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Perig Pitrou. Life as a process of making in the Mixe Highlands (Oaxaca, Mexico): towards a 'general pragmatics' of life. The Journal of the Royal Anthropological Institute of Great Britain and Ireland, 2015, 21 (1), pp.86-105. 10.1111/1467-9655.12143. halshs-01410442

### HAL Id: halshs-01410442 https://shs.hal.science/halshs-01410442

Submitted on 6 Dec 2016

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## Life as a process of making in the Mixe Highlands (Oaxaca, Mexico): towards a 'general pragmatics' of life

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In contrast to Western philosophy, which has considered the distinction between life and the living to be fundamental, anthropology seems not to have given much thought to the difference between the two. However, the existence of an entity called 'The One Who Makes Live' among the Mixe, an Amerindian group living in the state of Oaxaca in Mexico, proves that ethno-theories of non-Western peoples often make the distinction between the characteristics and vital processes of living beings (growth, degeneration, reproduction, etc.), on the one hand, and the more or less personified causes that produce them, on the other. Given these circumstances, this article pursues a two-fold objective. First, based on the results of ethnographic inquiry, it tries to describe the categories of nonhuman agents with which the Mixe understand this production or making of the living. Second, it suggests that, in parallel with numerous approaches developed by anthropologists past and present, the anthropology of life would benefit from an approach based on a 'general pragmatics' in order to better understand the diversity of conceptions of life.

The reflections I present in this article are the fruit of an ethnographic inquiry carried out over a period of two years among the Mixe, a group of about 130,000 Amerindians living in village communities in the northeastern part of the state of Oaxaca in Mexico. Very soon after arriving in the municipality of Santa María Tlahuitoltepec in May 2005, I began recording the ritual discourses pronounced by the Mixe during poultry sacrifices performed in agricultural, therapeutic, and political-legal contexts. My goal was to understand the participation expected of the entities of nature to whom these sacrifices are addressed. From the earliest translations, my interest was piqued by the central place of an entity named Yïkjujyky'äjtpï, who appeared in all these discourses. The name of the entity, which is formed out of *jujyky'äjt*, 'living being', the causative prefix *yïk*-, and the personifying suffix -*pï*, means 'The One Who Makes Living Beings', or, more succinctly, 'The One Who Makes Live'. Unlike the Spanish expression '*Dador de vida*', 'Giver of life', which my hosts used to explain the meaning of this substantive to me, the literal

Journal of the Royal Anthropological Institute (N.S.) ••, ••-••

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translation emphasizes that an action is necessary to produce living beings and to keep them in existence. This suggests that we should move away from a substantialist approach that only imagines life as a material substance circulating in the world or between bodies. It seemed fruitful, without ignoring the importance of material transfers, to investigate the modalities by which the Mixe think that an agent such as 'The One Who Makes Live' 'makes' live; or, strictly speaking, makes it such that there are living beings.

It is noteworthy that this distinction resembles the distinction commonly made in Western philosophy between the living – understood as a multiplicity of forms (plant forms, animal forms, etc.) that display specific functional characteristics (growth, reproduction, self-repair) – and life, which is understood as a principle common to all these forms. The theoretical and empirical difficulties involved in delineating this principle explains the fact that, since On the parts of animals, a seminal work in which Aristotle (1961 [350 BCE]) considers the causes that produce phenomena observable among living beings, many hypotheses have arisen to explicate the incredible complexity of vital processes through transversal causal principles (vitalist, finalist, or mechanistic theories; cf. Pichot 1993). And so, just as Western philosophy has for centuries distinguished between life and the living, here too it is instructive to examine the gap that the causative introduces between the existence of living beings and the idea that an entity is capable of making them exist as they are. What is the agency of 'The One Who Makes Live'? Does he use the same actions or sequences of actions to produce vitality in all living beings? Or is there rather a specialization of actions depending on which beings he is exerting his influence over (animals, vegetables, humans, etc.), or which of the various processes he is seeking to encourage (growth, reproduction, scarring, interaction with the environment)? Finally, how do the Mixe go about enlisting this entity so as to control processes they know they cannot fully carry out by themselves?

In trying to answer these questions, which depend on a specific ethnographic context, I would like at the same time to formulate several methodological proposals for studying ethno-theories of vital processes on the basis of what I call a 'general pragmatics'. As far as causality goes, I am not referring to a single material causality, but rather to the fact that living beings can be thought of as the results of a combination of actions by various agents who use various forms of agency in carrying out intentional as well as material processes. The causality I am referring to may thus refer either to a demiurge or to a more internal causality at work among living beings ('[A]ll living things are agents with respect to themselves in that their growth and form may be attributed to their own agency' - Gell 1998: 41). I suggest methodologically distinguishing at least two categories of action that in a sense logically frame vital processes. On the one hand, there are the actions that produce vital processes: formerly, these were only imputed to nonhuman agents, but with the development of biotechnologies, it is possible that humans will also gradually become such agents (Franklin & Lock 2003). On the other hand, there are the actions performed by humans to control or influence these vital processes, which take place without their direct intervention.

The pragmatic approach I defend here is thus 'general' in that it seeks to analyse ethno-theories of life on the basis of a global system of actions and agents. Within this context, the importance of engagements with material will lead me to consider the contributions that methods drawn from the anthropology of techniques can make to the successful completion of such a project. However, since the main goal here is to consider modalities of co-ordinating the agents involved in the production or utilization of vital processes, the anthropology of techniques is not the only discipline that can contribute

to such an investigation: ethnographic inquiry can also benefit from the anthropology of rituals, ethno-linguistics, and the study of myths. What is crucial is to determine how powers are understood to be distributed among agents when living beings interact.

To demonstrate the fertility of such an approach, I will begin by explaining the actions that the Mixe attribute to 'The One Who Makes Live' when they ask him to take part in growing corn or strengthening the bodily shell of a child. Before giving an example of this method of inquiry, which led my observations of the ceremonial activities of the Mixe in some original directions, I would like to emphasize that these observations offer an interesting axis for comparative reflection, as they raise fundamental problems for anthropology, which, along with the other social sciences, has always approached the question of life from very different perspectives.

#### Steps for an anthropology of life: an overview of multiplicities

It would be unwise to assume that the term 'life' or the Greek root bios on its own conveys a principle of unity. Indeed, what similarity is there between the 'social life' that sociologists began studying in the nineteenth century – into which 'objects' and, more broadly, 'nonhumans' are nowadays integrated - the classification and organization of natural beings in all their diversity, whose principles ethno-biology proposes to trace, and the 'life-course rituals' whose descriptions have long been obligatory in classic ethnographic monographs? Is it possible to establish commonalities between the work of folkbiology on classification, the way life is marked in various lexicons and grammars, and the creation myths that have been collected from all over the planet? Is it legitimate to establish connections between Hocart's reflections (1935) on 'the science of life' and the rites he considered to be the applied version of this science – we find a similar idea in Bloch (1992) - and contemporary thought on the emergence of new political and technological paradigms: bioethics, biomimetism, biotechnology, and so on? I have suggested, first at a conference in Mexico in 2007, and then later in the book La noción de vida en Mésoamerica (Pitrou, Valverde & Neurath 2011), that anthropology ought to investigate the conceptions of life and the living that these different works bring to light. This is made all the more necessary by the fact that contemporary thought has complexified and multiplied the methodological options available for studying life: one may choose between an ecological perspective (Ingold 2000), a phenomenological perspective (Ingold 2011), a semiological perspective (Kohn 2007; 2013), a constructional perspective (Santos Granero 2009; 2012), a 'cosmoeconomic' perspective (da Col 2012), a microbiopolitics perspective (Paxson 2013), a structuralist perspective (Praet 2013), or a cognitivist perspective (Astuti 2000), while at the same time, reflection on 'forms of life' (Das 2007) and their connections to 'life forms' (Helmreich 2009) has also become richer. In this context, the goal is not to unify the field of these studies - which I have not listed exhaustively here - by claiming to discover a conception of life shared by all these authors. On the contrary, a project for an anthropology of life should propose a conceptual framework for the comparison of the different conceptions of life found both in anthropological works and in the systems of representation anthropologists encounter in their inquiries.

Indeed, in addition to the problem of articulating different theories within a disciplinary field – a difficulty that also exists within the natural sciences – we are confronted with the diversity of representations documented in ethnographies. Regardless of the approach taken, it is quite common in ethnographical literature for 'life' to enter in as some ultimate explanation that accounts for a multitude of practices, as if life were

#### 4 PERIG PITROU

a given, as if it were everywhere understood in the same way — whereas, as with nature (Descola 2013 [2005]), each culture groups the elements and functional qualities of the world associated with vital processes in its own specific way, whether these are observed in humans or in other beings in the environment. In this respect, one of the merits of works on biopolitics (see, e.g., Agamben 1998 [1995]; Fassin 2006; Foucault 1970 [1966]; 2008 [2004]) is that they attempt to describe the specificity of the technical and political configurations within which vital phenomena are categorized and which are the objects of human actions over the course of history. Anthropology would gain from examining life on a synchronic axis by according similar attention to diverse cultural contexts — that is, by studying how different peoples conceive the characteristics and vital processes of living beings, as well as how they assign causes to such phenomena.

I should note right away that such an analytic perspective is distinct from the sector of contemporary anthropology that has been dedicated to exploring animism (e.g. Bird-David 1999; Brightman, Grotti & Ulturgasheva 2012; Halbmayer 2012; Turner 2009; Viveiros de Castro 2014 [2009]): it is striking to note that very little information concerning ethno-theories of life has been brought back from this field. The overwhelming majority of works on animism approach the question of life from the very narrow perspective of how agency or intentionality is attributed to animals, vegetables, minerals, astronomic phenomena, and artefacts during their interaction with humans. But the capacity to interact is only one of many characteristics that can be observed among living beings – there is also, to name but a few examples, reproduction, adaptation, interaction with the environment, growth, degeneration, sexual differentiation, and movement. Thus, anthropology must pay more attention to the ways in which non-Western peoples think of biological processes, and not be satisfied with reflecting on the differential distribution of intentionality among existing beings (Rival 2012a; 2012b). It must continue the work begun in several classical texts on this topic (e.g. Bloch 1993; Bloch & Parry 1982), and pursue ethnographic exploration of the phenomenal multiplicity proper to living beings in order to study conceptions of life and the living in all their complexity, without arbitrarily reducing them to certain characteristics.

In sum, it is my view that in order to be coherent, an anthropology of life must be able conceptually to articulate diverse representations of life, which refer to at least three levels where multiplicity can be found: the diversity of vital processes recognized by various peoples, the representations they have of their causes, and the representations that anthropological approaches bring to light according to their methodological framework. Although I cannot tackle such a project in the scope of this article, I would like to specify that the method I propose falls within this research programme.

I should note from the outset the difference between my project and those of Tim Ingold (2011) and Eduardo Kohn (2007; 2013), two authors who have recently discussed the themes of this article. These authors do not simply relate ethno-theories of life – they claim to say what life is. My own position is more cautious in certain respects, since I propose inspecting the diversity of conceptions and practices before trying to formulate such an assertion. I should specify that I do not consider the vital processes mentioned above to be universal givens, perceived the same way everywhere. The terms 'life', 'living', 'reproduction', 'growth', and 'degeneration' – to take just a few examples – are only an initial approximation of distinctions humans make within the phenomenal world; these are common, but not necessarily universal, definitions. As the ethnographic data studied by Istvan Praet (2013) or the investigation of scientific knowledge carried out by Stephan Helmreich (2011) attest, ways of conceiving the boundaries

between the living and the non-living vary by the types of interactions humans have with forms of life, whose incredible diversity - already immense within the environment of traditional societies - is constantly growing, thanks to the developments of science and technology. As Helmreich writes, '[T]he relation between life forms and forms of life has become liquid, turbulent ... Like the gene ... life is being redistributed into a fluid set of relations. Life is strange, pushed into its conceptual limits, spilling across scales and substrates, becoming other, even alien to itself' (2009: 8).

Thus, it is not only a mark of caution to explore ethno-theories of life before pronouncing a definition of what life is - it also implies a fairly strong ontological assertion. Although I consider my approach to follow in Philippe Descola's footsteps, it is highly likely that the plurality of worlds<sup>2</sup> onto which the multiplication of 'life forms' and 'forms of life' opens creates an infinitely more fragmented picture than the four ontologies presented in Beyond nature and culture (2013 [2005]) would suggest. Thus, it is more fitting to turn to Bruno Latour's ontology to think about the fragmentation of the world and the hybridization of its components - not in order to organize these components on the basis of systems of 'veridiction' that refer to various modes of existence, nor in order to reduce living beings to their power to produce 'lineages' (Latour 2013 [2012]), but in order to take into account the ontological uncertainty that surrounds the identity of the elements of the world, depending on the types of association within which they are mobilized (Latour 2005). Within such a constantly reshaping universe, where the powers of and on living beings are always being redistributed, it is more than ever necessary to have a guiding method. To this end, I propose using an example to show how an inquiry centred on action offers a rigorous method for shedding light on ethno-theories of life and the systems of powers they include.

#### The plural agency of 'The One Who Makes Live'

The Sierra Mixe, where I carried out a two-year ethnographic study in visits that took place between 2005 and 2010, is located in the northeastern part of the state of Oaxaca in Mexico. A portion of the 130,000 speakers of the Mixe language, which belongs to the Mixe-Zoque language group, live in this mountainous region of the Sierra Madre Oriental, in peasant village communities of several hundred or several thousand inhabitants. Mixe communities, which have been the subject of several books (e.g. Beals 1945; Kuroda 1993; Lipp 1991), do not differ significantly from other Indian populations of Mexico - for example, the Totonacs (Ichon 1969), the Mixtec (Monaghan 1995), the Nahua (Sandstrom 2003), the Tzeltal (Pitarch 2010), or the Maya (Hanks 2000) - in terms of their social morphology. In Mixe central villages, especially those near the national road, an accelerated process of modernization is underway, and residents have access to social, educational, and medical services, as well as to water, electricity, and even the Internet. Outside of these centres, in the hamlets, living conditions remain more traditional, and residents mainly depend on the cultivation of corn. In the municipality of Tlahuitoltepec, where my investigation was focused, the gap between the living standards of the 3,000 residents of the central village and the 6,000 residents of the periphery is constantly widening.

In spite of this contrast and the fact that the vast majority of the population identifies as Catholic, almost every household organizes ritual ceremonial displays of food accompanied by sacrifices of poultry at the summit of a mountain called Zempoaltepec: like the Mixtec studied by John Monaghan (1995), the Mixe seek to establish 'covenants' with entities of nature in order to solicit their help whenever a human enterprise is judged to be uncertain. This is the case, in particular, during the yearly rites of inauguration carried out by village representatives before they begin their service within the system of political-religious responsibilities that requires villagers periodically to perform volunteer service in the town hall or church (Chance & Taylor 1985; Dehouve 2006). As is the case in other communities in Chiapas or the state of Oaxaca, Catholic institutions are present in the Mixe religion, and before and after making sacrifices at the summit of the mountain, the Mixe usually also pray in church (Pitrou 2012b). However, the solicitation of Catholic figures (Christ, the Virgin, saints) is always seen as a way of 'completing' (completar) what is requested on the mountain peak. Even if protective power is attributed to these beings, the categories of action mobilized in sacrificial discourse prove that 'The One Who Makes Live' is the only being with sufficiently polyvalent agency to favour the success of vital processes during agricultural activities or birth rites, or to participate in the resolution of conflicts (Pitrou 2013).

The central moment in these procedures of collaboration with entities of nature consists in performing ceremonial displays, sometimes referred to as mesa ('table', 'mass') in the ethnological literature. Such displays are common in Mesoamerica and the Andes (Dehouve 2007; Sharon 2003; 2006). They entail making a food offering and, by carrying out certain actions on a miniaturized surface, seeking to produce effects at the macrocosmic level. Among the Mixe, particular care is given to the distribution of equal quantities of material in a receptacle or on a demarcated surface. I will not go into the details of the ritual counting that takes place during these ceremonies; it is enough to note that this operation – which is in no way abstract – is inseparable from action carried out on various materials. Thus, when the specialist prescribes '113 xaxty [rolls of corn dough]', this means that after preparing the dough - a process requiring several operations to cook and filter the corn - the participants count these ritual objects while shaping them by hand and assembling them according to a numerical order. In the same way, the statement 'fifty-three handfuls of corn powder' obliges them to count as they distribute the powder they have obtained by grinding corn. Schematically, the process of preparation implies a de-composition followed by a re-composition and distribution: ultimately, for the participants in the rite, the objective is, by obeying complex numeric prescriptions formulated by specialists, to distribute handfuls of corn powder, rolls of corn dough, alcohol, tortillas, candles, and the blood of the sacrificial bird – all from an overhanging position (Pitrou 2012a).

The ritual discourses pronounced when crops are planted prove that in performing this ritual, the Mixe seek to synchronize the material and cognitive action of distribution with the action that 'The One Who Makes Live' must carry out at his level to send rain. We hear:

1. mëjts et mëjts näxwii'nit

2. iyjyxam ëëts

3. npïktä'äky n'ëjxtä'äky

4. ja mwintsë'ëjk'ii'ny

5. yä'ät ja mnëëj yä'ät ja mpä'äk

6. yä'ät ja mkaaky

7. yä'ät ja mtojkx

8. ëy ëëts yä'ät npïktä'äkt

you expanse, you surface of the earth

now we

we lay, we display before your gaze

your 'receptacle of respect' (= the ceremonial display) this your water, this your sweetness (= your tepache)

this your tortilla this your broth

we are going to lay them well [the corn and the beans]

9. ëy ëëts nkuneepït nkukujït we are going to sow them well, we are going to throw them [from the top] this corn, these beans (= we are going to sow them) 10. yä'ät ja moojk yä'ät ja xëjk 11. jïts yä'ät wyïnpïtsë'ëmt and this [the corn] will emerge in front of our gaze (= it will arow) 12. jits yä'ät ëëts ja ntajujyky'äjt and 'that with which one lives' (= our food) you, 'The One Who Makes Live' 13. meits yikiuiyky'äitpi 14. xkeyäkt xnïtukt you are going to distribute with your hand, decide (= you are going to decide how to distribute the growth of the corn) 15. jits yä'ät yyoonpitsë'mt and this [the corn] will emerge by the neck (= will grow) 16. jits yä'ät y'ejxpitsë'mt ... and this will emerge into view ... 26. jits yä'ät myuxt and this [the seed] will grow 27. jits jatë'n wyinpitsëmt and in the same way it will emerge in front of our 28. jits yä'ät ja nëëj and this water 29. jits yä'ät ja tuuj and this rain 30. jätë'n xpïktä'äkt xkaxt yä'ät in the same way you will lay it, you will send it

[the water]

This extract indicates that the ritual action goes beyond an offering of food and is trying to establish a co-activity. The laying, or deposit (piktä'äky), is also a 'display before your gaze' (ejxtä'äky, ejx, 'eye, gaze, to see', line 3) — that is, it displays a programme of actions on a miniature scale so that 'The One Who Makes Live' will, at his level, perform a distribution of rain, also designated by the verb 'to lay', 'to deposit' (piktä'äky, line 30). The originality of this synchronization stems from the fact that it does not seek to connect just two levels of activity, but three: the miniaturized action also refers to the distribution of corn seeds by planters at level 1 ('we are going to ... lay the corn', npiktä'äkt ja moojk, line 8). In his work on shamanic séances among the Yucatec Maya, William Hanks (2000) discusses how ritual speech must perform a spatio-temporal connection between actors from different ontological universes.<sup>3</sup> This is just what we observe among the Mixe: a procedure of alignment and calibration that co-ordinates the actions of entities of heterogeneous origins — planters and the 'The One Who Makes Live' — and thus offers some interesting perspectives on native conceptions of life.

First, it is important to note that the central role played by manipulations of material in no way implies that vital processes are understood according to a logic of substance. Of course, as the ritual speech makes clear, a certain amount of rain must be sent for the corn to grow; in the same way, at other moments, the Mixe explain that the sun must also make its contribution. However, it would not be correct to maintain that water is a vital substance: an excess of water can hinder growth as much as a drought can. Consequently, representations of growth are better understood through the idea of counting the correct amount at the time of the distribution. 'The One Who Makes Live' is asked to 'distribute with his hands and decide' (line 14), setting in motion a cognitive operation thanks to which adequate quantities of water will be distributed. The planters count the elements of the ritual deposit as well as the seeds they distribute uniformly in the holes in their fields; in the same way, beyond his ability to 'make the neck [cobs] grow' – that is, to perform an internal action on the corn – the specificity of the agency of 'The One Who Makes Live' lies in this ability to develop a principle of equivalence that will favour the success of material processes. For the Mixe, the agency

of 'The One Who Makes Live' must be understood as a 'cosmic politics' (Lorente Fernández 2011: 273), within which a leader's decisions are implemented by powers who are bound to obey him. According to local interpretations, 'The One Who Makes Live' sends the rain from his position above – spatially as well as hierarchically – just as the mayor of the village can send (Spanish: *mandar*) his assistants to carry out a mission in the community's territory.

We find the desire to establish a regime of co-activity with nonhuman entities among other peoples in addition to the Mixe; examples can be found throughout Mesoamerica and the Andes, which would suggest that there is perhaps a connection between the atomization of existing beings - which, according to Descola (2013 [2005]), is characteristic of analogism – and the need to invent transversal devices that will lead these beings to participate in a joint action. Robert Redfield and Alfonso Villa Rojas (1962 [1934]) observed a rain ceremony among the Maya that conferred a central role to the action of 'carrying water'. These authors describe the production of a rectangular mesa supported by four posts and representing the universe in miniature, at the four corners of which humans were placed, personifying divinities called chaac who act as 'sprinklers'. The connection between human activity and cosmic activity is based on the usage of a miniaturized artefact, a gourd: just as the Maya in their everyday lives used (at the time of the study) gourds to carry and pour water, the agents responsible for the rain are thought to manipulate similar instruments to carry water from the cenotes to water crops. This is why 'in performing the cha-chaac ceremony, the impersonator of the chaac must carry a small, not a large, calabash' (Redfield & Villa Rojas 1962 [1934]: 115); the authors specify that 'the calabash represents those used by the raingods in watering the corn, and the wooden knife stands for that brandished object known as lelem, with which the raingods produce the lightning' (1962 [1934]: 142).4

We also find a good description of co-activity in the Andes in Joseph Bastien's (2006) article on agricultural rites practised by the Kallawayas of Bolivia. During ceremonial displays made with coca leaves, llama fat, and guinea pig blood at the beginning of the agrarian cycle, we can detect ritual actions that are irreducible to food offerings. The displays aim to make the mountains active, but the ritual sequence shows that the participation of farmers must also be synchronized. The ethnologist specifies that while the mesa associated with the sacrifice of a llama is prepared, two children – one boy and one girl – begin sowing a field near the altar. These children are supposed to initiate a two-fold activity on a small portion of territory: the opening of the earth, performed by the boy, and the sowing of the seeds, performed by the girl. This activity will be repeated on a larger scale by all the members of the community in their own fields. The frequent usage of miniaturized devices in the Andes invites us to methodically reread classical ethnographies on this region in order to find out whether, in addition to 'making the gods work together' (Wachtel 1990: 187), variations of scale also always seek to mobilize the participation of humans.

I will not follow this comparative analysis here; in giving these examples of co-activity, I wish to emphasize that the production of life is not seen as a mere engagement with material. Not only is this production inseparable from cognitive operations – in the case of the Mixe, counting – through which materials are given form according to principles of proportionality, it also implies the participation of different agents whose powers must be co-ordinated. A similar conception is found in a myth recounted by an inhabitant of Tlahuitoltepec, which introduces us to the categories of

actions imputed to an entity called Täätyunpï: 'The One Whose Activity Is Ideation/To Have Ideas = The Creator' (*tääy*, 'idea'; *tun*, 'to work, to do, to be active'; *ï*, personifying suffix). I give an abridged version of the myth here, primarily for the purpose of considering how this Creator 'makes' live.

1.	täätyunpï	'The One Whose Activity Is To Have Ideas'
	jaayiip yii	in the beginning
	tsyoo'ntä'äky tsoo'ntä'äkyïp	he begins [to invent/create]
	et näxwii'nyït mëët	the expanse, the surface of the earth
	yï täätyunpï	'The One Whose Activity Is To Have Ideas'
	mäji na'api mäji kojpi	just as the potter, the weaver
	na'apï ëë'pyï	makes pottery, bends [the fibres to weave]
	mäji yikjujyky'äjtpi	in the same way 'The One Who Makes Live'
	yë' yikjujykypyëjkp	he makes it such that life is received
	yë' tyunypy	he is the one who makes
	ja nëëj	the water
	sääj yï tunwä'äny	as he wants to make it (= according to his intentions)
	yë' yï näxwii'nyït	he on the surface of the earth
	nayïtë'n	in this same way
	tyanïpïktääjkïp	he lays the elements (= he builds the earth)
	täätyunpï	'The One Whose Activity Is To Have Ideas'
	tyanïwejtsïp	he orders
	sutsooj ja tyïk'ëyït	how to build
	ja tsïnaapyïtï ja jää'tyï	[people]
	pën jatë'n tsïnaatyïp	[the ones who exist]
	ja jiyujkti ja ujtsti	the animals, the plants
	tuki'yi tum yë' ntejint	all this truly, it is said,
	yïktamijää'wïp	it is believed that
	tnïkëjxp'aty	he carries it (= that the Creator keeps these beings in
	, , ,	existence)
25.	yë'ts tyïkëë'yïp	those he causes to be built
	ja ujts ja kipy ja tsääj	the plants, the trees, the stones
		· · · · · · · · · · · · · · · · · · ·

The statements re-transcribed here show that beyond synchronizing the participation of humans and nonhumans, the ritual activities of transforming and distributing materials are connected with the inaugural actions performed by a nonhuman agent. In this context of the creation of the world and living beings, the name given to this agent emphasizes the ideational aspect of his activity, and everything seems to indicate that the transformation of material must necessarily be preceded by a mental representation. In addition, we learn that these operations are thought to be analogous to the activities of pottery and 'weaving' - here, 'weaving' actually refers to basket-weaving, since there is mention of 'bending' plant fibres to assemble them, as when one makes a basket. It is above all remarkable that the Mixe imagine the making of life as a global form of organization of the relations between beings, which is also described as a 'laying', or 'deposit' (line 15). Life, then, cannot be reduced to a uniform action, as it too often is. In ritual discourse and mythical speech, we discover that the process of making living beings mobilizes a wide variety of categories of actions, which are carried out from different spatio-temporal levels and are applied to individuals and relational systems.

This diversity is even greater if we take into account the birth rites in which the Mixe make deposits to ask 'The One Who Makes Live' to produce phenomena associated with life in the newborn child: to 'be hard' (i.e. to be in good health), to 'have a neck that

grows', to 'laugh, speak' (i.e. to be capable of interacting with his or her family), 'to awaken, to develop' (i.e. to have proper cognitive development). Whereas the vitality of corn is principally manifested in the phenomenon of growth, quite logically, when it comes to human beings the process is more complex and corresponds to material processes as well as to psycho-cognitive mechanisms.

Without going into the details, which I have presented in more depth elsewhere (Pitrou 2010), it is important to emphasize that here, as in the case of agriculture, the Mixe attempt to establish a regime of co-activity, in particular when they seek to have the child's body 'harden'. From this point of view, if we consider that the power to resist external aggressions is one of the characteristics of living beings, we may say that although the infant is alive at birth, it is so incompletely, for it has not yet actualized all the potentialities of life. Like many groups, the Mixe consider that the formation of the bodily shell is not complete at the moment of birth, and this accounts for the practice of postpartum ritual baths in stone or adobe structures called temazcal (Alcina Franch 2000). According to an idea common in Mesoamerica, these baths, which are given over a period of twenty or forty days, make it possible to 'bake' the body of the child as well as to expel pathogenic agents by whipping the body with foliage. At the end of this period, it is customary to go the top of a mountain and perform a ceremonial deposit composed of the elements mentioned above, which implies that specific actions on material be performed by participants. First and foremost, a unique feature of this ritual procedure is the placement of a figurine representing the child into a crack in the sacrificial stone - the parents make this figurine by shaping corn dough, no longer in the shape of a roll, but as a human form. Far from being an offering, this figurative element must be interpreted as a receptor that can channel both the energy/strength, mejk (not to be confused with the phrase to be alive, jujyky'äjt), carried by the blood and the beneficent actions requested from nonhuman agents. In addition to this iconic procedure, the participants cut and assemble small bundles, made of twigs, wood pieces, and bouquets of foliage, which are placed on the sacrificial stone - but not as an offering or as a receptor. The presence of these objects becomes intelligible when interpreted on the basis of the regime of co-activity. While establishing a programme of actions for 'The One Who Makes Live', who is asked – at the level of a lifetime – to harden the body of the child, this indexical miniaturized arrangement connects with the intervention of the families themselves, who, at level one, heat the temazcal in order to initiate a temporally ordered movement of distribution of heat. Whether in discourse or in the elaboration of a figurative composition, the emphasis is thus on one action – among all the actions 'The One Who Makes Live' can perform – which is said to be involved in the production of life: that is, the action that consists in baking a material shell, a process for which pottery offers the most precise image. Therefore distribution is only one of the multiple activities - perhaps the most abstract - that constitute the complexity of Mixe's ethno-theory of life, just as ritual is just one of the human practices that gives us insights on it. Obviously, other surveys on feeding, breeding, or sexual activity, for instance, can complete this exploration.

The ethnographical data gathered from the Mixe Highlands should convince us that an investigation of the causes that produce living beings does not seek to reveal a single, unique cause. Although the Mixe address a personified agent, the variations observed in their petitions and ritual objects attest to the great polyvalence of 'The One Who Makes Live', who is capable of producing different effects on material, which are clearly

identified and distinguished by native thought. From this perspective, three questions can guide our inquiries. Who are the nonhuman agents who participate in the vital process? What exactly are the actions that they perform? What are the visible effects they produce? This three-fold orientation suggests that we do away with the approach that treats life as a unitary phenomenon. To the contrary, it is appropriate to start off from a plurality of phenomena, which, though they often appear within the same organism, remain irreducible to one another.

To summarize my position: by depicting the plurality of actions performed by 'The One Who Makes Live', we access an ethno-theory of life that not only explains processes irreducible to one another but also indicates how humans hope to exert influence over them. After having obtained this first result, which seems to validate the relevance of an approach inspired by pragmatics, I would like to consolidate my methodological proposition by considering two problems raised by my ethnographic data. First of all, given the role of actions on material in the theorization of life, it turns out to be crucial to explain the benefits of drawing on the anthropology of techniques when we study conceptions of life. Next, it behoves us to consider the implications of the idea that there is co-ordination between the actions of agents who produce life and the actions of humans to exert influence over them. By focusing on these two issues - the relationship between life and technique and the co-ordination of actions – it is not my intention to insist either that the anthropology of techniques provides a method that should be universally and mechanically applied, or that co-activity is the only regime of co-ordination observable in rites that seek to encourage the success of vital processes. By examining these two issues and mobilizing the works of anthropologists who have conducted fieldwork elsewhere than in Mexico, my objective is not, for the moment, to do a comparative analysis, but rather to better explain my proposal to study life within the framework of a general pragmatics.

#### Thinking actions through technical activities

It is important, first, to make clear how the phrase 'life as a process of making' is to be understood. The configuration found among the Mixe is not the only possible interrelation between technical processes and vital processes, as demonstrated by Fernando Santos-Granero's analyses in The occult life of things: Native Amazonian theories of materiality and personhood (2009) and in 'Beinghood and people-making in native Amazonia' (2012). The author offers many examples of how the human person, in particular the body, must be made according to a 'symbolic frame of fabrication' common to objects and people (2009: 6), which he explores in Amazonia. Contrary to Frazerian approaches, which deal with transfers of substances and material connections in terms of contagion, the data Santos-Granero collects among the Yanesha lead him to speak of a process of incorporation that is 'realized through two modalities: embodiment, which entails the incorporation through objectivation of external substances and subjectivities, and ensoulment, which involves the incorporation through subjectivation of external artifacts and bodily substances' (2012: 198). Thus, 'people-making' is not a unilateral process that necessarily takes the form it does among the Mixe, for whom ontogenesis is understood by analogy with technical actions applied to inert materials. For example, in a creation myth Santos-Granero discusses, the making process consists in a process of shaping, within which there is a sequence of processes that produce vital substances: a demiurge 'is said to have molded the earth and the primordial human beings from a mixture of excrements and breast milk (or dirt and breast milk) obtained from his mother or sister and insufflated with his divine breath' (2009: 189-90). The same is true in procedures for shaping the subjectivity of a child: the technical actions performed to give the child psychological or physical qualities often use plants or animal parts – for example, feathers or bones – to prepare baths or infusions and thus aim to capture the benefits of already existing vital processes. Symmetrically, the use of ornaments such as cotton bracelets demonstrates a desire to establish continuity between living beings and artefacts, since 'through a process of ensoulment, these ornaments become extensions of their owner's body' (2012: 194).

Although we may reproach Santos-Granero for analysing vital phenomena only through the restrictive lens of vitality or animation, his meticulous analyses have the advantage of making clear that artefacts cannot occupy a univocal place within an explanation. He reminds us that there are multiple ways of being a thing in the living, Amerindian world, and he suggests distinguishing several categories of objects/ artefacts on the basis of whether they appear after a self-transformation of mythical beings, a metamorphosis, a mimetic process, or thanks to various procedures of animation ('ensoulment') (2009: 8-9). In certain cases, artefacts make manifest actions on material, while in others, they are themselves treated as material elements that enter into the composition of living beings, in accordance with a logic that Santos-Graneros calls the 'artifactual organization of species' (2009: 6). The study of life on the basis of technique is not a monolithic interpretative tool; each inquiry must re-create a global system within which interrelations between substances, artefacts, and agents create the contours of a unique ethno-theory.

At a more fundamental level, referring to artefacts in order to understand living beings raises a problem that is both epistemological and ontological. To say that we access ethno-theories of life by examining technical activities is only a way of naming a problem and delimiting a domain of investigation. We must next specify what, within this area of human praxis, contributes to understanding vital processes. Different aspects of techniques — and thus of life — appear, depending on the observation protocols and paradigms that guide the inquiry. To give a sense of the scope of this contrast, I will first examine the approach of Tim Ingold — who sees the form of certain artefacts as the sign of a continuity between life and technique — and the approaches defended by authors such as Pierre Lemonnier or Ludovic Coupaye, who see the production of living beings or artefacts as a process that is comprised of discontinuities and can only be understood through the restitution of an 'operational sequence' (*chaîne opératoire*).

From *The perception of the environment* (2000) through *Making* (2013), Ingold has developed an original approach that establishes a relationship between certain technical actions and life, understood as a kind of movement making its mark on the beings and things of the world. He proposes paying attention to the creative dimension of these processes and to the fact that the form of beings, living as well as artefactual, is never given in advance (2000: 343). The articulation between technical processes and vital processes can be understood according to a principle of homology or a principle of continuity, both of which Ingold explores.

The title of chapter 5 in *The perception of the environment* sums up the first position from which the organism/artefact dichotomy is attacked: 'Making things, growing plants, raising animals, and bringing up children'. The author declares that the form of artefacts, just like that of living things, depends on relationships of co-implication between humans

and their environment. Consequently, 'there is, in the final analysis, no absolute distinction between making and growing, since what we call "making things" is, in reality, not a process of transcription at all but a process of growth' (2000: 88). Beyond the homology between actions on living beings, Ingold affirms the continuity between technical processes and vital processes. To support his demonstration, he uses the example of the activity of basket-making, which many groups use to form baskets by weaving fibres in a spiral out from a centre. Drawing a connection between the spiral movements visible in the development of certain living beings, Ingold concludes that 'artefacts may be grown, and that in this sense they are not so very different from living organisms' (2000: 290), and that 'the artefact, in short, is the crystallization of activity within a relational field, its regularities of form embodying the regularities of movement that gave rise to it' (2000: 345). Thus, it is not life that is thought in terms of technique, but rather the opposite, as Ingold is careful to specify when he declares that it is not that organisms are constructed like artefacts, 'knocked together out of bits and pieces as the Darwinian model suggests, but rather that artefacts grow like organisms, within the equivalent of a morphogenetic field' (2000: 371).

One may raise the objection that this argument concerns only the phenomena involved in morphogenetic processes; this seems very reductive when applied to technical activity, which is much more than mere reiteration of isolated actions. True, in Being alive, Ingold states that what may appear to be repetitive technical movements are not 'iterations' but rather 'itinerations' (2011: 216), and that to understand them one should follow Gilles Deleuze and Félix Guattari and describe them within the framework of an 'ontology that assigns primacy to the processes of formation as against their final products' (2011: 210). I am not rejecting the idea – which is absolutely accurate – that every technical action implies a specific rhythm dependent on an intertwining of human movements (a 'hive of activity' [2011: 215]) with movements imprinted in matter. Nevertheless, the examples of technical actions that Ingold chooses (sawing a board, making a basket) leave little room for taking into account the articulation of sequences of discontinuous actions. This becomes apparent when he declares, for example, that 'once it has been cut and prepared for weaving, the basket maker does nothing to the surface of her fibrous material. In the process of weaving, the surface of the basket is not so much transformed as built up' (2000: 341, emphasis mine). Although he has often written on Marx, when Ingold discusses life, he abandons the idea of a process implying sequences of heterogeneous and discontinuous actions performed by various agents in favour of a more uniform conception of a vital élan sweeping up all beings as it passes through (Pitrou 2014b).

More than a decade after *The perception of the environment*, we find a good example of this reductionism in the chapter of *Making* entitled 'The material of life' (2013: 17-31). Undoubtedly, from a pedagogical and intellectual point of view, there is great benefit in, as Ingold does, inviting students to perform practical tasks – in this case, basket-making – so that they become aware of the continuity that the technical act introduces between the body and the artefact created. It nevertheless remains the case that this experience only brings out one aspect of the technical process linked to the construction of forms. As we see in photograph 2.4 (2013: 23), in which each student is making his or her basket alone, technical action in Ingold is never understood as a synchronic or diachronic collaboration. The inquiry turns towards experiencing the flows between bodies and matter, but turns away from an experience fundamental to social life: joint action. In spite of this reductionism, the claim that observing technical activities offers a way to understand life better is accurate – it is just necessary to reverse the explanatory order Ingold proposes: instead of naturalizing technical actions, it is instructive to approach the multiplicity of causes involved in vital processes from the point of view of the procedures humans use to co-ordinate their actions when they construct artefacts. Because no human technique consists in merely repeating a movement, but always involves a combination of sequences of heterogeneous actions, often performed by different agents, we are led to study the similarities and overlaps between vital and technical processes. Although Ingold shows unjustified disdain for the idea of 'operational sequence' – wrongly considering that it necessarily implies understanding the technical acts as pure repetition (2013: 26)<sup>5</sup> – it seems to me that that descriptive method offers a better way of documenting the concrete existence of human beings and how they understand the making of living beings.

Instead of treating techniques as extensions of natural movements, we can treat living beings as artefacts: that is, we can think of them as the results of a set of actions causing them to exist. This is the methodological and theoretical option chosen by Coupaye in his fieldwork with the Abelam of Papua New Guinea, which he presents in his book Growing artefacts, displaying relationships: yams, art and technology amongst the Nyamikum Abelam of Papua New Guinea (2013). Coupave proposes making vam cultivation the centre of his investigation, in order to understand how a community of humans and nonhumans is organized on the basis of complex relations mobilized for these activities. He begins his analysis with the Waapi Saaki ceremony, 'The Lining Up of the Great Yams', when the tubers are decorated with various ornaments (basketry, wood, feathers, shells, plants), before being displayed in the central square of the village of Nyamikum. Coupaye explores the inferential mechanisms at work in the pronouncements of expert judges on the qualities of the yams presented by their peers: beyond perceiving 'qualisigns' (forms, colours, etc.), it is a question of determining which method can bring to light the sequence of actions that caused them to appear (2013: 80). The originality of the inquiry lies in studying yams 'as the actual results of this technical process and not as finished products, in order to seek what they are actually made of and why they are made in such ways' (2013: 11). Thus the novelty of the approach lies not so much in imputing interiority to nonhumans – a well-documented phenomenon – as in studying this interaction on the basis of a reconstructed 'operational sequence' (cf. Lemonnier 2012; Pitrou 2014a).

In *Mundane objects* (2012), Lemonnier offers a useful analysis of the misinterpretation contained in certain views of the anthropology of techniques in general and the notion of operational sequence in particular, which are sometimes accused of reducing the complexity of human existence by mechanically coding actions on material. Each context requires the analyst to pay attention to the different kinds of 'technical choices' actors make. Any understanding of an operational sequence must therefore re-create the emic perspective and confront a whole set of problems linked to native conceptions of material, efficacy, intentionality, and the agency of nonhumans. Coupaye situates himself within this tradition and fully recognizes Lemonnier's influence, and he thus strives to recreate the 'ontological framework' of the Abelam's horticultural activities as meticulously as possible: patient reconstruction of the operational sequence at work in the production of yams brings out a multiplicity of heterogeneous agents and material processes that must be organized synchronically and diachronically in order to ensure the success of the vital process. Recognizing this heterogeneity leads to reflection on how humans seek to act on vital processes.

#### The co-ordination of actions: life from a systemic point of view

An anthropology of life inspired by pragmatics cannot limit itself to bringing to light the causes and agents that make living beings as they are; it must focus on how humans interact with vital processes that they know take place without their intervention. Without ignoring the fact that in the perhaps near future humans may be able to produce living beings in a manner that would render the distinction irrelevant, it is still necessary to reflect on the articulation of these two levels of action. This makes it possible, in particular, to deduce the ethno-theories of life that sometimes remain implicit in certain actions taken by humans on living beings.

From this point of view, the research that has been done on biopower is a good example, even if such works represent only one possibility for co-ordinating actions – the least collaborative one, in a sense. It is notable that Agamben's definition of 'bare life' (1998 [1995]) was developed on the basis of a close analysis of actions - killing, sacrificing – that, according to Roman law, it was or was not permissible to carry out on certain humans. In the same way, the development of controlling processes in contemporary societies cannot be separated from actions taken by those in power, or the materialization of these actions in technical apparatuses, which refer to a Western understanding of life that has developed only fairly recently. Similarly, the ritual sequences examined among the Mixe refer to a specific form of biopower within which it is imperative for humans – in particular, rulers – to collaborate with 'The One Who Makes Live'. Although co-activity is not a system of activity found in every society, its dynamic indicates that the quest for connections between human actions and the participation of nonhuman agents opens up an interesting avenue for exploring conceptions of life within a comparative framework. In certain respects, this research programme is immense: it consists in examining the actions that humans perform on living beings - either directly or, through the intermediary of entities that help vital processes, indirectly<sup>6</sup> – in activities of production or during rituals, in order to understand the underlying conceptions of life. Ritual activities, which by definition seek ways of connecting with nonhuman agents, offer the best opportunity for grasping these conceptions from close up. Every time 'life' is evoked in classical ethnographies, for instance in discussions of rituals, it would be interesting to look for mentions of actions by nonhuman agents, possibly through descriptions of sequences of actions (rituals) carried out by humans in order to control them or to involve them in a joint action.

The pioneering works of Maurice Hocart and Maurice Bloch constitute a good basis for such research, even if some of their assumptions must be reassessed. In a 1935 article entitled 'The purpose of ritual', Hocart proposed explaining a wide array of rites – those linked not only to cycles of life, but also to funerals, agriculture, hunting, and politics – through a universal desire to preserve life. According to Hocart, humans endeavour to find ways of realizing an idea they all share: 'Life, life for ourselves, life for our progeny, as much life as is possible with as great a margin as possible over bare existence'. He thus sees rites as 'one technique for securing life', and adds that we may 'call the theory that underlies that technique the science of life', while the technique is 'the applied science of life'. He notes that 'this science, being essentially social, requires a social organization in order to be applied' (1935: 348-9). Several decades later, in *Prey into hunter*, Bloch (1992) followed in Hocart's footsteps, attempting to find 'an irreducible core of the ritual process' by establishing a relationship between a theory of life and diverse practices such as initiation, possession, funeral rites, and weddings (1992: 1). The schema of 'rebounding violence' that, according to Bloch, is at work in these ritual

dynamics itself depends on fundamental conceptions of biological processes, such that the near-universality identified in ritual sequences derives 'from the fact that the vast majority of societies represent human life as occurring within a permanent framework which transcends the natural transformative process of birth, growth, reproduction, ageing and death' (1992: 3). This statement seems to me to create a tension with other works of Bloch's, discussed earlier, which instead emphasize the uniqueness of representations of living beings developed by each human culture – as when he explains that the Merina think of human existence as a long process of desiccation (Bloch 1993). Indeed, like Hocart and Van Gennep, in the introduction to *Prey into hunter*, Bloch defends the idea that life is a universal process, thus overshadowing the question of why variations exist.

I propose proceeding in the opposite direction, by starting off from the principle that the diversity of actions performed during rites of life is explained, first, by the fact that humans do not always objectivize the same vital processes and, second, by the fact that the conceptions they have of these processes are not the same everywhere. Without denying that humans globally perceive the specificity of certain vital phenomena within an environment, their representations are far from uniform. Instead of looking for a (near) universality within ritual dynamics or treating life as a natural given, it is more fruitful to try to take stock of the multiplicity of configurations of agency imagined to explain the causes of vital processes as well as the ways in which humans try to control them.

In order to explore such a complex relational system, it is useful to take a 'cosmopolitical' perspective. In addition to offering a solid methodology for an ample description of the phenomena in question, this perspective may also constitute an ontological framework for approaching life and the living. The concept of cosmopolitics, which has been reformulated by Isabelle Stengers (2003) and Bruno Latour (2002; 2013 [2012]) and which breaks with Kantian tradition, has been used by anthropologists working in the Andes (de la Cadena 2010) and Amazonia (Sztutman 2012: 27)<sup>7</sup> to account for the fact that nonhumans (natural entities, mountains, spirits, etc.) participate in the organization of social life. However, that idea – already present in Latour's notion of 'collective' - is not sufficient for defining the cosmopolitical approach; the key concept for Latour and Stengers is rather the ontological uncertainty of beings of the world, whose powers vary depending on the types of associations that are established with them. According to Latour and Stengers, it is not possible, a priori, to determine what the world is made of so long as one has not experienced the multiplicity of associations that may be established within it; this is a proposition that holds both for the study of neutrinos (Stengers 2003) and in the sociology of association developed by Latour (2005). Thus, to go back to the Mixe, the polyvalence of 'The One Who Makes Live' is not limited to his intervention in vital processes: as I suggested in an earlier work (Pitrou 2013), in legal rites he is called on to fill several roles (judge, victim, mediator). In the same way, in proposing to study life within such an enlarged framework of relations, the goal is to determine how powers are distributed among various agents, both human and nonhuman. This means that, depending on the interactions between living beings and beings 'who make live', it is not always the same processes that are highlighted.

The uncertainty, which is already vast when we are dealing with elements of the physical world – which are composed and re-composed in various ways on the basis of technical inventions – grows even greater when it comes to living beings. Whether we

Translated by Daniela Ginsburg

#### **NOTES**

Earlier versions of this article were presented within the framework of the workshop for the research programme 'Of Living Beings and Artefacts' held on 13 June 2013 at the Collège de France with the support of the Fyssen Foundation and organized by myself and Ludovic Coupaye, and at the London School of Economics Research Seminar of Anthropological Theory, 15 November 2013. I would like to thank the participants at these workshops as well as my anonymous reviewers. The comments I received were extremely insightful and allowed me greatly to improve my initial proposal. This investigation on 'anthropology of life' is helped by the CNRS-PSL research programme 'Domestication and Fabrication of the Living'.

- <sup>1</sup> I present the results of this work in a forthcoming book (Pitrou forthcoming) based on my doctoral dissertation (Pitrou 2010).
- <sup>2</sup> As well as the plurality of normative systems if, along with Georges Canguilhem (2008 [1952]), we consider living beings to be characterized by their capacity to produce new norms.
  - <sup>3</sup> On the relationship between ritual and coordination, see also Stasch (2011).
- <sup>4</sup> In Mesoamerica, a similar dynamic of co-ordination of actions performed by different agents could also be described among the Nahuas (Sandstrom 2003), the Totonacs (Ichon 1969: 114), and among the Lencas (Chapman 1985).
- <sup>5</sup> Thus, Ingold, basing himself on Deleuze and Guattari, writes: 'Instead of the concatenation of discrete operations to which analysts of techniques have given the name *chaîne opératoire*, we have [in metallurgy] something more like an unbroken, contrapuntal coupling of a gestural dance with a modulation of the material' (2013: 26).

- <sup>6</sup> On this question and on the possibility of developing an 'anthropology of action' inspired by Haudricourt, see Ferret (2012).
- <sup>7</sup> This idea was already present in the first version of this text from 2005, available online at http://www.teses.usp.br/teses/.../8/8134/.../TESE\_RENATO\_SZTUTMAN.pdf.
- <sup>8</sup> From this point of view, the notion of 'microbiopolitics' coined by Heather Paxson (2013: 160) offers a good example of this kind of survey.

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Journal of the Royal Anthropological Institute (N.S.) ••, ••-••

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#### La vie comme processus de fabrication dans la Sierra Mixe de Oaxaca, Mexico. Pour une anthropologie de la vie envisagée à partir d'une « pragmatique générale »

#### Résumé

Contrairement à la philosophie occidentale pour laquelle la distinction entre la vie et le vivant est fondamentale, l'anthropologie semble ne s'être pas beaucoup préoccupée de réfléchir à la différence entre les deux. Pourtant, comme le prouve l'existence d'une entité appelée « Celui qui fait vivre » chez les Mixe, un groupe amérindien vivant dans l'État de Oaxaca au Mexique, les ethnothéories des peuples nonoccidentaux font souvent le départ entre les caractéristiques et les fonctionnements des êtres vivants (croissance, dégénérescence, reproduction, etc.) et les causes, plus ou moins personnalisées, qui les produisent. Dans ces circonstances, cet article poursuit un double objectif. D'une part, en s'appuyant sur les résultats d'une enquête ethnographique, il vise à restituer les catégories d'actions d'agents non-humains à partir desquelles une telle fabrication du vivant est pensée chez les Mixe. D'autres part, il est suggéré que, parallèlement aux nombreuses approches, classiques et contemporaines, développées par les anthropologues pour étudier la vie, une anthropologie de la vie gagnerait à s'appuyer sur une pragmatique générale pour mieux connaître, dans un cadre comparatiste, la diversité des conceptions de la vie et du vivant

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