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Introduction

WE UNDERSTAND our time as one in which human culture remakes nature. But Japanese and Euro-American primatologists have come to question whether humans are the only primates capable of culture—that is, whether culture amounts to human nature. This book examines the ensuing controversy over chimpanzee culture.

In the 1950s, Japanese primatologists around Kinji Imanishi proposed to attribute "subhuman culture"—or *kaluchua*, as they called it—to nonhuman primates.[1] Their discovery of behavioral differences between macaque troops based on the social transmission of newly invented ways of doing things challenged one of the tenets of modern cosmology. It called into question whether, as American anthropologist Marshall Sahlins put it, "culture is the human nature."[2] French philosopher Dominique Lestel declared the Japanese discovery of cultures beyond the human to be as important as the quantum revolution.[3] In a reductionist zeitgeist, contemporaneous breakthroughs in molecular biology had stolen the limelight from behavioral researchers. In a curious mixture of metaphors, jumbling the hushed and the explosive, science writer Michel de Pracontal spoke of a "clandestine" Copernican Revolution of the life sciences, "dynamiting" the barriers that Western thought had erected between nature and culture, humanity and animality.[4]

This talk about scientific revolutions—really an invention of the mid-twentieth-century history of science—suggested that whoever doubted the double movement of anthropomorphizing monkeys and zoomorphizing humans had to be both a scientific and a metaphysical reactionary.[5] Needless to say, such reactionaries soon raised their voices. A first wave expressed skepticism toward the Japanese application of categories previously reserved for humans to other primate species. Criticism got harsher when, in the course of the 1970s and 1980s, a growing number of European and American primatologists and evolutionary anthropologists chimed in with Japanese anthropomorphism and wondered how unique the cultural nature of *Homo sapiens* really was.[6] Anthropologists resisted what they perceived as an attack on the political

ontology not just of their field but of the postwar era, carefully crafted to ward off the murderous excesses of nineteenth-century racism and Nazi biologism.[7] Theory of knowledge became another key site of contention in the debate: comparative psychologists defended their use of controlled laboratory experiments—as opposed to the field observations by a new breed of chimpanzee ethnographers—to explain the cognitive capacities that had set humans on such an exceptional evolutionary path.[8] It was far from clear whether the revolutionaries would come out winners and what such a victory would entail—epistemologically, ontologically, and politically.

US evolutionary anthropologist William McGrew dubbed the resulting controversy the chimpanzee culture wars.[9] The expression alluded to the culture wars over progressive and conservative values that began to polarize American society at about the same time as Western primatologists adopted the culture concept.[10] In McGrew's eyes, theirs was a battle over extending multiculturalism—one of the most contentious progressive causes in the culture wars—to the apes.

Like many cultural anthropologists, cultural primatologists fought for their subjects' inclusion. Just then, however, a new generation of cultural anthropologists dismissed the culture concept because it fostered an image of human groups as bounded and homogeneous. It did not conform with their own vision of an open society that allowed everyone to cultivate a different hybrid identity.[11] Thus, cultural anthropology and cultural primatology were like ships passing in the night. Where they did get into shouting distance, their representatives hurled accusations of racism and lack of scientificity at each other.[12]

Chimpanzee Culture Wars argues that cultural primatology recapitulates cultural anthropology in a dissonant key. Genealogically, both fields can be traced back to philosophical reflections on human nature. In the course of colonial conquest, the discovery that different peoples conducted their lives differently thwarted any simple answer to the question of what distinguished all humans from all other animals. When it began to dawn on primatologists that nonhuman primates also showed significant behavioral variation within their species and that this variation might be the product of social learning, the answer became more complicated still. Now all claims about human and, say, chimpanzee nature had to pass through the eye of cultural diversity.

This led to serious disagreements between chimpanzee ethnographers and comparative psychologists: whereas the former sought to explain local behaviors by comparing different field sites, the latter remained committed to extracting species universals from controlled experiments in their laboratories' "culture of no culture."[13] Yet a new generation of Japanese primatologists had left behind this opposition of laboratory and field research. They conducted fieldwork in the laboratory and experiments in the field.

Unfortunately, border crossings between human and chimpanzee life around an outdoor lab in Guinea fostered no flourishing multispecies society. All over Africa, chimpanzee communities vanished under the pressure of accelerating human population growth. Thus cultural primatology once again followed in the footsteps of cultural anthropology and became a salvage operation, frantically archiving the remaining chimpanzee cultures in the face of an anthropogenic mass extinction event. Just as cultural anthropologists have struggled to account for the loss of cultural diversity during five centuries of Euro-American domination (currently on the wane), cultural primatology is now confronted with the question of how to make sense of the eradication of nonhuman cultural and biological diversity in light of modern humans' savage success.

Contingency Table

This book is based on eight months of anthropological fieldwork among primatologists and their primates. Not all of these scientists would speak of themselves as *cultural* primatologists—especially some of the comparative psychologists featured in this book will appear as critics of cultural primatology. But they all made significant contributions to the chimpanzee culture controversy. Originally, I had wanted to confine the project to a controversy over what made us human between field primatologist Christophe Boesch and comparative psychologist Michael Tomasello, two codirectors of the Max Planck Institute for Evolutionary Anthropology in Leipzig, Germany. Their dispute quickly turned from the zoological and potentially ontological question of what distinguished our species from other animals into a bitter argument over the respective epistemological value of experiments and fieldwork.[14] From psychological tests of human children and chimpanzees, Tomasello inferred fundamental differences between *Homo sapiens* and *Pan troglodytes*. By contrast, Boesch saw in Tomasello's subjects only very young, white, middle-class Germans, who could hardly represent all of humankind, and apes whose history, captive environment, and behavior were so abnormal that they could not possibly stand in for their wild conspecifics. Maybe no group of chimpanzees could typify all others if Boesch was right that the single most important finding of the past two decades had been a pronounced behavioral diversity among chimpanzees.[15] This diversity, arguably cultural, had become an almost obligatory passage point for scientific claims about chimpanzee and human nature.[16] Although their positions and approaches were too idiosyncratic for Boesch to represent naturalistic observers and for Tomasello to represent laboratory workers tout court, their disagreement brought into relief key epistemological and ontological points of contention within the

Euro-American field: tensions between fieldworkers and experimenters looking at wild and captive apes and emphasizing human-animal continuity and discontinuity, respectively.

Against the background of a growing body of historical and sociological studies of primatology in the laboratory and in the field, my account of the chimpanzee culture controversy raises a new question.[17] Although cultural primatologists had made it their mission to document and understand geographical differences in behavior between populations of wild chimpanzees, they did not extend their fieldwork to the laboratories of comparative psychologists. But wouldn't it be possible that laboratories, just like field sites, fostered their own chimpanzee cultures, or, perhaps, *chimpanzee-human* cultures? And if so, wouldn't they require new forms of laboratory ethnography as well as ethnological comparisons between labs?

I soon added a second axis to my research design and included Japanese primatologists. For the sake of comparison with Euro-American field and laboratory research, I planned to look at both field and laboratory research in Japan. Eventually, I worked with Tetsuro Matsuzawa, who is one of the few primatologists doing both. "Matsuzawa's way is unique because it is a holistic approach. We Japanese love to approach things holistically," Matsuzawa told me in our very first Skype conversation. "I don't like to see broken pieces of chimpanzee but want to know the chimpanzee as a whole. That is why I'm doing captive *and* field studies." In contrast to the situation at Leipzig, no epistemological divide set up chimpanzee ethnography against laboratory experiments at the Kyoto University Primate Research Institute (KUPRI). Instead, Matsuzawa had crafted a chain of translations between rigidly controlled experiments, field observations and participant observations in his indoor laboratory, field experiments in an outdoor laboratory in Guinea, and field observations in the West African forest.[18]

Although, methodologically, Matsuzawa's research on chimpanzee culture and cognition remained thoroughly in the realm of the natural sciences, his synthesis of benchwork and fieldwork explored an ontological territory beyond nature and culture, at least as Europeans and Americans had understood these categories in the nineteenth and twentieth centuries. This ontology materialized in the microcosms of his laboratory in Inuyama, Japan, and his outdoor laboratory in Bossou, Guinea. The doyen of Japanese primatology after Imanishi made no effort to tease apart nature and human culture. In the basement of KUPRI, captive chimpanzees interacted with touchscreens, using Japanese kanji and Arabic numerals, while their wild cousins sat right behind a Manon village under the watchful eyes of Japanese primatologists and their camcorders, cracking oil palm nuts with hammers and anvils. Whereas Boesch believed that chimpanzee nut cracking belonged to a genuinely wild culture,

which the apes had developed on their own account, Matsuzawa speculated that the Bossou community might have originally learned this use of tools from the local human population. Time and again, the relationship of nature, culture, and varieties of the hybrid spaces Haraway dubbed "natureculture" proved a divisive issue in the chimpanzee culture controversy.[19]

As a first approximation, this study of cultural primatology amounts to a double comparison between field and laboratory as well as between Japan and Europe. Matsuzawa loved such 2 × 2 contingency tables, and my research design imitates cultural primatologists' controlled comparisons between primate cultures. It sets side by side Euro-American fieldwork and Euro-American laboratory work, Japanese fieldwork and Japanese laboratory work, Japanese laboratory work and Euro-American laboratory work, and Japanese fieldwork and Euro-American fieldwork. Social anthropologist Fred Eggan explained the rationale behind controlled comparisons: in a field science that does not allow for experimental controls, juxtaposing geographically and ecologically proximate cultures sheds more light on the few ways in which they differ than juxtaposing far-apart cultures that differ in almost every respect.[20] The method of controlled comparison diverges sharply from the Romantic quest for radical otherness that inspired anthropologists to contrast Western culture with Amazonian or Melanesian cultures.[21] Pamela Asquith's original comparison of Japanese and Western primatology could be read as presenting such stark cultural alterity in the realm of science.[22] But she also looked at two adjacent knowledge cultures within primatology: belonging to the same scientific discipline, Japanese and Euro-American monkey and ape researchers were located in what Eggan would have called the same culture area. Of course, the researchers' ethnicity was hardly the only pertinent difference. For example, Imanishi's Kyoto School focused on fieldwork, which makes it hard to tell whether dissimilarities with Euro-American laboratory research are due to national culture or methodology. That's what the second axis of comparison might help us understand.

Of course, all control is relative. There are always more axes of comparison to add. If we aspired to halfway certain knowledge, we would also have to control for the scientists' disciplinary training in biology or psychology, the ontological commitments informing their research questions, the relations they developed with their nonhuman subjects, and so forth. Some cultural anthropologists inferred from the uncontrollable complexity of the field that they had better abandon comparative approaches altogether. That's why we currently see an abundance of ethnographies and very little ethnology systematically surveying this rich body of case studies.

As far as *Chimpanzee Culture Wars* is concerned, organizing the book in the form of a controlled comparison serves primarily as an experiment in

reflexivity, which probes the relationship between my own particularist tradition of anthropology and the history of science and the more systematic and generalizing tradition of cultural primatology. I adopted the method of comparison not to extract law-like regularities from a number of case studies but to map a space of possibilities. As we look at different actors, the question is how and why they realized the possibilities they realized and how these possibilities could be recombined to allow for new knowledge cultures, maybe even new human-chimpanzee cultures.

Yet necessity always casts its shadow over both human and chimpanzee potentials. The possibilities of any epistemic culture are limited by its objects. Their firmness delimits the scope for alternative conceptualizations. Chimpanzee behavior might be cultural but it is not infinitely plastic, and it determines much of what researchers can and cannot do, especially in participant observation. Finally, the course of history threatens to foreclose much of what became possible in the late twentieth and early twenty-first centuries. At least in the wild, cultural primatology will vanish with the last primate cultures.

What This Book Is and Isn't

My ethnographic approach to chimpanzee culture research provides a liveliness and detail that literature- and interview-based studies in the history and sociology of science cannot deliver. This quality comes at a price, though. It was not possible to represent the work of scientists at this high level of granularity unless they cooperated and invited me to their laboratories and field stations. Thus, *Chimpanzee Culture Wars* provides an uneven account of the controversy around ape cultures, very much skewed toward the researchers who allowed me into their groups' professional lives. Key figures such as Andrew Whiten, Frans de Waal, and Michio Nakamura will not receive the space they would deserve in a controversy study that treated all actors equally, or at least relative to the weight of their scientific contributions, because they did not grant access to their research facilities. Of course, I will discuss their work where appropriate, especially in the predominantly historical chapters 1 and 2, but it will be for future scholars to take a closer look at these players.

Just as *Chimpanzee Culture Wars* is no sociological controversy study, it is no primatological review of the literature on chimpanzee and other primate cultures, either. It will not survey the broad and ramified array of questions that cultural primatologists and comparative psychologists have debated: how to define culture; whether to distinguish culture from preculture; whether to dismiss the attribution of culture to nonhuman primates as anthropomorphism; whether to define culture in terms of geographical differences in behavior, biological function, or psychological mechanism; whether all kinds of

social learning or only true imitation can produce culture; whether culture has to be cumulative; whether it has to be symbolically and even linguistically mediated, or whether symbolic culture and language are only special cases of culture; whether culture requires social norms and how to define a social norm; whether culture is always adaptive and, if so, what adaptive value social learning has; whether culture constitutes a realm of freedom from biological necessity; whether it is about survival or a sense of belonging; whether culture can or even has to be distinguished from genetics and ecology; whether socially learned behaviors might alter the environment in such a way that the modified environment exerts selective pressure on genetically inherited traits; whether social structure and group character influence social transmission; whether personality, emotions, and the quality of social relationships affect the probability of social learning; whether age, rank, or sex determine whose newly acquired behaviors will spread through a group; whether female migrants enable cultural exchange and diffusion of new traits between chimpanzee communities; whether wild chimpanzees learned certain traits such as nut cracking from observing humans; how cultural traits are formed and maintained; how to demarcate one cultural trait against another; whether human and chimpanzee culture evolved independently or from an already cultured common ancestor; whether culture is uniquely human, limited to primates, or a behavioral feature widely shared across the animal kingdom; whether field observations provide evidence about the learning mechanisms through which newly acquired behaviors are passed on in a group; whether new statistical methods allow causal claims to be derived from field observations; whether experiments on captive animals can prove or disprove the cultural capacity of their entire species; whether experimenters can expect chimpanzees to socially learn from human models, or whether chimpanzees have to be presented with conspecific models; whether humans and chimpanzees have to be tested under the same conditions; whether better experimental designs or the integration of laboratory and field research can put an end to the chimpanzee culture controversy, and so forth. Most of these questions will be addressed in the course of this book, some in passing, some in great detail. But I will not provide a systematic overview. Any reader looking for this can consult numerous monographs, edited volumes, book chapters, and review articles on the subject.[23]

Chimpanzee Culture Wars does not belong to this vast body of literature. It is first and foremost an ethnographic essay about alternative ways of looking at human nature and primate cultures. As an ethnography in the interpretive tradition, it is subject to the limitations of this peculiar way of writing culture, human and otherwise. But it also takes advantage of the genre's unrivaled possibilities, providing a firsthand account of some of the main characters,

research sites, and scientific practices of cultural primatology. As an essay, this book attempts to understand the vitriolic war of words over chimpanzee cultures through its protagonists' many attempts to determine what distinguishes us from our nonhuman cousins. It seeks to extend the ethnographic material, including the primatologists' findings, in directions not developed in the scientific literature on chimpanzee cultures. The goal is to tear this material out of its customary frames of reference and to look at it in unexpected contexts. This recontextualization does not aim at synthesis but at exploring and exploiting perspectival differences. Instead of surveying the entire field of cultural primatology, I sought ethnographic interlocutors to articulate and work through questions of my own. Some of these questions were shared by the people I worked with, while others allowed me to look at their research from new angles.

I develop philosophical ideas more through stories than arguments because I'm interested in how they translate and are translated into experiences. Occasionally, these stories invert or at least query the moral or epistemic value of an idea to test the consequences. Austrian writer Robert Musil remarked that, unlike scientific publications that aim at knowledge, the essay seeks to transform human beings through a "reforging of a great complex of feeling (most penetratingly imaged in Saul's becoming Paul) . . . , so that one suddenly understands the world and oneself differently."[24] This brand of essayism can thrill readers but it also risks irritating them. I expect that cultural anthropologists, especially, will take issue with the subtle and not so subtle challenges to some of the dominant value judgments that pervade much contemporary humanities and posthumanities scholarship such as the condemnation of positivism or human exceptionalism. Cultural primatologists might join them in taking umbrage at views like my plea for fatalism in the face of an unprecedented anthropogenic mass extinction event. But first and foremost, the scientists in the readership will notice that the ethnographic essay represents a humanist style of thought that is very different from their own ways of writing. I do not expect readers to agree with any of my efforts but hope that whatever unease and opposition this book provokes, it will help them confront their stakes in the problem space we are about to explore together.

Two Cultures Still

Here is a conundrum for future historians of science: in the late twentieth century, humanities scholars, social researchers, and natural scientists began to experience and promote the collapse of the dichotomies of nature and culture, nature and society, nature and mind, and nature and the human. Since the late nineteenth century, this series of ontological oppositions had

organized the disciplinary landscape of universities across the globe, breaking up academic knowledge production into natural and social sciences, *Geistes-* and *Naturwissenschaften*, *sciences humaines* and *sciences naturelles*. It is true that even in the heyday of this ontologically based division of academic labor, hybrid research fields such as anthropology escaped the clear-cut separation of the two cultures without resolving the problem of how to categorize them. In the twentieth century, however, a countermovement challenged the trend toward disciplinary differentiation and instead propagated interdisciplinarity.[25] Researchers from both sides of the great divide rushed in, trying to occupy what could, in principle, have become a new common ground.

In the 1980s, cultural anthropologists and science studies scholars distanced themselves from culture and society and attributed the opposition of their disciplines' organizing concepts to nature to a historically and culturally contingent cosmology now on the wane.[26] Some even considered this dualist worldview an illusion to be replaced by a more accurate ontological vision of the world as teeming with naturecultural, biosocial, and human/material hybrids.[27] At the same time, the ascending neurosciences advocated the reduction of mind to brain more powerfully than ever, and their philosophical allies envisioned a "unified science of the mind-brain."[28] Euro-American sociobiologists explained the social life of humans and other animals biologically and advocated the integration of the human sciences in a new synthesis of genetics and evolutionary theory.[29] Biological anthropologists expanded the realm of culture far beyond the human, from apes, whales, and dolphins all the way to crows and guppies, and proposed a "unified science of cultural evolution."[30] "It was probably under the influence of ethology, in particular that of the great apes, that modern ontology began to waver once one of its most generally recognized principles was called into question: namely the absolute uniqueness of humans as a species capable of producing cultural differences," noted anthropologist Philippe Descola.[31]

What's puzzling about this historically and geographically protracted metaphysical transformation is that although natural scientists and humanities-oriented social scientists have begun to occupy the new ontological borderland, little epistemological reconciliation or cross-fertilization has occurred. To be sure, the gap between the "two cultures," which Charles Percy Snow had already lamented a few decades earlier, was no longer the same, but it had not become any less divisive.[32] Of course, we could work out a more fine-grained taxonomy of epistemic cultures, which would map many more than two. But most actors in this intricate field continued to understand themselves as humanities scholars, social researchers, or natural scientists. Although the primatologists at the ethnographic heart of this book studied culture, they self-identified as natural scientists. Boesch referred to Tomasello's group of

experimental psychologists as *Geisteswissenschaftler*, but that was to explain why cooperation with them had turned out to be so difficult. It reflected the sense that lack of mutual understanding and appreciation remained especially pronounced between those descending from the natural sciences and those descending from the humanities. While social anthropologist Tim Ingold said that primatologists likening their field studies to ethnography did not know what they were talking about, cultural evolutionist Jamshid Tehrani dismissed Ingold and Palsson's volume *Biosocial Becomings: Integrating Social and Biological Anthropology* as "written by social anthropologists for social anthropologists."[33] A prominent cultural primatologist to whom I mentioned a special journal issue on multispecies studies snapped: "Please tell me the name of this journal, so that I may avoid it." Although the filling of the ontological chasm did engender new epistemologies and methods, it did not bring peace and fruitful collaborations to those who had endured or incited the sociobiology wars, the culture wars, and the science wars over the course of four decades. Why are we still living in two epistemic cultures?

My own response to this puzzle has been to engage ethnographically with primatologists who occupy positions at the very center of their field. They have kept their distance from posthumanist attempts at integrating animal minds, societies, and cultures under the terms of the humanities and interpretive social sciences.[34] Instead of denouncing the biologists' approach as not being "genuine" ethnography and accusing them of "abusing" the term, as Ingold did, I followed Christophe Boesch and his coworkers to Taï National Park to familiarize myself with how they actually studied chimpanzee lifeways.[35] In the same spirit, I observed how Tetsuro Matsuzawa and the researchers around him studied chimpanzee culture by integrating laboratory and field experiments as well as field observations and what they called participation observation. In the face of widespread condemnation of the naturalist and cognitivist traditions these scientists represent, I set out to understand their knowledge cultures. While interpretive cultural anthropologists have long spurned positivism as a naive misconception of science as steadily progressing on the basis of theory- and value-free observations, cultural primatologists continue to aim for just that. Although I share many philosophical objections to this philosophy of science, its persistence awakened my ethnographic curiosity. I will play devil's advocate in the humanities and posthumanities and defend the scientists' pursuit of such regulative ideals, even if they will never fulfill their own aspirations.

As I peer across the two-culture divide, I will frequently compare cultural primatology with my own home discipline, although I have never conducted a formal study of the knowledge culture of cultural anthropology. Just as many anthropologists contrast a non-Western culture they studied ethnographically to "the West," which they did not study but know intimately as natives of

Europe or North America, I compare chimpanzee ethnography, Japanese participation observation, and many other primatological research practices with research practices in my own field on the basis of my experience as faculty in an American cultural anthropology department. Matei Candea distinguishes such "frontal comparisons" between us and them from "lateral comparisons" between them and them.[36] My comparisons between Euro-American and Japanese primatologists and between primatological laboratory workers and fieldworkers are lateral, and my comparisons of these ethnographic subjects with my own humanist hinterland go full frontal. For obvious reasons, I have more stakes in the frontal comparison than in the lateral ones, and readers will note polemic undertones—aimed mostly at my own field (disciplinary chauvinism is not among my epistemic vices). I hope that bringing the often ill-articulated norms and forms of our respective subfields into relief will reinvigorate conversations between cultural and evolutionary anthropologists, largely abandoned since the 1980s.

From Second-Order Primatology to the Hominoid Condition

This book is about primate culture in the culture of primatology. But the term *culture* might be used differently when applied to primates and primatologists, respectively. Swiss comparative psychologist Thibaud Gruber and others suggested that "apes have culture but do not know that they do."[37] Lacking the cognitive capacity for representations, they may neither understand that they or others hold beliefs about their cultures nor notice that they do and see things one way while other groups do and see them another way. By contrast, humans, especially since the late eighteenth century, have grown exceedingly aware of such differences. Far beyond Europe have they come to talk about these differences in terms of culture and its translations.

Cultural primatologists are a product of both the evolution and history of cultural thinking. Not only did they apply the culture concept to nonhuman primates; they also applied it to themselves. Dutch ethologist Frans de Waal, for instance, compared Western and Japanese primatology to explore the role of "cultural bias" in science: "What we discover in nature is often what we put into it in the first place."[38] Consequently, de Waal maintained, "whether we grant animals culture is ultimately a human cultural question."[39] When science studies scholar Donna Haraway presented primatology in such constructivist terms a decade earlier, de Waal's colleagues took her to task.[40] Had the culture concept since served as a Trojan horse, smuggling cultural relativism into the predominantly realist citadels of science?

Culture, at least in its modern form, provided "a perspective for the observation of observers," argued German sociologist Niklas Luhmann.[41] He called such observations of observations second-order observations. While first-order observers attend to *what* is (or should be) the case, second-order observers attend to *how* first-order observers arrive at such determinations. Instead of observing the world, second-order observers reveal the contingency of any observation of the world: a different perspective is always conceivable.[42] If Gruber and colleagues were right about the absence of metarepresentations in apes, culture as second-order observation would be the prerogative of *Homo sapiens*.

Although cultural anthropologists, sociologists, and historians institutionalized second-order observations, natural scientists also occasionally raise their eyes from their scientific objects to observe how colleagues have come to see the same objects differently. They often think that "differently" means "wrongly"—and sometimes they are right. At other times, differences in perspective result from the fact that research findings can't be untangled from research practices or depend on contingent definitions of concepts such as culture. For instance, there is no truth of the matter of whether culture must comprise metarepresentations. Thus disagreements arise and second-order observations abound. And so it happened in the controversy over primate culture.

Paul Rabinow declared the distress and dispute growing out of the inevitable plurality of positions in reasoned discourse—he spoke of "the apparently unavoidable fact that *anthropos* is that being who suffers from too many *logoi*"—the starting point of an anthropology of reason.[43] While nonhuman primates might not share this predicament, primatologists certainly do. As primates passionately interested in how other living beings, including our conspecifics, do and see things, even the nonprimatologists among us might profit from applying the estrangement effect produced by second-order observations to primatological knowledge. Through the medium of the history and ethnography of science, *Chimpanzee Culture Wars* raises the question of a second-order primatology that reflects on the vexing profusion of Logoi through which we have come to understand ourselves as cultured apes.

Yet my account won't take the form of a traditional controversy study. In contrast to Amanda Rees's *The Infanticide Controversy: Primatology and the Art of Field Science*, it does not maintain a strict separation of sociological and primatological truth claims. As a sociologist of scientific knowledge committed to the principle of empirical relativism, she remains agnostic about how primatologists describe primate behavior.[44] When Rees opens her book with the admission "I have never been to the field and have never seen wild primates with my own eyes," she asserts herself as a highly disciplined

FIGURE 2. Second-order primatology: observing observers as they observe chimpanzees. Photo by author.

second-order observer who kept her eyes on those first-order observers she read and interviewed without getting distracted by their monkeys.[45] The same could be said about the methodology of historians of primatology like Gregory Radick, Marion Thomas, and Georgina Montgomery.[46] My own approach is situated in anthropology as a field that has always studied human cultures and nonhuman primates. In science studies, it owes more to laboratory ethnography than to controversy studies in that it pays attention to both humans and nonhumans.[47] In the field, you can't help seeing and even interacting with both. Considering that primate societies are also societies and that primatologists are primates, too, some of the most challenging philosophical questions arise where the disciplinary boundaries between primatology and the human sciences become porous.[48]

Boesch once responded to my overbearing questioning: "You're listening to me and believe any rubbish I'm telling you. You are a type of person who has learned to learn conspecifically rather than socially." He took my trusting readiness to learn from other humans in general, rather than from members of my own social group in particular, as a behavioral trait that distinguished *Homo academicus* from both wild chimpanzees and the Hadza foragers he had observed in Tanzania. I had never met any Hadza people, and as far as *Pan troglodytes* was concerned, Boesch's claim was a matter of controversy, but he had a point about me.

For I agree with Tim Ingold—who happens to be one of the fiercest critics of chimpanzee ethnography—that anthropology is not a study *of* people but a study *with* people that aims at learning to see things in the ways our interlocutors do.[49] Of course, unless anthropologists are prepared to adopt contradictory beliefs, they can't possibly espouse everything that people tell them, especially if their interlocutors disagree with each other—and disagree they did in the chimpanzee culture controversy. Controversies shift the focus from *what* is the case to *how* different people determine what is the case. Sociologists of scientific knowledge follow this transition from first- to second-order observations on a one-way ticket. By contrast, I am interested in the back-and-forth between observing the world and observing (and listening to) other observers as they are observing the world. I set out to think about chimpanzee cultures in the Anthropocene alongside people who had departed from different quarters of evolutionary theory to study the inhabitants of a cosmological terra incognita that lies in front of all of us. My brand of anthropology is philosophical but in a very different way than philosophical anthropology. It uses the tools of ethnographic fieldwork to the end of reflecting from different angles on the human, nay hominoid condition today.

Bird's-Eye View

Cultural primatology was born in mid-twentieth-century Japan. Chapter 1 examines this prehistory of the chimpanzee culture wars. The story begins in 1948 with the observation of a troop of Japanese macaques on a subtropical islet. As Imanishi and his students fed them sweet potatoes on the beach, the monkeys invented a way of washing off the sand in the sea. Subsequently, they passed on the new behavior from generation to generation. The Japanese primatologists conceived of this social transmission as preculture. They framed their anthropomorphic conceptualization, as well as a research practice that made no effort to minimize human interference, in terms of Japanese culture. Soon Imanishi's anti-Darwinian evolutionary theory became engulfed in national and international controversy over its association with nationalist politics and its breach of the divide between science and the humanities. Ironically, this self-consciously Japanese brand of scholarship had not only appropriated European and American elements of evolutionist thought, including the idea of animal traditions, but also stirred up a controversy over primate cultures that polarized primatology far beyond the boundaries of national cultures.

The second chapter offers a historical account of the chimpanzee culture wars. In 1978, William McGrew's description of a cultural difference between the chimpanzees of Jane Goodall's field site at Gombe and Junichiro Itani's

field site at Mahale sparked a scientific controversy with shrill political overtones. Scientifically, the debate pitted field biologists against experimental psychologists, and proponents of human-animal continuity against those interested primarily in what set *Homo sapiens* apart from other primate species. Chimpanzee ethnographers struggled with the question of whether they had to exclude genetic and ecological explanations to determine the cultural nature of behavioral differences. Politically, challenges to the dualist ontology of one nature and many human cultures became part of a much larger battle over biological humanism that had emerged after World War II to rein in the excesses of Nazi racial ideology. In the culture wars, a new ethnos-centered left broke with this false universalism in the name of multiculturalism. In the chimpanzee culture wars, cultural primatologists suggested extending multiculturalism beyond the human. But just as they adopted the culture concept, many cultural anthropologists decided in the late 1980s to write against culture. They now suspected that talk about cultural differences served the very racist "othering" that it had been meant to replace. Alienated by the moralism of their colleagues in the humanities, cultural primatologists continued their exploration of chimpanzee cultures in a positivist vein.

Chapter 3 takes a close look at how chimpanzee ethnographer Christophe Boesch and his group studied the social transmission of cultural traits in the chimpanzee communities of Taï Forest, Côte d'Ivoire. This ethnographic account of primatological fieldwork in the mid 2010s measures the historical distance to the 1960s when Goodall and others sought to take part in the social life of great apes. In contemporary Taï, by contrast, disengaged observations of habituated chimpanzees served to protect both *Pan* and *Homo*. Despite the researchers' efforts to keep human-animal relations as neutral as possible, different chimpanzee communities related to their observers differently. Whether behavioral differences were considered cultural and whether their observation was ethnographic would be revealed only retrospectively as data analysis ruled out alternative accounts. In the forest, chimpanzee ethnography could hardly be distinguished from other forms of fieldwork. The collective empiricism of cultural primatologists aspired to a separation of observation from theory and interpretation. Humanities-oriented anthropologists and even some primatologists who were committed to the epistemic virtues of thick description dismissed such an ethnography by ethogram as an abuse of the term *ethnography*. But Boesch's approach to writing wild cultures turned out to share another important feature with humanities scholarship: references to philosophical classics gave it an intensely polemic bent rarely found in the scientific literature.

From the Ivorian rainforest, the reader will accompany the primatologists back to the Max Planck Institute for Evolutionary Anthropology in Leipzig,

which had reintroduced a new biological anthropology to a country that still associated the discipline with Nazi racial theory. Chapter 4 examines how Boesch's colleague and codirector Michael Tomasello derived truth claims about the anthropological difference between *Homo sapiens* and *Pan troglodytes* from controlled experiments comparing the social cognition of human children with that of grown chimpanzees. Tomasello's claim that humans were the only primates capable of culture and cooperation received an enthusiastic reception by German philosophers. The Frankfurt School and a new generation of philosophical anthropologists had finally found an ally in their battle against neuroreductionists and genetic determinists. Yet Boesch called into question the validity of Tomasello's findings by pointing out that the social behavior of both humans and apes was too contingent on local circumstances for Leipzig kindergarten children and zoo chimpanzees rescued from a Dutch pharmaceutical company to represent all of humanity and chimpanzeehood. He accused Tomasello of not controlling for the different conditions under which Tomasello tested humans and apes. The ensuing controversy over the relationship between laboratory work and fieldwork happened at a time when new statistical methods were opening up vast new possibilities for chimpanzee ethnography, even fostering hopes that experimentation with captive animals would become superfluous because uncontrolled observations in the wild would allow the establishment of causal relations. Could Boesch's cultural primatology inform a different philosophical anthropology than the one drawing from Tomasello's comparative psychology?

In the debate with Tomasello, Boesch pointed to Tetsuro Matsuzawa's experiments at the Kyoto University Primate Research Institute as a model for testing humans and chimpanzees under the same conditions. The fifth chapter explores how *Pan* and *Homo* came to share a life in this Japanese laboratory. Matsuzawa's Ai Project, named after his most famous nonhuman "research partner," began as the Japanese ape language project in 1976. But it soon morphed into a much broader comparative cognitive science program that provided a new face to Japanese primatology in the post-Imanishi era. For both methodological and ethical reasons, he sought to square tight experimental control with maximizing the captive chimpanzees' freedom to show spontaneous behavior. Field observations in the laboratory captured such unexpected actions, while participant observation enabled social learning across species boundaries. Researchers introduced the laboratory animals to stone tools from their wild relatives to study chimpanzee cultural cognition under controlled laboratory conditions. But these unconstrained face-to-face interactions between primates and primatologists in an experimental booth also provided a so-called cultural correction device that put the scientists' interpretations of ape behavior to the test without experimental controls or

statistical analyses: if they misread chimpanzee minds, they risked serious injury. The often violent nature of chimpanzee social life strictly limited how much humans could take part. At Kumamoto Sanctuary, however, younger researchers from Matsuzawa's lineage had repurposed participant observation to apply delicate measuring instruments such as EEG caps or head-mounted eye tracker goggles to otherwise unruly apes. Thus a new generation of Japanese primatologists integrated high-tech laboratory experiments, field observations in the laboratory, and participant observation—and eventually extended this synthetic primatology to the field.

Chapter 6 follows Matsuzawa and his coworkers to their outdoor laboratory in Bossou, Guinea. Revered as the totem animal of the Manon and deprived of almost all primary rainforest, the Bossou chimpanzees had learned to live on human crops in an agricultural landscape. In contrast to Boesch's emphasis on so-called wild cultures, Matsuzawa speculated that historically, this chimpanzee community might have learned from the human population how to crack the oil palm nuts that local farmers cultivated. Field experiments allowed the primatologists to study how female immigrants passed on their knowledge of how to crack other kinds of nuts within the group. At this point, Japanese cultural primatology contradicted the Manon's mythological understanding of "their" apes as a bounded community of nonnatural animals. Chimpanzee road crossings provided an opportunity for a natural—or really "naturecultural"—experiment in an anthropogenic environment. Ethnoprimatologists collaborating with Matsuzawa studied the ecological interface between humans and primates and used their insights for conservationist ends. After a political conflict over the protection of a small patch of primary forest on a sacred hill, the Japanese primatologists took over the Manon's position that the livelihood of the Bossou chimpanzees was better served by plantations than by a nature reserve. And yet amid aggravating conflicts between humans and chimpanzees, the numbers of the latter were in free fall.

The extermination of each chimpanzee community not only endangered biodiversity; it also diminished chimpanzee cultural diversity.[50] In the footsteps of cultural anthropology, which had sought to catalog disappearing human cultures almost since its inception, chimpanzee ethnography began to do the same for chimpanzee cultures. The last chapter examines how cultural primatologists fought for the conservation and documentation of quickly dwindling chimpanzee communities. As *Homo sapiens* outcompeted *Pan troglodytes* in sub-Saharan Africa, Boesch, Matsuzawa, and the first generation of African primatologists forged alliances and made enemies in their attempts to prolong the coexistence of humans and apes for a few more years. In West Africa, the chimpanzee culture wars entwined scientific controversy with political crises and ethnic strife. In the face of the sixth mass extinction event in

natural history, cultural primatologists set out to collect as much data about the lives of as many chimpanzee communities as possible. Boesch's Pan African Project almost quadrupled the number of documented chimpanzee cultures by switching from close-up ethnographic observations of habituated groups to big data collection of camera trap recordings, fecal samples, and material artifacts. This collective effort at over thirty-five field sites built up an archive for future primatologists who might no longer have a chance to experience chimpanzee cultures firsthand. Epistemologically, the effort to build such an archive was based on an elegiac positivism, which minimized the theory-laden nature of recorded observations. For nobody knew what theoretical commitments would orient the work of its users. A sense of human guilt and anticipatory grief for the demise of our own species marked this salvage primatology.

The conclusion revisits the questions raised in this introduction in light of the ethnographic chapters. It compares the knowledge cultures of Boesch's field station, Tomasello's laboratory, Matsuzawa's laboratory, and Matsuzawa's field station with each other to map a space of no-longer-available possibilities. By the time of this book's publication, the scientists who created these sites of learning with their unique styles of inquiry will all be retired and a new generation will have taken over. In the face of pleas for unifying the so-called two cultures of the sciences and the humanities, I espouse the conservation and promotion of a much broader epistemic diversity, which must include voices that call into question the value of such epistemic diversity.

Not bound by the interpretive modesty that characterizes positivist knowledge making, the epilogue takes inspiration from Imanishi's speculative natural history to imagine what a joyous primatology, unburdened by the contrite Christian opposition of humanity to nature, might look like. Would it be possible not to cast the extinction of chimpanzee cultures as moral failure?

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