# Introduction: emerging approaches in the anthropology/primatology borderland[1]

*Introduction : approches émergentes aux frontières de l'anthropologie et de la primatologie*

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## 1 Primates caught in disciplinary uncertainty

1 *Primates*. The purpose of this *Revue de Primatologie* section is to put forward the multiple ways of looking at these disconcerting creatures across disciplines which are commonly thought to be (and which, for the most part, actually are) academically and epistemologically very remote from one another. Indeed, while primatologists and anthropologists sometimes use the same words (environment, culture, behavior, society, language, etc.), one cannot help but observe that they have been working and elaborating their research questions separately for decades. As a consequence, a vast area of conceptual misunderstandings has arisen between them. This special section is intended to provide a kind of sketch of this ever-widening gulf and to locate some of the major crosscurrents which constantly drive them apart, as well as to look for a few possible interdisciplinary crossing points.

2 First of all, we must remember that this opposition cannot be properly understood unless it is placed within the age-old framework of divergence and antagonism between natural and social scientists since the end of the 19$^{th}$ century. The categorization of scientific facts along the divisions of nature and culture (Descola, 2002) and of humanity and animality (de Cheveigné and Joulian, 2008) initially structured and stabilized new fields of inquiry during the 20$^{th}$ century. This characterizes anthropology as much as any other field, which logically relied upon a notion of human uniqueness in order to define and to

study the phenomena, claimed as its prerogative, dealing with social and cultural processes. In establishing humanity as its primary field of investigation, anthropology then focused on animals as elements of social meaning within political institutions, subsistence production systems, rituals, and so forth. References to primatological research, in particular, have often been sporadic and usually allude to social hierarchies within nonhuman primate societies, the goal then being to look for a contrast that would allow a clearer outlining of the dynamics and specificities of politics in human societies (e.g. Balandier, 1974). A consequence of confining animals to human societies' environment and material culture has been to exclude the social, cognitive, and even "cultural" animal which may interact with humans.

3 At the same time, the relegation of this conception of animals to the margins of social sciences cannot be understood if it is not also considered as the reverse side of natural scientists' habit of favoring working away from any anthropogenic influence exerted on the beings that they observe. Once enclosed within "outdoor laboratories" like parks and reserves, living things and their environments can be studied there as "research and documentation archives of species' evolution" (Curry-Lindahl, 1968, my translation). In primatology, the selection of habitats where the spontaneous reproduction of natural resources and living beings was undisturbed by humans was one of the prerequisites to grant a scientific status to field observations (Reynolds, 1975). It was also one of several criteria used to define any nonhuman primate behavior as "cultural", where the emergence, spread, and maintenance of a given behavior were concerned (McGrew and Tutin, 1978).

4 Much of the motivation for this anthropology/primatology section lies in the multiple effective and potential overlapping research areas which have unfolded between the two disciplines over the last 15 years. The more relational approaches to conservation which have emerged during this time have propelled field primatology, like many other biological and ecological disciplines, beyond the limits of parks and reserves. This movement is in line with the Parks Congress held at Durban (South Africa) in 2003, which can be considered as a political landmark in the development of biological and ecological research within these "open" contexts. As a consequence, contemporary human societies currently occupy a much more central position on the discipline's agenda. It is within this conservation-driven context that the term "ethnoprimatology" was coined, initially referring to a research field meant to bridge different approaches to the ecology of human and nonhuman primate relationships: comparative ecology, predation ecology, conservation ecology, ethnoecology, etc. (Sponsel, 1997). Quite soon afterwards, the program of ethnoprimatology was enlarged to the study of primate behavior in conjunction with its social and political meanings in human societies, as traditionally studied in ethnology. Hence, a new interest in the ecology, ethnography and history of primate coexistence with (modern) humans, in various regions of the primate order's range, has been reaffirmed across several programmatic primatology- or biological anthropology-based publications (Fuentes and Wolfe, 2002; Patterson and Wallis, 2005; Fuentes and Hockings, 2010; Fuentes, 2012).

5 However, as in the emergence of any new interdisciplinary arena, concepts and research perimeter definitions are still far from being settled. Some line up the ethnoprimatology program with pre-existing areas of anthropological research, defining it as "the study of human-nonhuman primate interaction, at a local level, in terms of behavior, knowledge, emotion, and meaning. In this sense, it resembles ethnomedicine, ethnohistory, and so

on" (McGrew, 2007). Another definition outlines ethnoprimatology's interdisciplinary dimension outside of any pre-established research tradition, describing it as "a fusion of sociocultural anthropology and primatology [which] focuses on the interaction between usually traditional peoples and the nonhuman primates with whom they coexist in daily life, in contexts that are positive (e.g., ceremonial), negative (e.g., crop-raiding), or both (e.g., ecotourism)" (McGrew, 2010). This categorization of interaction outcomes indicates that, in this second sense, ethnoprimatology is less governed by anthropological issues than by adaptive approaches to biological conservation. A third definition comes even closer to a traditional primatological standpoint on human/animal interactions: "the 'ethno' prefix marks the inclusion of anthropogenic aspects, including the social, economic, and political histories and contexts as core components of inquiry into the lives of other primates and their interfaces with humans" (Fuentes, 2012). Others have proposed to replace "ethnoprimatology" in this sense by "anthroprimatology" because of the confusion it generates with the more established first definition (Papworth *et al.*, 2013). However, human-primate relationships as studied in field primatology (in this case, considering the cultural meaning of such or such animal group as a thing that can be computed) still seem epistemologically remote from the psychology/psychiatry and public health orientation of most articles published in *Anthrozoos*, the journal of the International Society for Anthrozoology. In any case, this third kind of approach takes on a more dualistic perspective in which human societies become part of the animals' environment, rather than stressing common human/animal worlds as they unfold through interactions (as in the first two definitions).

6 Such conceptual fuzziness may actually be considered as an underestimated sign of heuristic effervescence. But before going any further, one may ask, after all, why we should aim to elaborate an "ethnoprimatology" rather than, say, an "ethnocarnivorology" or an "ethnorodentology", just to mention examples imagined from two other mammal orders. The answer, of course, lies somewhere in the recurring problematic and disconcerting ontological status of primates. On one hand, many primate species often seem to be granted a near *person* status among a wide variety of human societies. Here, anthropologists and primatologists will usually resort to arguments unfamiliar to one another in assessing this ontological lability, the first emphasizing the changing symbolic and political meanings of animals across societies and social groups (e.g. Giles-Vernick and Rupp, 2006; Oishi, this issue), and the second insisting on their evolutionary proximity, supposedly making primates the most likely animals to be assimilated to any notion akin to "humanity" in various humans societies (e.g. Fuentes, 2006). On the other hand, primates are disconcerting in the order of anthropological discourse and practice, as they are considered ethnological subjects of inquiry by many field primatologists, and even by a few socio-cultural anthropologists who have however critically engaged with primatologists' observations and methods (Joulian, 2005; Nakamura, 2009; Jankowski, 2011; Servais, this issue). Of course, these two areas of epistemological transgression may equally apply to carnivores or rodents if we remember, for instance, that anthropologist Lewis Morgan is the author of a classical monograph on beavers, and that their dam building techniques have at times served to discuss anthropology's limits of investigation, from Alfred Kroeber to some of the most recent research in the discipline (Strivay, 2010).

7 The disciplines which claim nature and culture as their prerogative have come a long way in institutional and epistemological differentiation, and even segregation, since Morgan's

time. However, through many of its present research themes, primatology unveils relevant contexts and matters for the social sciences. They range from questioning primates' ability to perceive and understand the intentions of their fellow creatures, to the social and cognitive mechanisms involved in learning, communication and technical innovation for instance, to the issue of nonhuman culture. The recent conservation-based approaches addressing issues of behavioral adaptation in relation to human-induced environmental change open another area for potential collaboration between the two fields. In the current scientific context, one may reasonably assume that primates will, more efficiently than many other animal groups, engage us to move back and forth systematically across disciplinary boundaries. They will polarize both sides of the nature/culture divide *at multiple levels of inquiry*: from ethnographic and ethological field observations all the way to the elaboration of a unitary anthropology of humans and animals living in society, including a comparative approach of human and animal societies.

## 2 Disciplinary versus epistemological gaps

8 In fact, each of the three definitions of ethnoprimatology quoted above carries different implications for interdisciplinary collaborations, and consequently different assumptions about the epistemology of human-animal interaction studies and ontologies. Here it is suggested, at least for the time being, that this conceptual and empirical instability is to be widely investigated rather than canalized, by bringing primates *between* researchers with different goals, research questions and methodologies. As mentioned above, field primatology has begun to include contemporary human societies in studies of primate behavior as an answer to the increasing fragility of numerous primate populations whose habitat becomes more or less transformed and/or reduced by anthropogenic environmental processes. More recently, ethnoprimatology has started to expand its ambitions beyond this applied horizon by standing as a frame of reference to help overcome the divisions of biological and cultural anthropology. This second objective is to create a new field for the development of "synergistic methodologies involving aspects of field primatology, behavioral ecology, human ecology, ethnography, ethnology, folklore, history, geography (including landscape analyses), economics, surveys, and interviews, [...] all components of the ethnoprimatological *tool kit*" (Fuentes, 2012, emphasis added; see also Riley, 2006). Thus unprecedented opportunities for the collaboration of primatologists with anthropologists, and even beyond with a wide variety of social scientists, are becoming apparent from within spaces that are open to human and animal interactions.

9 A quick glance at some of the divergences between primatology and anthropology which still exist can help to put this second claim of ethnoprimatology back into a broader perspective. Let's consider, for instance, the study of intraspecific behavioral variation, which has become one of the main research issues in primatology. The discovery of original behavioral repertoires which are transmitted across generations and which vary between social groups has led many (but not all) biologists to qualify as cultural any behavior which is considered free from ecological or genetic constraints on its expression. The study of this behavioral variation has become clearly established in the biological sciences during about the last two decades, under the label of "cultural primatology" (Wrangham *et al.*, 1994; de Waal, 1999; McGrew, 2004). However, it should be

remembered that the reference to the notion of culture is an integral part of the beginnings of systematic field research in the behavioral study of monkeys and apes (Frisch, 1963). "Cultural primatology" is granted by its practitioners a status analogous to that of cultural anthropology in the field of naturalistic ethology (McGrew, 2007).

10 Interestingly, it is nowadays within field primatology more than anthropology that the notion of culture unites a majority of researchers. This is due as much to the well-known growing body of evidence for the existence of behavioral traditions mentioned above, as to the fact, less often considered, that anthropologists were simultaneously having the biggest difficulties in reaching a consensus about the meaning and the utility of the notion of culture within their own areas of investigation. In other words, the notion moved from ethnology to primatology while it was being abandoned by the former, at least in its most essentialist and ahistorical expressions (Fox and King, 2002; de Cheveigné and Joulian, 2008; Nakamura, 2009; Leblan, 2011). As a consequence, the minimal requirements for interdisciplinary dialog disappeared. Additionally, the conception of *ethnography* found in primatology, methodologically seeking to isolate cultural facts in opposition to the nature of organisms (genetic heritage, environmental constraints), is quite far from what anthropologists presently do (Ingold, 2001), and corresponds to a gap between the two fields which seems to be now generally accepted within primatology (McGrew, 2010). This is a case in point which should alert us to the necessity of epistemological negotiation if we are to move towards holistic approaches of human/animal relationships.

11 However, usually not considered as well is that these oppositions do not match disciplinary boundaries as strictly as often thought. Debates over the role of biological versus socio-cultural factors in the expression of behavior also occur across internal epistemological frontiers: anthropology is partly characterized by dissents similar to those described here in its opposition to primatology, while a few voices from the field of primatology may, for their part, be characterized as anthropological ones. For instance, it is certainly within the subfield of cognitive anthropology that comparisons of human and animal cognitive and behavioral processes are the most frequently called upon. Here, the continuity of human cognitive abilities with those of higher primates is clearly stated. An example is the assumption of the existence of elementary innate faculties which come into play in the recognition of a minimal self among humans, apes and more widely among social species (Bloch, 2012, p. 124-134). But it should be noted that the kind of continuity emphasized in this evolutionary approach is based on the consideration of observational contexts whose compatibility is not taken as an issue. On the one hand, the anthropology of cognition rightly points the cognitive sciences' ignorance of social and historical factors in describing and analyzing cognitive processes (*ibid.*, p. 137-141). On the other hand, the "animal" which serves as a point for comparison with humans is usually a laboratory individual, deprived of any significant relationships with his fellow creatures (at least at the precise moment when the experimental task is carried out) and therefore of any socially meaningful environment. In this case, the social properties of cognitive processes in animals are not deduced from the observation of their social interactions and their history. Thus they inevitably appear as fundamentally biological (cerebral) faculties.

12 These naturalistic approaches in anthropology stressing the continuity of all primate minds (including humans) through evolutionary processes, nearly always taking laboratory apes as a focus for comparison with human learning and communicative

abilities, are opposed by other brands of anthropology which instead emphasize how animal cognitive processes emerge in social situations, through interactions. In this case, cognition is considered as constantly redistributed between the members of a given social group. In studies taking place on the human-primate interface, this approach has been carried out "in the field" through a study of functional and social meaning generation of places and objects (affordances) which emerge between baboons and scientific observers during "habituation" processes and which contribute to organize and stabilize an interspecific interactional context (Jankowski, 2011). A similar re-evaluation of social cognitive processes has also been carried out by looking at the knowledge produced in cognitive science laboratories as the outcome of particular relational and emotive situations rather than "pure" cerebral processes (Servais, 2007 and this issue; Takada, this issue).

13 On the other hand, anthropological critics who are *internal* to primatology or familiar with its methodologies, and who therefore occupy a marginal position within the general economy of current human-primate interface studies, have equally insisted on the overly reductive stance consisting of slicing elements of behavior off from the integrated social whole in which they were generated. These authors insist instead that behavior stems from and belongs to an uninterrupted flow of social interactions occurring at the place and time of its expression (e.g. King, 2004). Actually, this perspective is not completely absent from all primatological writings. It is quite developed in the rich personal narratives written by field workers about their experience (e.g. Goodall, 1990), describing how they not only remotely observed but very much interacted with monkeys and apes. These "popular science" essays constitute prime materials for those who adopt an anthropological perspective on nonhuman primate behavior (Nakamura, 2009; Asquith, 2011).

## 3 The issue of disciplinary integration

14 With respect to these past and ongoing oppositions, the illustration of ethnoprimatology's disciplinary and methodological breadth through a "tool kit" metaphor raises more questions than it answers, especially about epistemological inclusiveness and the overlapping of their respective ontological presuppositions. How could ethnologists and primatologists truly and durably cooperate without discussing how they conceive and use central notions such as 'behavior' or 'knowledge', for instance? Do they describe and analyze human and nonhuman socialities and agencies in compatible ways? Is there any common ground for their involvement in conservation issues? The ethnoprimatological turn has been considered within primatology as the expression of a major paradigm shift aimed at the integration of the human/animal, social/biological and nature/culture dualisms. However, the future of ethnoprimatology appears to be still strongly tied to its original discipline, i.e. field primatology, and one may wonder if it didn't grow too fast, at the risk of becoming prematurely specialized.

15 For instance, some calls for joint studies of relationships between primates and people through active primatology/ethnology collaborations remain primarily justified by their phylogenetic, biological and behavioral proximity. The persistent dominance of this evolutionary framing of social and cultural aspects of relationships to animals makes it possible to conceive human-animal social hybridity as more frequent with primates than with other species. "These human-nonhuman primate [evolutionary] similarities increase

both the likelihood of cultural association/inclusion of other primates by humans, and certain primates' potential to co-exist with humans" (Fuentes, 2006: 1; see Cormier, 2003: 129 for a similar statement on the ethnological side of ethnoprimatology). This proposal assumes that the social and cultural distance between people and animals, whether in America, Africa or Asia, is primarily modelled along the scale of systematics. This approach subsuming the social and the cultural under the biological actually dismisses what ethnology and the social sciences can bring to the study of human and animal relationships, leaving aside for example the territorial and political issues which organize them. This will, in turn, inevitably lead to further disciplinary misunderstandings. In addition, it must be noted that this emphasis on the phylogenetic relatedness of nonhuman species with the human genus, when characterizing the formers' "evolved" aspects of behavior, is not unanimously followed within biology. For example, a review of social learning propensities within a wider range of animal taxa shows that their importance in the life of any given species cannot be correlated to species' evolutionary distance from humans in a simple manner. These propensities rather seem to appear in species equipped with large brains, whether they are taxonomically close to humans or not, and to depend on a range of social and ecological variables for their development (Fragaszy and Perry, 2003).

16 This is not to say, though, that anthropology is completely ignored in current ethnoprimatology. A synthesis about the potential and future of this emerging interdisciplinary arena discusses various possibilities for the rapprochement of primatology with the vast amount of research concerning human-animal relationships in the social sciences (Fuentes, 2012). The latter increasingly deal with the actions and schemes through which humans identify and relate to a multitude of nonhuman beings, demonstrating how the extension of human ontology to other categories of (living and non living) things is operated, including within scientific laboratories (Latour, 2005; Descola, 2013). Parts of the social sciences have thus legitimately emancipated themselves from the epistemological constraints inherited by the constitution of disciplines, integrating animals' agency and perception of the environment to their studies. For instance, this is the case of another subfield labeled "ethnoelephantology", claimed to be modeled after "ethnoprimatology", although in a perspective different from that of mainstream ethnoprimatology since this time "[...] it carries the ethno-prefix to suggest the mediating role of cultural factors in cross-species encounters" (Locke, 2013).

17 These contrasting definitions stemming from such different epistemic communities raise the question of the intelligibility of each other's research agenda and should lead us to ask how their integration should be implemented. Under the label of "multispecies ethnography" for example, also seeking to bring cultural and biological anthropology together, one will find the argumentation of ethnoprimatology coexisting with propositions considering that "animals may act as anthropologists themselves, studying the behavior of humans who feed, shepherd and breed them" (Kirksey and Helmreich, 2010: 552). It seems uncertain how this kind of extremely relativist stance can be compatible with current research on the human-nonhuman primate interface stemming from field primatology. Apart from a mere lexical resemblance, there appears to be very little common ground between ongoing research in "ethnoprimatology", and "multispecies ethnography" and other similar relativist trends in anthropology coming under various neologisms ("anthrozoology", zooethnography", "humanimal" ; see

Kirksey and Helmreich, 2010). As the latter tend to leave open the issues dealing with the subjectivity and the intentionality of the nonhuman beings (animals or material things) which contribute to organize and stabilize patterns of interactions between humans (Candea, 2010), i.e. as they grant an equal *nonhuman status* to both animals and non-living things, there actually seems to be little space left for methodological and epistemological agreements between the two fields.

18 While current ethnoprimatology has certainly provided us with a wider understanding of the constraints and opportunities met by nonhuman primates living in close(r) contact with humans, methods and fundamental notions (environment, culture, behavior...) remain defined within the conceptual range of the natural sciences. Overall, the admission of contemporary humans into the field of primatology has not led to a transformation of its epistemology by taking into account how anthropologists analyze the diverse nature and culture arrangements in human societies. The "reconciliation of biological and cultural anthropology" (Riley, 2006) has taken place under the banner of applied biology and ecology, leaving the upper hand to nature in a perpetuated cleavage with culture. Ethnoprimatology is thus better understood, for now, as the integration of field primatology within conservation biology, i.e. as a new kind of ecological engineering of human-wildlife interactions, than as an epistemological bridging of primatology with ethnology and the social sciences.

19 In a certain sense, this comes as no surprise. The definitions of this disciplinary junction reviewed above are, for the most part, rooted in biological approaches, following a global tendency which was already well underway in many American university departments during the 1980's and 1990's. It is thus difficult to imagine how a few declarations could reverse the biology/culture tendency to split apart which has been growing stronger for the past 30 years, in North American anthropology as elsewhere, resulting in the multiplication of university departments focusing on one of these two subfields (Morell, 1993; Gibbons, 1997). Nowadays, cultural and biological anthropology (Segal and Yanagisako, 2005; Hardin and Remis, 2006), or more globally anthropology and biology (Ingold, 2007), have by and large become mutually unintelligible. How to practice methodological bridging between them, and how to explore human and primate relational histories, have remained open questions, in the USA and elsewhere, at least for the past twenty years (Guille-Ecuret, 1994; Ducros *et al.*, 1998; Joulian, 1997 and 2009; Yamakoshi, 2011; Servais, 2012; Leblan, 2012). This context helps to understand why, until now, the wording of "ethnoprimatology" comes closer to adding the "ethno" prefix to a well established field of research (as the Fuentes, 2012 definition suggests) than to laying out flat the methodological principles of both research areas and reorganizing them.

20 The goal of this special section is not so much to enlarge the disciplinary frame of studies concerning human-nonhuman primate interactions as to raise the issue of disciplinary integration. Of course, the idea of reorganizing our disciplinary foundations is much too ambitious in view of the vast amount of theoretical, methodological and empirical matter that needs to be critically examined. Setting up a research process at the interface of the social and natural sciences which reflects the concerns of both sides and allows mutual identification with each other's goals will undoubtedly require further meticulous comparisons of paradigms, research programs, methods and definitions of our study objects, as well as some level of institutional change. This collection of articles purports to be a horizon which, by definition, always eludes us, but will help us to begin thinking about what ethnologists and primatologists actually do; the goal here is to understand

how various field situations are perceived, whether by scientists, by the people relating to nonhuman primates in their everyday life, and/or by the primates themselves. Before any future plans for epistemological "fusion" of ethnology and primatology are made to address either fundamental or more policy-oriented issues, knowledge procedures and methodological principles must be tamed by their respective practitioners. Perhaps such a necessarily progressive process is broadly similar, in terms of cognition, interactions, and power relations, to the one faced by scientists, local social groups and environmental administrations as they are drawn into arenas of natural resource "participatory" management (see Yamakoshi and Leblan, this issue ; Matsuura *et al.*, this issue).

## 4 The contents of this issue

21 This perspective is where lies the motivation to invite researchers from both disciplines to contribute to this *anthropology/primatology borderland* issue. At this stage, it seems essential to emphasize the great diversity of human/primate relationship contexts, as well as the multiple reasons to mobilize primates or not when thinking of human/animal boundaries and links. Primates are represented by over 200 species which can be found in many parts of tropical America, Africa and Southeast Asia, as well as in a variety of non-range countries where they can be seen in zoological parks (and more confidentially in scientific laboratories), and where many species receive the prominent status of a "world heritage" to be preserved. This issue certainly does not represent this interspecific diversity, not even the main geographical zones outlined above, since it is quite heavily biased towards African great apes. Perhaps, though, one may wonder if a chimpanzee living in captivity in a Japanese cognitive science laboratory may still be qualified as "African" (not beyond a restrictive evolutionary sense; see Takada, this issue). However, all the contributors aim to move between or beyond the contexts and the kind of field where the established "parent" disciplines originated (protected versus non- protected areas, for instance). This has obvious consequences for the social, spatial and/or temporal framing of the objects under scrutiny. This movement is accomplished in different ways, from extracting the significance (methodological, political, etc.) of one's own research for the other "opposing" disciplines, to proposing minute field descriptions of human/nonhuman primate interactions. The field, here, should be understood as the space of "free-ranging" animals, as well as the context of captivity in scientific laboratories as studied by ethnologists.

22 Current ethnoprimatology studies usually favor a "socio-ecological systems" approach to the integration of disciplines, which models flows of beings, resources and genes across borders delimiting human and nonhuman spaces, to the extent that they sometimes become analytically blurred. It is essentially through the notion of *space* that this systemic approach is formalized. The first three articles offer a shift in perspective on the localities and regions where humans and primates coexist by dealing, with varying emphasis, with some of the *territorial* issues involved in living side-by-side with great apes and "conserving" them. This is quite apparent in the opening article by Takanori Oishi, although it is not the main focus of his paper. Acknowledging the lack of anthropological (versus biological) knowledge about nonhuman primates, he focuses on the ontological significance of gorillas in Southeast Cameroon among the agricultural Bakwele and their less-settled Baka neighbors. Clearly stepping aside from resourcist perspectives, he reveals how gorillas and man-gorillas get caught in various webs of meaning according to,

in this case, ethnic membership, and to the activities in which people engage. These beings cannot be assimilated to any unequivocal positive or negative symbol somehow abstractly circulating in the minds of the region's inhabitants. These hybrid creatures, never quite easy to identify, are involved in hunting activities of course, but they also enable one to maintain unworried relationships with the dead. They also serve to express certain features of power relationships, from competition among village neighbors to the regional implications of ethnic membership in the Northwest area of the Congo basin. Each group distributes analogical features of humans and gorillas in socially specific ways. Through this approach, Oishi shows that any enterprise of boundary demarcation between humans and gorillas, in this region already comprising three national parks and a strictly protected area, necessarily goes against local axioms of well-being.

23 The next article is more focused on the land rights issues which contribute to shaping a diversity of perceptions and meanings about animals. Gen Yamakoshi and Vincent Leblan analyze the changing policies of human-chimpanzee coexistence at Bossou, Guinea. This locale is known to primatologists as one of the ten major sites for the longitudinal study of chimpanzee behavior. Bossou (which is the name of a village) had always been portrayed by natural scientists as a place of peaceful coexistence between people and chimpanzees. Locally considered as the ancestors of the founding clan, as in other places of this ethnographically under-studied region, the chimpanzees were receiving protection long before the arrival of scientists and state administrations in the village. However, an uprising in the form of a swidden preparation campaign took place in 2002 and subsequent years, in an area of the village which had been labeled as a Unesco "world heritage" site. Although this label does not imply any real legal force, it probably contributed in the long term to modifying the context for the legitimacy of various arguments concerning the management of Bossou chimpanzees and "their" habitat. The uprising likely expressed a desire to return the vegetative landscape of the village, which had been transformed under the pressure of academic research, to its prior state. The agricultural fields between the village and the forest are valued by the villagers. They paradoxically seem to act as a "buffer zone" (to borrow the Unesco terminology) which keeps the chimpanzees ranging away from the village and helps to prevent accidents resulting from encounters with them. Yamakoshi and Leblan compare the implications of both "management" models for the maintenance of enduring relationships between chimpanzees and (a variety of) humans in this locality.

24 The next paper, written by ecological anthropologist Naoki Matsuura and his primatologist colleagues Yuji Takenoshita and Juichi Yamagiwa, is a collective reflection about their ongoing and future collaborations at their study site located both inside and outside Moukalaba-Doudou National Park, Gabon, where gorillas are being habituated to scientific observers. Here, the general socio-territorial situation is structurally quite different from the two previous case studies, since the Park covers an area which was previously exploited by an international logging company. Consequently, the regions' inhabitants migrated there from all over the country, and do not necessarily settle there for a long time by founding strong and "sustainable" territorial links to the place. This is of prime concern for the involvement, in the Moukalaba-Doudou scientific and conservation project, of those whom development agencies and conservationists usually refer to as "the local population". But their article takes territorial issues one step further by emphasizing how they shape scientific practice. The Moukalaba river which materializes the park frontier, they say, also becomes by extension a line dividing

anthropologists and gorilla ecologists. Here, disciplinary boundaries appear in all their glory. It is Matsuura *et al.*'s mindfulness about the inhabitants' practice of navigating and crossing the Moukalaba for their own purposes, as well as the latter's forest-dwelling skills which appear essential to the production of primatological knowledge, which leads the researchers to cross the river for themselves. It is thus near-literally that they call for bridging the two disciplines, their goal being to implement a "narrative ecotourism" founded both on scientific and local knowledge about gorillas.

25 The two next articles are broader than the first three in their regional scopes, adopting a biogeographical lens to look at various aspects of relationships between human and nonhuman primate populations. As increasingly seen in primatology during the past decade, Thibaud Gruber resorts to historical observations and hypotheses concerning a given locality or region, allowing to retrace the demographic history of particular primate populations (e.g. Isbell and Chism, 2007), or to account for behavioral variation on durations which exceed personal research projects (e.g. Nishida et *al.*, 2009). The author places himself essentially within this second theme, using multi-temporal scale evidence from palaeoecology, population genetics, history of forest uses under different political regimes, forest ecology, and behavioral observations. By so doing, he accounts for the emergence and stability of chimpanzee activities involving the manipulation of sticks (in this case, for the extraction of honey from tree holes) among several Ugandan communities. Recent focus on behavioral and environmental historical processes in primatology has usually translated into considerations about their present-day outcomes. Gruber rather chooses to focus on the historical processes *per se* and to set forward a number of historical hypotheses that relate to ongoing debates in primatology over the role of environmental constraints and opportunities in technical innovation and behavioral change. Hence, despite working from behavioral observations (some of them experimental) within parks and reserves, he is not analytically constrained by the "outdoor laboratory" paradigm outlined at the beginning of this introduction. On the contrary, he considers the role of human influence on chimpanzee behavior, and does so over time periods that are unusually long in primatology.

26 Mary Baker, for her part, looks at the distribution of capuchin, spider and howler monkeys in a region of Mesoamerica. Her main geographic frame, though, is not biogeographical zones or contemporary state borders as is often the case, but the contemporary and historical Maya settlement zone, including ancient Maya trade routes when relevant. For this, she constantly moves between the "four fields" of anthropology, weaving together a range of methods and sources in order to trace the past distribution of capuchin monkey populations. She refers to written sources (late 19$^{th}$ century excavation accounts of an archaeologist working in the area), archaeological data (potential monkey bones excavated at various sites, depictions of monkeys on ceramic material, using her knowledge of fur colour and behavior to identify monkey species) and linguistic data (compiling evidence from various Mayan dictionaries to determine the existence of a "capuchin monkey" concept in various ancient dialects). Subsequently, she comes up with firm hypotheses for the historical distribution of capuchin monkeys and raises research questions for each of the anthropological subfields.

27 The last two articles propose innovative pathways for social scientists to engage in the study of nonhuman primate behavior. Véronique Servais's contribution circumscribes the reasons why natural and social science collaborations in this field are so infrequent and proposes new directions to make this possible. Her plea for a social science-based

approach to monkey and ape social behavior is grounded in the observation that biological explanations, notably those of evolutionary psychology, literally misplace these organisms' cognitive and behavioral competences inside their brain. She departs from this view which, according to her, over-emphasizes the role of adaptation and natural selection in the expression of behavior and cognitive faculties, and demonstrates how social cognition is partly shaped by an emotional environment through ongoing social interactions, according to patterns which are socially transmitted and that she terms "affective cultures". This argumentation, based on a series of concrete examples dealing mainly with studies about cooperation, does not lead her to replace the integrality of biological explanations by social ones, however. It rather points to the limitations of the former, thus opening an avenue for the social sciences to make their case and engage methodologically in the study of animal behavior. Under her scrutiny, the cognitive science laboratory becomes a socially meaningful environment in which the social shaping of emotions partly accounts for the absence of certain behaviors and cognitive abilities which primatologists expect primates to display.

28 Servais's approach is very close, in objectives and demonstration, to the contribution of Akira Takada which closes the volume. Reviewing current cognitive psychology studies of apes' abilities to communicate through gestures such as "hand pointing", the author stresses that much of this research is based on the assumption that these abilities are species-wide characteristics. He then questions this assumption by emphasizing how little we actually know about how and precisely what kind of contexts enable such performances in communication to occur. Having regularly immersed himself among the chimpanzees and caregivers of the Great Ape Research Institute of Tamano, Japan, he approaches their behavior through an interaction analysis based on video recordings. By describing how actions unfold second by second in a confined space where two, then three chimpanzees, including an infant, are subjected to a session of physical measurement by several caregivers, he focuses on the vocal, gestural and postural cues that allow both categories of beings to express their desires and concerns as the session proceeds. He makes apparent, for instance, how they cope with the uncertain meaning of cues, or how objects (in this case, food) are used to organize the interaction. Takada makes a strong empirical case for grounding the study of laboratory chimpanzee behavior and cognitive abilities in interindividual and interspecific patterns of sociality, rather than in individuals.

29 Methodological bridging between the natural and social sciences concerning nonhuman primates can only be achieved through an understanding of the opposing point of view. These varied contributions on and about primates will hopefully assist those interested in the same enterprise to clear up a few interdisciplinary misunderstandings. In turn, it could enable us to further question disciplinary, epistemological and ontological boundaries in order to think more efficiently about how and to what extent it may be desirable to transcend them.

## BIBLIOGRAPHY

Asquith PJ (2011). Natural homes: primate fieldwork and the anthropological method. In *Centralizing fieldwork: critical perspectives from primatology, biological and social anthropology* (Fuentes A, MacClancy J, editors). New York: Berghan Books. pp. 242-255.

Balandier G (1974). *Anthropo-logiques*. Paris : Presses Universitaires de France.

Bloch M (2012). *Anthropology and the cognitive challenge*. Cambridge: Cambridge University Press.

Candea M (2010). "I fell in love with Carlos the meerkat": engagement and detachment in human-animal relations. *Am Ethnol* 37, 241-258.

Cheveigné (de) S, Joulian F (2008). Internalités et externalités des « natures de l'homme ». *Techniques et Culture* 50, 10-15.

Cormier LA (2003). *Kinship with monkeys: the Guajá foragers of Eastern Amazonia*. New York: Columbia University Press.

Curry-Lindahl K (1968). Les parcs nationaux comme archives de recherches et documentation de l'évolution des espèces. In *Conservation of vegetation in Africa south of the Sahara* (Hedberg I, Hedberg O, editors). Uppsala: Almqvist. pp. 35-38.

Descola P (2002). L'Anthropologie de la nature. *Annales Histoire Sciences Sociales* 57(1), 9-25.

Descola P (2013). *Beyond nature and culture*. Chicago: The University of Chicago Press.

Ducros A, Ducros J, Joulian F, editors(1998) *La culture est-elle naturelle ? Histoire, épistémologie et applications récentes du concept de culture*. Paris : Errance.

Fox RG, King BJ, editors (2002). *Anthropology beyond culture*. New York: New York University Press.

Fragaszy DM, Perry S (2003). Towards a biology of traditions. In *The biology of traditions: models and evidence* (Fragaszy DM, Perry S, editors). Cambridge: Cambridge University Press. pp. 1-32.

Frisch J (1963). Japan's contribution to modern anthropology. In *Studies in Japanese culture* (Roggendorf J., editor). Tokyo: Sophia University. pp. 225-244.

Fuentes A (2006) Human-nonhuman primate interconnections and their relevance to anthropology. *Ecology and Environmental Anthropology* 2 (2). http://digitalcommons.unl.edu/icwdmeea/1/)

Fuentes A (2012). Ethnoprimatology and the anthropology of the human-primate interface. *Annual Review of Anthropology* 41, 101-117.

Fuentes A, Hockings KJ (2010). The ethnoprimatological approach in primatology. *Am J Primatol* 72, 841-847.

Fuentes A, Wolfe LD, editors (2002). *Primates face to face: conservation implications of human-nonhuman primate interconnections*. Cambridge University Press: Cambridge.

Gibbons A (1997). Cultural divide at Stanford. *Science* 276, 1783-1784.

Giles-Vernick T, Rupp S (2006). Visions of apes, reflections on change: telling tales of great apes in equatorial Africa. *African Studies Review* 49(1), 51-73.

Goodall J (1990). *Through a window: thirty years with the chimpanzees of Gombe*. London: Weidenfeld and Nicholson.

Guille-Escuret G (1994). *Le Décalage humain. Le fait social dans l'évolution*. Paris: Kimé.

Hardin R, Remis M (2006). Biological and cultural anthropology of a changing tropical forest: a fruitful collaboration across subfields. *Am Ethnol* 108, 273-285.

Ingold T (2001). The use and abuse of ethnography. *Behav Brain Sci* 24, 337.

Ingold T (2007). The trouble with 'evolutionary biology'. *Anthropology Today* 23, 13-17.

Isbell LA, Chism J (2007) Distribution and abundance of Patas monkeys (*Erythrocebus patas*) in Laikipia, Kenya, 1979-2004. *Am J Primatol* 69, 1223-1235.

Jankowski F (2011). Du terrain neutralisé aux espaces négociés: approche interactionnelle des études éthologiques en milieu naturel. *Questions de Communication* 19, 235-253.

Joulian F (1997). L'hominisation et les grands singes: une parenté "contre-nature". *Diogène* 180, 73-95.

Joulian F (2005). Significant tools and signifying monkeys: the question of body techniques and elementary actions on matter among apes and early hominids. In *From tools to symbols: from early hominids to modern humans*. (d'Errico F, Backwell L, editors). Johannesburg: Wits University Press. pp. 52-81.

Joulian F (2009). *Non-human primates*. In *Adam et l'astragale. Essais d'anthropologie et d'histoire sur les limites de l'humain* (Bartholeyns G, Dittmar P-O, Golsenne T., Har-Peled M, Jolivet V, editors). Paris : Editions de la Maison des Sciences de l'Homme. pp. 325-336.

King B (2004). Towards and ethnography of African great apes. *Social Anthropology* 12, 195-207.

Kirksey SE, Helmreich S (2010). The emergence of multispecies ethnography. *Cultural Anthropology* 25(4), 545-576.

Latour B (2005) *Reassembling the social. An introduction to Actor-Network Theory*. Oxford: Oxford University Press.

Leblan V (2011). Les rendez-vous manqués de l'ethnologie et de la primatologie de terrain (1960-2010). *Revue de Primatologie* 3. (http://primatologie.revues.org/828).

Leblan V (2012). Les primates, entre nature et culture : enjeux interdisciplinaires, enjeux nord-sud. In *Les animaux sous surveillance : dispositifs socio-techniques de connaissance, de contrôle et de gestion* (Manceron V, editor). Actes du colloque 2011 de l'Association Française d'Ethnologie et d'Anthropologie : No(s) Limit(es). (http://afea2011.sciencesconf.org/file/18129)

Locke P (2013). Explorations in ethnoelephantology: social, historical, and ecological intersections between Asian elephants and humans. *Environment and society: advances in research* 4, 79-97.

McGrew WC (2004). *The cultured chimpanzee: reflections on cultural primatology*. Cambridge: Cambridge University Press.

McGrew WC (2007). New wine in new bottles: prospects and pitfalls of cultural primatology. *J Anthropol Res* 63, 167-183.

McGrew WC (2010). New theaters of conflict in the animal culture wars: recent findings from chimpanzees. In *The mind of the chimpanzee: ecological and experimental perspectives* (Londsdorf V, Ross SR, Matuzawa T, editors). Chicago: The University of Chicago Press. pp. 168-177.

McGrew WC, Tutin C (1978). Evidence for a social custom in wild chimpanzees?. *Man* 13, 234-251.

Morell V (1993). Anthropology: nature/culture battleground. *Science* 261, 1798-1802.

Nakamura M (2009). Interaction studies in Japanese primatology: their scope, uniqueness, and the future. *Primates* 50, 142-152.

Nishida T, Matsusaka T, McGrew WC (2009). Emergence, propagation or disappearance of novel behavioral patterns in the habituated chimpanzees of Mahale: a review. *Primates* 50, 23-36.

Papworth S, Milner-Gulland EJ, Slocombe K (2013) The natural place to begin: the ethnoprimatology of the Waorani. *Am J Primatol.* 75, 1117-1128.

Patterson JD, Wallis J, editors (2005). *Commensalism and conflict: the human-primate interface*. Norman: American Society of Primatologists.

Reynolds V (1975). How wild are the Gombe chimpanzees? *Man* 10, 123-125.

Riley EP (2006). Ethnoprimatology: towards reconciliation of biological and cultural anthropology. *Ecology and Environmental Anthropology* 2 (2). (http://digitalcommons.unl.edu/icwdmeea/8/).

Segal DA, Yanagisako SJ (2005). *Unwrapping the sacred bundle: reflections on the disciplining of anthropology*. Durham, Duke University Press.

Servais V (2007). The report and the command: the case for a relational view in the study of communication. *Intellectica* 46-47, 85-104.

Servais V (2012). Et pourtant ils coopèrent... Regard des sciences sociales sur la coopération animale. *Terrain* 58, 108-129.

Sponsel LE (1997). The human niche in Amazonia. In *New world primates: ecology, evolution and behavior* (Kinzey WG, editor). New York: Aldine de Gruyter. pp. 143-165.

Strivay L (2010). Introduction au « Castor américain » de Lewis Henry Morgan. In *Le castor américain et ses ouvrages* (Morgan LH). Dijon : Presses du Réel. pp IX-XLII.

Waal (de) FBM (1999). Cultural primatology comes of age. *Nature* 399, 635-636.

Wrangham RW, McGrew WC, de Waal FBM, Heltne PG, editors (1994). *Chimpanzee cultures*. Cambridge, Mass.: Harvard University Press.

Yamakoshi G (2011). Pestle-pounding behavior: the key to the coexistence of humans and chimpanzees. In *The chimpanzees of Bossou and Nimba* (Matsuzawa T, Humle T, Sugiyama Y, editors). Tokyo: Springer. pp. 107-116.

## NOTES

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## ABSTRACTS

The purpose of this *Revue de Primatologie* issue is to put forward the multiple ways to look at primates across the fields of anthropology and primatology which are commonly thought to be (and which, for the most part, actually are) academically and epistemologically very remote from one another. It is intended to provide a kind of sketch of this ever-widening gulf and to locate some of the major crosscurrents which constantly drive them apart, as well as to look for a few possible interdisciplinary crossing points. The first part of this introduction briefly describes how primates are caught in disciplinary uncertainty between the social and the natural sciences and between the various brands of "ethnoprimatology" which have emerged over the past 15 years. The second part proposes a slightly different perspective on the conceptual fuzziness surrounding primate studies and their relation to anthropology by emphasizing epistemological rather than disciplinary gaps: anthropology itself is partly characterized by dissents similar to those usually described in its opposition to primatology, while a few voices internal to primatology may, for their part, be characterized as anthropological ones. The third part explores some implications of the use of a "tool kit" metaphor to characterize the kind of interdisciplinarity which is practised in current ethnoprimatology, especially about the epistemological integration of the two fields and the overlapping of their respective ontological assumptions. The fourth and last part introduces the articles of this issue, each of them enabling us to consider how and to what extent it may be desirable to transcend these various disciplinary, political and epistemological boundaries.

L'objectif de ce dossier de *Revue de Primatologie* est de rendre compte des multiples façons d'appréhender les primates aux frontières de l'anthropologie et de la primatologie, deux disciplines qui sont généralement pensées comme étant (et qui en fait, pour l'essentiel, sont) académiquement et épistémologiquement très distantes l'une de l'autre. Il vise à fournir une sorte de cartographie de ce gouffre qui s'élargit sans cesse et à localiser quelques-uns des courants qui les éloignent constamment, ainsi qu'à chercher quelques points de passage interdisciplinaires. La première partie de cette introduction revient brièvement sur l'incertitude disciplinaire dans laquelle sont pris les primates, entre sciences sociales et sciences naturelles et entre les différents styles d'« ethnoprimatologie » qui ont émergé depuis une quinzaine d'années. La seconde partie propose une perspective légèrement différente sur le flou conceptuel des études sur les primates et leurs rapports à l'anthropologie en mettant l'accent sur les discontinuités épistémologiques plutôt que disciplinaires : l'anthropologie elle-même est partiellement traversée par des tensions semblables à celles généralement décrites dans son opposition à la primatologie, tandis que quelques critiques internes à la primatologie peuvent quant à elles être qualifiées d'anthropologiques. La troisième partie explore quelques implications de la métaphore de la « boîte à outils » qui est utilisée pour qualifier le régime d'interdisciplinarité de l'ethnoprimatologie actuelle, notamment à propos de l'intégration épistémologique des deux disciplines et du recouvrement de leurs présupposés ontologiques respectifs. La quatrième et dernière partie introduit les articles de ce dossier, chacun d'entre eux nous permettant d'envisager comment et jusqu'à quel point il peut être désirable de transcender ces diverses limites disciplinaires, politiques et épistémologiques.

## INDEX

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