knowledge is passed from one generation to another. In addition to matters of gender, the study of the influence of other factors such as class and knowledge expertise may shed light on the reasons for subordination in the Letuama's hierarchical society.

Another question is whether the results here could be generalized to other societies in similar or different ecosystems. In part, we believe that generalization should be engaged cautiously since our findings are based on a somewhat limited season of fieldwork and a small number of research participants. Nonetheless, our participants gave us extensive depth of information and the first author's experience with the community gave him some insight into the workings of the community and its relationship with the natural world. The Letuama are a hierarchical and collectivist society and it is interesting to speculate whether non-hierarchical societies might be even more likely to negotiate with the natural world and perhaps to see themselves as even more part of the natural order than hierarchical societies. We are less able to speculate as to the relationship between the type of biome and interaction between humans and nature. Certainly the geographers of the late 18th and early 19th centuries believed they were able to identify personality styles associated with geographic domains (e.g., indolent tropics and energetic temperate zones) but the question is known to be a great deal more complicated. We hope that through stud-



ies such as the one we have reported here that we can contribute to the answer to this question.

In conclusion, the Letuama's search for natural justice is mediated by a rich and complex moral system guided by dialectical principles that involve negotiation between humans and nature through culturally defined pathways. These moral principles were: *economy, reciprocity, antagonism, cleverness, parallelism, and respect for the tradition*. Reciprocity was found to be common to the six principles identified. Therefore, we suggest that Letuama's morality toward nature tends to be ultimately based on the principle of reciprocity. This finding is contrary to our initial expectation that because the Letuama constitute a collectivist culture, its members would have assumed a morality of caring toward nature. A notion of reciprocity is more closely related to a morality of justice. Or, it may be more accurate to say that the principle of morality is attuned to equity, which is a particular kind of distributive justice. We do not believe we are prepared to say which of these is the case in the Letuama society. The relationship between cultural syndromes and morality systems in the context of indigenous communities as well as in more developed societies bears further examination.

Endnotes

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Acknowledgements

Funding for this research came from the University of Illinois at Urbana-Champaign (UIUC) through a Center for Latin American Studies Summer Grant to the first author in 2000. Complementary funding for the fieldwork and writing portions came in the form of two Summer Research Grants from the Human Dimensions of Environmental Systems (HDES) Program at UIUC in 2000 and 2001. The fieldwork portion took place while the first author was a Fulbright Scholar under the Amazon Basin Program for Colombia. We would like to thank the Human-Nature Research Laboratory and the HDES faculty and scholars for their invaluable feedback and support throughout. Above all, we are particularly indebted with the Letuama people for their hospitality and willingness to share their sacred knowledge with us. Finally, we want to acknowledge that this paper was greatly improved by the thoughtful and specific comments of three anonymous reviewers.

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