



HAL
open science

Transcending human sociality: eco-cosmological relationships between entities in the ecosphere

Luis Gregorio Abad Espinoza

► **To cite this version:**

Luis Gregorio Abad Espinoza. Transcending human sociality: eco-cosmological relationships between entities in the ecosphere. *Disparidades. Revista de Antropología*, 2022, 77 (1), pp.1-17. 10.3989/dra.2022.005 . halshs-03783650

HAL Id: halshs-03783650

<https://shs.hal.science/halshs-03783650>

Submitted on 22 Sep 2022

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.



Distributed under a Creative Commons Attribution 4.0 International License

ARTICLES / ARTÍCULOS

**TRANSCENDING HUMAN SOCIALITY: ECO-COSMOLOGICAL
RELATIONSHIPS BETWEEN ENTITIES IN THE ECOSPHERE**
TRASCENDIENDO LA SOCIALIDAD HUMANA:
RELACIONES ECO-COSMOLÓGICAS ENTRE ENTIDADES EN LA ECOSFERA

Luis Gregorio Abad Espinoza¹

Department of Human Sciences for Education. University of Milan-Bicocca.

Recibido: 10 de mayo de 2020; Aprobado: 23 de marzo de 2021.

Citation / Cómo citar este artículo: Abad Espinoza, Luis Gregorio,. 2022. "Transcending Human Sociality: Eco-Cosmological Relationships between Entities in the Ecosphere": *Disparidades. Revista de Antropología* 77(1): e005 doi: <<https://doi.org/10.3989/dra.2022.005>>.

ABSTRACT: Based on a discussion of the theoretical contributions of Claude Lévi-Strauss and Pierre Clastres, this article explores social relationships as more than a human dimension. Though strongly analysed by both anthropologists, these relationships appear to involve indigenous societies' whole ecological and cosmological system. In this sense, reciprocity, social cohesion, and exchange can be understood as material and immaterial interrelationships between entities of a more than a corporeal world. I argue, then, that to go beyond the mere anthropocentric conceptualisation of sociality in a nature good to think, we need to holistically conceive the interconnected levels of trophic, socio-structural and socio-cosmic relationships and exchanges between human and non-human beings in the ecosystem.

KEYWORDS: Claude Lévi-Strauss; Eco-Cosmic System; Indigenous Societies; Pierre Clastres; Sociality; Trophic Exchanges.

RESUMEN: Basado en una discusión de las contribuciones teóricas de Claude Lévi-Strauss y Pierre Clastres, este artículo explora las relaciones sociales como algo más que una dimensión humana. Aunque fuertemente analizadas por ambos antropólogos, estas relaciones parecen involucrar todo el sistema ecológico y cosmológico de las sociedades indígenas. En este sentido, la reciprocidad, la cohesión social y el intercambio pueden entenderse como interrelaciones materiales e inmateriales entre entidades de un mundo más que corpóreo. Sostengo, entonces, que, para ir más allá de la mera conceptualización antropocéntrica de la socialidad en una naturaleza buena para pensar, necesitamos concebir holísticamente los niveles interconectados de relaciones e intercambios tróficos, socio-estructurales y socio-cósmicos entre seres humanos y no humanos en el ecosistema.

PALABRAS CLAVE: Claude Lévi-Strauss; Sistema eco-cósmico; Sociedades indígenas; Pierre Clastres; Socialidad; Intercambios tróficos.

Copyright: © 2022 CSIC. Este es un artículo de acceso abierto distribuido bajo los términos de la licencia de uso y distribución Creative Commons Reconocimiento 4.0 Internacional (CC BY 4.0).

1 Correo electrónico: l.abadespinoza@campus.unimib.it. ORCID iD: <<https://orcid.org/0000-0002-7942-7925>>.

INVESTIGATIONS IN NATURES' REALITIES

The condition and existence of human nature have puzzled the different societies spread around the globe throughout millennia. Human beings have struggled to grasp the essence of their existence in the universe, which has gradually revealed its complexity in physical nature. The latter, on the one hand, disclosed the material "fruits" on which human and non-human entities have been dependent for their survival and, on the other, concealed the metaphysical dimensions that have been differently and profoundly investigated by the alleged "divine" or "primitive" intellect. Nature, therefore, has been conceptualised in a myriad of ways by its human denizens, who attempted to reach a better understanding of its nuances. Nevertheless, the seeming rational wave of the Western "immortal" and "superior" mind engulfed the entire evolutionistic epistemological apparatus in its holy waters of knowledge. The Cartesian ontological system, moreover, aggressively sustained the stark division between thinking and extended substances. Consequently, this discriminatory dualistic thought has permeated our way of being in the cosmos in which the human condition (i.e., being endowed with a rational mind or soul) is far removed from the non-human corporeal nature.

Being guided by reason that is conceived as divine in its essence but predatory in its relationship with the physical world, modern humans planted the seeds of what later would become a kind of mechanic tree with infinite metallic roots that would cover the whole planet. These polluted and destructive roots continue to grow and thus follow the paths of what Descartes argued in the sixth part of his *Discourse on method*, viz., the mastery of nature by the aid of scientific and technological evolution that will provide humankind to be enabled to enjoy the fruits of the earth, and all its comforts (1993 [1596-1650]: 35). This anthropocentric order hyper-separated the rational domain of humans and the brute domain of nature (see Val Plumwood 2002) in which all its savages and non-human denizens remain fenced in the thorny and obscure cage of the Western cosmological system.

Despite this exclusive Eurocentric worldview, some attempts were undertaken in the 18th century by the French *Société des Observateurs de l'homme* and some philosophers and scientists' curious minds. Leaving aside their palpable ethnocentrism, these learned men believed that profound empirical observations

were essentially necessary to understand human nature's universality better. Since then, the mythical figure of the "philosopher traveller" had put down roots in the human sciences to form the modern anthropologist (Fabiotti 2011: 6-7). Paradoxically, the figure of the philosopher who adventures him or herself to sail the seven seas to find the last relics of the dawn of humanity can, at the same time, deride with contempt and hence manifests an ironic but bitter hatred towards travelling and explorers? (Lévi-Strauss 1955). The bitterness manifested in the abstract emotions was rendered concrete in the first pages of *Tristes Tropiques*, so these gloomy words touched the epistemological core of a discipline whose scientific rigour is determined by the observer's own experience in the field. In the strict sense of the term, the latter could be metaphorically considered a "laboratory" in which its relations of association between individual organisms (Radcliffe-Brown 1952: 189) are the anthropologist's main object of study. In sum, contrary to his/her natural scientist counterpart who studies the relationships between non-human organisms, the anthropologist is concerned with researching such relationships situated in the humans' domain. The scientific rigour that the anthropologist attempts to reach in his/her fieldwork journey, which in most cases takes him/her to unknown territories, is thoroughly at odds with the somewhat thoughtless adventures of the explorers. That is, if for the former ethnographic inquiry represents a holistic and in-depth study of other's realities, for the latter, the curiosity to explore these realities remains trapped in the shallow and naïve appreciation of the exotic.

As for structural functionalism, social anthropology should be conceived as the theoretical natural science of human society that uses similar methods to those used in the physical and biological sciences (Radcliffe-Brown: 1952: 189). Thus, social anthropology's scientific rigour is underpinned by the subtle analysis of the social relations empirically observed in the field. These "relations of association" between individual organisms appeared to Radcliffe-Brown as the core of social anthropology, which seemed to broaden the scope of natural sciences and strengthen that of social sciences. As he writes succinctly:

In a hive of bees, there are the relations of association of the queen, the workers and the drones. There is the association of animals in a herd,

of a mother-cat and her kittens. There are social phenomena; I do not suppose that anyone will call them cultural phenomena. In anthropology, of course, we are only concerned with human beings, and in social anthropology, as I define it, what we have to investigate are the forms of association to be found amongst human beings (*Ibid*).

It is worth emphasising that the so-called relations of association found in nature have their counterpart in the human domain, to wit., nature provides an exciting and essential milieu in which natural sciences empirically examine non-human organisms' social relationships. Therefore, social anthropology symmetrically applies natural sciences methods to better explain the social phenomena among human beings. Although structural-functionalism has been highly criticised for its "homeostatic" tendency (see Evans-Pritchard 1951; Leach 1954; Gluckman 1955, 1963, 1965), according to which a social system (*i.e.*, the social structure and the totality of social usages) appears to have a particular functional unity (Radcliffe-Brown 1952: 181). However, the ashes of structural functionalism have remained beneath most anthropologists' works, who took the "savages" and their relationships with the whole social and cosmological system seriously. Hence, it would not be trivial to ask to what extent social relationships allow a certain cohesion in society's social structure? What are the necessary conditions that keep society united and, therefore, in social, political, ecological, and cosmological equilibrium? Could the eco-cosmic system be the source of eternal unity and egalitarianism between human and non-human beings? An attempt to provide the answers for these questions begins with a discussion between two anthropologists whose philosophical inferences about the worldviews of the indigenous peoples of the Americas defied Western ethnocentrism and its alleged paramount superiority.

PARADIGMS' CONVERGENCE

The works of Claude Lévi-Strauss and Pierre Clastres can be understood as a profound connection between philosophical inquiries and ethnographic materials through which a serious anthropological analysis stem from these. Though these anthropologists belong to a different paradigm, which is in stark contrast with the assumptions of structural functionalism, they nonetheless seemed to agree with the latter in what they found in the Amerindian societies they studied.

This epistemological agreement is, in fact, the social cohesion that these peoples try to attain through strict reciprocity, cooperation and low or absence of social stratification. However, it should be kept in mind that even if these issues are far more complex than they may appear, we need to look broader and deeper into the entangled relationships scrutinised by both anthropologists. These are, hence, relationships between humans' hypothetical worldviews and the material and immaterial world itself. I shall argue that even if the aforementioned relationalities are theoretically sound, they appear to be biased toward anthropocentric reasoning that dissolves nature's complexity to fit into transcendental archetypes. Nevertheless, these ideals, which are grounded in allegedly solid ethnographic realities, are likely to be objected to by the latter.

Thus, Clastres' powerless societies became an abstract philosophical notion and author's idealist sociology devoid of a thorough ethnographic validity (Surrallés 2005: 128-144n). The weakness of such an approach that lumped together different ethnographic realities in a single ideal type constructed by radical abstractions seems to obscure the core of the indigenous social structures. The central point is; the disregard of indigenous political systems and their ethnohistorical and archaeological particularities that demonstrate that powerless chieftainships do not correspond to the diverse political institutions spread in lowland South America (Descola 1988). Powerless chieftainship, then, occurs *vis-à-vis* hierarchical relationships in which religious authorities such as shamans wield power (Chaumeil 1983; Descola 1988). Thus, this spiritual power is found among the complex and stratified societies of the South American continent, especially in Amazonia, where shamans exert a considerable amount of power. In this ethnological dimension, shamanism, according to Hugh-Jones, is divided between two ideal types called vertical shamanism, which is the one described above, and horizontal shamanism associated with societies characterised by egalitarianism and warfare (1996: 32-33)².

Whether shamanism exists in its vertical or horizontal dimension, this complex mystical institution

2 It is worth remarking Viveiros de Castro's analysis of transversal shamanism derived from Hugh-Jones' notions of vertical and horizontal shamanism (2008, 2014).

involves a cosmopolitical sphere within which different intentionalities confront each other (Viveiros de Castro 2014: 151). This socio-metaphysical clash of agencies is the central focus of a sociality that is thoroughly beyond humans' grip. Social relationships are, strictly speaking, eco-cosmic in all the dimensions concerning the universe's processes. Therefore, nature embodies the ultimate structure of a reality in which intimate interconnections occur between the former's material and immaterial elements. The intricate nature's dimensionality is apprehended, according to Lévi-Strauss, through the mental and environmental constraints, which are part of the same organic and physical order. This order that is logically decoded by the mind is, above all, the fundamental material structure that determines the operations of the world.

When viewed in this light, Lévi-Strauss's theory debunks all the accusations of a mentalist or idealist approach toward anthropological knowledge (Lévi-Strauss 1985; Descola 2013b). It is worth mentioning, however, that even if Lévi-Strauss sought to reject an ontological dualism stressing the common physiological properties of the mind and nature, in doing so, he conferred the former with the essential qualities for the process of information from the outside world (Ingold 2000: 17). In conceiving ecology as "the world outside" (*Ibid.*), Lévi-Strauss's personal gnoseology (Descola 2013b) and Clastres' hypothetical indigenous anarchy overlook the quintessential socio-ecological relationships between humans and their environments. Nevertheless, I shall argue that their subtle analysis concerning the reciprocal relationships practised among specific Lowland South American indigenous groups could shed some light on the whole imbricated relations system.

NATURE AS A MEDIUM FOR HUMAN SOCIALITY

One of the main problems of Western ethnocentrism is the place that humans occupy in the domain of nature. This issue, of course, represents a controversial relationship that appears to work on two levels. First, it is based on a balanced relationship between physical and biological extended bodies (i.e., humans and non-humans physicalities) whose material substance seems to connect them in nature. On another level, a relationship of inequality between humans as masters and possessors of a rational-immortal mind or soul, and the servant, inert and passive corporeal non-human

nature (Viveiros de Castro 2004: 475). Thus, the radical Cartesian conception of substances perpetuates the great division between what is conceived as thinking or human and what is conceived as extended, corporeal, and non-human. We must not be astonished that our anthropocentric ontology is rooted in our arrogance and pretension of being more than an extended organism. We are, strictly speaking, the unique species capable of being a thinking subject, albeit inside a material object. So, as Descartes perfectly argues in part fourth of the *Discourse on method*:

It was necessary that I, who thus thought, should be somewhat; and as I observed that this truth, I think, therefore I am (COGITO ERGO SUM), was so certain and of such evidence that no ground of doubt, however extravagant, could be alleged by the sceptics capable of shaking it, I concluded that I might, without scruple, accept it as the first principle of the philosophy if which I was in search. (1993 [1596-1650]: 20-1)

The central pillar of our Eurocentric conceptualisation of the world appears to be Descartes's much-desired first philosophical principle through which human subjectivity is considered a priori any material particle of the universe. This humanist conception put our existence on the top of the pyramid that vertically and asymmetrically distributes the importance of nature's beings according to the selfish logic of development and satisfaction of needs.

What about the so-called primitives? Which position do they occupy in the exclusive Western illusory pyramid? Have primitive societies the capacity to reason or live in a pre-logic realm, as Lévy-Bruhl thought? Hence it is impossible to deny that all these questions have puzzled the history of anthropology. Accordingly, as the development of the discipline taught us, most evolutionists and functionalists got trapped in their own misconceived ideas about primitives' way of being in their world. Social anthropology is, above all, the first scientific pursuit that rejected its colonial past emphasising that the so-called savages do not possess a backward mind that has been kept thousands of years behind the unbroken line of cultural evolution. The "primitives", like the "moderns", are capable of thinking about the world in which they are immersed. In this sense, the material world represents a milieu not only to satisfy human needs in the classic functionalist conception

of the relationships that the primitives have with nature. These relationships with natural species can be understood as beyond the utilitarian importance that humans endow to the former. Hence it follows that nature's beings are chosen not because they are "good to eat" but because they are "good to think" (Lévi-Strauss 1963b: 89). It appears, therefore, that the Cartesian *cogito* granted humans with "divine" intellect. Thus, we must materially exist in a physical world that *a posteriori* surrounds the rational human mind that is the only entity capable of searching the eternal truth in the apparent chaos found in the silent matter. Conversely, it might be said that, for the savage cogito, the self cannot be conceived *a priori* the extended substance, which is (in Spinoza's words) the thinking substance itself. Indeed, for the so-called primitives: "the thinking subject thinks, therefore, I and we exist", ought not to be understood as a conceptualisation of the world in which humans are the only subjects who appertain to a thinking nature. Instead, the alleged submissive extended nature is a thinking thing whose objects, whether humans or non-humans, are potential subjects for whom the cosmos is the primal eternal entity. The universe's materiality is, primarily, explored by every species who inhabit it and, consequently, try to understand better the seeming external nature whose complexities and nuances enclose the existence of things. These investigations can be reached by the subtle observation methods with which "primitive" and "modern" intellect apply to grasp the natural world's complex reality. Thus, as Lévi-Strauss writes:

Even if it is rarely directed towards facts of the same level as those with which modern science is concerned, it implies comparable intellectual application and methods of observation. In both cases, the universe is an object of thought at least as much as it is a means of satisfying needs. (1966: 3)

The objectivity of corporeal nature is, hence, pursued by the intellectual Cartesian roots of modern science and indigenous epistemology. These deem the material world as an object of thought or, to put it another way, a thing worthy of empirical observation to reveal the concealed reality behind nature's physicality. However, it is appropriate to note that these observation methods, which, according to Lévi-Strauss, can be situated in the same intellectual plane, differ in the degree to which they approach the material world. The whimsical pretension of the

absolute mastery of nature with the aid of modern science and technology is, for Clastres, the insane Cartesian project whose ecological consequences are just beginning to be measured (1987: 191). The environmental disasters that we face in our post-modern society are the tragic effects of the technological machine, which we continue to praise as our immortal mind's creation. Our intellect's immortality gives room to the incommensurability between us (rational minds-souls) and the rest of the perishable objects of corporeal nature. This phenomenon allows a noxious anthropocentric order where nature's predation is warranted by material and intellectual development representing our modern social machinery's main pillars. Paradoxically, on the one hand, the empirical scientific exploration of nature strives to seize every single organism of the environment to explain its bio-physical structure and function in the whole ecosystem. On the other, non-human organisms and the ecosystem they share are scrutinised as mere objects of a laboratory-controlled by humans who think they are external to the natural environment they seek to elucidate. The words of Spinoza can sound like a prophetic warning concerning the place that humans have been striving to occupy in nature:

The manner of human life seems to have dealt not with natural things which follow the general laws of nature, but with things that are outside the sphere of nature: they seem to have conceived man in nature as a kingdom within a kingdom. For they believe that man disturbs rather than follows the course of nature, has absolute power in his actions, and is not determined in them by anything else than himself. (E3preface)

In this peculiar conceptualisation of the world, humans conceive themselves as a rational kingdom within a corporeal kingdom. Consequently, as Spinoza rightly pointed out, they believe that they have absolute power in their actions. Instead of following nature's laws, they try to disturb them through the infinite intelligence of their mind. Humans' rational mind and soul are, to be precise, above and far removed from the domain of nature, whose laws are supposedly understood through the confused ideas that they draw from a detached observation of nature.

I may argue that, as far as anthropology is concerned, Lévi-Strauss is right in arguing that mythical thought and its profound observations of

the world can be compared with modern science. Both apply, then, rigorous intellectual efforts to grip the universe's objectivity (1963a: 230, 1966: 3). However, as we have seen, he underestimated the crucial role that perception plays in shaping humans' deep connections with the material world³. Natives, thus, perceive the world as something they dwell in and not an inert object outside their domain (Ingold 1996). Of course, the natural environment is more than a realm where humans' social relationships take place. This physical domain that we call *nature* is not solely the silent milieu in which human males' intellect contrived the circulation and exchange of goods and women. This intellectual achievement, then, allegedly triggered the emancipation of culture from the brute nature (Lévi-Strauss 1969a).

Unequivocally, relationships that are socially constructed through humans' cultural skills are those that have been taken seriously among tribal societies. These are, for Lévi-Strauss, relationships thought of as the necessary conditions for humankind to finally detach itself from a natural state (1955, 1969a). As for the ethnic groups of Central Brazil, a specific social order is attained through reciprocity, exchange, and cooperation (*Ibid.*: 1955). These are the main pillars through which the whole social structure is held together and kept alive. In a similar vein, for Clastres, the Hobbesian state of nature is not neutralised by the emergence of the state. On the contrary, the latter is regarded by Amerindian societies as a threat to the social group's unity and solidarity (1987). It appears, therefore, that the passage from nature to culture can be understood as neutralisation of a coercive power manifested in the political domain. As a result, culture conceived in itself is the negation of the political authority or, to put it otherwise, the Hobbesian state of nature is for tribal societies the core of the cultural domain that is thoroughly averse to state power's emergence. Moreover, it is worth mentioning that, according to Clastres, the trinity (oratorical talent, generosity, and polygyny) represents the *sine qua non* for an Amerindian leader to exist. As he puts it cogently:

3 Ellen touches this point, arguing that: "We perceive the environment as much through smell, taste, touch and hearing as through vision, even though science is dominated by visible or vision-based images of the invisible (1996: 5).

It is extraordinary to discover that this trinity of predicates – oratorical talent, generosity and polygyny – attached to the person of the leader, concerns the same elements whose exchange and circulation constitute society as such and sanctions the transition from nature to culture, (1987: 37)

Correspondingly, among the Nambikwara, Lévi-Strauss illustrates the "Rousseauian" relationship between the chief and the group:

Consent is the psychological foundation of power, but in daily life, it manifests itself through a game of benefits and counter-benefits that takes place between the chief and his fellows, and which makes the notion of *reciprocity* another fundamental attribute of power. The chief has the power, but he must be generous. He has duties, but he can obtain many women. Between he and the group, a perpetual renewed equilibrium of benefits and privileges, services and obligations are established. (1955: 374-5) (my translation)

The intricate social relationships are, first and foremost, manifested in two ways among the Amerindian societies studied by Lévi-Strauss and Clastres. First, on the infrastructural level, these can be found among the Caduveo, whose division of labour between men as sculptors and women as painters provides a sociological model that designs the social structure of this society (Lévi-Strauss 1955: 212). Additionally, for the Aché, for instance, the socio-economic opposition between men as hunters and women as carriers is symbolically expressed by material artefacts. Thus, the bow and basket gender dichotomy reveals further oppositions in the socio-structural domain (e.g., forest-encampment) (Clastres 1987: 105-6). Second, on the superstructural level, Nambikwara sociality demonstrates to us an environ guided by consent and reciprocity between the group members. Though they acknowledge polygyny as a chief's right, they nonetheless demand to be protected by the latter in case of danger and need (Lévi-Strauss 1955: 375).

As I tried to describe before, the notion of powerless chieftainship appears to be a compelling generalisation that ignores lowland South American political structures⁴. This matter involves the conception

4 Although pretended to be of general scope, the concept of powerless chieftainship is a Clastres' abstraction drawn from his analysis of some South American hun-

of hierarchical social systems where the acephalous society is the regional prototype. Amerindian social structures, therefore, are to be understood as asymmetric categories within which power's conception is rejected or encapsulated by the whole system of social relations. The contrast is principally accentuated between egalitarian societies such as Jivaro and Yanomamo and the more hierarchical ones such as Bororo and Tukano. Here we have a stark opposition between two shamanic practice expressions characterised by a horizontal form in the former and vertical in the latter (Hugh-Jones 1996). These ideal types of shamanic institutions tend to overlap and intersect, giving room to a complex religious order in which the individualistic and peripherally engaged in society's ritual reproduction (horizontal shamanism) collide with the more involved in the mythical and esoteric knowledge for the reproduction of society and its structure (vertical shamanism) (*Ibid.*). However, it is appropriate to note that nowhere in Amazonia does vertical shamanism reign as the only form of shamanic knowledge. This phenomenon implies that horizontal shamanism is the predominant form in the region (Viveiros de Castro 2014: 154).

The above inference is not arbitrary if we consider the specific transspecies relationships implicated in the elaborate shamanic institution. The conjunction between different realms of subjectivities is possible through the mediation of shamanic knowledge, which, to some extent, seeks to connect the primordial order of things. Shamans are, consequently, echoing the fundamental anthropomorphic dimension of alterity concealed by the post-mythic split of the primal substance. Horizontal shamanism, then, illustrates the permutation of several socio-cosmic realities in which theriomorphic categories stand for humans' metaphysical archetypes (Viveiros de Castro 2014: 155). These, in turn, prevent the emergence of political power that would absorb the complex cosmopolitical relationships between humans and non-humans into a single monolithic apparatus such as the state and its hyper-stratified edifice (*Ibid.*: 157). The transversal attributes of this kind of shamanism

ter-gatherer societies (e.g., Aché, Chulupi). This notion, thus, thoroughly overlooks societies that also rely on agriculture as a way of life. As we have seen, these societies give a considerable amount of power to their shamans (Descola 1988), e.g., the Bororo and the Tukanoan and Arawakan groups whose hierarchical structures are characterised by vertical shamanism (Hugh-Jones 1996).

are, in short, corroborated by the variation of the relations between agencies' point of view (*Ibid.*: 158), which, in one way or another, prompt the integration of a socio-cosmic system whose inhabitants operate in the transformative order of things.

Here we have an intricate component of a social structure whose continuity is determined by exchange, whether in its material or immaterial dimension. Let me suggest an example. According to Lévi-Strauss (1944), the Bororo moieties represent complex structures within which there is a relation of reciprocal subordination. The political priority gained by one moiety is, in turn, lost by the subservience to the other moiety in the system of generations. Reciprocity is, first of all, the basic principle beneath the hierarchic structure that governs the Bororo social system. Furthermore, for Clastres (1987: 41-7), reciprocity is conceived as the ontological dimension of society, which is rejected by power recognised as the rejection of society itself. As a result, the negative and asymmetrical relationship between the chief and the group, the political authority and the circulation of women, goods, and words embody the *raison d'être* of the Amerindian political powerless power. These social relationships function as a cohesive chain whose centripetal forces integrate the social group into a unified structure. These relationships are, therefore, to be understood as social, ecological and mytho-cosmological. Consequently, all these interconnections of intentionalities do not occur in a silent object of thought and medium (Sauer 1925) for human subsistence. In this respect, reciprocity practised among humans can be extended to the non-human domain. As we shall see, both domains are intimately related in a shared ecosphere within which social cohesion seems to be a "natural" prerogative for the equilibrium of the entire ecological and cosmological system.

BEYOND A NATURE GOOD TO THINK

I think that the time has arrived to analyse what is beyond the human sociality of indigenous peoples. Yet, to think about more-than-human sociality (Tsing 2014) is to deepen and widen our conception of a non-human corporeal nature that is not a passive object of thought through which our intellectual and material development rise us above other species. Thus, as Descola puts it: "between a structuralist

nature that is good to think and a Marxist nature that is good to exploit, there is perhaps room for a nature that is merely good to socialise" (1992: 112). This socialisation of nature implies that both humans and non-humans are part of an integrated order of a cosmic nature (Århem 1996: 185). The natural environment is, principally, a relational domain (Bird-David 1999) in which the interaction and intercommunication between subjectivities have their roots in the primordial order of subjects.

This primordial and social order of things has been profoundly analysed by Lévi-Strauss and his *Mythologies*, which tried to render less strange and primitive the Amerindians' mythical world. As Clastres rightly points out, these myths "have acquired a new prestige since the *Mythologies* of Lévi-Strauss taught us that myths are not empty talk" (1987: 129). Mythical thought possesses its own logic whose rigorousness parallels that of modern science, though mythical nature differs from the nature of the moderns (Lévi-Strauss 1963a: 230). Amerindian myths, hence, describe a universe that is completely saturated with personhood (Viveiros de Castro 2012b: 31). Thereby sociality in the strict sense of the term must be considered a prerogative of the primordial subjects who shared (in Spinoza's words) a substance that can be extended in various ways and conscious in various ways, all at the same time (Heil 2018: 319).

Furthermore, it is worth remarking that the passage from a mythic state to a post mythical one produced the modification of the primordial subjects. In other words, post mythic life is marked by human and non-human species whose existence is determined by a primordial substance in which a myriad of modifications occurred. However, this mythical order has been primarily treated as an object of thought through which the intimate relationships between beings take place afar from the social context of post mythic existence. This is, in a nutshell, a world of intimate interrelationships between the ecological, social and cosmic domain whose entities transcend humanity itself.

Lévi-Strauss' rejection of dualism is, in essence, the formulation of a theoretical device through which the mind-matter dichotomy is dissolved by the primaeval unity between the physical and organic qualities of the universe (Lévi-Strauss 1985; Descola 2013b). Although he sought to delve into the

complex socio-cosmologic and symbolic associations between humans, animals, heavenly bodies and tubular artefacts found in the Amerindian myths⁵ (1998), he nonetheless failed to account that most of these mythical relations have a dynamic ecology as a background. The latter are just not deciphered by the mind's organic properties and, accordingly, the purportedly active kaleidoscope (Ingold 2000: 17) draws its empirical information from an experiential and communicative material reality (Rival 1993: 636). From an ecological perspective, the complex relationships that natives have with non-human nature are not only to be searched in the profound concatenations of entities that myths try to convey. Nonetheless, even if primordial times provide the paths to understand such relationships better, the post mythic existence of human and non-human beings illuminates the true nature of sociality embedded in an interconnected realm.

What I am trying to say, therefore, is that social phenomena cannot only be found among human beings since non-human organisms establish forms of association that can be considered as social (Radcliffe-Brown 1952: 189; Tsing 2014: 27). Seen in this light, the recent revival of animism (Descola 1992, 1996, 2005, 2013a) and the philosophical inferences of perspectivism (Viveiros de Castro 1998, 2004, 2012a, 2014) tend to assimilate human and non-human sociality into the mythical order of things. Amerindian and elsewhere ontologies are, to some extent, the main focus of inquiry whereby the universe's relationalities are possible due to the intersubjective communication between the entities who populate the layers of the cosmos.

Unlike Lévi-Strauss, these approaches to nature give much weight to the social dimension of natives' cosmological propositions. These are, in turn, at a concrete level of experience, the material basis from which all the potential relations between subjects are likely to occur (*e.g.*, subsistence activities- traditional ecological knowledge). Additionally, at an abstract level of understanding, these involve the eternal metaphysical interrelations of extended subjectivities whose unity stands for the primordial order of existence. From this viewpoint, animism presupposes

5 For detailed accounts about the cosmological dimensions of material artefacts such as tubes among the Amerindian societies, see Hill 2009; Hill and Chaumeil 2011; Wright 2013; Hugh-Jones 2017.

a nature in which similar interiorities are shared by subjects whose physicalities, in turn, differentiate them (Descola 2013). Similarly, for perspectivism, multiple natures exist side by side with an essential spiritual attribute that unites their physical difference. This corporeal distinctiveness grants human and non-human beings with a particular point of view, which, in certain conditions, permits the appreciation of multiple interconnected worlds (Viveiros de Castro 1998). Theoretically, animism and perspectivism would seem to complement Levi Strauss' epistemology, bridging the gap between a structuralist external ecology and its inner relationships among human and non-human organisms. Nevertheless, I may argue that, apart from the cogent anthropological and philosophical conjectures developed by animism and perspectivism, both theories appear to pay little attention to the biophysical environment in which ecological interactions are the basis for the maintenance and continuity of a socio-cosmic structure.

To put the analysis a bit further, we shall engage with the Amerindian and elsewhere socio-cosmic and mythical realities to unearth the complex relationships developed in a particular ecosystem. Like Lévi-Strauss, Clastres analysed Lowland South American myths, though from a different angle. Clastres, however, scrutinises these myths in a way that the socio-structural elements of the mythical narrative override the socio-ecological dimensions of the material world. For instance, in his interesting analysis of the mythology of the Chulupi of the Paraguayan Chaco, he revealed that the myths are full of humour. The Chulupi thus conceive the shaman and jaguar's interchangeable figures as grotesque beings and objects of laughter. Nonetheless, he argued that the derisive intent found in the myths could be understood as a symmetrical inversion of the relationships that humans have with shamans and jaguars. Contrary to the shaman's and jaguar's mythical life, who are depicted as clumsy and stupid beings, both entities are considered dangerous and therefore worthy of respect in real life. Consequently, the myths have a cathartic function that frees the Indians' passions, so they can laugh in their mythical existence of what they fear in their real existence (Clastres 1987: 129-150).

What are, then, the socio-ecological relationships between jaguars, humans and the non-human organisms who share the ecosystem in which the

Chulupi dwell? Why are jaguars feared by humans and by the other entities of the forest? What are the relationships that jaguars and shamans entertain with their preys-victims and with their fellows? In short, how do jaguars, shamans and the rest of living and non-living beings socialise in the whole natural environment? I may contend that to answer the previous questions; we should investigate the domain of nature and its material and immaterial nuances holistically.

ECOLOGICAL AND SOCIO-COSMIC RELATIONSHIPS

The social relationships between human and non-human beings are to be searched and analysed in the specific ecosystem in which the socio-cosmological structure began to exist. This way to approach the ecosystem as a world full of intimate relationships between entities brings to mind Evans-Pritchard's fieldwork among the Nuer. There he discovered that the environmental system directly conditions their lives and influences their social structure (1940: 55). Moreover, in this specific natural environment, the Nuer have established an intimate relationship with cattle. Here is Evans-Pritchard:

It has been remarked that the Nuer might be called parasites of the cow, but it might be said with equal force that the cow is a parasite of the Nuer, whose lives are spent in ensuring its welfare. They build byres, kindle fires, and clean kraals for its comfort; move from villages to camps, from camp to camp, and from camps back to villages, for its health; defy wild beasts for its protection; and fashion ornaments for its adornment. It lives its gentle, indolent, sluggish life thanks to the Nuer's devotion. In truth, the relationship is symbiotic: cattle and men sustain life by the reciprocal services to one another. In this intimate symbiotic relationship, men and beasts form a single community of closest kind. (*Ibid.*: 36)

The ecosystem is, first of all, a cohesive structure in which the intimate relationships between entities are possible owing to the physical and metaphysical exchanges that occur in the different but interrelated socio-cosmological levels. These levels can be understood as biotic interactions developed in the natural environment. This is, in turn, an extended and thinking universe perceived in its material and spiritual dimensions. The different levels of relations and exchanges can be described as follows:

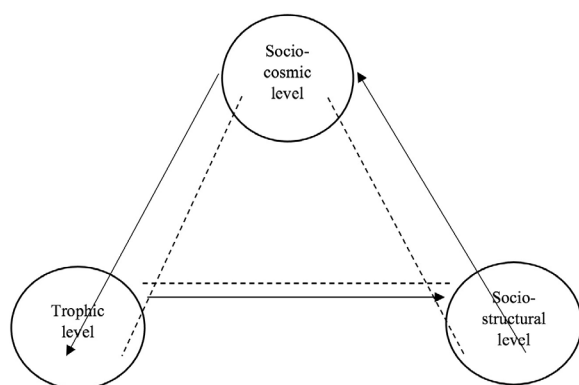


FIGURE 1.— Levels of relations between entities in the eco-cosmic system (source: by the author)

In the figure above, we can better appreciate that the relationships between entities can be understood as structured in the eco-cosmic system that sustains the universe's continuity and equilibrium. We have, then, in the first level, the trophic relations that occur between human and non-human organisms who exchange to one another the biological elements necessary for their existence. Trophic relationships are, above all, characterised by the specific ecological milieu, which determines the adaptation and ways of exchange between entities.⁶ This is the case, for example, of indigenous communities or Clastres' *stateless societies* (e.g., tropical forest societies) who live in small groups and thus share a localised natural environment. This specific localisation of trophic exchanges is what Rappaport found among the Tsembaga of New Guinea's highland fringe. He explains such exchanges this way:

Ecosystems are defined in terms of trophic exchange. Only the Tsembaga alone, among humans, are directly involved in trophic exchanges with the non-human entities with which they share their territory. Conversely, the Tsembaga are not directly involved in trophic exchanges with non-human entities in the territories of other local populations. This demarcation of ecosystem boundaries is not unduly anthropocentric, for the cycle of materials in which trophic exchanges result is highly localised in rain forests. (2000 [1968]: 225)

6 In short, adaptation involves a process of the ecosystem's socialisation between the human and non-human communities, who interact with each other through their dwelling activities, making possible their trophic exchanges.

Moreover, like the Tsembaga's rainforest ecosystem, according to Rose (2005: 296), the Australian aboriginal peoples' ecosystem (semi-arid savannah region/floodplains) is characterised by mutual life-giving exchanges between entities of the natural environment. Hence, as she describes these mutual exchanges:

A good example is the river fig (*Ficus coronulafa*); it has a technological use for humans, being good firewood (as riverside woods go), and the fruits are edible. Besides, its fruits are a major food for birds, ants, fish and turtles. One of my teachers, Riley Young Winpilin, pointed out that when you go fishing and the figs are ripe, you can eat some for yourself and then throw some into the water to attract the attention of turtles. One reason you would want to attract the attention of turtles is that the time when the figs are fruiting is also the time when turtles are becoming fat, hence especially good to eat. (*Ibid.*)

Each ecosystem has its particular food web, and regardless of the specific characteristics of trophic exchanges developed within them, a complex set of interrelationships occurs between living and more-than-living things that live symbiotically. From the highest trophic level like apex predators to the lowest one like plants, we find a dynamic ecological system within which organisms' interactions unremittingly sustain a cyclical biological process. Here we will narrow the scope of our investigation, and, as a result, we will focus primarily on the ecological relationships that involve reciprocity. However, predation appears to be the explicit prototype of trophic relationships between humans and non-humans. Predator-prey relationships, thus, seem to be the locus of intricate interconnections between nature's agents whose thinking physicalities are inextricably linked in a socio-ecological and cosmic network. For animistic ontologies (Descola 2013) or perspectival worlds (Viveiros de Castro 1998), such socio-cosmic dimensions involve embedded relationalities between agencies and their particular bodily point of view.

More specifically, most of these ontologies ascribe a prominent role to the animal kingdom and the apex predators of a specific natural environment. For example, from the Amazon rainforest alpha predators (e.g., jaguars, anacondas, major raptors) (Århem 1996; Descola 1996; Hugh-Jones 1979) to those of the boreal and arctic ecosystems (e.g., bears, killer

whales, wolverines) (Brightman 1993; Boelscher 1989; Hallowell 1960; Nelson 1983) and those of the Southeastern Asia tropical forests (e.g., tigers) (Karim 1981), the highest trophic level structures the socio-cosmic sphere or, to put it differently, human and non-human sociality depends on theriomorphic categories (Viveiros de Castro 2014: 155) whose power is not only physically but also spiritually conceived. Therefore, the material world is a relational place in which thought and extension are interwoven by subjects' ways of dwelling and their intimate interactions in the elemental processes of life (Ingold 2006). Given that a particular point of view and common intentionality are attributed to the cosmos' diverse entities, the means to regulate trophic exchanges depends on the foundation of reciprocal socio-cosmic negotiations between human predators and their non-human preys. These material and immaterial reciprocal interactions between diverse entities (e.g., shamans, game masters, hunters) can be found in Amazonia among the Makuna (Århem 1996), the Desana (Reichel-Dolmatoff 1971), the Letuama (Cristancho y Vining 2004) and the Joti (Zent 2013), or among the boreal and circumpolar communities, such as the Rock Cree (Brightman 1993), the Mistassini Cree (Tanner 1979), the Ojibwa (Hallowell 1960), the Koyukon (Nelson 1983) and the Eveny (Vitebsky 2005). As such, physical predation entails a metaphysical intercommunication for the regeneration and continuity of life. In this eco-cosmic cycle, as we shall see, the intersection between levels of relationships is ontologically dependent on the material world and its ecological relationships. The more we think about nature good to think, the more we realise that nature's sociality revolves around subjectivities that eat and are eaten in an embedded ecosystem.

In the second level (fig. 1), we can find that socio-structural relationships are determined by the ecological dimension of trophic exchanges that allow human and non-human organisms to exist as an interconnected biotic community (Rappaport 2000 [1968]: 224). The circulation of goods and the seemingly passive women to form alliances between social groups (Lévi-Strauss 1969a) or the cohesive structure of a society that neutralises and rejects coercive political power through the cyclical negative and asymmetrical exchange of women, goods and words (Clastres 1987). It seems that all of these social phenomena revolve around a specific

bio-physical substrate that provides the necessary conditions for the existence and continuity of such relationships. Consequently, the division of labour between men (hunters) and women (gardeners), which characterises most of the social structure of the tropical forest societies (see Wagner 1967; Århem 1981; Jackson 1983; Descola 1994), can be epitomised in the intimate connections that humans have with the non-human entities, who are hunted, gathered, planted and harvested by the former. As for the Daribi of Papua New Guinea, for whom sharing and giving of food (particularly meat) is an important symbolic idiom (Wagner 1967: 12), for the Mistassini Cree of the Quebec territory of Canada, animals appear to have personal relations with the hunters⁷, such as friendship or love (Tanner 1979: 136-151).

From this perspective, meat can be conceived as a social product with which humans' social relations are established through the intervention of cooking fire, which acts as a mediator for the conjunction between a raw product and the human consumer who cook and therefore socialise the former (Lévi-Strauss 1969b: 336). Nevertheless, the socialisation of meat can only be possible by the social activity of hunting. This is, in fact, a practice saturated with human and more-than-human sociality or, to put it otherwise, a profound engagement between the hunters and their preys is essentially necessary for a satisfactory trophic exchange. According to Brightman (1993: 187-206), for the Rock Cree, hunting involves reciprocal exchanges between humans and animals who, from different angles, partake in the consumption of a material thing derived from the socio-ecological relationship of hunting. This perspectival world, then, appears to be underpinned by physical realities (hunter-prey trophic exchanges) that, on the one hand, permit humans biological and social survival and, on the other, consent animals' anthropomorphic souls to participate in Rock Cree social structure.

7 Note that the hunter-animal relationships are well known in Amazonia. For instance, for the Desana of Colombia, the relationship between the hunter and his prey has a marked erotic component (Reichel-Dolmatoff 1971: 220). Instead, for the Achuar of Ecuador (Descola 1994) and the Aguaruna of Peru (Brown 1986), the relationship is that of affinity. Along the same lines, for the Rock Cree of Northern Manitoba (Canada), the relationships are those of consanguinity, viz., animals are addressed as "my grandfather" (nimosōm) or "my grandmother" (nōhkom), emphasising a respectful and nurturing dependency relationship (Brightman 1993: 187)

There, they can consume their own zoomorphic body and, as honoured guests, they can also enjoy feasts in which food, music, tobacco and manufactured goods are reciprocated to them. This socio-metaphysical process necessitates the mediation of a determined ecosystem's material component (animal's flesh) to preserve the reciprocal interactions between humans social and biological continuity and animals whose souls survive and regenerate in a new body.

Here we are getting closer to the intersection between the socio-structural level and the socio-cosmic dimension, which appears to be preserved by localised ecological relationships in the strict sense of the term. Furthermore, it is a widely known fact that socio-structural relationships are a crucial aspect of preserving the equilibrium and cohesion of a society. In other words, the centripetal forces of the social structure strive to hold together the members of a group who must relinquish their individualistic desires for society's collective benefits. It could be said that the means to generate these benefits are part of the social institutions which regulate the social relationships among the group and, hence, control the continuous reciprocity between its members. Reciprocity's continuity between society's members could imply, by and large, a rigorous axiological and normative dimension that must be abided for the functioning of the social structure. According to Clastres (1987: 114-115), for the Aché, this stressful situation is borne by men (hunters) who must respect an alimentary taboo that prohibits each hunter from consuming his own prey killed in the forest. The taboo, then, has a structural principle that makes each hunter dependent on one another, and thereby every man is, in turn, a meat giver who must abstain from eating his prey and a meat taker who can consume the meat of the animal hunted by the one who cannot eat it (*Ibid.*). Additionally, Clastres contends that there is a structural analogy between the relationship of the hunters to their preys and that of the hunters to their wives (*Ibid.*: 120). Thus, given the shortage of women, men must respect the strict rules of polyandry that act as a social institution that keeps society united. That is, each man is a wife giver and a wife taker who, therefore, must share his wife with the men who share theirs (*Ibid.*: 116-121). In this sense, the existence of the society is dependent on the alimentary taboo and the shortage of women which perform in its own sphere parallel functions, viz., preserving the existence and continuity of the

society through the interdependence of men as hunters (meat givers-meat takers) and as husbands (wife givers-wife takers) (*Ibid.*: 121).

However, it is appropriate to note that Clastres touched an important point concerning the Aché's social structure, which, first of all, seems to be sustained by the intimate relationship between hunters and animals. Indeed, if the hunter eats the animal that he has killed, he would be doomed by the *pané*⁸ (bad luck in hunting) that would be disastrous not only for the Aché economy, but also for his nature as a hunter that would be drained of his substance (*Ibid.*: 107-114). Moreover, the relationship between hunters and animals is displayed by the hunters' songs (*prerä*) which are in stark contrast with the women's songs (*chengaruvara*). The latter are, then, collectively and mechanically repeated with a plaintive tone by the women. By contrast, the former are joyfully and individually sung by the hunters who speak almost exclusively of their relationship with the animals, e.g., the injuries they have received, their skill at shooting arrows (*Ibid.*: 111-113).

Though Clastres has given us a clear picture of the structural opposition between women's *chengaruvara* and men's *prerä*, he nonetheless has superficially analysed the latter, which points to the complex relationships between hunters and animals. Hence it follows that these relationships appear to connect the socio-structural dimensions of Aché's society and its dependence on the hunters and their exchange of meat, with the socio-metaphysical dimensions of the animals who are physically hunted and consumed but spiritually respected by the alimentary taboo that provides the existence of a society in which reciprocity is the essential element for its continuity⁹.

8 It appears that the *pané* can also fall upon the hunter through direct contact of women and the hunter's bow. As Clastres writes: "if a woman were to take it upon herself to lay hold of a bow, she would certainly bring down on its owner the *pané* (1987: 107).

9 One can find here a correspondence between the Aché and the Huaulu of Seram (Indonesia). When a Huaulu hunter kills an animal, he must abstain from eating its meat and, accordingly, he must give it to others. However, he can keep the lower jaw of the killed animal (pig or deer), which he suspends under the roof in his house. Given that killing is a dangerous act, this rule can thus function as double appeasement of the lord of the forest, namely, the collective renunciation of the lower jaw and the killer's renunciation of eating his prey. As such, there is a double sense of reciprocity instilled by

In the third level of socio-cosmological exchanges, we finally approach indigenous' metaphysics that cyclically interconnects the allegedly extended bodies of non-human entities with the domain of humans who depend on the former's own existence. As Tanner writes about the Mistassini Cree:

The facts about particular animals are reinterpreted as if they had social relationships between themselves and between them and anthropomorphised natural forces. Furthermore, the animals are thought of as if they had personal relations with the hunters. The idealised form of these latter relations is often that the hunter pays respect to an animal; that is, he acknowledges the animal's superior position, and following this, the animal 'gives itself' to the hunter, that is, it allows itself to assume a position of equality, or even inferiority, with respect to the hunter. (1979: 136)

The interconnectedness between human and animals in an elaborate activity such as hunting must be grasped in its ontological aspect. These relationships, far from being merely symbolic expressions or tangled metaphors, seem to point to the reciprocal exchanges among hunters and other-than-human persons (Nadasdy 2007) embedded in a relational ecology. Thus, entrenched in a dynamic ecological system, human-nonhuman sociality works within ethological patterns that provide the necessary conditions for animals to thrive and, subsequently, to exchange reciprocally with humans. The reciprocal trophic relationships are, ontologically speaking, the basis from which the structured socio-cosmic relations originated. These, in turn, regulate human-nonhuman interactions in nature.

The intricate nature's realities are part of an order in which the reciprocity of perspectives (Lévi-Strauss 1988: 206) between subjectivities and their profound ecological interconnectedness coalesce. Reciprocal exchanges are, of course, deep-rooted in the material world, which operates according to the eternal and dynamic eco-cosmic laws that provide the paths

the rule, which, in one way or another, compels, on the one hand, the reciprocity between humans and animals and, on the other, the reciprocity among humans who depend on each other for their subsistence (Valeri 2001: 274-275). The two examples clearly illustrate that human-animal relationships are structured socially and cosmologically through the trophic exchanges established by a relational and dynamic ecology.

for human-nonhuman symbiotic coexistence. For example, for the Juruna of the Brazilian Amazon, hunters and peccaries are embedded in multiple worlds of perspectives mediated by each species' shamans (Lima 1999). These, in turn, negotiate the precise moment when hunting can take place (*Ibid.*: 109). However, if a hunter commits a breach or dies during the hunt, an inversion of perspectives occurs, causing the assimilation of a hunter into peccaries' world that gradually transform the former into a peccary (*Ibid.*: 109-111). I can infer that, apart from the reversal of points of view, there is also an inversion of trophic levels, that is, a predator (hunter) becomes a prey (peccary). As a result, the cycle of reciprocal relationships is renewed by the interchange of trophic levels and the continuous socio-cosmic negotiations¹⁰.

Conversely, for the Haida of the Queen Charlotte Islands of Canada, the ocean is a vital place that gives food and takes lives (Boelscher 1989: 182), and, consequently, humans who drowned in the ocean are believed to be transformed into killer whales (*Ibid.*: 168). Being the most powerful of the Ocean-people, killer whales occupy the highest trophic level and possess the most forceful of all supernatural powers (*Ibid.*). In this intersection of intentionalities between different ontological realms (i.e., humans-terrestrial and orcas-ocean world), aquatic predation seems to reverse trophic levels and spiritual energy. Being the prey of the ocean, a drowned human becomes an apex predator whose power places himself at the highest trophic level of the food chain and achieves a new perspective embedded in the water world. The reciprocity between entities and their perspectives goes from the elementary ecological relationships to the mytho-cosmic principles that constitute the Haida universe.

Reciprocity can also necessitate rigorous regulations between subjects who, since mythical times, are engaged in a complex set of predatory relationships. For the Ma' Betisek of Malaysia (Karim 1981), for example, the anthropophagus nature of the triadic humans-animals-plants stemmed from the primordial undifferentiated existence in which animals and plants devoured humans. As a result of this

10 It is said that during the hunt, the peccary-shaman and its companions (wife or child) must not be killed (Lima 1999: 109). This phenomenon clearly illustrates the underlying reciprocal relationships between humans and more-than-human beings who prey on each other.

transgression, humans began to consume their non-human fellows, that is, reversing the cannibalistic role and thus restoring trophic exchanges. Nevertheless, the predator-prey relationship's inversion must be rigorously reciprocated by humans, who, being overwhelmed by diseases brought by animals and plants, cease to consume the latter and thereby begin to share food with them (*Ibid.*: 195). It may be argued that even if there is implicit rebounding violence between the shifting roles of predators and preys (Bloch 1992) situated in an intertwined cosmic food web (Århem 1996), the immanent ecological relationships of the material world appear to prescribe the disjunctive and conjunctive socio-cosmic interactions. Furthermore, in the same Malaysian territory, the Chewong (Howell 1989 [1984]) exhibit a complex system of tangible and intangible reciprocal exchanges between humans and superhumans. The society as a whole is, for the Chewong, the totality of beings with whom they maintain relationships and exchanges that ensure the continued existence of the whole social universe (*Ibid.*: 116). In a nutshell, the socio-cosmological relationships are interwoven in nature understood as a bedrock whose fundamental attributes shape the existence of things and their relationalities.

The material world has thus to be grasped in the dynamic processes that occur in a relational life. Far from being a naïve determinism, ecological necessity epitomises the underlying structure and interconnection between living things. Nature's immanence is, of course, the source of the profound interactions that transcend the human intellect. It could be possible that different ecosystems correspond to the disparate relationships that humans have with them? Is there a correlation between human-nature relatedness and its conceptualisation? Should an ecosystem teeming with plant life such as the Amazon rainforest be conceptualised differently than a less bountiful one like the tundra? Paradoxically, it emerges from Amazonian ethnology and its abstractions (*i.e.*, Descola's animism and Viveiros de Castro's perspectivism) a bias towards human-animal relationships at the expense of human relations with plants and the material world in general (Hill 2009: 101-2; Rival 2012: 70-1).

More specifically, such relationships are to be investigated in the profound interconnections between extended subjects and thinking objects.

For example, the Achuar women of the Ecuadorian Amazon establish consanguineal relationships with manioc (*Manihot esculenta*) that they tend in their mythical gardens (Descola 1994, 2001; Taylor 2001). Likewise, for some of their Shuar neighbours, these close relationships come to the fore at specific rituals during which, sitting on a phallic stone (*kata*¹¹), women assimilate manioc's properties and men those of tobacco plant. Thus, the ritual emphasises the fertilising attributes of the plants and stone, which, spiritually approached by the Shuar, provide the vital means for social and biological reproduction. (Abad Espinoza 2019: 159-162). Correspondingly, in the Venezuelan Amazon, the Wakuénai (Hill 2009) and the Jotí (Zent 2009) appear to have intimate relations with plants whose mythic origin determine their way of being in the world. These symbiotic relationships can also be found among the Huaorani of the Ecuadorian Amazon, who, being in close connection with the rainforest, conceive peach palm (*Bactris gasipaes*) as the locus of the profound relations between humans and animals (especially monkeys which they hunt) who depends on the former for their biological and social continuity. Therefore, the connection between humans, peach palms and animals is perceived as symbiotically necessary for securing renewal and growth (Rival 1993: 642-643). The interconnectedness between ecosystems and their biotic communities allows for the complex and cyclical trophic exchanges necessary for species' survival at a material level. Additionally, the relationships between these material components structure the socio-structural and socio-cosmic interwoven relationships among humans and non-humans who share a nature, which unfolds its immanent and transcendent dimensions.

TRANSCENDING HUMANITY IN THE ECOSPHERE

Throughout this article, I have tried to explore human nature as a part of a complex order that sustains all given or potential relationships in the world. During my discussion about two of the most creative and innovative thinkers in the anthropology of the Americas, I realised that we are far from achieving an in-depth understanding of indigenous' philosophical propositions concerning the universe and its material and immaterial dimensions. This kind

11 In Shuar, *kata* literally means penis.

of Western's distress has led me to infer that we are bound to a dead-end paradox that obliges us to think in an anthropocentric way concerning our ecology and the ethnoecology of the others.

In sum, anthropocentrism in our world can be understood in two different ways. Firstly, as *centrifugal*, where humans are placed in the centre of the universe, and, consequently, non-human nature is far removed from humanity and its almost divine intellectual superiority. Therefore, our relationship with the physical world can be conceived as a pyramidal structure that places humans at the top and thereby hierarchically divides each non-human organism depending on the position that this occupies in humans' physical, intellectual and economic development. Secondly, our cosmology's ethnocentric lens has built an apparent native's intellectual apparatus that, with an anthropocentric outlook, has conceived the relationships that indigenous peoples have with non-human nature. These relationships can be understood as *centripetal*. That is to say, humans are placed at the centre, and thus to be objectified, endowed with certain symbolic meanings or even considered as agents, nature's beings must empirically stimulate the creative imagination of the former. This horizontal but hierarchical structure seems to point to the logic of totemic classification that regards the objective reality of the natural species as an organic device to intellectually organise and differentiate humans' social world (Lévi-Strauss 1963b). In this sense, the social world of non-human beings is put aside by the anthropocentric order of things that obscures the profound socio-cosmological relationships between entities in the eco-cosmic system.

Thus, the 'cosmic economy of sharing' (Ingold 1996: 130) that seems to represent the underlying ontological relationships between intentionalities in the ecosphere goes beyond the allegedly objective reality of classificatory systems that ignore human and non-human sociality. Totemic systems, then, can involve a cyclical socio-metaphysics of mutual interconnections between species who share a common ecosystem. As Rose puts it:

"The totemic metaphysics of mutual life-giving draws different species into overlapping and ramifying patterns of connection through benefit. Many of these benefits are not immediately reciprocated. Rather, they keep moving through

other living things, sustaining life through the twin processes of life for itself and life for others". (2005: 297)

The attempt to show that sociality must be examined in the elementary relationships between human and non-human beings is to transcend our anthropocentric view of the world that prevents us from conceiving our existence in relation with other creatures who share a natural environment within which humans are species among species (Rappaport 2000 [1968]: 241-242). For example, Lévi-Strauss' negative ecology shows us how the primordial connections with nature appear to survive in the simplest cultural expressions of a vanishing society like the perishing and humble Nabikwara, who strive to live amid their inevitable destruction (Keck 2011). However, more than a *society against the state*, we are dealing with relational ecologies and ontologies against the Anthropocene's ecocide and its role in suppressing natives' profound connections with the universe. This commitment leads me to believe that indigenous' metaphysical propositions must be analysed as eco-philosophies that can teach us our place in the universe as much as our Western thinkers have done throughout the centuries.

REFERENCES CITED

- Abad Espinoza, Luis Gregorio. 2019. "The Moral Philosophy of Nature: Spiritual Amazonian Conceptualizations of the Environment". *Open Journal of Humanities* 1: 149-190.
- Århem, Kaj. 1981. *Makuna Social Organization: A Study in Descent, Alliance and the Formation of Coporate Groups in the North-Western Amazon*. Uppsala: Acta Universitatis Upsaliensis.
- Århem, Kaj. 1996. "The Cosmic Food Web: Human-nature Relatedness in the Northwest Amazon", in Philippe Descola and Gisli Pálsson (eds.), *Nature and Society: Anthropological Perspectives*: 185-204. London and New York: Routledge.
- Bird-David, Nurit. 1999. "'Animism' Revisited: Personhood, Environment, and Relational Epistemology". *Current Anthropology* 40(1): 67-91.
- Bloch, Maurice. 1992. *Prey into Hunter: The Politics of Religious Experience*. Cambridge: Cambridge University Press.
- Boelscher, Marianne. 1989. *The curtain within: Haida Social and Mythical Discourse*. Vancouver: University of British Columbia Press.
- Brightman, Robert. 1993. *Grateful Prey: Rock Cree Human-Animal Relationships*. Berkeley: University of California Press.

- Brown, Michael. F. 1986. *Tsewa's Gift: Magic and Meaning in an Amazonian Society*. Washington: Smithsonian Institution Press.
- Chaumeil, Jean-Pierre. 1983. *Voir Savoir Pouvoir: le chamanisme chez les Yagua du Nord-Est Péruvien*. Paris: Editions de Ecole des hautes études en sciences sociales.
- Clastres, Pierre. 1987. *Society Against The State: Essays in Political Anthropology*. New York: Zone Books.
- Cristancho, Sergio and Joanne Vining. 2004. "Reciprocity as Principled Argument: The Ethics of Human-Nature Interactions for the Letuama". *Human Ecology Review* 11(1): 36-50.
- Descartes, René. 1993 [1596-1650]. *Discourse on Method and Meditations on First Philosophy*. Indianapolis: Hackett Pub. Co.
- Descola, Philippe. 1988. "La chefferie amérindienne dans l'anthropologie politique". *Revue française de science politique* 38(5): 818-827.
- Descola, Philippe. 1992. "Societies of Nature and the Nature of Society", in Adam Kuper (ed.), *Conceptualizing Societies*: 107-126. London: Routledge.
- Descola, Philippe. 1994. *In the Society of Nature: A Native Ecology in Amazonia*. Cambridge: Cambridge University Press.
- Descola, Philippe. 1996. "Constructing Natures: Symbolic Ecology and Social Practice", in Philippe Descola and Gísli Pálsson (eds.), *Nature and Society: Anthropological Perspectives*: 82-102. London & New York: Routledge.
- Descola, Philippe. 2001. "The Genres of Gender: Local Models and Global Paradigms in the Comparison of Amazonia and Melanesia", in Thomas A. Gregor and Donald Tuzin (eds.), *Gender in Amazonia and Melanesia: An Exploration of the Comparative Method*: 91-114. Berkeley: University of California Press.
- Descola, Philippe. 2005. "Ecology and Cosmological Analysis", in Alexandre Surrallés and Pedro García Hierro (eds.), *The Land Within: Indigenous Territory and the Perception of Environment*: 22-35. Denmark: IWGIA.
- Descola, Philippe. 2013a. *Beyond Nature and Culture*. London: University of Chicago Press.
- Descola, Philippe. 2013b. *The Ecology of Others*. Chicago: Prickly Paradigm Press.
- Ellen, Roy. 1996. "Introduction", in Roy Ellen and Katsuyoshi Fukui (eds.), *Redefining Nature. Ecology, Culture and Domestication*: 1-36. Oxford: Berg.
- Evans-Pritchard, Edward E. 1940. *The Nuer*. Oxford: Oxford University Press.
- Evans-Pritchard, Edward E. 1951. *Social Anthropology*. New York: Free Press.
- Fabietti, Ugo. 2011. *Storia dell'antropologia*. Bologna: Zanichelli.
- Gluckman, Max. 1955. *Custom and Conflict in Africa*. Oxford: Blackwell.
- Gluckman, Max. 1963. *Order and Rebellion in Tribal Africa*. London: Cohen and West.
- Gluckman, Max. 1965. *Politics, Law and Ritual in Tribal Society*. Chicago: Aldine Pub. Co.
- Hallowell, A. Irving. 1960. "Ojibwa Ontology, Behaviour, and World View". In Stanley Diamond (ed.), *Primitive Views of the World*: 49-82. New York: Columbia University Press.
- Heil, John. 2018. "Being of one Substance". *Religious Studies* 54(3): 313-324.
- Hill, Jonathan D. 2009. "The Celestial Umbilical Cord: Wild Palm Trees, Adult Male Bodies, and Sacred Wind Instruments among the Wakuénaí of Venezuela". *Journal for the Study of Religion, Nature and Culture* 3(1): 99-125.
- Hill, Jonathan D. and Jean-Pierre. Chaumeil. (eds). 2011. *Burst of Breath. Indigenous Ritual Wind Instruments in Lowland South America*. Lincoln and London: University of Nebraska Press.
- Howell, Signe. 1989 [1984]. *Society and Cosmos: Chewong of Peninsular Malaysia* (2nd edition). Chicago and London: University of Chicago Press.
- Hugh-Jones, Stephen. 1979. *The Palm and the Pleiades: Initiation and Cosmology in Northwest Amazonia*. Cambridge: Cambridge University Press.
- Hugh-Jones, Stephen. 1996. "Shamans, Prophets, Priests and Pastors", in Nicholas Thomas and Caroline Humphrey (eds.), *Shamanism, History, and the State*: 32-75. Ann Arbor: University of Michigan Press.
- Hugh-Jones, Stephen. 2017. "Body Tubes and Synaesthesia". *Mundo Amazónico* 8(1): 27-78.
- Ingold, Tim. 1996. "Hunting and Gathering as Ways of Perceiving the Environment", in Roy Ellen and Katsuyoshi Fukui (eds.), *Redefining Nature. Ecology, Culture and Domestication*: 117-155. Oxford: Berg.
- Ingold, Tim. 2000. *The Perception of the Environment. Essays in Livelihood, Dwelling and Skill*. London: Routledge.
- Ingold, Tim. 2006 "Rethinking the Animate, Re-Animating Thought". *Ethnos* 71(1): 9-20.
- Jackson, Jean. E. 1983. *The Fish People: Linguistic Exogamy and Tukanoan Identity in Northwest Amazonia*. New York: Cambridge University Press.
- Karim, Wazir-Jahan. 1981. *Ma' Betisék Concepts of Living Things*. London: Athlone.
- Keck, Frédéric. 2011 "L'écologie négative de Claude Lévi-Strauss". *Esprit* 8(8-9): 65-76.
- Leach, Edmund R. 1954. *Political Systems of Highland Burma: A Study of Kachin Social Structure*. Cambridge: Harvard University Press.
- Lévi-Strauss, Claude. 1944. "Reciprocity and Hierarchy". *American Anthropologist* 46: 266-268.
- Lévi-Strauss, Claude. 1955. *Tristes tropiques*. Paris: Plon.
- Lévi-Strauss, Claude. 1963a. *Structural Anthropology*. New York: Basic Books.

- Lévi-Strauss, Claude. 1963b. *Totemism*. Boston: Beacon Press.
- Lévi-Strauss, Claude. 1966. *The Savage Mind*. Chicago: University of Chicago Press.
- Lévi-Strauss, Claude. 1969a. *The Elementary Structures of Kinship*. Boston: Beacon Press.
- Lévi-Strauss, Claude. 1969b. *The Raw and the Cooked*. New York: Harper & Row.
- Lévi-Strauss, Claude. 1985. *The View from Afar*. New York: Basic Books.
- Lévi-Strauss, Claude. 1988. *The Jealous Potter*. Chicago: University of Chicago Press.
- Lima, Tânia Stolze 1999 "The Two and Its Many: Reflections on Perspectivism in a Tupi Cosmology". *Ethnos* 64(1): 107–31.
- Nadasdy, Paul. 2007. "The Gift in the Animal: The Ontology of Hunting and Human-Animal Sociality". *American Ethnologist* 34(1): 25–43.
- Nelson, Richard. K. 1983. *Make Prayers to the Raven*. Chicago: University of Chicago Press.
- Plumwood, Val. 2002. *Environmental Culture: The Ecological Crisis of Reason*. London: Routledge.
- Radcliffe-Brown, Alfred. R. 1952 [1929]. *Structure and Function in Primitive Society*. London: Routledge and Kegan Paul.
- Rappaport, Roy. A. 2000 [1968]. *Pig for the Ancestors: Ritual in the Ecology of a New Guinea People* (2nd edn). Long Grove, Illinois: Waveland Press, Inc.
- Reichel-Dolmatoff, Gerardo. 1971. *Amazonian Cosmos: The Sexual and Religious Symbolism of the Tukano Indians*. Chicago: University of Chicago Press.
- Rival, Laura. 1993. "The Growth of Family Trees: Understanding Huaorani Perceptions of the Forest". *Man* 28(4): 635–652.
- Rival, Laura. 2012. "Animism and the Meaning of Life: Reflections from Amazonia", in Marc Brightman, Vanessa Grotti and Olga Ulturgasheva (eds.), *Animism in Rainforest and Tundra: Personhood, Animals and Non-humans in Contemporary Amazonia and Siberia*: 69–81. New York and Oxford: Berghahn Books.
- Rose, Deborah B. 2005. "An Indigenous Philosophical Ecology: Situating the Human". *The Australian Journal of Anthropology* 16(3): 294–305.
- Sauer, Carl O. 1925. "The Morphology of Landscape". *University of California Publications in Geography* 22: 19–53.
- Spinoza, Baruch. 1910. *Ethics*. London: J. M. Dent & Sons Ltd.
- Surrallés, Alexandre. 2005. "Intimate Horizons Person, Perception and Space among the Candoshi", in Alexandre Surrallés and Pedro García Hierro (eds.), *The Land Within: Indigenous Territory and the Perception of Environment*: 126–148. Denmark: IWGIA.
- Tanner, Adrian. 1979 *Bringing Home Animals: Religious Ideology and Mode of Production of The Mistassini Cree Hunters*. Saint John: Memorial University of Newfoundland.
- Taylor, Anne-Christine. 2001. "Wives, Pets, and Affines: Marriage among the Jivaro", in Laura M. Rival and Neil L. Whitehead (eds.), *Beyond the Visible and the Material: The Amerindianization of Society in the Work of Peter Rivière*: 45–56. Oxford: Oxford University Press.
- Tsing, Anna L. 2014. "More-than-Human Sociality: A Call for Critical Description", in Kirsten Hastrup (ed.), *Anthropology and Nature*: 27–42. New York: Routledge.
- Valeri, Valerio. 2001. *Fragments from Forests and Libraries*. Durham, NC: Carolina Academic Press.
- Vitebsky, Piers. 2005. *Reindeer People: Living with Animals and Spirits in Siberia*. Boston: Houghton Mifflin.
- Viveiros de Castro, Eduardo. 1998. "Cosmological Deixis and Amerindian Perspectivism". *Journal of the Royal Anthropological Institute* 4 (3): 469–88.
- Viveiros de Castro, Eduardo. 2004 "Exchanging Perspectives: The Transformation of Objects into Subjects in Amerindian Ontologies". *Common Knowledge* 10(3): 463–464.
- Viveiros de Castro, Eduardo 2008. "Xamanismo Transversal. Lévi-Strauss e a Cosmopolítica Amazônica", in Ruben C. de Queiroz and Renarde F. Nobre (éds.), *Lévi-Strauss: leituras brasileiras*: 79–124. Minas Gerais: Universidade Federal de Minas Gerais.
- Viveiros de Castro, Eduardo. 2012a. *Cosmological Perspectivism in Amazonia and Elsewhere*. Masterclass Series 1. Manchester: HAU Network of Ethnographic Theory.
- Viveiros de Castro, Eduardo. 2012b. "Immanence and Fear: Stranger-Events and Subjects in Amazonia". *Hau: Journal of Ethnographic Theory* 2(1): 27–43.
- Viveiros de Castro, Eduardo. 2014. *Cannibal Metaphysics: For a Post-Structural Anthropology*. Minneapolis, MN: Univocal Publishing.
- Wagner, Roy. 1967. *The Curse of Souw: Principles of Daribi Clan Definition and Alliance in New Guinea*. Chicago and London: University of Chicago Press.
- Wright, Robin M. 2013. *Mysteries of the Jaguar Shamans of the Northwest Amazon*. Lincoln and London: University of Nebraska Press.
- Zent, Egleé L. 2009. "'We Come from Trees': The Poetics of Plants among the Joti of the Venezuelan Guayana". *Journal for The Study of Religion, Nature and Culture* 3 (1): 9–35.
- Zent Egleé L. 2013. "Joti Ecogony, Venezuelan Amazon". *Environmental Research Letters* 8(1): 015008.