Volume 49

# *Advances in* Child Development and Behavior

## Children Learn by Observing and Contributing to Family and Community Endeavors: A Cultural Paradigm

VOLUME EDITORS Maricela Correa-Chávez, Rebeca Mejía-Arauz, & Barbara Rogoff

CHAPTER TWELVE

# Learning to Inhabit the Forest: Autonomy and Interdependence of Lives from a Mbya-Guarani Perspective

**Carolina Remorini**[1]
Consejo Nacional de Investigaciones Científicas y Técnicas, Universidad Nacional de La Plata, La Plata, Argentina
[1]Corresponding author: e-mail address: carolina.remorini@gmail.com

## Contents



## Abstract

This chapter examines the ideas of reciprocity, respect, autonomy, and interdependence of lives and the impact of these on children's learning. Using an ecological perspective that recognizes humans' relationship with other living beings that inhabit the forest, this chapter is based on ethnographic research conducted in two Mbya-Guarani communities (Argentina). Respect and reciprocity are key for children to develop as part of the community and the forest and they are related to children's well-being and health. I describe Mbya perspectives on children's growth and development, emphasizing the balance between interdependence and autonomy as complementary goals and values, providing examples of environmentally relevant skills to grow up in the forest. These skills are associated with particular ways of *inhabiting* the forest, including learning how to *walk* in it and developing *entendimiento* (understanding). These make possible children's integration in community life through their participation and collaboration in daily activities. I attempt to articulate these ideas with the theoretical framework of *Learning by Observing and Pitching In*, especially concerning ways of organizing and supporting children's learning processes in the context of their engagement with multiaged and more experienced group of people.

*Advances in Child Development and Behavior*, Volume 49
ISSN 0065-2407
http://dx.doi.org/10.1016/bs.acdb.2015.09.003

## 1. INTRODUCTION

Although some cultural analyses still use simplistic dualisms such as collectivism versus individualism, a balance between individual and collective goals and values is noticeable in many Indigenous communities in which individuals from different generations share daily activities and children are encouraged to interact in multiaged groups (Rogoff, 2003). In this chapter, I argue that an analysis of individuals' interdependence and autonomy in those communities needs to occur in the context of understanding local cosmologies that define appropriate relationships among humans and between humans and other living beings.

Through these pages I examine the importance of concepts of reciprocity, respect, autonomy, and interdependence of lives in children's learning in a community that views child development as an ecological process, the Mbya Guarani people in Argentina. The chapter expands and discusses some facets of what Rogoff and colleagues defined as Learning by Observing and Pitching In (LOPI, 2003, 2007, 2009, 2014), which they suggest is a common approach to fostering child development in many Indigenous communities of the Americas.

Most of the research on LOPI to date has been done in North and Central America; my ethnographic work among the Mbya extends LOPI research to an Indigenous people in Argentina and focuses attention on the deep interrelations among children, families, communities, and the forest environment. This work is based on the results of my ethnographic observations of children's participation in daily activities in two Mbya-Guarani communities as well as interviews regarding local knowledge, beliefs, and values around children's behavior and development, developmental milestones, and their relation with childrearing practices (Remorini, 2009).

Mbya perspectives and practices regarding children's learning and development emphasizing reciprocity, respect, autonomy, and interdependence must be understood within the framework of ecological relationships between people and their environment. Mbya-Guarani are one of the

Indigenous peoples living in the Argentinian Northeast[1] in the southern extension of the Paranaense Rainforest. As a result of multiple factors, the Mbya have moved through the Paranaense Rainforest since pre-Hispanic times. Ethnographic and historical studies about Mbya people have emphasized their constant spatial mobility as they make use of these rainforest resources and search for areas having favorable conditions for *Mbya reko*, that is, the Mbya way of life ("Sistema" or "Costumbre" Mbya; Remorini, 2009). In spite of the current reduction in extent of the Paranaense Rainforest, Mbya subsistence is still based on the combination of hunting–gathering and horticulture activities within the forest, although dedication to these activities varies according to communities' location and the impact of government policies.

Mbya people are acknowledged for their deep relationship with the forest ("monte" or *ka'aguy*). They do not just *live in* the forest, in the way that Western people usually understand the verb "to live." They consider themselves—together with other living beings—*part* of this environment, which is essential from their point of view for the continuity of the *Mbya reko* (Mbya way of life). The expression *Mbya reko* refers to cultural practices learned and performed throughout generations, including the appropriate ways of *dwelling* (Ingold, 2000) in the forest and relating with the forest's inhabitants.

I investigated daily childrearing practices and their relation to caregivers' knowledge and values about child development from an ecological perspective. According to an ecological perspective, development is a result of people's participation and engagement with their environments; as a result, people are both shaped by and actively shape their environments (Bronfenbrenner, 1987; Rogoff, 2003; Weisner, 1984). The ecology of

[1] The Mbya presence in Misiones Province dates back to the end of the nineteenth or beginning of the twentieth century, when they moved from the southeast the current territory of Paraguay, to Argentina and Brazil, significantly expanding its territory (Garlet, 1997; Remorini, 2001). According to most recent estimates, the Guarani total over 6500 people in Argentina, with high and sustained growth rates (Grumberg and Melià, 2008). However, according to official sources, there are 3975 people in Argentina who identify themselves as belonging to the Mbya-Guarani people (Instituto Nacional de Estadística et al., 2004–2005). Their language belongs to the Tupí-Guaraní linguistic family. The Mbya communities that I worked in are located between Cainguas and Libertador General San Martín Departments (Misiones Province).

human development relates patterns and pathways of development to the enduring and changing environments in which people live. In that framework, it is assumed that learning processes are sensitive to changes in people's environment.

Contrary to conventional approaches to child development, based on the idea that environment *influences* the child, for the ecology of human development, the unit of analysis is the *child-in-its-environment* as a whole, not as separate entities. Children are engaged in their environment through their participation in routine activities which requires the learning and practice of different skills (Ingold, 2000, 2006; Rogoff, 2003). At a methodological level, this approach focuses on everyday activities as a locus for studying children's development, taking up and revalidating ideas about human action proposed by Malinowski (1964) and Dewey (1916, 1938) and derived from philosophical pragmatism (Crivos & Remorini, 2007).

This approach fits with a central idea underlying LOPI (Rogoff, 2003, 2014)—the coherence between children's learning processes in different community settings and its connections with relevant everyday experiences. In Benedict's terms (1964), there is *continuity* between children's experiences across cultural domains and practices. Cultural practices such as those involved in LOPI are connected with many other features of children's and families' lives as aspects of coherent constellations of cultural practices that transform across generations. The idea of constellations contrasts with treating cultural practices as variables that operate independently (Rogoff, 2014).

Building off these ideas, this chapter is divided into three parts. In the first part, I examine Mbya understanding of their relationship with other living beings that inhabit the forest, emphasizing the ideas of reciprocity, respect, and interdependence of lives and their impact on children's learning. In the second part, I discuss Mbya perspectives on children's growth and development in a framework of balance between interdependence and autonomy as complementary childrearing goals and values. In that framework, I provide some examples of environmentally relevant skills to learn to inhabit the forest. In the third, I consider the conceptual differences between an integrated, ecological cosmology that emphasizes children's learning through participation and the division into individual versus collective, which is common in many conventional approaches in social sciences. I attempt to articulate these ideas with some facets of LOPI, concerning ways of organizing and supporting children's learning processes in the context of their engagement in activities that involve interaction with other people.

## 2. ENVIRONMENT, LEARNING, AND INTERDEPENDENCE OF LIVES

Understanding how people perceive and experience their environments is key for anthropologists and psychologists interested in the particular ways in which physical, cognitive, emotional, and social skills develop across the life span. Theoretical and empirical studies based on the ecology of human development highlight that human skills are developed through children's active engagement in their specific environments. As Ingold stated,

> *Human capacities are not genetically specified but emerge within processes of ontogenetic development. Moreover the circumstances of development are continually shaped through human activity… There is no way of describing what human beings are independently of the manifold historical and environmental circumstances in which they become - in which they grow up and live out their lives.*
>
> **(2006: 259, 273)**

In accord with these ideas, we need a relational and historical approach, going beyond traditional dichotomies such as organism/environment, nature/culture, innate/acquired, individual/society, autonomy/interdependence, and material/symbolic.

Similar to Rogoff's (2003) criticism against "boxes and arrows" as a way of explaining how culture/environment "*influences*" development, Ingold defends the necessity to move beyond the dualistic idea "individual *plus* environment":

> *The 'plus' signifies a simple addition of one thing to another, both of which have their own integrity, quite independently of their mutual relations… The environment is specified as a set of physical constraints, in advance of the organisms that arrive to fill it.… [This approach] in fact is profoundly antiecological.… A properly ecological approach, to the contrary, is one that would take, as its point of departure, the whole-organism-in-its-environment*
>
> **Ingold (2000: 20, 21)**

It is thus necessary to understand what it means to *dwell in* or to *inhabit* an environment, which is different than merely to live in it. If we accept this perspective, we must consider development as an *emergent* of these interactions between children and the environments in which they participate. Based on such ideas, Mbya-Guarani perspectives of *inhabiting* the *monte* (forest) serve as an ethnographic example for understanding children's learning in those communities.

In this regard, I argue that it is necessary to situate interactions between children and the environments in which they participate within the framework of local cosmologies. This is because the cosmologies define ontologies and the appropriate relationships between humans and other living beings (Descola, 2001) and provide arguments to explain, justify, and control human behavior. In that sense, the diversity of cultural understandings about expectable ways of interaction between children and others (humans or not) is a central aspect to take into consideration when analyzing human development because these local understandings are the basis of cultural models about the life course and development, having an impact in children's daily experiences.

Mbya people do not separate the natural from the social environment; the Western dichotomy nature/culture makes no sense for these Indigenous peoples. According to Mbya cosmology, in the forest "*todo tiene espíritu*" (everything has spirit), which means that "natural" entities (species) have will, desire, and intention. All of these beings—not just people—have power and agency. The relationship between all these is modeled on the relationship between human beings, as it is thought that all these entities can contain something like the human community (Descola, 2001; Ingold, 2000). In that sense, the distinction between *environment* and *nature* corresponds to the difference between seeing people as part of the environment or as a separate entity. Following from this distinction, it is interesting to note that the Western idea of nature requires an "external observer" (like a scientist). However, for Mbya people, humans, plants, animals, and also *dueños* ("guardians") and other spiritual beings are part of each other's environment.

The interactions between all of these entities are affected by specific rules that regulate daily behavior and have moral implications having to do with *reciprocity* and *respect*. As described in several studies (Cadogan, 1997; Pissolatto, 2007; Remorini, 2009, 2010, 2012), from Mbya perspective, humans' health and well-being depend on appropriate interactions between them and their environment, including respect of taboos and proscriptions regarding entities considered harmful. Our ethnographic research (op. cit.) showed that a wide range of children's illness affecting their development and their integration in community life are explained and justified based on lack of *respect* and *reciprocity* with other forest inhabitants. In that sense, we notice a strong interdependence of lives, as they depend on each other for living, growing, and/or being healthy.

Mbya children are taught early that they are part of the "*monte*" and of the "*teko'a*" (community-kin group)[2] and they learn rules to interact with other inhabitants by observing and taking part in others' behaviors and attitudes from a very early age. The actual experiences children have with their environment during their participation in collective activities, such as hunting or gathering, are an important source of learning these rules. As they accompany others in hunting and gathering expeditions, they take part in the actions that are deemed necessary in order to be respectful to the spirits of other species and to the ancestors. In this regard, the following quote coming from Bolin's (2006) ethnographic study of Chillihuani people from Peru could be applied to Mbya childrearing:

> *As soon as the children become conscious of their environment, they are introduced to a culture of respect. Respect is not only given to other people and deities, but is conveyed also to all forms of life.*
>
> **Bolin (2006: 33)**

To understand how *reciprocity* and *respect* contribute to learning processes, we can consider hunting as an example of activity to which boys are introduced. Most boys will first accompany their male relatives in hunting when they are between 7 and 8 years old based on the adults' assessment of a child's maturity and responsibility. As with many other hunting people around the world, Mbya men explain success in hunting by combining personal technical abilities with the idea of a necessary *collaboration* or *cooperation* between the prey and the hunter (Descola, 2001; Ingold, 2000; Rival, 2001). For this *collaboration* to be possible, people must follow some scripts, such as to ask for permission to the prey's owners in order to be *respectful* with them. *Dueños* (guardians, or *ija* in Mbya) are spirits that care for some animals, plants, and specific places (e.g., rivers and streams) and regulate their human use for subsistence purposes.

*Reciprocity* and *respect* are promoted daily in order to allow children to be aware of interdependence of all forms of life in the forest, including among people. One way of promoting this idea is to share food. In every household I visited, there was always food prepared and available (e.g., in a pot on the patio) for people to eat as they wish, and visitors were invited to share *mate* and the local type of bread (*chipa*). If someone has no food, his/her relatives

[2] *Teko* is a term with multiple meanings which refers to human life, the way of living and the conditions to make possible this way of living. *Teko'a* is usually translated as "village" or "community" or "patrilineal kin group." However, a more appropriate translation, according to Mbya understanding, could be "the place in which *teko* is performed." For a more detailed analysis see Remorini (2009).

are supposed to bring it to him/her, expecting reciprocity in the future. If a child or an adult has access to certain kinds of food, for instance, the meat of certain animals such as peccaries (*kochi*, considered a sacred animal), they must bring it to the *teko'a* to be cooked and shared with relatives and neighbors. When someone breaks this rule, for example, by not sharing the product of hunting and eating it alone in the forest, the peccary's *dueño* (guardian) may be offended. As a result, the hunter could suffer serious illness. In some extreme cases, hunters may be reached by an evil spirit and, as a result, be transformed into a jaguar, losing the human condition (via *djepota*: metamorphosis). Symptoms of this are visible changes in his appearance, including changes in his teeth (Pissolatto, 2007; Remorini, 2009).

Because the process of becoming a *Mbya*—becoming *human* and part of the *teko'a*—is gradual and full of risks, the whole community is responsible for protecting children. Adults' or other relatives' lack of *respect* and *reciprocity* for other living beings may have serious consequences for children's well-being and health. For instance, infants are considered vulnerable and they can fail to achieve the human condition if they are harmed by spirits. This can happen when their parents or siblings do not behave in an appropriate way, such as described earlier. As a consequence, infants may become "angry," "aggressive," or "weepy"—behaviors considered to be symptoms of an illness which puts children at risk of losing their human condition. In those cases, the intervention of the religious leader (*Opyguã*) is required to cure the child (Remorini, 2009, 2012).

These explanations could be seen as irrelevant or even irrational for many people, including many natural and social scientists. However, for Mbya people, these explanations play a major role to learn how to *inhabit* the forest, which, in turn, are connected to their perspectives on children's learning and development. In what follows, I describe some examples of daily activities in which children are involved, in order to articulate the ideas about interdependence of lives, autonomy, and learning of environmentally relevant skills.

## 3. GROWING UP THROUGH LEARNING ENVIRONMENTALLY RELEVANT SKILLS

The process of becoming a *Mbya* requires adult guidance and support. Childrearing practices ("*mitã ñemongakuaa*," literally, "to make the child grow") are oriented to promote physical growth, health, and the development of socially recognized skills—"*oguata*" (walking) and *kakuaa*

(understanding) being the most important. In Mbya language, *kakuaa* means "to grow" but also "to know, to understand." In this sense, a mature child is one who has achieved understanding. This process of *growing* is recognizable by *transformations* in children's physical, cognitive, and social skills, which justify changes in the way they are named in the community. For example, a child that is breastfed is called "*mitã okambu*," whereas a child who is able to eat is "*mitã ikaru*." Similar distinctions are made for the child who crawls ("*mitã opoñi*") versus the child who is able to walk ("*mitã oguata*"), and the child who is able to talk "*mitã ijavu*" (Remorini, 2009, 2010).

From the Mbya perspective, *walking* is a crucial skill to be considered a human being (Cadogan, 1997). The transition from crawling to standing up and walking upright is one of the most important developmental milestones and is promoted by several daily practices, such as daily massages, use of several amulets, and motor training using specific objects like a special cane frame installed in the courtyard to support the child in practicing standing and walking (*mitã amba*) (Remorini, 2009, 2010).

However, walking is not merely a physical or motor skill. Walking is a way to *experience* the world, as *Ñamandu Ru Ete* (Our Father, the main deity) created the *Yvy tenonde* (The First Earth) through walking on it (Cadogan, 1997; Remorini, 2009). For Mbya people, walking means to create and transform the forest, through everyday subsistence activities (Crivos et al., 2007; Remorini, 2010). Learning to walk in the forest implies putting into play a variety of sensory and cognitive skills such as keen observation and active listening, but also the ability to recognize differences in smell and taste. Learning to walk through the forest is a crucial skill for both girls and boys to grow up as a Mbya.

Learning to walk is especially important because girls and boys participate from a very early age in gathering and horticulture, accompanying adults and doing some "simple" tasks such as helping to clean or to put the seeds in the holes made by adults with the digging stick. In accompanying adults in gathering, children develop sensory and perceptual skills such as taste and smell involved in the recognition and collection of medicinal plants. Hunting is probably the activity that requires the most complex abilities; it involves different tools, such as traps, bows, and arrows (less frequent today), and firearms (more recently). Each technological choice implies a deep knowledge about the habits of prey, their vulnerabilities, and the environments they frequent (Cebolla Badie, 2000; MacDonald, 2007; Remorini, in press; Rival, 2001). Consequently, hunting is an activity in which boys are involved later in childhood. Children's gradual involvement in activities with different

levels of complexity allows them to develop environmentally relevant skills over time, ranging from recognition of animal's footprints to building a trap (Cebolla Badie, 2000; Gaskins, 2000; Hawkes, O'connell, & Blurton, 1995; Lancy, 2012; Mignot, 1996; Padawer & Enriz, 2009; Paradise & De Haan, 2009; Rogoff, 2003; Rogoff et al., 2007).

As the child develops *kakuaa* (understanding), parents show greater concern to educate children in the self-control of extreme emotions like anger, temper, or senseless crying, as these limit the child's ability to participate in community life. The development of understanding together with self-control allows children to collaborate with others and to perform different activities in the forest. This kind of education promoting self-control and awareness of other's interests and needs starts after the name-giving ceremony (near the age of one year), when children are formally recognized as members of the *teko'a* (Remorini, 2009, 2012).

*Kakuaa* allows children to collaborate in activities that require *reciprocity* and *responsibility* such as care of other people. One example of this is the respectful treatment of relatives, especially elders, who are considered "grandmothers" or "grandfathers" of every child of the *teko'a*. Children should visit elders every day and be attentive to their needs, bring them food, or just keep them company. Some parents "give" some of their children to elders so they will not have to live alone and to collaborate with and take care of them. Similarly, children could be responsible for the care of their siblings, making a valuable contribution to household activities.

Observations of daily life and people's narratives show that interdependence between children and their environment is a central aspect of childrearing and education. However, balance between interdependence and autonomy is acknowledged. Parents consider children's autonomy to be crucial for their participation in the community life. Children's engagement in household routines and their responsibilities regarding relatives and elders are combined with a strong respect for self-determination and autonomy. Parents' narratives about goals and values of childrearing fit with practices that I observed that demonstrate respect for children's interests, initiative, and preferences.

Respect for children's autonomy is seen from a very early age with one particularly notable example of this demonstrated in mothers' attitudes toward breastfeeding. In Mbya communities, infants are breastfed on demand. Mothers are usually seated on low seats while doing handwork. As mothers work, toddlers go back and forth to the women and when the toddlers are hungry they lower the neckline of the mother's blouse,

holding her breast with both hands, and breastfeed themselves standing beside her. They repeat this action as many times as they need. The "availability" of their mother's body facilitates the child's autonomy in feeding.

As children get older we see other examples in the allotment of household chores to children based on their preferences (whether they prefer to take care of siblings, cook, or participate in hunting or gathering) and the respect for children's initiative in collaborating. Parents and other relatives carefully observe children's individual preferences and promote the learning of specific skills (to be a skillful hunter or to know about medicinal plants). Another example is seen in the interest adults show in listening every morning to the children's dreams during family breakfast. In Mbya culture dreams are part of "real life" and talking about dreams help to organize daily activities and to prevent illnesses or accidents.

## 4. AN INTEGRATED ECOLOGICAL COSMOLOGY EMPHASIZING LEARNING BY PARTICIPATION RATHER THAN DIVIDING INDIVIDUAL VERSUS COLLECTIVE

Since its beginning, anthropology has been interested in the diversity of cultural practices associated with "transmission" and "acquisition" of skills during infancy and childhood. These concepts are under criticism, due to current ecological perspectives that claim that we can better understand the dynamics of human development—and also of cultural change—if we consider them as a result of practice and training during participation in specific settings or environments. In this regard, children's learning processes do not occur in the way defended by classical approaches derived from Durkheim's dualistic ideas about "*collectivité*" versus individuals.

The framework of LOPI helps to understand children's learning in ecological contexts in which learning is not generally managed by adults' direct instruction, as in Mbya communities. On the contrary, learning processes occur through children's integration and active participation in the ongoing endeavors of their families and communities (Rogoff, 2014). In those contexts, adults facilitate and support children's learning, by recognizing children's initiative, interests, and possibilities, rather than controlling or constraining their behavior and attention. It could be said that in that kind of learning situation, more experienced individuals *orient* or *educate* children's attention toward some relevant features.

LOPI emphasizes respect for children's initiative and autonomy (Rogoff, 2014) in relation to interdependence between people and their environment broadly defined, in settings where *collaboration* and *reciprocity* are central aspects of community organization. As ethnographers have described for many Latin American Indigenous societies and is the case in Mbya communities, children have been observed to participate

> *in almost all community events, learning by observing keenly and pitching in to shared endeavors with initiative because the activities mattered for family and community success and wellbeing; the children's responsible help and learning were supported by family and community arrangements*
>
> **Rogoff (2014: 75)**

In this framework, collaboration and exchange with others become crucial. Instead of cultural ideas/representations "transmitted" and imposed upon the individual's experience—following Durkheim and British social anthropologists' legacy—the individual's experience in specific settings is the *locus* of analysis (Crivos & Remorini, 2007).

This distinction holds importance for understanding the emergence of new ideas. In the conventional, dualistic vision dividing individual versus *collectivité*, people's perception and understanding of the environment would derive from cultural constructions transmitted through generations as a homogeneous and invariable corpus, relatively impervious to the actual constraints and features of specific activity settings, and in other words, impervious to time and history. However, other ways to understand learning, such as that presented in the LOPI model and other ecological approaches, are more sensitive to the ways of thinking of people like the Mbya and numerous other Indigenous communities.

From an ecological approach, learning can be seen as a creative process derived from the recognition of problems emerging during active participation in specific activity settings/environments. Learning requires applying, testing, or discarding previous knowledge and/or "discovering" new knowledge in order to achieve the best fit with the current situation. This process of learning and training begins in childhood but is continuously actualized through practice in changing environmental conditions. Mbya children's and adults' direct experience with the forest and its inhabitants is the basis of new learning, and because of the forest's changing conditions, this kind of learning is fundamentally different than learning based on a model of transmission of information.

Even when Mbya adults actively intervene by setting up the features or conditions in the environment aimed at facilitating children's growth and

development, not all of them result from an intentional decision-making process on the adult's part. Most of these developmental conditions *emerge* in the framework of interaction between the child and its environment. Contrary to mechanic perspectives on socialization, adults' practices provide environmental conditions for promoting children's learning and development but do not determine the process and the results (Ingold, 2000). Otherwise, children's ability to innovate as well as to make autonomous decisions in learning would be limited. Indeed, it would deny children's agency in their own development process.

The interaction between adults and children allows the adult to see what is needed on the part of the child, and thus the interaction itself facilitates the adult intervention. Adults facilitate and support children, considering they are part of the activity and make contributions to it, an idea that contrasts with classical socialization approaches. This also contrasts with intentional decisions—outside of interaction—about what children should learn, often seen in schools. In that sense, unlike conventional approaches to learning and socialization, LOPI highlights that relevant skills develop as children participate with others in specific settings, not as "recipients" of adults' instruction and "transmission of knowledge." Further, the LOPI model emphasizes that evaluation occurs in the process of interaction, to facilitate children's contributions.

An image coming from Mbya understanding of *inhabiting* their environment provides a useful way of looking at the mutuality involved in children's learning. The "wild" and "domesticated" are not considered opposites, as many spaces within the forest such as paths, houses, patios, and gardens are always full of human "signatures" (Crivos et al., 2007). From a Mbya perspective, the notion of forest, *ka'aguy ete*, does not translate into the idea of a "pristine" forest. Mbya consider the forest as to be a result of their present activity and those of their ancestors. As with the Huaorani, Achuar, and Chillihuani people from South America (Bolin, 2006; Descola, 2001; Rival, 1998, 2001), Mbya are engaged in their environment, transforming it and being transformed by it through their participation in routine activities and by dwelling in it. Their understanding of "nature" is not based on the distinction between wild and domesticated.

In the same way, Mbya do not consider children to be "wild" or "raw" material that needs to be *domesticated* by rational and intentional procedures, an idea that underlies some conventional approaches to children's learning. Rather, they see child development as a process of *transformation* by participation in routine activity settings (also appearing as one of the key features of

LOPI), which requires adult guidance and support. This participation involves not only the child's observation and keen attention to others' activities and behaviors but also interaction and collaboration with others who inhabit the *teko'a* and the forest. In this regard, Mbya education and rearing practices are not based in instruction, but in allowing children to be part of the community endeavors, and learning through this to develop valuable skills that are considered crucial to growing up in the forest. In this framework, adults and children contribute to the process of learning by transforming themselves and transforming their environment.

## ACKNOWLEDGMENTS

This research was supported by National University of La Plata and National Council of Scientific and Technological Research (CONICET). I want to thank to Mbya-Guarani people for their cooperation and warm hospitality during my fieldworks and for sharing their knowledge and daily life with me. Finally, I want to thank this volume editors (Barbara, Maricela, and Rebecca) for their comments and valuable contributions to the final version of this chapter.

## REFERENCES

Benedict, R. (1964). *Continuidad y discontinuidad del condicionamiento cultural. Historia y elementos de la sociología del conocimiento*. Buenos Aires: EUDEBA.

Bolin, I. (2006). *Growing up in a culture of respect. Child rearing in highland Peru*. Austin, TX: The University of Texas Press.

Bronfenbrenner, U. (1987). *La ecología del desarrollo humano: Experimentos en entornos naturales y diseñados*. Barcelona: Paidós.

Cadogan, L. (1997). *Ayvu Rapyta. Textos míticos de los Mbyá-Guaraní del Guairá*. Fundación León Cadogan.

Cebolla Badie, M. (2000). El conocimiento Mbya-guarani de las aves. Nomenclatura y clasificación. *Suplemento Antropológico*, *XXXV*(2), 9–188.

Crivos, M., Martínez, M. R., Pochettino, M. L., Remorini, C., Sy, A., & Teves, L. (2007). Pathways as "signatures in landscape": Towards an ethnography of mobility among the Mbya-Guarani (Northeastern Argentina). *Journal of Ethnobiology and Ethnomedicine*, *3*, 2. http://dx.doi.org/10.1186/1746-4269-3-2. http://www.ethnobiomed.com/content/3/1/2.

Crivos, M., & Remorini, C. (2007). Entre el individualismo y el colectivismo. El contexto de la acción en la etnografía funcionalista y en la filosofía pragmatista. In J. Ahumada, M. Pantalone, & V. Rodríguez (Eds.), *Epistemología e historia de la ciencia (Selección de trabajos de las XVI Jornadas)*. Córdoba: Universidad Nacional de Córdoba.

Descola, P. (2001). Construyendo naturalezas. Ecología simbólica y práctica social. In P. Descola, & G. Pálsson. (Coord), Naturaleza y sociedad. Perspectivas antropológicas. Mexico: Siglo XXI.

Dewey, J. (1943 [1938]]). *Experiencia y educación*. Buenos Aires: Losada.

Dewey, J. (1946 [1916]]). *Democracia y educación. Una introducción a la filosofía de la educación*. Buenos Aires: Losada.

Garlet, I. (1997). *Mobilidade Mbya: Historia e significacao*. Dissertation, Porto Alegre: Pontificia Universidade Católica do Rio Grande do Sul.

Gaskins, S. (2000). Children's daily activities in a Mayan village: A culturally grounded description. *Cross-Cultural Research*, *34*, 375–389.
Grumberg, G., & Melià, B. (2008). *Guarani Retã 2008: Povos Guarani na Fronteira Argentina*. Brasil e Paraguai: CTI.
Hawkes, K., O'connell, J. F., & Blurton, J. N. (1995). Hazda Children's foraging: Juvenile dependency, social arrangements and mobility among hunter-gatherers. *Current Anthropology*, *36*(4), 688–700.
Ingold, T. (2000). *The Perception of the Environment: Essays on livelihood, dwelling and skill*. London and New York: Routledge. http://dx.doi.org/10.4324/9780203466025.
Ingold, T. (2006). Against human nature. In D. Aerts, N. Gontier, & J. P. Van Bendegem (Eds.), *Evolutionary epistemology, language and culture*. The Netherlands: Springer.
Instituto Nacional de Estadística y Censos, Argentina, Provincia de Misiones (n.d.). Encuesta complementaria de pueblos indígenas (ECPI) 2004–2005. http://www.indec.gov.ar.
Lancy, D. (2012). The chore curriculum. In G. Spittler & M. Bourdillion (Eds.), *Working and learning among Africa's children*. Berlin: Lit Verlag.
MacDonald, K. (2007). Cross-cultural comparison of learning in human hunting: Implications for life history evolution. *Human Nature*, *18*, 386–402. http://dx.doi.org/10.1007/s12110-007-9019-8.
Malinowski, B. (1964). El problema del significado en las lenguas primitivas. In C. K. Richards & L. A. Ogden (Eds.), Buenos Aires: Paidos básica.
Mignot, J. M. (1996). Exemples de techniques d'acquisition de produits alimentaires mises en oeuvre par les enfants Massa Bugudum. In I. de Garine, A. Froment, C. Binam Bikoi, & J.-F. Loung (Eds.), *Bien manger et bien vivre. Anthropologie alimentaire et développement in Afrique intertropicale: du biologique au social* (pp. 425–432). Paris: L'Harmattan.
Padawer, A., & Enriz, N. (2009). Experiencias formativas en la infancia rural mbyá-guaraní. *Avá: Revista de Antropología*, *15*, 315–330. http://www.scielo.org.ar/pdf/ava/n15/n15a17.pdf.
Paradise, R., & De Haan, M. (2009). Responsibility and reciprocity: Social organization of Mazahua learning practices. *Anthropology and Education Quarterly*, *40*(2), 187–204.
Paradise, R., & Rogoff, B. (2009). Side by side: Learning by observing and pitching in. *Ethos*, *37*, 102–113.
Pissolatto, E. (2007). *A duração da persona. Mobilidade, parentesco e xamanismo mbya (guarani)*. Sao Paulo: Ed. UNESP. Instituto Socioambiental.
Remorini, C. (2001). Caminar a través del monte. Una aproximación a la movilidad Mbya en el pasado y en el presente. *Actas de las II Jornadas sobre Poblamiento, Colonización e Inmigración en Misiones* (pp. 309–326). Posadas (Argentina): Ediciones Montoya.
Remorini, C. (2009). Aporte a la Caracterización Etnográfica de los Procesos de Salud-Enfermedad en las Primeras Etapas del Ciclo Vital, en Comunidades Mbya-Guaraní de Misiones, República Argentina. *Dissertation*. La Plata: Universidad Nacional de La Plata /Edulp. http://sedici.unlp.edu.ar/bitstream/handle/10915/4293/Documento_completo__.pdf?sequence=5.
Remorini, C. (2010). Crecer en movimiento: Abordaje etnográfico de la crianza y el desarrollo infantil en comunidades Mbya (Argentina). *Revista Latinoamericana de Ciencias Sociales sobre Ninez y Juventud*, *8*(2), 961–980.
Remorini, C. (2012). Childrearing and the shaping of children's emotional experiences and expressions in two Argentinian communities. *Global Studies of Childhood*, *2*(2), 144–157. http://www.wwwords.co.uk/GSCH.
Remorini, C. (in press). El papel de los niños en la obtención, elaboración, circulación y consumo de alimentos en comunidades Mbya (Argentina). Anthropology of food.
Rival, L. (1998). Domestication as a historical and symbolic process. In W. Balée (Ed.), *Advances in historical ecology*. New York: Columbia University Press.

Rival, L. (2001). Cerbatanas y lanzas. La significación social de las elecciones tecnológicas de los Huaorani. (Coord). In P. Descola & G. Pálsson (Eds.), *Naturaleza y sociedad. Perspectivas antropológicas*. Mexico: Siglo XXI.

Rogoff, B. (2003). *The cultural nature of human development*. Canada: Oxford University Press.

Rogoff, B. (2014). Learning by observing and pitching in to family and community endeavors: An orientation. *Human Development*, *57*, 69–81.

Rogoff, B., Moore, L., Behnosh, N., Dexter, A., Correa-Chavez, M., & Solís, J. (2007). Children´s development of cultural repertoires through participation in everyday routines and practices. In J. E. Grusec & P. D. Hastings (Eds.), *Handbook of socialization* (pp. 490–515). New York: Guilford.

Weisner, T. (1984). Ecocultural niches of middle childhood. A cross-cultural perspective (Org.). In A. Collins (Ed.), *Development during middle childhood*. Washington, DC: National Academy Press.