Anthropology and STS

Generative interfaces, multiple locations

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In this multi-authored essay, nine anthropologists working in different parts of the world take part in a conversation about the interfaces between anthropology and STS (science and technology studies). Through this conversation, multiple interfaces emerge that are heterogeneously composed according to the languages, places, and arguments from where they emerge. The authors explore these multiple interfaces as sites where encounters are also sites of difference—where complex groupings, practices, topics, and analytical grammars overlap, and also exceed each other, composing irregular links in a conversation that produces connections without producing closure.

Keywords: interface, science and technology studies, difference, pluriverse, locations, collaborative spaces

Introduction

Marisol de la Cadena and Marianne E. Lien

In this multi-authored essay we present short reflections on generative interfaces, within and at the edge of the anthropological discipline. The essay reflects a

conversation that took place at the 2015 American Anthropological Association meeting in Washington, DC, at the invited roundtable "Anthropology and STS: Generative Interfaces and the Practice of Discipline Multiple." Participants were invited to consider how *location*, broadly understood, shapes collaborative spaces, such as the interface between anthropology and STS (science and technology studies).

Our idea for this conversation was triggered by our different experiences regarding how interfaces of STS and anthropology have unfolded.[1] STS has inspired anthropologists for quite some time, and has, for some, reconfigured the ways in which ethnographies and "fields" are being made within disciplinary practices. Our idea was to bring together scholars from different parts of the world to discuss the interface of anthropology and STS. However, we soon ran into some interesting differences in the ways that STS is incorporated—or not—as part of anthropological theory in different locations.

For example: while Marianne Lien located her work at the interface of anthropology and STS, Marisol de la Cadena saw her work as being located at the interface between STS and non-STS. For de la Cadena, who works in California, STS had synergetically become part of anthropology and its analytical repertoire. For Lien, who works in Norway, the fields seemed more separate, and anthropologists were not expected to engage STS in their analytic repertoire. On the contrary, she and her colleagues experienced that their engagements with STS became a source of controversy in Norwegian anthropology.[2] We soon realized that we were talking at dissimilar, yet interconnected, interfaces, such as the one between anthropology as practiced in, for example, Scandinavia, and anthropology as practiced in the United States or Japan. It became clear to us that whatever friction anthropology and STS (together or apart) may generate, the unfolding of this friction will always be specific and situated in relation to the local debates and the assumptions that guide anthropology as a discipline.

Inspired by a science studies approach—one that pays attention to the way in which scientific facts are made—we decided that rather than flattening out such differences, we should make them explicit, with the aim of emphasizing the heterogeneity of anthropology and decentering (or provincializing) a certain Anglo-European domination of the discipline. Thus, we invited scholars who are themselves situated differently, and whose anthropological practice is shaped by their identification through fieldwork, university affiliation, and themes of interest.

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1. Work at interfaces between different anthropologies and between STS and anthropology is not new. The conversation between Marilyn Strathern, Eduardo Viveiros de Castro, and Marcio Goldman is an example of the first type of interface (Viveiros de Castro and Goldman 2011). Among the second type, many years ago, Philippe Descola and Bruno Latour created an interface between anthropology and STS, which would become generative of Actor Network Theory (ANT).

2. For example, their claim in an introduction to a special issue on ANT and anthropology that "actor network theory and material semiotics are fields that anthropologists must (or ought to) be aware of" triggered a rather polarized disciplinary debate. (In Norwegian: "*aktør-nettverk teori og materiell semiotikk er kunnskapsfelt man som antropolog må forholde seg til.*") (Lien, Nustad, and Ween 2012: 215).

While we did not intend a discussion about "other anthropologies," we considered that "place of practice" was important in shaping the interface.[3] Thus we invited colleagues working in Australia, Japan, Denmark, Norway, Canada, Peru, New Guinea, Bali, the United States, and Paraguay; the specificities of these locations are thus made relevant through our conversations. In addition to location, the notion of interface that emerged at the roundtable was composed by the working interests, themes, and theoretical inspirations of each of the presenters.

"Provincializing" is a concept we borrow from Dipesh Chakrabary (2000). Yet, because we emerge from different interfaces—a complicated crossroad if you will—our use of the concept does not yield "plural" versions of a practice analogous to Chakrabarty's History 1 and History 2.[4] Rather, it renders a dynamic that is closer to Annemarie Mol's (2002) analysis yet also disrupts it: analogous to Mol's work, it renders "practice multiple," and the efforts in place—such as the AAA and peer review—to "singularize" such multiplicity and make it one. Nevertheless, the dynamic generated at the roundtable (and in this collaborative piece) also reveals the relentlessness of multiplicity that makes singularization ephemeral and almost futile *in practice*. The possibility to grasp this dynamic is, we think, the conceptual work that interface as an analytic opens up. Paying attention to interfaces of anthropology and STS, as well as the heterogeneity of *other* interfaces from which they emerge, allows us to dispute efforts of singularization without losing their distinctiveness. In the end, the dynamic is more intriguing than either plural *or* multiple *or* singular: it is all of those in tension and thus analytically dynamic.

The generative interfaces that the following interventions elaborate are different, but also related. Atsuro Morita opens the conversation by drawing attention to how analytical terms are always situated within a particular linguistic repertoire, and are thus already shaped by very specific ontological foundations. Nature and Society is a classic example of a conceptual dichotomy that only works in some European languages but not, for example, in Japan. His intervention is a timely reminder of how social scientists who are not trained in working across several languages often fail to recognize their own shaky equivocations, because they presuppose that their analytic notions are universal. That location matters is also the topic of Marianne Lien and Gro Ween who elaborate the shifting configurations of hierarchy that some places make apparent. Like Japan, Norway is neither center, nor periphery, but both, and an interesting location for cultivating what they call a "postcolonial anthropology at home." They detail how STS is a resource for doing so, and how STS can help create an interface as an act of assembly within the natural sciences, creating a space for dialogue across epistemological divides.

Dialogue and interdisciplinarity are central for Heather Swanson too, who insists that it is not merely speaking across disciplinary boundaries that matters, but rather the *specificites* of interdisciplinary configurations that shape what disciplines and fields become. Her example draws on cultural studies as it is practiced at the

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3. Interpretations about "other anthropologies" can be found in Ribeiro and Escobar (2006)*,* and Boškovic and Aleksandar (2008).

4. Our intention was not to show that STS in the global south is different from its practice in the (analogously) global north.

University of California, Santa Cruz, where weekly seminars bring people of many diverse disciplines together for what becomes, in effect, an extended dialogue over several decades. "Being in the same room" ensures that speakers are called into account by multiple conversations, and that "nothing is allowed to slip off the table," and this creates a quality that may get lost as the very successes of STS become codified into a canon and increasingly self-satisfied.

Casper Bruun Jensen and Tess Lea are both concerned with narrative conventions and the dangers inherent in conforming too smoothly to the smugness of coherence. Lea challenges the demand that we "return plot-coherence to the fragmentary nature of our insights," and suggests that we try instead to interrupt the closure that neatly stitched ethnographies falsely promise. Jensen challenges what he sees as an unhelpful distinction between the empirical and the conceptual, and suggests that we accept the discomfort entailed in undoing conventional certainties about what is entailed by description and analysis. For both, such narrative conventions are cross-disciplinary too and the challenge is therefore equally important for anthropology and STS. Jensen argues that this could counteract what he sees as the present state of "advanced relaxation" in STS, as well as the non-engagement that constitutes discussions concerning ontology in anthropology.

The interface that occupies the next set of interventions is that of STS and non-scientific practices, and Papua New Guinea, Paraguay, the Andes of Peru, and Bali are the stages where interfaces are explored. All four interventions explore, in one way or another, the interfaces that compose ethnographic practice itself. The first two—by Paige West and Mario Blaser—interrogate the interface created by conversations across the divergent knowledges and practices of both visitors/guests and hosts. West and Blaser are interested in the ways in which difference and sameness may emerge at such interfaces—and actually destabilize when the point of view of the interlocution is not the same. Thus, Paige West reveals to us how in exchanging concepts between anthropology and Gimi sorcery with Rick Tabure, one of her co-laborers, the distinction between their practices became blurred. As Rick reflected about the appropriateness of the anthropological concept of "sorcery" to describe his father's practices, Paige's dreams became a space where Gimi concepts emerged as part of her own life. On a relatively similar note, Blaser explores the possibility of "stepping off" our conceptual toolkit to practice what Helen Verran (2002) calls "doing difference together"—a form of difference that emerges following points of view that are at times shared, and at times exchanged.

The next two interventions—by Marisol de la Cadena and Margaret Wiener—productively (under)mine the notion of "things" as proposed by the Latourian version of ANT (see also Morita). Following the initial invitation to consider things as actants, Wiener and de la Cadena encountered the limit of such a proposal, as entities that were not human did not emerge as things either. Provincializing the notion of "thing" suggests the need to also provincialize the human in relation to which the former emerges. What is thus made evident by working at this interface is the need for an infralanguage and an infragrammar that may obtain entities and practices that "world" worlds that are not necessarily (or *not only* as de la Cadena insists) populated by things and humans. If the Latourian actor-network proposal for STS contributed to Wiener's and de la Cadena's work, their contributions decenter both the entities and practices of science and anthropology. They do

so via a proposal for anthropologies of worlds understood as conversations where "the human" and *"his* things" become minor as they emerge with entities that are neither human nor things. Becoming minor would also require of the decentered human and things that they do not constitute themselves as the units of a relation—"natural" or otherwise—that posit a human surrounded by things.

The AAA roundtable was an opportunity to explore the generative differences of several interfaces—conceptual, authorial, disciplinary, and regional—and to consider the anxieties of partiality that follow when narrative devices call for coherence and unilateral unfoldings. It was also an explicit invitation to explore these interfaces as partially connected and placed locations for "scholarship multiple," to experiment with a collective authorial mode, and to explore the decolonial possibilities of such collaboration.

The presentations were initially paired in groups of two and three, with comments. In the conversation that followed, novel themes emerged that weaved together some shared concerns. Each author or pair of authors has incorporated ideas that emerged during our roundtable conversation, and revised their own contribution accordingly. The result is therefore a truly collaborative effort.

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Spaces of equivocation: Some generative interfaces between anthropology and STS in Japan

Atsuro Morita

In the call for the roundtable that sparked this collection, Marisol de la Cadena and Marianne Lien drew attention to the situated character of the interface between anthropology and science and technology studies (STS) by remarking on the different relations these two fields have in Norway and the United States. This national comparison directs attention to various aspects of the interfaces, including the respective position of the disciplines in systems of higher education, their histories, and their relationship with overseas research communities. Aleksandar Boškovic's (2008) *Other people's anthropologies* is probably one of the most insightful endeavors to locate and explore the diversity of anthropological traditions through careful comparison between a variety of national traditions, from Russia and Japan to Cameroon and Bulgaria. Although most of the important differences that appear in such comparisons center on the scale of the nation-state, it can be noted that disciplinary interfaces consist of forms of translation, collaboration, and competition, which primarily offer ways of connecting different domains or practices. Thus, if one looks closer at these interface practices, what emerges is a rather complex vision of fragmented groupings of people and topics tied together by a multitude of weaker or stronger ties that cut across the institutional and national boundaries.

In the following remarks, I draw upon my location and experiences in Japan as an entry point for reflecting upon these complex encounters. As a non-Western country, Japan offers some distinctive and contrasting features. These are not only to do with national difference but also invoke the age-old concern about differences between the West and non-West; differences that themselves have received

considerable attention at the interface between anthropology and STS (Verran 2001; de la Cadena 2010; Mohácsi and Morita 2013). To offer a famous example, Donna Haraway's *Primate visions* (1989)*,* a study itself exemplary of an early anthropology-STS intersection, examines the clearly visible but also rather perplexing differences in the style and interest between Euro-American and Japanese primatologists. Largely because of its autonomous history, Japanese primatology developed methods, theories and interests that were different from their Euro-American colleagues, and despite subsequent close exchanges these differences have not disappeared. In Haraway's depiction, these differences mainly stem from the Japanese indifference to the Western view of the nature-culture divide, a divide particularly central to the narrative of Western primatology until the late 1970s. However, even as she pays attention to this fundamental (in-)difference, Haraway does not fall into the trap of analyzing Japanese primatology as simply void of Western bias. Instead, her description offers a view of the Japanese Other(s) as an autonomous academic tradition that simply knew as little (more or less) about Western concerns as *vice versa*.

The comparison with primatology, itself a product of interdisciplinary collaboration, offers a good starting point for thinking through the interface between anthropology and STS in Japan. This interface, too, is embedded in a domestic context with its own history. At the same time, it is part of an international context where different concerns between Japanese and Euro-American scholars are often rendered visible to mutually surprising effect.

Indeed, the recent interface between anthropology and STS in Japan has been characterized by a degree of international collaboration unusual in Japanese academia, which has generally tended to be both strongly autonomous and relatively closed; characteristics supported by linguistic barriers as well as the very large market for domestic academics. Of course, collaborations based on shared area interest are not altogether new; for example, the Japanese have been major players in Asian and African area studies. However, in contrast with these strongly empiricist fields, recent collaborations in the anthropology of science and technology have primarily been shaped by a number of conceptual affinities (Jensen and Morita 2012). I will argue that this mostly stems from a certain resonance between the concerns of Euro-American STS scholars to provincialize the Western mode of knowing and that of Japanese scholars to come to term with the somewhat problematic relations with Euro-American academic discourses—relations that, in fact, are not unlike those of the Japanese primatologists.

Haraway argued that although Japanese primatologists were certainly noninnocent, entangled with their own myth and politics, they nevertheless contributed significantly to provincializing Western primatology. This contribution was, as it were, an unintended consequence, due to their ignorance about the key concerns of the Western tradition. It seems to me that a similar momentum is operative at the anthropology/STS interface in Japan, where our inability to grasp (some of) the background knowledge, mythical motifs, and languages of the Western scholarship *resonates* with the active effort of certain Western anthropologists to provincialize Western forms of knowing.

In Bruno Latour and Peter Weibel's exhibition *Making things public* (2005), the German etymology of *thing* (*Ding*) plays a significant heuristic role in

highlighting the importance of natural and technical objects for gathering heterogeneous social and cultural interests. However, in the catalogue, the Japanese anthropologist Masato Fukushima (2005) complained about "literary tricks such as puns, etymologies and conceptual analyses" based on the German and Latin linguistic heritages. "If these are translated into non-European languages," wrote Fukushima, "the aura of the rhetoric evaporate ephemerally, and people start to wonder what actually is at stake here" (Fukushima 2005: 58). He goes on to state that if one began not with *Ding* but with the Japanese equivalent, *mono*, one would have ended up with a quite different exhibition, since the latter includes not only material things but also spirits and the dead. What thus perplexed Fukushima and led him to provincialize *Making things public*, a volume itself very much taken with provincializing the Western notion of inert things, was his inability to be impressed with certain rhetorical devices deeply embedded in Latin and Germanic linguistic heritages. Like the primatologists in *Primate visions*, Fukushima, who doesn't share the tradition, and is therefore kept "away from the party inside" (ibid.: 58), plays an unintended role in provincializing the whole party.

The perplexities implicit in the indifference of Japanese primatologists, and quite explicit in the case of Fukushima have to do with the fact that seemingly neutral and shared analytical terms often involve connotations that, even if they are implicit, often pitch themselves as having broad, even cosmological, significance. They may thus be very difficult for outsiders to understand. For example, the Japanese have no problem whatsoever in understanding nature and culture as individual terms. However, my experience in teaching anthropology to Japanese students shows that it is quite difficult for them to understand the relation these terms have in Western discussions of the nature-culture dichotomy, or even about its irrelevance or necessary dissolution. For one thing, these notions are not indigenous to Japan, having been introduced from English in the nineteenth century. At the time, nature and culture were translated *separately* by making equivalence with the existing notions, *shizen* and *bunka*, which had no relation to each other (Jensen and Morita forthcoming). Thus for Japanese, the central contrast between the Western nature-culture dichotomy is far from intuitive. Marilyn Strathern characterizes this particularly Western conceptualization as follows:

> These western nature-culture constructs . . . revolve around the notion that the one domain is open to control or colonization by the other. Such incorporation connotes that the wild is transformed into the domestic and the domestic contains within it primitive elements of its pre-domestic nature. Socialization of an individual falls as much within this scheme as taming the environment. (Strathern 1980)

Haraway argued that this dualism, which Western primatology inherited from Judeo-Christian mythology, is entangled with the mythical image of a break between the human and the natural world. However, Japanese primatologists appeared to be entirely ignorant of this mythical root and correspondingly indifferent to its entailments. My own experience suggests this situation has not changed twenty-five years later in the fields of STS and anthropology.

This kind of situation can be seen as an instance of what Eduardo Viveiros de Castro calls "equivocation." Conventionally, equivocation denotes miscommunication caused by ambiguous expressions. However, based on his work on Amerindian perspectivism, Viveiros de Castro argues that equivocation lies at the heart of translation, broadly applicable to situations where a shared term denotes different objects. Equivocation, then, assumes "the same representations and other objects, a single meaning and multiple referents" (Viveiros de Castro 2004: 4). For Amerindians, equivocation is thus common, though alarming, since the human form is universally shared by different "species," although the different bodies of spirits, humans and animals make them see each other as different forms. Thus, famously, jaguars see themselves as persons and human blood as manioc beer.

Compared with Amerindians who are apparently well versed in dealing with interspecies equivocation, scientists (including social scientists) are comparably unskilled. Indeed, they are often unaware of their own equivocations, presumably due to the presupposition that their analytic notions are universal. In the primate encounter, equivocations were thus mostly overlooked. Even when differences were articulated the result was often essentializing the position of the other. Thus, some Western primatologists blamed the Japanese for being unscientific, while some Japanese proclaimed their unique cultural sensitivity to the subjectivity of the animals (Haraway 1989).

There is certainly an important difference between *Making things public* and the nonengagements described in *Primate visions*. In the former, Fukushima's chapter is located in part one, shortly after Bruno Latour's introduction. It thus appears that dealing with equivocation has itself become an integral part of articulating the interface between anthropology and STS.

It is important to note the role of actor-network theory (ANT) in making this possible. Arguing for the deployment of an "*infralanguage*, which remains strictly meaningless except for allowing displacement from one frame of reference to the next," Latour has been keen on developing concepts that allow the vocabulary of the actors "to be stronger than that of the analysts" (Latour 2005: 30). This symmetrical attitude has helped to create the space in which voices like Fukushima's can be heard. It is further worth noting that equivocation was articulated in the *relation* between Latour's introduction and Fukushima's critical comment. The book thus actively created a space where equivocation could be made visible. This space certainly serves to "slow down" reasoning (Stengers 2005; de la Cadena 2010), even as that meant provincializing some of actor-network theory's own claims. It also encouraged readers (and maybe participants of the exhibition) to appreciate the complexity of knowledge practices beyond their own conception.

Cultivating such a space of equivocation *Making things public* arguably (re)performs some of the complexity, experimentation and surprise, which anthropologists and STS scholars have also found in their studies of scientific practice. In this sense one can see the catalogue, whose workings depend on the multiple interfaces it creates, as a more productive reenactment of the primate encounter at the interface of STS and anthropology. It is worth highlighting the hope embedded in this reenactment. If the book, at least partly, succeeds in redoing a previously failed

encounter, perhaps other bad encounters from colonial and postcolonial pasts might also be reenacted.

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Who's in the room?: The importance of multidisciplinary spaces for anthropology and STS

Heather Anne Swanson

It is important to remember that specific forms of anthropology and science and technology studies (STS) emerge not only through their relations with each other, but also through wide-ranging, interdisciplinary conversations that exceed both fields. Enactments of STS have been interdisciplinary from the get-go—drawing not only on anthropology, but also on such fields as sociology and philosophy of science. Despite their longer histories, anthropologies have been no less interdisciplinary: in Japan, anthropology has been influenced by primatology (as mentioned by Atsuro Morita in the previous piece), as well as by *minzogaku* (folklore studies); in Europe, it has been shaped by colonial administration, development studies, natural history, linguistics, and comparative religion, just to name a few fields of inquiry. It is the *specificities* of such interdisciplinary configurations that shape what disciplines and fields become.

In this commentary, I want to emphasize that when we talk about configurations of anthropology and STS, we need to pay attention to the question of "who is in the room"—i.e., who are the interdisciplinary interlocutors who participate in the emergence of anthropologies and STS in particular locations. As scholars working in the anthropology-STS borderlands (including Annemarie Mol, John Law, and many others referenced at the end of this essay) remind us, there is no stable, singular, generic anything; everything is done in practice, and it is done somewhere. To show how this matters, I turn to an actual room—a seminar room at the University of California, Santa Cruz (UCSC), where I did my Ph.D. work. At UCSC, anthropology and STS have long been entangled institutionally, as well as theoretically, but not in a dyadic way. Rather, at UCSC, specific forms of anthropology and STS have emerged within the interdisciplinary conversations of its weekly cultural studies seminars, which have been ongoing since 1988.

At UCSC, "cultural studies" has never been a field; rather, it is a situated practice of gathering on Wednesdays to listen and then respond to a common lecture. The discussions and arguments during these meetings shape everyone in the room, with significant scholarly influence. Key texts in anthropology and STS, such as *Routes* (Clifford 1997)*, Primate visions* (Haraway 1989)*, When species meet* (Haraway 2008)*, Friction* (Tsing 2005)*, Meeting the universe halfway* (Barad 2007), and many more, developed in relation to its ferment. But the seminar has not been dominated

by scholars who align themselves with either anthropology or STS. In addition to Donna Haraway, Karen Barad, Anna Tsing, and James Clifford, the cultural studies crowd has consistently included a host of scholars with primary commitments to literature, history, critical race and ethnic studies, postcolonial theory, feminist theory, queer theory, and Marxist political economy.

With this diverse group in the room, to speak at cultural studies—either as a presenter or from the audience—is to be called into account by multiple conversations at once. Race, class, gender, colonial histories, environmental concerns, respect for science, alertness to the politics of knowledge-making—nothing is allowed to slip off the table because someone will make sure to get it back in the conversation almost immediately. Such encounters shape the scholarship that emerges within them: cultural studies helped to generate approaches to STS that are particularly alert to inequality and political economy, as well as forms of anthropology whose politics often open up to include nonhumans. What I want to stress is that these modes of anthropology and STS, which I think are stronger for their attention to power and unevennesses, came into being due to sustained interdisciplinary interactions within a community that stretches out to include people who are unlikely to identify with either camp.

Of course, just getting everyone in the same room does not mean that disciplinary perspectives will fundamentally shape each other. Simple "generosity" and goodwill do not ensure meaningful questions and conversation across difference. Rather, the cultural studies seminar has managed to cultivate a practice that one might call "taking seriously."

I borrow this phrase, which has generated much discussion in anthropology and STS, from Eduardo Vivieros de Castro, who has argued that "[a]nthropology is that Western intellectual endeavor dedicated to taking seriously that which Western intellectuals cannot . . . take seriously" (2011: 133). Rather than domesticating alterity by slotting it into one's preexisting categories, "taking seriously" demands that one consider alterity *in its alterity*, while being open to being provoked and transformed by it. In Vivieros de Castro's work, it is principally the life worlds of non-Western people (particularly Amerindians) that, when taken seriously, hold the potential to completely remake the fundamental concepts of Western scholarship. As Matei Candea points out, however, versions of anthropology that define the discipline as the study of non-Western Others often struggle to take seriously research conducted within the so-called "West," including some STS. Invoking his own research with Corsican schoolteachers and British scientists, Candea reminds us that the borders of who and what should be taking seriously (other)—and who and what must not (self)—are always in-the-making. It can be equally important, Candea explains "to take seriously all sorts of things close to us, including some that an exo-anthropology cannot take seriously (such as Western liberalism, in its various incarnations)" (Candea 2011: 150).

Applied to the cultural studies seminar, this term points not only to taking indigenous peoples or nonhumans or scientists seriously, but also to a practice of taking *other scholarly approaches seriously*, something which, ironically, often seems rather difficult for those of us ostensibly committed to allowing others' worlds and categories to disrupt our own. In practice, Western scholars at the interfaces of anthropology and STS often have as much—if not more—trouble taking seriously the

person across the office corridor than they do the Amerindian people or biologists they encounter in the "field."[5]

Cultural studies tries to foster something else: "taking seriously" there means doing one's best to ask questions that not only critique research from the perspective of one's own theoretical commitments, but that also try to get inside another's research to ask what it might allow us to do or see differently and how it might remake one's own approaches. It requires careful listening and overtures to discourse, rather than quick dismissals across substantial analytical and theoretical alterity. This kind of "taking seriously" is crucial for building strong, worldly forms of anthropology and STS that are able to be meaningful interlocutors and make meaningful interfaces—not only with each other, but with an expansive array of fields.

The problem, however, is that in the very successes of STS and STS-inflected anthropology lie its greatest risks. As the numbers of its practitioners grow and its scholarship becomes codified into canons, those of us working in and around the edges of STS are increasingly able to talk only to each other. The STS and anthropology borderlands, which emerged out of multiple forms of interdisciplinarity, now risk becoming too insular. If they are to remain generative, we need to work to ensure that they continue to be engaged with truly interdisciplinary spaces.

Although I have focused on UCSC's cultural studies seminar as a concrete example here, it certainly isn't the only interdisciplinary formation that has contributed to the development of productive forms of anthropology and STS. Moreover, it is a formation with its own limitations. While the cultural studies seminar brings attention to power and political economy that are sorely needed, its approaches are shaped and limited by who is *not* in its room—namely natural scientists, who have not been part of cultural studies in any formulation. While the UCSC cultural studies colloquium has long taken science seriously via STS research, including anthropology, history, and philosophy of science, the colloquium has not brought many natural scientists into its folds.

Increasingly, scholars at STS and anthropology interfaces have recognized that who is in the room shapes scholarship, and they have sought to experiment with new gatherings—not in opposition to existing fora, but in addition to them. A variety of new endeavors are exploring how interdisciplinary configurations that include biologists, ecologists, and geneticists might generate still other forms of anthropology and STS by forcing us to encounter scientists and scientific knowledge-making practices not as objects of study, but as collaborative research partners. One doesn't have to travel far from the cultural studies colloquium to find such an experiment. On the other side of the UCSC campus, the Science and Justice Research Center, first established as a working group in 2006, holds its own seminars that aim to foster cross-talk and collaboration among scientists, engineers, humanists, social scientists, and artists. This is just one of a burgeoning number of transdisciplinary projects that seek to bring scholars together across the gap of what C. P. Snow has called the "two cultures" divide between the so-called human

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5. Indeed, this piece is itself an experiment in taking seriously, as I seek to allow my reflections on anthropology/STS interfaces to emerge from careful attention to a colloquium series that would not normally be taken seriously as a starting point for scholarly analysis.

and natural sciences ([1959] 1998).[6] Such groups, which have typically formed around science policy, research ethics, and environmental concerns, are all the rage in STS-inflected worlds these days—and they indeed hold much promise. When natural and social scientists manage to be curious about each other as intellectual interlocutors, they are sometimes able to enact the promise of "taking seriously"—the creation of a "a thought-provoking, creative venture, which may potentially open new insights into the very issue of what constitutes life" (Willerslev 2013: 42). Even in their (more common) stumblings, these gatherings remake disciplinary practices in non-trivial ways.

Yet, as STS-engaged scholars embark in these new interdisciplinary formations, they must continue to ask who is not a part of them. Take UCSC's Science and Justice Research Center as just one example. While many STS-oriented scholars from the cultural studies colloquium participate in both groups' events, many of the scholars focused on critical race studies, postcolonial theory, queer theory, and Marxist analysis have, unsurprisingly, not joined the science-focused group. This is a common issue for many of these new interdisciplinary enterprises: in their efforts to forge alliances with natural scientists, they enroll a much less diverse group of social scientists and humanists.

We do not need one master configuration that simultaneously brings all disciplines to the table. However, the anthropology/STS borderlands can only benefit from carefully cultivating *multiple* forms of sustained interdisciplinarity—itself a form of ongoing alterity. As we experiment with new academic configurations, I argue that we need to remain alert to how specific interdisciplinary formations—who's in the room—continue to shape anthropologies, STSs, and their interfaces.

Acknowledgments

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The empirical is everywhere

Casper Bruun Jensen

Recently I saw a Facebook thread, which began with the observation that Lévi-Strauss had recommended 25,000 pages per month as a minimal reading requirement for

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6.   Other examples of interdisciplinary projects that bring together social and natural scientists include: Aarhus University Research on the Anthropocene (Denmark), led by anthropologist Anna Tsing; The Asthma Files, initiated by anthropologists Kim and Mike Fortun (United States), NOW: Living resources and society at the North Water Polynya in the Thule region, led by anthropologist Kirsten Hastrup (Denmark); and Arctic Domus, led by anthropologist David Anderson (Scotland), as well as a number of other projects focusing on race, gender, genetics, and medicine.

the anthropologist. An immediate reply was that this obsession with reading probably accounted for Lévi-Strauss' limited fieldwork. The imputation was clear: his work was too armchair, not sufficiently grounded in ethnographic reality. The discussion did not end there, for it raised questions about whether the library did not, in fact, contain ethnographic material, or, indeed, was not itself an ethnographic site. No agreement was reached but the brief debate made clear that the status of the empirical is up for reconsideration.

Another example. Eduardo Kohn's (2013) *How forests think*, winner of the 2014 Gregory Bateson prize, is premised on the idea that Peircean semiotics offers a general understanding of how forests, and all the animals, plants, and people in it, think. The book exhibits an interesting fusion of Ingoldian and Latourian themes, as it aims to understand the interactional processes of life- and meaning making in the Amazon, involving monkeys and dogs, tapirs and trees. What is also noteworthy is its parcelling of the empirical and the conceptual. For Kohn, the empirical is in the forest, while Peirce is conceptual. The latter is drawn in to explain the former.

In its emphasis on nonhuman activities and thoughts, Kohn's work might be said to exemplify the emergence of one generative interface between STS and anthropology. This interface might become even more interesting if a shared insight from certain parts of these fields was taken more seriously: that the empirical is everywhere. Even in the library.

When anthropologists contrast the library with the real world, as in the Facebook discussion, or find theoretical resources from nineteenth-century New England pragmatism for deciphering the thoughts of forests, they remain within their zones of comfort. And yet, the ideas of Charles Sanders Peirce, as much as the descriptions found in Lévi-Strauss' library, are also empirical. They are outcomes of historical processes, acts and deeds that responded to their own demands. No less valuable for all that, the implication is that no theory is simply a theory (being also empirical) but *also* that no set of concepts or methods can be lifted out of its context to explain another empirical setting (see, for example, Helmreich 2011; Jensen 2014).

Certainly, such redeployment can be successful. That requires scrupulous explicitness as to how it is done, and an equal level of attentiveness to the conceptual and empirical transformation it engenders. Such attention invariably has a relativist component since it makes clear that other conceptual and methodical options are also always available. Forests, for example, might be elicited as thinking and acting differently, if one were to take seriously the various ways in which different scientists make them speak (Swanson forthcoming, Walford 2013), or the attempts to make the plants themselves conversant with anthropological interests (Myers 2015).

The observation that the empirical is everywhere, and the conceptual likewise, gives a particular spin to considerations of the generative interfaces between STS and anthropology. Destabilizing the relationship between the empirical and the conceptual, and the hierarchies that go with it, produces what, following Foucault, we might call an "ethic of discomfort" (1994: 443–49); discomfiting in particular conventional certainties about what is entailed by description and analysis.

If such discomfort is generative, I think, it is precisely to the extent that it short-circuits generic ways of arguing for, or, more often assuming, the importance of

what we do. For one can then hide behind neither the density of ethnographic facts, largely unchecked by others, nor behind the protective coverage of general theory.

This point is directed as much at contemporary STS as at anthropology. For if anthropologists continue to take a somewhat schizophrenic stance to new concepts (just witness the nonengagement that constitutes most current discussions concerning ontology), then STS, too, seems presently in a state of advanced relaxation, continuing to churn out studies based on the same handful of favored theories.

It can be argued that STS and anthropology can have a generative relation to the extent that they remain in a position of mutual irritation. It would be misguided to argue for better integration. However, we might take inspiration from Elizabeth Grosz's insistence on the importance of retaining an "openness to the new, a willingness or desire to explore the potentialities of the future and to revel in the surprise" (Grosz 1999: 6); an interest which in her case, too, extends to novel reconfigurations of older theories (such as Darwin's). And this willingness and desire may be well served by nudging both STS and anthropology in directions they might initially be disinclined to move. Such as anthropologists learning to take seriously not only the inhabitants of the forest, but also the many scientists that study them. Or such as getting STS scholars into the forest in the first place.

Rather than imagining an interface, presuming the existence of two rather static domains bumping into one another, we can conceive a series of lateral movements (Maurer 2005; Gad and Jensen 2015) and trajectories taken by individuals or groups who collectively shape new interests and are willing to look for conceptual resources and empirical settings in surprising places. The processes thus set in motion might be seen as the unpredictable gift of encounters between STS and anthropology.

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On dealing in fragments

Tess Lea

Casper Bruun Jensen reminds us that the empirical is everywhere: in the library that Lévi-Strauss might strand us in, and when we heed the scientists moving through the forests. The forests are with us too, in the air that we breathe and the reshaped plant material we hold in our hands as books, in the carbon that fuels our systems of communication, transport, trade, and exchange. We are carbon creatures trading in the dwindling remains of a carbon economy after all. This is the kind of connectivity that those who have caught the anthropology/STS wave exhilarate in; but, as Jensen notes, there are disciplinary bindings that still restrict the exchange. (The inherent suspicion within anthropology to new theory, and what he calls the *advanced relaxation* of STS—a brilliant symptoms capture.) I would add to these challenges the need to transcend traditional norms of scholarship and the citational indexes that showcase our erudition: a curse of surnames and northern hemispheric dominations that map onto trade routes and carbon networks too.

My contribution to the present conversation is a response to the clause (and promise) articulated as follows by the conveners, in the invitation for the AAA

roundtable that spurred the present conversation: "*We will also consider the anxieties of partiality in cases when the narrative devices call for coherence and unilateral unfoldings.*"

My own work tries to introduce STS to settler colonial studies and the anthropology of policy using case studies of health, schooling, and infrastructure from regional and remote Australia. In this, I am currently thinking about the significance of David Foster Wallace's unfinished novel, *The pale king* (2011), for my ethnographic practice and writing. The novel was put together by his editor from drafts and notes that were handwritten, typed, or sitting in word processing files. The effect is heightened fragmentation. Because he hanged himself before finishing the manuscript, it is impossible to know if Wallace intended the recomposed narrative structure that was published in his name. Not simply because he is not around to endorse the collation, but because Wallace's customary structural approach is also one which includes abrupt changes in time, narrative point of view, character, site, human to non-human detail, internal to external affect; even chapter, paragraph, and sentence constructions chop and change.

Wallace is interested in the singularity of people's inhabited selves, and simultaneously, the porosity of awareness and experience. Like the recomposed structure of the novel, we shift from the multiple and tangential threads of a character's inner thoughts—never fully complete or temporally coherent—to a shifting awareness of external effects: the mild irritation of sitting next to someone who claws too much of the armrest on a plane; or in the way looking out from a bus window allows us to look though it to a field beyond, and have the stubble of the field remind the protagonist of the stubble of a girlfriend's shaved armpit and onto the drift of that reverie. We can look at the reflections on a window to see the seats and other passengers, or into the passing window of another vehicle at a "gold ponytail and a flash of creamy shoulder"; or, then again, we can observe the window itself, "as in examining the pane's clarity and whether it was clean" (Wallace 2011: 51). And Wallace makes us pay attention to how the bus itself came into being, not as STS would do it, back through a journey of participatory labors and translations, but as policy ethnography should do it (but doesn't): by showing us the interface between technology and regulatory regimes. We learn that the tax collectors are traveling in a vehicle that was recovered by the bureau as part of a tax fraud conviction—it is a repainted ice cream van that tinkles a faint jingle every time it hits a bump or fast curve.

Wallace also seeks to pay mindful or, better, *ethnographic* attention to modes of inhabitation that are unusual novelistic fare: to the mid-ranking personnel of an internal revenue company in the middle of midtown America, to the arcane knowledge they hold of taxation rules and also to their humanness, captured best in non-eventful scenes like a bus trip in that reconfigured ice cream van from an airport to a professional convention, its passenger load of career conscious tax bureaucrats whiling their time in a crazy paving of reverie and present-time interruptions; passing by the profundity of a young girl living in a trailer park with her mentally ill single mother, the teenager strategizing to avoid the clutches of Family Services, a fleeting character that the convention-destined bus whizzes past in a most normal of normal and so usually unremarked nonevent.

Wallace gives us a hyperreal account of life as it is actually played out, never fully known or knowable, even to ourselves, and certainly not to the omniscient narrator.

And he wants us to know that corruption happens not because there are monsters and scandals, which greater scrutiny and exposé will surely out, but rather because things like forms of tax reform—that reverberate into people's lives differentially depending on their social vulnerability—can be hidden in plain sight because the data load about it is insurmountable. This too is how the detail about the slower forms of lifeworld corrosion in Aboriginal Australia is drowned; not through information repression but via floods of information detail, an accretion that cannot be absorbed. More to the point, should such absorption be attempted by the STS-armed anthropologist, it still needs to be converted back into ethnographic genre terms—a simplification that reintroduces coherence and holism in the very giving of "context" and removes the mind-sapping administrative micro-ganglia that, despite their role in reproducing disadvantage, are too detailed to properly represent.

The impossibility of Wallace's hyperreal representational task speaks to the problems facing anthropology as it meets the network orientations of STS and tries to attend to the layered connections that make a given configuration possible. It also speaks to me of the burden of representing inhabited worlds with true attentiveness to new (human/other) voices and modes of dwelling, including the differentiated affordances that see these different modes whither or endure (beyond our old analytical crutches of race, class, poverty, gender, super-and subordinate power). A limitation of STS and policy anthropology alike is the demand that we return plot coherence to the fragmentary nature of our insights: the resort to key terms (ANT, actor/actant, governmentality, etc.) is an expected means of doing so. But what if we deny the faux omniscience that these conventions of analysis seduce us into? Is it possible to show not only partial connections but the inherent partiality of our analysis and of the selves we are representing?

Annemarie Mol's *The body multiple* (2002) was one such attempt. (Remember how her bicycle and coffee machines are actors in her attempt to show different bodies existing in the one body?) She had to confront the aesthetic of academic texts by splitting hers into halves: a descriptive ethnography and an exegesis that points to its own conundrums. Mol didn't solve the problem Wallace was confronting but her work directly articulates (to) it. This, to me, is the unmet task of the STS/anthropology interface, the challenge of moving beyond genre conventions in the method, theorizing, and writing of our inquiries, to interrupt the closure that neatly stitched ethnographies falsely promise. For when we (re)present coherence we deny fragmented realities, and in so doing, ignore the way governing hierarchies are recharged when we misleadingly affirm the idea of correction through ethnographic exposure and evaluation, rather than conveying the coursing of power through the most banal and neglected moments.

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Doing differences together

Mario Blaser

My own personal interface between STS and anthropology grew out of a particular problem concerning my work among Yshiro in Paraguayan Chaco: my Yshiro

friends' analysis and understanding of processes affecting them (and me) differed from the analysis and understandings I had of those processes. To put it bluntly, processes such as the progressive destruction of the forest that I understood and explained as being part of capitalist expansion were understood by my friends as a failure to sustain proper relations with powerful other-than-humans. Neither were their terms reducible to mine, nor mine to theirs. And the fact that our terms were not reducible to each other had important consequences regarding how we could relate to each other and what we could do together about these processes that, at first sight, seemed to be the same, but were not exactly so.

Part of the problem we confronted was that my Yshiro friends and I also differed on how we understood our differences. We each could tell in our own terms how we differed from each other: for me it had to do with different cultural perspectives on what was taking place, for them I was blinded to the relationality that sustains the forest. So, here we were telling difference on our own separately, or to put it in Helen Verran's terms, we were not doing difference together. More recently, I have come to realize that this is at the core of what I find generative in the anthropology/STS interface: a possible way to first register difference and then to strive toward doing it together. How does this interface do so?

Anthropology first provided a conceptual scaffold to a certain sensibility I had toward that which differed from myself. Of course, for a long time that scaffold worked more as a capture machine that would allow me to domesticate difference and ease the anxiety that comes when difference cannot be made familiar. But then I encountered versions of anthropology that stay with the trouble of difference (I am thinking of people like Eduardo Viveiros de Castro and Marilyn Strathern, among others), and I no longer felt the urgency to resolve that trouble. As a first, very rudimentary step, I could learn to perceive the difference of an "animist ontology" and affirm its equal status as reality to that of a "modern" or "naturalist ontology" (to use Descola's terms). With this awareness, I could better denounce how other ontologies or worlds were being bulldozed. But still, this was very much in my own terms, or that of the discipline, and not with those whose difference I could now appreciate. I was doing difference for academic consumption, without a bite, or at best with a crooked bite.

I grew up and have worked mostly in Latin America, and I think that has something to do with my concerns that we do not imagine the academy as an isolated ivory tower. In practice, the ivory tower has tendrils that stretch all around. The problem of how difference is captured or not and its consequences are not, or *not only*, academic musings. In my experience, how sameness and difference is done is a problem that one confronts on the ground and very evidently in controversies and conflicts about "development" and environmental protection. In effect, in many of these situations there seems to be an underlying subtext where one of the parties either says: "You are different from me, you are somehow inferior, and therefore you do not really count," or "do not play your difference card, that is romanticism, you are just the same as me, so what is good for me is good for you." In short, difference is either made irrelevant or turned into a hierarchy.

This is where some versions of STS have given me the resources to imagine and articulate the idea of how differences can be done differently; as worldings—ontologies or worlds-in-the-making, through practices. Or to put it otherwise, they

gave me a way to conceive differences as ongoing and emergent divergences. Once difference is set in this terrain, the importance of labels like animism, modern ontology, and the like quickly evaporate as one attends to the worlding that is enabled by practices that receive such labels, but are never quite encompassed by them (see also Paige West, this essay). What matters then are the kinds of worldings being worlded; naming these worldings is nothing but a linguistic crutch and should not be taken as anything else.

Since it is the kinds of worldings that are being worlded that really matter to me, I can then turn to my key concern: what kinds of differences come along with certain worldings? I am concerned with differences being done as hierarchies or being done away. The anthropology/STS interface helps me to imagine a possible protection against this possibility: it proposes doing differences together. Of course, this is a protection without guarantees. Worlding in some ways may preclude other worldings, no matter how committed one might be to coexistence. And yet, that is also only a possibility and not the only one.

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Gimi worldings

Paige West

Gimi speaking peoples live in the rural mountains of the Eastern Highlands of Papua New Guinea (PNG). I have been spending time with Gimi since 1997, visiting every year for some months and having spent very long stretches of time in the Gimi-world in 1997/1998, 2001, 2004, and 2007. Gimi understandings of their own subjectivity is that it is attained through transactive relationships between living people, mutual recognition between people and other species, and exchanges between living people, ancestors, and others (both other creatures and other nonhuman agents). For Gimi, everything that "is" and that ever will be is the physical incarnation of their ancestors' life force. Gimi believe that people are made up of flesh, which is made by their social relations and transactions with the living, and *auna*, which is made by their social relations and transactions with the dead. *Auna* can be thought of as the force that animates a living person. When a person dies, their *auna* leaves their body and migrates to the forest. Once there, the *auna* slowly turns into *kore* ("ghost," "spirit," "ancestor," and "wild") and lodges in plants, animals, streams, mountains, birds, and other bits of what we call forests. The life force of a person becomes the forest, with the "wild" parts of the forest becoming filled with and "animated by" the *kore* of deceased Gimi. Once the *auna* goes to the forests and begins to infuse itself into wildlife, it becomes part of not only the forest but also the never-ending cycle of Gimi existence. The *auna* was merely the form that *kore* took while the person was living, but it always was, and always will be, the *kore* that animates the forests. A tree kangaroo, a mushroom, a pandanas tree. . . . Any forest element is the momentary manifestation of this never-ending cycle. And there is profound indeterminacy in this. That *auna* that animates that creature could have, in the *kore* form, become anything, anyone, anyplace. It could have been reinfused into the never-ending cycle of exchange in endless configurations.

Importantly, for what follows, Gimi sorcerers can cast their *auna* out of their body to bring harm to others and if they come upon something with the residue of a living person's *auna* on it—a scrap of uneaten food, saliva, hair—they can use that *auna* to perform devastating magic.

Rick's dilemma

In July I went to visit Gimi friends who live at Beabaitai. When I arrived, the hamlet was almost totally deserted. My long-time collaborator and the patriarch of the hamlet, Soko, had been accused of sorcery and his family had been cast out of the area. Soko has been accused of sorcery numerous times previously. He has been exonerated in all of the cases, but he is always under suspicion when someone with whom he or his family have had a dispute of any kind falls ill or dies. I have had hundreds of conversations about sorcery with Soko and his wife Maiva and his sons. In particular, his son Rick and I have discussed sorcery and the nature of sorcery accusations extensively, and Soko and I have discussed the relationship between sorcery and *auna/kore* extensively.

In fact, I might claim that together we have articulated the Gimi philosophical propositions about the relationships between *auna, kore*, ancestors, and the ability that some beings have to merge with other beings—sometimes harming them and sometimes not—without making a material connection to them. I might also go as far as to claim that we have brought these philosophical propositions into being because, while Soko was well versed in a certain set of propositions about what is called "sorcery," people, and death, he had not ever tried to articulate them until I started asking him about them. He had lived them. He had felt them. He had worried about them. He had, as a younger man, carried out ritual practice to affect them. He had encouraged his children and his wife to avoid certain things because of them. Yet he had never articulated them through language and discussion. I might also claim that our articulations are of a network of elements that are material, nonmaterial, semiotic, and ideological. (Here I use articulate to mean both "speak" and to mean "form certain joints or elements together.")

In early November, Rick called me at my office in New York. I called him back, and he asked me for $1,000. During our July conversation, I had asked him what I could do to help with his father's situation. He told me that there was nothing to be done—that the men accusing his father needed $1,000 in compensation, but that he (Rick) thought that was "nonsensical." However, by November, he was beginning to worry that his elderly parents were wasting away while living away from their hamlet. He told me that his mother looked "empty, like the grease has gone from her" and that his father seemed "broken" and "old." He attributed this to eating food from others' lands and plants from others' gardens and from being away from the place where the sediments of family *auna* and *kore* lodged and lurked and enlivened. Yet Rick also told me that the sorcery claim was still "stupid," indexing repeatedly that he does not believe in "sorcery."

Here is the issue: During our philosophical articulations concerning the ability that some beings have to merge with other beings, Rick came to the conclusion that the philosophical propositions on which sorcery claims rest (that beings can merge with other beings and cause material harm to them) are not philosophical

propositions that he feels underpin what "is" in the world. Prior to our ethnographic/philosophical work, he did feel that they were the sediment below, or foundation of, his philosophical take on life, but now he does not. It was through the ethnographic engagement that he came to be what some would call "less competently" Gimi. I would not call it this. I would call it a new process of worlding emerging for and with Rick—one that is no less Gimi than another but that is articulated through his engagement with ethnographic practice.

My dilemma

On a Tuesday in October at 3:00 AM my husband woke me up. He said, "K, you were crying in your sleep. Are you okay?" There staring at him, I was still in the world of my dream; a dream worlding that could not possibly be mine. I was in a men's house, with low ceilings and the smell of a cooking fire, holding the feathers of a cassowary as I watched a blind man sew a bunch of them onto a woven band with a bone needle. His milky eyes focused on me and not his work. As I stared at my husband, I knew where I had been: with Soko's grandfather learning to sew a headpiece for initiation.

But where was I, *really*? Had my unconscious mind created a fulfillment of an impossible wish (to have lived in the Gimi world prior to the Colonial)? Was there an unconscious symbolism connected to patrilines given my own family history (dead father and grandfathers from a very young age)? Did I create Soko's world given all that I have read about his place and his history, or was it connected to my reading of emerging literatures in ANT and STS? Or was I, ever-so-briefly, merged with Soko as he remembered his youth?

A few weeks later, sitting in our departmental lounge at work, we were discussing that moment in *Witchcraft, oracles and magic among the Azande* (1976) where E. E. Evans-Pritchard sees the light moving across the village courtyard at night and muses over its origin; a classic moment of indeterminacy in the ethnographic cannon. As is the case with anthropologists, everyone had an interpretation or explanation. In a moment of uncharacteristic unguardedness around my colleagues, I told the story of my dream. There was silence and then everyone had an interpretation or explanation, none of which were that I had had Soko's dream. And yet that is mine. After living in the Gimi world for so long, I am, at times, less competently an American anthropologist—less able to explain and understand clearly in a way that forecloses networks and worldings that give us pause.

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Comment on Mario Blaser and Paige West

Casper Bruun Jensen

Mario Blaser and Paige West's commentaries seem strongly resonant, both thematically and in terms of the anthropological proclivities they make visible. Both are anthropologists who have come to appreciate specific STS ideas as congenial to their projects, and as such they are exemplars of generative interfaces. One important resonance is in the emphasis on material-semiotics; on forms of analysis

neither classically materialist nor symbolic but refiguring that very dichotomy. That connects with another shared insight: that nature and cultures are not given analytical categories but categorizing devices that emerged out of a particular European history, and which must therefore be questioned, examined, relativized, or perhaps altogether discarded. Of course this is not an insight exclusive to STS for it is also integral to anthropological efforts to provincialize the West.

The classical anthropological route to this goal is emphasizing indigenous analysis, a core dimension of the ontological turn. But the emphasis varies: West describes a situation of mutual transformation due to repeated interaction, whereas Blaser speaks to the difficulties of translation, and even the differences in making sense of the differences. That is, of course, a paraphrase of Viveiros de Castro's (2004) idea of controlled equivocation, who alongside Marilyn Strathern (e.g., 1988) is a key figure behind the generative interfaces that link STS and anthropology today (see also Atsuro Morita, this essay). When Blaser mentions ongoing, emergent divergences, and West of material-semiotics, another lineage is evoked: that of Donna Haraway (e.g., 1997) and Bruno Latour (e.g., 1993). Interestingly, one point where these series *converge* at the present moment is precisely around the issue of world-making and ontology.

Both West and Blaser are concerned about hierarchizing differences, and thus ontologies, and how they can be treated symmetrically. This is absolutely right to my mind. The only trouble I might have is that among anthropologists, that insistence occasionally tips over into its opposite. Thus development workers, tourists, scientists, and businessmen become naïve reductionists, foils against indigenous people who are nonreductive specialists in relation making. In such cases, dualism is fought with new dualism. One thing I find particularly generative about the symmetry of the ontological turn is that everyone is treated with an equal sense of seriousness—and an equal sense of humor.

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Beyond laughter: Nordic interventions

Marianne E. Lien and Gro B. Ween

We shall argue that a postcolonial anthropological practice calls for a shift not only in studies of the ethnographic *other* but also in studies of the ethnographic *self*. The first shift has, in many ways, taken place already, with a critical and more reflexive approach to fieldwork in regions that were shaped through colonial encounters, and in some cases still are. Many anthropologists have contributed, through ethnographic work that maps the conditions and consequences of colonization—past and present—in their work both with the colonized and with the colonizers (see e.g., Lea 2008; Verran 2002). Less attention has been given to studies of what is often roughly gathered under the label "anthropology at home." In our work in Norway we try to do both, as we work in regions and with people that, like ourselves, find themselves on both sides of such divides.

Norway is at once a social democratic welfare state, owner of the world's largest sovereign oil fund, and a nation-state with its own colonial history. Since the decline

of the Viking era, Norway was in a union with Denmark for four hundred years, and mostly defined as a Danish province. At the end of the Napoleonic war in 1814, Denmark was forced to cede Norway to Sweden. This marked the beginning of Norwegian sovereignty and independence, but also a tightening of colonial forms of national governance, especially in relation to the indigenous Sami populations. Unlike so called "settler nations," Norwegian colonial relations unfolded within shifting patterns of ethnic and linguistic relations of coexistence, with no particular historical moment of conquer. Consequently, Norway's postcolonial moves diverge from more dominant (post)colonial narratives from, for example, Australia, South Africa, and the Americas.

Norwegian anthropology has been a stronghold for reflexive engagement concerning "anthropology at home." Marianne Gullestad, whose *Kitchen-table society* (1984) is an early example, drew attention to how certain places, like Norway, suffer from what she calls "a double marginality in relation to the neo-colonial anthropological constructions of the anthropologically interesting as well as in relation to past and present imperial power" (2008: 2). According to Gullestad, Scandinavia is an example of a region that in conventional anthropological contexts is "neither a 'metropolis' nor an 'interesting field' but something which resides uncomfortably in between, hence on the social science map it is 'thus special, but also not special enough'" (2008: 2). We find her comment useful, but would like to add that this is also to the advantage of ethnographers in Scandinavia and elsewhere. The double marginality of Norway as a fieldsite invites us to straddle multiple divides, and reminds us that we too simultaneously inhabit positions of center and periphery, colonizer and colonized. To make this double marignality analytically productive, we need not only overcome the division between anthropology "at home" and "abroad," as Gullestad insists, but to cultivate an "anthropology at home" that is sensitive to neo-, post-, or decolonial relations. In our efforts to do so, we have found the interfaces of STS and anthropology particularly fruitful.

Taking salmon seriously

We agree with Heather Swanson (this essay) when she points out that "taking seriously" should not be restricted to the non-Western Other, but extended to all sorts of things around us (see also Candea 2011). In our work, we attend to categories of indigeneity, ownership, landscape, but also entities that are thoroughly naturalized, such as salmon. We find that STS has offered precise tools to reinspect the familiar, and to take seemingly self-evident entities such as salmon seriously as ethnographic objects. Inspired by John Law, Michel Callon, Donna Haraway, Helen Verran, and Bruno Latour, our analyses gesture toward a more symmetrical approach to nature and society than is commonly practiced in anthropology, as well as a more even-handed distribution of agency between the human and the nonhuman realms. Our analytical engagement with STS soon became the topic of major controversy in Norwegian anthropology; it was read by some as an attribution of intentionality to the nonhuman as well, and for a while it seemed to unsettle our local credibility as anthropologists worth taking seriously. But at the same time, it also opened other avenues for collaboration, such as with biologists and historians. Most importantly, our engagements with STS sharpened our awareness of the generative potential inherent in friction, both inside and outside of the discipline.

For several years, salmon in Norway was just salmon. Caught in the river, or caught at sea, it was still basically the same fish. Then came the salmon farms, industrial expansion, a new export commodity, aquaculture conferences and biological indications of shifting river ecologies (Lien and Law 2011; Ween 2012). Wild salmon was distinguished from the farmed. We decided to explore these practices and their relations, and with John Law and Kristin Asdal through the project "Newcomers to the farm; Atlantic salmon between the wild and the industrial." Gro Ween embarked on studies of the "wild," while Marianne Lien, John Law, and Kristin Asdal stayed with the "farmed."

But what did we actually study? It is tempting to assume that we know our topic from the start: farmed salmon and salmon farmers, or wild salmon and Sami salmon fishermen, or even the "great salmon controversy." These are the factish realities of salmon figuring in public discourse (Latour 2010). But facts are fragile, temporary, and local agreements. If we are to take "anthropology at home" seriously, we need to recognize that no matter how familiar they may appear, *our topic or units of study can never really be known beforehand*. They are generated through fieldwork, step by step, at home as well as abroad. Hence they are *emergent in ongoing field practices.*

Our ancestors in anthropology knew this. Cultivating an open mind, founding figures such as Malinowski prepared themselves for surprises, which were an expected and cherished component of ethnographic encounters in distant and exotic fields. Ethnographers of the contemporary need to be reminded that "taking seriously" can be rather unsettling as it often challenges conventional boundaries and common sense notions of the real. But how do we go about it?

Queering the familiar

A common anthropological strategy has been to draw on comparison: with terms like *mana, hau, totem,* and *potlatch,* familiar practices of anthropologists' own lives could be brought into view, and briefly unsettled. Seeing ourselves through the mirror set up by the exotic other can trigger laughter—it is a bit like when you walk through a hall of mirrors and see yourself differently for a moment, while knowing that in reality, outside the hall of mirrors, you are still the same. The comparison is contained. Comparisons unsettle, but just a little.

Amazement is part of the ethnographic endeavor no matter where you are. The idea that one could "gather everything," coupled with the impossibility of doing so, gave "license to curiosity," and to following up paths that could not have been imagined beforehand (Strathern 1999: 8). But as Marilyn Strathern also notes, some kinds of special knowledge are more likely to dazzle than others (1999: 8). She writes: "Special knowledge which inheres, say, in theological and scientific expertise has never held quite the place in anthropological knowledge as knowledge that appears esoteric because they require revealing" such as ceremonial and myth. (Strathern 1999: 10–11). One of the challenges of anthropology at home relates to "special knowledge" that is not particularly esoteric. A common response for anthropologists is to *make it so*; to trace rumors, gaps, and inconsistencies to show that what appears firm and certain is in fact not so firm after all. A careful ethnographic investigation then reveals that the emperor has no clothes, as it were. Often, such analyses trigger laughter too. Laughter is, after all, a powerful tool in marking the boundaries of what should—and should not—be taken seriously.

Guided by STS, our strategy is slightly different. As we strive to take seriously that which is all around us, we draw on the version of STS referred to as material semiotics (Law 2008). Its slow methods and meticulous attention to mundane practices have allowed us to better capture subtle moments of intra-agency when that which is emergent acquires a particular form, and to notice the dynamic and emergent constitution of "worlds" through practices in which other-than-human agents are endowed with the potential to act. This involves a relentless questioning of pieces of evidence that are mobilized to confirm taken-for-granted realities; not because they are *infected* by the social, but because a postcolonial approach requires that we call our own realities into question: Nothing can really be known beforehand. Instead of asking what salmon is, we ask how it is enacted. Instead of asking how nature perceived, we ask is how nature is "done" (see Abram and Lien 2011; Ween 2012; Law and Lien 2013; Lien 2015).

What emerges then is not one world but many, partially overlapping, sometimes coherent and sometimes not (Law 2015). The multiplicity thus assembled does not claim privileged access to incommensurable difference, nor does it require ethnographic amazement to generate analyses. Instead, it works meticulously on the mundane practicalities of the day-to-day business of living and working, or what Gad, Jensen, and Winthereik (2015 forthcoming) refer to as "practical ontology." Precisely because it neither presupposes nor reproduces a radically different metaphysics, practical ontology is very helpful for crafting what we propose as a "postcolonial anthropology at home." It helps us to notice ethnographically how familiar notions, or concepts, are constantly stabilized and reaffirmed in practice (see also F. Hastrup 2011). In this way, it also helps us to question what appears self-evidently real.

Unlike Atsuro Morita, who struggles to teach the Western nature/culture premise to Japanese students but finds the reception of STS remarkably easy (see Morita, this essay), our experience is nearly the opposite. Inhabiting the Norwegian STS/anthropology interface, we have found ourselves in the middle of an academic crossfire, in which what seems to be at stake often concerns those cultural entities that our analyses tend to unsettle: nature and salmon, wild and farmed, politics and indigeneity, humans and nonhumans, biology and anthropology are but a few examples. But this, in turn, paves the way for novel interventions. Let us end with an example of another generative potential along the anthropology/STS interface.

Naïve interventions

Norwegian rivers are spawning grounds for a third of the world's remaining Atlantic salmon population. Norway is also the leading producer of farmed Atlantic salmon worldwide. Their future coexistence is uncertain and the division between industry advocates and conservationists is deep and fraught with mutual misrecognition. But their conflict is still framed within a naturalist ontology in which nature can be known and mapped through scientific practices, in a way that marginalizes other ways of knowing, and other worldings that take place among, for example, circumpolar northerners and Sami fishermen. The Norwegian landscape thus emerges as the site of naturalism, a naturalism enacted from different positions of authority, knowledge or political standing—all both indigenous and nonindigenous, involving interferences, frictions, fixations, transgressions, sites, and spaces that resist capture.

In an effort to "do differences together" (see Blaser, this essay; cf. Verran 2002), we staged an intervention that we called: "Can we live together?" ("*Kan vi leve sammen*?"). The title alludes to the salmon of course, but also to their people, their patrons, and their respective camps, established truths, and practices of inquiry. Our intervention was a small contribution toward dialogue. We wanted to engage Norwegian salmon from different perspectives while bringing the attention to the many different modes and sites of human salmon encounters that involve multiple ways of knowing salmon, or enacting salmon as real. The event was also an occasion to observe what happens when different salmon worldings can no longer be engaged separately. We invited natural scientists from different camps, on opposite sides of a wild/farmed salmon controversy in Norway, as well as their respective funding agencies, bureaucratic institutions (ministry representatives), commercial salmon farmers, and several environmental NGOs. We asked them to come together for a day to compare notes, and to share, not only their respective research findings, but also *how their knowledge about salmon had come about*, all to highlight the practices and materialities of generative salmon encounters.

We did not need to rehearse an abstract debate on actor-network theory and material semiotics; all we did was create amicable conditions for doing differences together. What emerged from the encounter was a mutual awareness of the factish dimension in salmon stories: that each fact was a view from somewhere, and that one fact did not necessarily refute another.[7]

Inspired by STS, we framed the salmon field as a slippery, elusive entity that resists capture (Stengers 2008; Law and Lien 2013). We shall not pretend that our intervention had a great impact. Disciplinary bindings still restricted the exchange, and simply being in the same room did obviously not make hierarchical formations go away. But by putting biologists working for wild salmon in the same room with Sami fishermen, anglers, biologists who work for the farmed salmon, bureaucrats, environmentalists, and people from the fish farming industry (some extremists, some pragmatists, some with a firm belief in numbers, or innovation, or genetic purity), we created a moment where it was not possible to enact one issue at the time (Marres 2009; Asdal 2011). Being "in the same room" made it difficult to completely ignore the questions that might be asked by other people present and to frame one's position accordingly. In this way, paying attention to "who's in the room" can shape anthropology, biology, STS, and their respective interfaces (cf. Swanson, this essay).

"*Can we live together*" became an intervention in a broader discursive field. Perhaps such moments of tension hold potential for engaging new kinds of worldings in which nature could become less fixed, more fluid and perhaps even less reliable as a conceptual foundation, even in Norway, and even for anthropologists. Perhaps it holds a possibility for thinking differently about ethnographic labor, as it forces

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7.   Interdisciplinary conversations between anthroplogists and biologists are not uncommon in Norway; Fredrik Barth, Thomas Hylland Eriksen, Gunnar Haaland, and Arne Kalland are but a few examples of scholars whose engagement with biology is reflected in their work. Our intervention was slightly different in that we focused on difference within biology and in policy, rather than across the disciplines as such.

confrontations over existing hierarchies of differences, and attention to how exactly it is that we know what we claim to know.

Engaging at the edge of anthropology and STS has sharpened our awareness in relation to our situated knowledge as anthropologists. We have been reminded of the slippery, shifting social relations involved in ethnographic labor. This experience emerges in part through working in Norway, where we find ourselves in shifting and unstable positions, or even simultaneously inhabiting positions of center and periphery, colonizer and colonized.

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Interface as ethnographic site that is also method

Marisol de la Cadena

A brief personal-conceptual opening: for a long while I have described my work as located at the interface between STS and non-STS, by which I meant "non-scientific practices," and most specifically Andean indigenous world-making practices. I must have gone to STS for inspiration due to a coincidence in timing: I became aware of this field at the time when I was starting my fieldwork with two Quechua-speaking individuals that became intellectual inspiration for my readings of STS. The latter called my attention to objects and practices of knowledge powerful enough to make the world that we live in; my Quechua friends presented me with world-making practices that included what our world calls objects—or species—but which were *not such* through the worlding practices that made them be. What they presented me with were other-than-human persons, *not things*. The first one to call powerfully my attention was a mountain, which is not only such—it is also an earth-being, Ausangate.

Elsewhere (de la Cadena 2010, 2014) I have explained how Ausangate became a controversial political actor in an environmental struggle, and then was strategically recalled from the public sphere by the same indigenous politicians with whom it had incurred in it. Their reason was that in the eyes of state representatives an earth-being was a superstitious belief and that its presence weakened their own legitimacy as politicians. This event can be explained through what Latour has called the Modern Constitution: nature is not allowed in politics. But Ausangate, as earth-being, would also disrupt the Parliament of Things that Latour proposed as an antidote to the Modern Constitution and a movement towards the construction of a common world with due process. Participants in the Parliament are Things and their spokespeople (i.e., nonhumans with humans), and although Ausangate could find its spokespeople, it is not a thing. Ausangate and its spokespeople would not become a matter of concern of the Parliament of Things, it would disrupt the

(nonhuman with human) homogeneity of this institution that continues to be premised on the Modern Constitution—even as it disrupts it.

The critique of the Modern Constitution undoes the divide between nature and culture, and it may even offer comments on the way that division was exported to organize hierarchies in the world. It also replaces the idea of universal nature with the notion of nonhumans, a significant move that offers the possibility to shake usual habits of thought, including beyond the anthropology of science and technology. For example, after learning from the Achuar in Ecuador, Philippe Descola proposed the possibility of four different ways in which collectives of humans and nonhumans are formed according to distinct ways in which they distribute and recognize differences and similarities among themselves. All this has some purchase as a decolonial endeavor—all-encompassing "nature" as distinct from "humanity" disappears, as humans and nonhumans share humanity in manifold ways. However, even Descola's effort maintains nature and humanity as pivotal conceptual backdrops that organize the more than four hundred pages of *Beyond nature and culture* (2013). A very immediate example: the last line of the first comment on the back-cover of the book in question reads, "Drawing on ethnographic examples from around the world and theoretical understandings from cognitive science, structural analysis, and phenomenology, he formulates a sophisticated new framework, the 'four ontologies'—animism, totemism, naturalism, and analogism—to account for all the ways *humans* relate themselves to *nature*" (ibid.: back cover, emphasis added). Having read the book from the ontological position that Descola calls naturalism (the world of the Modern Constitution, even if revisited by the reading of *Beyond nature and culture*), the description on the back cover extends the human to "the four ontologies" and assimilates nonhumans to nature—and opens the possibility for their translation as things. The latter may not happen, of course. But if such translation happens, we are back to the possibility of homogeneity that the Parliament of Things requires for its politics, and the nonhumans that the Achuar enact may not be invited for they may not be "nonhumans as things." In fact, in Quechua the word for "thing" is the Spanish *cosa*—pronounced in Quechua as *kusa,* a word to which attaching the philosophical intentions of thing/*Ding*/*res* would entail an epistemic translation of the kind I want to slow down. If we look for an equivalent to the western concept of *thing* in Quechua we might not necessarily find a word; instead we may find a silent notion/practice emerging from other words or practices; this may imply that, in Quechua, what *we* think as "thing" is not on its own, and thus it is not necessarily a subject or object, or an entity in a relation that requires such distinction (and the units that inhabit it). The analytical grammar that this entity—let's call it "the silent thing"—proposes is other to the subject/object relation (although of course it can also be with it—at an interface as well). When I undertook fieldwork, this was one of the very early reasons why I did not use the concept of nonhumans for earth-beings—and it seems to me that not using the notion of humans for people is pertinent, too. I have tried a short and still rudimentary explanation in a brief and recent intervention (de la Cadena 2014).

Avoiding this translation requires provincializing what Descola calls "naturalism" (and Chakrabarty may call "Europe") as the place for perspective; by provincializing I mean both *considering* and *altering* the requirements that naturalism (or Europe) poses to the practice of analytical thought. Toward this purpose,

and perhaps to alter the required grammar of a subject and an object, we may use "interface" as a site for ethnographic work from where nature *and* humanity may emerge as such, but also with one another and *not only*. We can even think of ethnography itself as an interface, and then also as an intralinked series of interfaces. In one of these interfaces, ethnography emerges as a composition of empirical and theoretical conversations seamlessly worked together in such a way that it becomes impossible to pull them apart anymore: they have been conceptualized. And this work has been achieved as the practice of thought emerges at another interface: the one between fieldwork and writing, which itself emerges at the interface among worlds. The concepts that so emerge may be "one-world world" concepts, but *not only*.

   "One-world world" is John Law's (2015) phrase to consider the ways in which the multiple realities enacted by heterogeneous practices are enacted as one by other practices. "Not only" is a refrain that I learned when working with my Quechua friend, Mariano Turpo. He slowed my thought down as he proposed me to consider what was *not only* what it was. The object through which I learned this was an archive: a group of documents he had collected through many years to record the struggle he waged against an abusive landowner who also owned the lives of *runkuna*, the local indigenous people. The archive was *not only* what it was: a historical object and an object of history. What it *not only* was, I had to figure out, for it was *not* to my eyes, or to any of my senses until it was: an entity along with the people and other-than-people that were with it. But this took time to emerge, and grasping it required a permanent interface—without it, it becomes an archive again—which it is, of course. One more point: when I say that ethnographic concepts are one-world concepts and not only, I/we do not *know* what else they are until they emerge at the interface with what we (anthropologists) own as concepts. Obviously, ethnographic concepts straddle ethnographic practices; the worlds that those practices enact—and also in that simple sense they are not only one-world concepts. But what those concepts may enact is multiple, without completion, and it takes ethnographic work to figure out the emergence of *not only* what already is—the entity that was not only the archive that it was when I met it. Already, and not only. So this is an offering at the interface that ethnography is.

   The interface also breaks the binary habits of bounding and counting that the West owes to Euclid. The division of the one-world world into the spheres of humanity and nature performed by the Modern Constitution was aligned with the analytical relation that required subjects distinct from objects; in turn, these practices were sustained by the mathematical grammar of units. As nature AND humanity the conjunction separates each sphere and offers them as units. Years ago, working to undo the analytical conditioning that units perform, Donna Haraway (1991) offered us the cyborg to think humanmachine. Working in a different setting, Marilyn Strathern (1988) proposed the notion of dividuals to think from relational forms than do not require units. Cyborgs and dividuals displace the either/or that thinking through units proposes, and open up the possibility of "not only"—both what is, and something else, yet to emerge in practice. On the contrary, it seems to me, Descola's four ontologies carry the baggage of units and either/or possibilities. The thought experiment he proposes requires a "hypothetical subject" distributing "differences and similarities" using the tools this subject has at hand which,

Descola proposes, are the experiences of this subject's "interiority and his physicality." In an article that may work as an abridged version of the book, he writes:

> When confronted with an as yet unspecified *alter,* whether human *or* nonhuman, our hypothetical *subject* can surmise *either* that this *object* possesses elements of physicality *and* interiority *analogous* to his, and this I call totemism; *or* that this object's interiority *and* physicality are *entirely distinct* from his own, and this I call analogism; *or* that the object has a *similar* interiority *and* a *different* physicality, and this I call animism: *or* that the object is *devoid of* interiority but possesses a *similar kind* of physicality, and this I call naturalism. These formulae define four types of ontologies, that is of systems of distribution of properties among existing objects in the world, that in turn provide anchoring points for sociocosmic forms of aggregation and conceptions of self *and* non-self." (Descola 2006: 139, emphasis added except for the first itacilized term)

This exercise disrupts the modern division of human and nature and renders it one among four possibilities of distributing similarities and differences. Yet it continues to be underpinned by the mathematical grammar of units and the ensuing either/or classificatory habit. It pluralizes ontologies, which remain as units, even as the author concedes, they can also mix among themselves. The mixture though does not do away with the unitizing logic that articulated the thought exercise from where both the entities and the plural—four—ontologies composed by them emerged.

Interfaces can provide alter uses for AND—that of fusing what it separates: making the interface nature *and* humanity active, making an event of/at the interface. Human *and* nonhuman, where not only one *or* the other, but the cyborg or the dividual emerge *as interface*, and may or may not make the either/or (units) disappear. The interface is a tool to provincialize what Descola has called naturalism, and not only the ontological divisions it created, but also the spheres it created and the habits of thoughts through which it achieved this. The practice of *provincializing* has been suggested, of course, by Dispesh Chakrabarty (2000); I am borrowing his idea. Nature and humanity are necessary (the one-world world makes itself with these spheres of life) and *not only,* therefore nature and humanity are also inadequate, and I would say insufficient, to grasp that which might exceed it. Following my friends' practices, mountains are also earth-beings—neither one is *only* what it is. Similarly, and thinking from the Amazon, the human that becomes jaguar, the shaman, is *not only* human. And accordingly, the jaguar is *not only* (such)—in brackets because I want to suspend the sentence, alter the grammar that requires the sentence to come to an ending, and instead perform an open-endedness that might make *not only* a possibility of being—along with being a jaguar. "Not only" creates possibilities for interfaces and for emergences at these interfaces that can force habits of thoughts that are alter-native, they are alter to our native thought practices. Working at the interface proposes fractality as practice and breaks the usual anthropological "exo-endo'"(Candea 2011), and makes them part of each other as a habit of thinking the one-world world, which therefore, would also be *not only.*

This is consequential. It has the capacity to slow down the momentum of practices that seem to promise total recall of, for example, the human and propose

multispecies analytics. At the interface, an idea may emerge about multispecies that, while necessary, it may also be inadequate, and we may need to add multiworlds to it—multispecies at the interface of worlds. At this interface, speciesism might not only reflect a hierarchy among species, but also a hierarchy among worlds, where the world that does itself with species, practices the anthropology of those worlds that are not with species. Practicing ethnography at the interface may help think beyond World Anthropologies—a phrase that emphasizes the plurality of anthropology, but maintains the one-world idea—and add to it the idea of Anthropologies of Worlds—a practice that enables conversations as translations across worlds revealing equivocations—without fixing them.

And yet, anthropologies of worlds would not cancel the hierarchies, of course—the world that defines anthropology may still have the lead, perhaps even if working to undermine it. Indeed, this ending is not the happy end of liberalism or socialism—not in the era named after the anthropos, the human, the species that destroys the same life it created, and still reigns supreme. The question that would ensue—is a non-anthropocentric anthropology possible?—is precisely the topic (and title) of Margaret Wiener's intervention that follows in this collection.

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Toward a nonanthropocentric pluriversal anthropology?

Margaret Wiener

Two US scholarly traditions shaped my generative interface with STS. Temperamentally attracted to difference, and to anthropology's decolonizing potential to make the familiar strange, I trained in one stream of an already complexly and multiply-interfaced US anthropology, with its four fields, imperial reach, and fractious divisions between political economy and semiotics: the stream that took culture and relativism as key tenets. Difference also motivated my choice of field site—Bali, where two anthropological ancestors famous for analytics of cultural difference preceded me. Thus, my formation as an anthropologist took place mainly within a long tradition of US anthropology. At the same time, as an undergraduate, I had studied philosophy. In US colleges and universities, this means analytic philosophy, particularly epistemology, epitomized by capital-S Science. Given these two foundational experiences, I was drawn to social studies of knowledge (SSK) spokespeople, such as David Bloor whose view of symmetry took shape in a generative interface with anthropologists such as Evans-Pritchard, a key interlocutor for tackling relativism and rationality in relation to scientific and other knowledges. But it was not until I heard Latour lecture on factishes, discovered why we had never been modern, and started to read STS that I began to appreciate the conceptual and political limitations of culture and relativism—as well as epistemology. Latour (1993, 2005, 2010) was the starter drug; soon I was addicted, branching out to Mol (2002), Haraway (1989, 1997, 2008), Stengers (2005, 2011a), Despret (2004, 2008), and previously unknown ancestors such as Whitehead (1966, 1978) to feed my growing habit.

What did and does STS offer to an anthropologist committed to difference and the transformative possibilities such anthropology presents, to someone who does

not "co-labor" (De La Cadena 2015) with scientists or investigate scientific practices beyond those of anthropology itself (so far), and has not (again, so far) worked at home? What does it offer to someone who has for some time been gnawing away at magic, a classic anthropological object, constituted by and helping to constitute in turn the modern Great Divides (nature versus culture, the West versus the Rest), and deeply embedded in disciplinary history in a variety of dialogic relations to Science? How has STS formed a highly generative interface with such anthropology, one that leads me increasingly to ask if it is possible to do an anthropology that is not only pluriversal but also nonanthropocentric?

STS added something that played no part in SSK: the "T." The T stood for technology, for things that can gather and build worlds—and with them, practices. STS alerted me (and presumably others) to an ever-growing list of nonhumans, more-than-humans, other-than-humans. Durkheim had taught anthropologists to treat nonhumans as fodder for human projection and imagination in the service of fabricating and maintaining society; Marx, as material on which human activity could work to satisfy historically produced desires. Fundamentally, things were passive: we made them, we determined their meaning and use, and those who thought otherwise marked themselves as others-not-wise for this fundamental mistake, and could find themselves charged with fetishism. As for gods and spirits, these were ways of thinking social life.

A slightly different version of this extended to nonhuman life, to plants and animals. At their most basic, these were sources of food, shelter, and clothing, but also very good to think. Nature was a field for culture to propagate. Talk about anthropocentricism! It was always about us, even if sometimes subtly, profoundly, and in ways that actually surprised.

The change STS brought initially inhered in the T as stuff. For STS, this was stuff of a specific kind: machinery, especially the newest that marked "advancement," a host of particle accelerators, microscopes, ventilators, subways, electrical grids, and fiber optic cables, though it also embraced older technologies, such as paper or levers. But that T raised two problems or questions or issues: call them Thing One and Thing Two, those disruptors of domestic order in Dr. Seuss' *The cat in the hat*. First, at least in actor-network theory versions of STS, they highlighted the fact that nonhumans always accompany humans: social life is thing-ly life. It became impossible to ignore the fact that effective human activity invariably requires *some* kind of stuff, however minimal—and often it is far from minimal, one of the main reasons for the disastrous effects that some humans are having on the planet. But second, the things of STS proved astoundingly lively, much livelier than when we thought we had to be modern.

That is what initially captured the attention of someone well-schooled in theories of culture. In Bali, I had encountered entities—in particular, heirloom daggers—that pushed me to the limits of that toolkit. These keris had names, and tales abounded of the extraordinary things that some famous ones belonging to royal dynasties had done—and theoretically still could do. (Taken as loot during colonial conquest, they now reside in museums, where they have been rendered inactive, a process I discuss elsewhere [Wiener 2007].) After living in Bali, familiar scholarly statements about such objects—that Indonesians believed them to have magical powers, and to be animated by spirits—began to dissatisfy me. Not only because

no one had ever indicated to me anything of the sort, but also because the language of belief—or of culture—implied by contrast knowledge, and nature. Relativism revealed itseslf as "the curse of tolerance" (Stengers 2011b). Conceptualizing keris as actors, emerging from practices that made them such, was liberating; it acknowledged their dynamism without importing a metaphysics that opposed matter to mind and spirit(s).

But nonhumans clearly embraced far more than things. Collectives of humans and nonhumans include beings translated too easily through ontologically-laden terms such as gods and spirits (who, as Chakrabarty [2000] reminds us, have always accompanied humans, just as Latour [1993] demonstrated that things have). And STS literatures both within and beyond anthropology have increasingly turned to collectives built with a variety of living species.

Admitting nonhumans provided a pivot away from the epistemological/Kantian focus embedded in key ancestral texts that shaped influential anthropological traditions to ontologies. Culture and relativism were compatible with epistemology, even highly critical epistemology. But STS forced nonhumans into attention as participants in what Haraway calls *worlding*. In that respect, the interface opened anthropology to worlds, as opposed to cultures and societies, to the lively manifold beings that share this planet. It prompted consideration of both novel emergences and beings already existing, but not fully seen or heard.

Most recently, the anthropology/STS interface has led me to wonder about the *anthropos* in anthropology. I agree strongly with de la Cadena (this forum) when she speaks of the need to provincialize both nature and humanity as we continue the task of decolonizing knowledge and making adequate worlds for diverse beings to share. Colonial knowledge seeks to construct one world, a uni-verse. No wonder that our institutions for training scholars are uni-versities! But how might our knowledge practices yield *pluri*verses, that would include not only people (remembering here that anthropology was the pioneer in attending to those people most marginalized by the universes of colonial world-making), but other beings as well? What might a *pluriversity* look like? This question marks a particularly generative interface between anthropology and STS.

Anthropology has classically been all about others, and, despite reflexivity, still largely is (see also Lien and Ween, this forum). By contrast, STS has mainly been about "us," since who else is associated with science and technology if not the moderns who carry out anthropological inquiries, wherever they may live? The most productive marriage of these two forms of inquiry, for me, would be about both simultaneously: both *us* (whoever we are) and *them* (whoever they are, depending on the position from which one writes and thinks).

But are these others only humans? Could anthropology be other than anthropocentric? What would a nonanthropocentric anthropology look like, in the Anthropocene? All those *anthropos* seem an exercise in human narcissism!

As noted, some of us no longer are content leaving the vast domain of "nature," to either natural scientists (including the biological wing of US anthropology) or to STS traditions or anthropologies of science that attend mainly to the scientists and not to the nonhumans that engage them. Increasingly, anthropologists are writing about insects, plants, animals, minerals, and microbes. This makes eminent sense. The "culture" of American anthropology not only multiplied "worldviews" rather

than worlds, but drew a sharp line between humans and animals, especially those closest to us: among others, nonhuman primates, our nearest evolutionary kin; the domesticated animals with whom we live or work; the species sacrificed to human welfare in laboratories or factory farms. Indeed, culture—sometimes society, and almost invariably language—*was* that boundary. If social science treated lively landscapes or objects as projections through which humans made societies or expressed who they were, to attribute human qualities to animals was to be guilty of the grievous sin of anthropomorphism.

As much as I deeply appreciate Latour's replacement of talk of subjects and objects (cornerstones of the weighty tradition of European philosophy) with the infralanguage of human and nonhuman, and as much as anthropologists rework the flat negation of "non" with "other-than" or "more-than," humans retain the central place in these formulations. There is the human . . . and then everything else, for everyone. And even if Latour made some of us recognize that there are no societies not bound together with nonhumans (and from Chakrabarty, that gods and spirits accompany us), humans remain the focus of concern and the measure of significance.

Is it possible to decenter humans? And still be involved in a project rooted in anthropology?

Anthropocentrism can be imagined on the model of ethno- or Eurocentrism. The latter has several elements. One is to consider the values and categories of one group of humans inherently universal, to take the commonsense categories of a particularly situated form of life as the implicit basis for making sense of others. Or one form of life may be treated as having singular value, and therefore as the model to which all others should conform. It also implies superiority, a superiority that may justify interventions both benevolent and malevolent, including treating others as resources to enhance the comfort and welfare of the superior. It is not hard to see parallels to this in our relations to nonhuman life.

Like ethnocentrism, to shed anthropocentrism completely may prove impossible. Working to find its contours in taken-for-granted habits and reflexes, however, would be a worthy project, a highly pertinent generative interface between anthropology and STS.

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Comments on Marisol de la Cadena and Margaret Wiener

Atsuro Morita

The interventions by Marisol de la Cadena and Margaret Wiener follow the gradual provincialization of the Western mode of knowing and constituting the world. And both encourage us to turn to an anthropology of multiple worlds. The plurality of worlds is key to both.

Now, I am just wondering whether we can go one step further—or sideways—by provincializing the notion of plural worlds itself. I am asking this because most Asian languages do not have the singular/plural noun distinction. So, although I can certainly distinguish one and many, for a native speaker of Japanese the relation

between the singular and the plural might be different than for Euro-Americans. So, I would say that there might possibly be different ways to conceptualize the singular and the multiple. Maybe the European one that seems to be deeply embedded in its linguistic structure is unique and different from other ways of seeing and enacting singularity and plurality.

However, I think that we cannot know the answer to this question beforehand, because it is the ongoing encounter and the interface between possibly different ontologies that makes the difference visible. Because, in a state of equivocation, it is unclear what the points of difference are. And, of course, each party in the encounter is also in motion. Knowledge world-making practices are also moving.

So I would like to ask again: Is it possible to take these different senses of the singular and the plural seriously? If it is possible to think plurality itself differently, might it also be possible to think the relation between worlds, or even what a world may be, differently? The answer to these questions seems to rest on how we deal with these elusive and generative interfaces between STS and anthropology, themselves different traditions of situated knowledge practices—in both empirical and conceptual terms—that are in constant motion.

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Anthropologie et les "STS": Interfaces génératrices et pluri-localisation

Résumé : Dans cet essai rédigé collectivement, neuf anthropologues travaillant dans différentes régions du monde participent à une conversation sur les interfaces entre l'anthropologie et les STS (science and technology studies). A travers cette conversation, de multiples interfaces se distinguent, caractérisées par une hétérogénéité liée à la langue, au lieu et aux arguments qui les font émerger. Les auteurs explorent ces multiples interfaces et les différences d'approche qu'elles révèlent—les interfaces sont en effet les lieux d'arrangements complexes, de pratiques, de sujets et de programmes d'enquête qui se chevauchent et débordent les uns des autres, formant des associations irrégulières dans une conversation qui produit des connections sans suggérer de résolution univoque.

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