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BEING ONE, BEING MULTIPLE

A Future for Anthropological Relations¹

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ABSTRACT

This lecture is prompted directly by the theme, 'The future with/of anthropologies' of the JASCA/IUAES conference, Tokyo May 2014. What might we value about anthropology that we welcome its multiplication (diverse anthropologies), or indeed wish to imagine a future with it? In the spirit of the conference, it seems important to dwell on some of the ways in which anthropologists are always in the company of others, and their discipline in the company of other disciplines. While the plurality may be stimulating, however, it is the relations that count, and specifically the way relations create 'multiple' forms of knowledge. In thinking about the future, then, might its practitioners strive to keep anthropology multiple? If so, just what kind of tool does the general concept of 'relations' provide? The question is interesting at a very simple level: general it might be, the concept also has its own specific history within the English language. Such parochialism is what makes the diverse strands of English-speaking anthropology but one among many 'anthropologies'. Yet despite the limitation of the concept ('relations'), for a long time it has at least been a marker for, or stand-in for, an aspiration on the part of its anthropological users: namely, to see (beyond) their own conventions of knowledge-making. Hence their interest in other people's 'relational' worlds. Is this

¹ Keynote Speech presented at the International Union of Anthropological and Ethnological Sciences (IUAES) Inter-Congress, Tokyo, 15 May, 2014.

aspiration something they might identify as distinctive to their practice of the discipline? Can one even ask what forms relations might take under techniques of knowledge-making that flow from new modes of data management? It would be interesting to ponder on the procedures by which information-making processes are concealed, given that showing the relational steps of such making has been, at least in English, a means by which anthropology has endeavoured to show at once the truth and the contingency of its knowledge. In response to our hosts' outreach to the English-speaking world, this reflection is offered as a small return. The manner in which the convenors of this conference have set out their invitation to think about the future is much appreciated. At the same time I am all too aware I am unlikely to say anything about the future that this distinguished audience does not already know about the present.²

In the anniversary year of the Japanese Society of Social and Cultural Anthropology (JASCA), I cast back to the founding of the British version, the Association of Social Anthropologists (ASA), in 1946, when a sense of a 'new school of social anthropology' was very much in the air (cf. Mills 2008: 61).³ It has been said that 'the closeness of the fraternity was one way in which the highly amorphous subject of anthropology was given some manageable bounds' (Jack Goody, quoted in Mills 2008: 65). It was not the paradigms or models alone that made the subject, but the willingness for dialogue, interchange, and what we would today call networks between practitioners.⁴ Nothing unusual, you might say, for this is a combination people already communicating take for granted, but I see it also as an aspiration of this meeting in Tokyo, at least, where we have not until now been able to make assumptions about communication.

² This is the text of an address given at the invitation of Professor Junji Koizumi and the convenors of the IUAES and JASCA conference held in Tokyo 2014, on the 50th anniversary of the Japanese Society of Social and Cultural Anthropology. It is published here very close to the form in which it was given.

³ The first decennial conference of the ASA in 1963 was convened under the rubric of 'New approaches in social anthropology', a nostalgic recollection for me since I was given special permission to attend as a student. Mills describes how the ASA was created as an association to recognize 'social anthropology', out of the general field of anthropology, as an autonomous and professional field in itself.

⁴ See Gledhill and Fairhead's (2012) citation of Spencer, who 'concedes 'in true British spirit' that if British social anthropology has succeeded in maintaining a distinct identity, as a 'relatively small and coherent group of intellectual practitioners', this is not on the basis of continuity in intellectual or empirical focus or theoretical orientation, or, to put it another way, a matter of 'culture', but a matter of institutions, practices and shared rituals (Spencer 2000: 2–3).

As to the future, I suspect academics divide into those who imagine the future as a road ahead of them, stretching into the distance, and those for whom the future already hides in their surroundings, jumping out to everyone's surprise, where you never know what is going to appear or who is going to walk through the door, or for that matter when you open a door—or slide a partition—what you are going to see outside. The former vision, the road ahead, is more conducive to a narrative, but I have only ever been able to imagine the second kind. This address hopes to open one or two doors⁵.

Multiplicity

We have been asked to think about a future with anthropology in it, and a question at once follows: what might we value about anthropology that the future is unimaginable without it? A beginning of an answer lies in our theme: the discipline's multiplicity. Thus, this multi-vocal conference looks forward to future networks that will in turn be multi-faceted, and my cue comes from this. The multiplication of anthropology may be taken in a double sense. In English, 'multiplication' covers both reproduction, as in speaking of a discipline reproducing itself, and diversification, as in the aspiration for diverse anthropologies that will proliferate through different interests. To have a future, then, anthropology must be at once recognizable as itself (as one entity) and able to flourish in numerous and unforeseen circumstances (be multipliable).

This is, after all, a matter of life. Nothing that has life stays the same; it is always at some stage or moment of being. That's obvious. Less obvious, perhaps, is that what we perceive as 'one' or as 'multiple' will depend among other things on the relations we draw between such moments. Depictions of two life processes make the point. Think on the one hand of beings propagated through 'transplantation' and on the other of their being transformed through 'metamorphosis'.

Transplanting literally involves removing a plant from one location to another. So a plant may have dual locations, as when rice seedlings are transferred from one to several paddy fields, indeed require both locations to grow properly.

⁵ I mean to evoke surprise, not an essential exteriority—one may turn round to find the surprise already in the room. In any case, if the partitions were paper covered, they would allow light to filter between inside and outside.





Figure 1. Transplanting rice

(Left, (Hiroshima Soryo, Japan; 2005. Taken from Flickr Commons); right, 'Rice planting', from *Famous Scenes in Japan*, Takagi Photo Co., Kobe, 1919)

In English, the term 'transplant' also has a long history with reference to removing people from one place to another. A specific connotation was given it by John Muke, a scholar from the Papua New Guinea Highlands, in an address to an anthropological audience:⁶ he used it to translate a concept crucial to the kinship thinking of the Wahgi people from whom he came. Clan membership is through the father, but one's mother's kin also afford a 'base' or 'root'. From a clan perspective, a sister's child growing up in another clan is, he said, a 'transplant' of material from one's own. Distinct origins are conserved: the maternal clan is a stock with cuttings taken from it (the progeny of women moving in marriage) that are planted in other soil (O'Hanlon & Frankland 1986: 185).

⁶ Muke, an archaeologist by training, studied warfare in Highlands Papua New Guinea and acquired a reputation as an intermediary and peace-negotiator. The address was to a seminar in the Social Anthropology Department, Cambridge University, in 1996, and concerned a legal dispute for which he was preparing an affidavit, published in PNGLR 1997 (see Strathern 2005: ch 5).



Figure 2. Mourners greeting a 'transplant's' maternal kin

(Photo by the author, Highlands New Guinea, 1965. This is not from Wahgi: it is provided for illustrative, not documentary, purposes.)

The relationship endures over the generations: the mourners in the photo regard the deceased clansman from the perspective of his maternal clan. They are readying themselves to greet the deceased's 'root people', who are not yet in sight: having travelled from their own ground, the latter are approaching the ground where the funeral is being held. Note the look-outs standing on the path.







Life cycle of insects and their plants

Figure 4.

Japanese oak, 'Quercus dentate'

(Illuminated copper engraving by Maria Sibylla Merian, published 1705. Taken from Wikipedia. File: Merian-graficsenkenberg_hg.jpg/Creative commons attribution 3.) (Kyoto-gyoen, Kyoto, Japan. Taken from Flickr Commons)

The first picture is by the seventeenth-century German naturalist and artist, Maria S. Merian (Fig. 3), who used the word 'metamorphosis' in the title of her most famous work illustrating the transformations of insects she observed in the Caribbean.⁷ One life-cycle encompassing many forms. Historian Natalie Z. Davis (1995) commented on Merian's inclusive, almost ethnographic, vision. Note how she shows the life stages of the plant as well as of the insect.

At about the same time (1690), the English philosopher John Locke was using the image of an oak tree to argue that variation in form or substance, in 'parcels of matter', does not alter identity: 'an oak growing from a plant to a great tree, and then lopped, is still the same oak' (n.d: ch 27, section 3, 3); that is, by virtue of its continuing life (Fig. 4). We shall be coming back to this.

⁷ Published in 1705. Previously, in contrast with the allegorical or metaphorical messages often conveyed by other artists of the time, her studies of insect and plants in her local environs had already focused upon 'a particular and interconnected process of change ... Above all, her insects and plants were telling a life-story' (Davis 1995: 149; phrases transposed).

These two differently organized processes—'transplantation' pointing to diverse origins and destinations, and 'metamorphosis' as unfolding through diverse forms—are by no means the only modes of multiplication and identity we might wish to imagine for anthropology. But they will serve as a reminder of diversity.

Now, we would not be able to describe the dynamics here, describe in English, that is, without the concept of 'relation'. Without it, the anthropologist would see neither what is multiple nor what is one. Life-cycle transformations can only appear if different forms are connected; the identity of a clan with its land requires the management of kin relations, including the cross-clan kinship of people's sources of growth. 'Relation' itself is of course a very general concept. Indeed, it seems anthropologically inexhaustible, for in social/cultural anthropology at large, uncovering relations between phenomena remains as much a goal of analysis and theorizing as it was in seventeenth-century explorations of new knowledge. In this, anthropology is like countless other disciplines. However, and the qualification is significant, anthropology makes a speciality of being interested in equal measure in relations between persons, interpersonal or institutional, and relations between concepts, epistemic, logical, ideational. In reflecting on the multiple nature of the discipline, as well as its singularity, then, I am going to hold together relations that summon an interpersonal or 'social' dimension and relations that engage concepts and ideas. There is no need to labour the point—it will be more like a background refrain-although at one juncture we shall see that it is of some local interest to users of the English language.

So, if what we value about a future world with anthropology in it includes its multiple character, that is going to be bound up with the work to which anthropologists put the very idea of relations. I reflect on three or four directions open to anthropological knowledge-making, alternating the rubrics of transplantation, metamorphosis, and transplantation, with a conclusion returning to metamorphosis. These rubrics are not mutually exclusive, and are not analytical devices; hopefully they will give some imaginative coherence to how we might reflect on singularity and multiplicity. The reflections will echo one another. Each also finds itself looking out onto an unexpected vista. Whether those are our futures will depend on what jumps into the room once we have opened a few doors this way.

Transplant–1: Dividing and Spreading

The very first committee meeting of the ASA was held in the room of Raymond Firth in London (Mills 2008:64). In front of the meeting was the promise of a flourishing social anthropology separated off from a more inclusive stock, where it

shared growing room with physical-biological anthropology and archaeology.⁸ A transplantation, we might say, in that the embryonic distinctiveness being given to this kind of anthropology needed fresh soil, a new arena within which to expand. That promise did not mean there was no dissension. If most of the significant British figures of the time were there, it was not because they would agree on everything. Far from it!



Figure 5. Transplant–1: Dividing and spreading

I mention the meeting because both the disagreements and the collegiality must have been in Firth's mind when he wrote in 1951 (1961:3), 'Anthropological generalizations about human society are collaborative, not definitive', that is, they are always the work of many hands, and from different vantage points.⁹ Although he could have been speaking about his anthropological colleagues, his observation was addressed to the way in which its 'companion social sciences'—sociology, psychology and certain kinds of history—all shared anthropology's 'general

⁸ This continued to be an institutional accretion in the Royal Anthropological Institute.

⁹ There is an implicit contrast here, I think, between individually conducted fieldwork and generalizations that could only be built up through evidence from many quarters. However, for several years now, fieldworkers have readily acknowledged the multiple inputs into their 'individual' work, too.

field'.¹⁰ It was a reminder that anthropologists are always in the company of others. At the same time, collaboration across disciplines, marked in recent years by self-acknowledged interdisciplinary endeavour, goes hand in hand with divisions of the discipline within. In the same way that a mass of seedlings is divided into separate planting material, 'division'—an internal proliferation into elements such that each generates new growth—is another form of 'multiplication'.

Dividing and spreading, disciplines never stay still. Nonetheless, one may be able to see repetitions in their movements.¹¹ An (anthropological) observer (Lederman 2005: 54–5) of the organization of anthropology in the United States has noted a pronounced relation, a 'family resemblance', between the kinds of divisions that separate the subfields of US anthropology at large—cultural and biological anthropology, archaeology, linguistics—and those that split these subfields within. The fundamental division is between positivist (objectivist) and interpretivist (contextualizing) ways of knowing. Indeed:

Our disagreements about the subfields are part of a rift that is not confined to anthropology, not even to academic discourse. This fault line ... runs through American culture (2005: 50).

In other words, these divisions keep their form across different scales, distinguishing whole disciplinary domains from one another, and indeed academic from other forms of enterprise. What divides the (physical) sciences and (literary) humanities divides elements within the social sciences, within anthropology, and within subfields of anthropology. At every instantiation, the distinctions reproduce positions that coalesce around two sets of contrary values. The effect is that the values are maintained in relation with one another. Mirrored in faculty alignments, intellectual stances also imply social configurations, often experienced by practitioners as intra-departmental or cross-institutional wranglings, conflicts and alliances.

Similar observations have been made of anthropology's companion discipline, sociology. A sociological observer, struck by the pervasiveness of a quantitative/qualitative divide within sociological method (Abbott 2001: 60), noted that what held within was also evinced without, for example, in sociology's relationship with economics. Then again, within what is usually defined as a quantitative community one can find an opposition between both quantitative and qualitative versions, and so on.¹² For this sociologist, such modelling of the

¹⁰ In this post-war period, interdisciplinarity was the new consensus in the USA; British anthropologist were in touch with their US counterparts, cf the Anglo-American ASA Decennial conference of 1963 (note i).

¹¹ A fuller account of what follows is in Strathern 2014.

¹² The opposition mobilizes diverse distinctions that separate qualitative and quantitative modes at large, including the one we have already encountered, interpretivist versus

relations within and between disciplines and subdisciplines reveals a fractal structure. Coining the term 'fractal distinction' (2001: 9), he drew attention to the way a distinction repeats a relational pattern within itself as geometric fractals do.¹³

Rather than the idea of constant fragmentation as disciplines divide, what emerges is the relational character of fractal distinctions, the same relationship repeated over and again, that generates similar structures at multiple 'levels' of organization. In fact, this may be conducive to merging as well, for these replications become entangled with cross-cutting possibilities. I cannot resist the following quotation (2001: 14); the passage could as well be about anthropology, and that is partly the point:

[M]ost of us would say that the distinction of history from sociology reflects the distinction of narrative from causal analysis. But with each discipline the fractal distinction is repeated, producing [both] ... mainstream history versus social science history and ... historical sociology versus mainstream sociology. But social science history is closer to ... mainstream ... sociology than to ... history, and historical sociology [is closer] to ... mainstream ... history than to ... sociology. That is, we cannot assume that the dichotomy of narrativism versus causalism simply produces a linear scale from pure narrativism to pure causalism, because the second-level distinctions produce in this case groups that have moved past each other on the scale.

So these divisions and interactions cannot be encompassed within any simple binarism. Let us return to the observation that it is a relationship being replicated over and again. For here is a little surprise. Insofar as a relationship holds its terms steady, as in the relation between positivism and interpretivism, it can be re-enacted at any number of local sites and still be recognizable (2001: 13). More than that, each re-play of the relation is able to proliferate more local sites. For practitioners, such iterations generate new energy for innovation out of old positions.

I have used the ethnographic present for these observations. But it may be necessary to move some of them into the past tense (cf. Chandler 2009). Over the twentieth century these relational processes supported the institutionalization of disciplines in the university, which in turn re-enacted the paradigm of coexisting

positivist alignments (2001: 60). Repeating a similar relationship (without conflating the concepts, see [Abbott 2001: 61, n1]), but on the qualitative side of the divide, he also brings out a distinction between realism and constructionism.

¹³ He perceives such a structure at work in Kant's contrast between pure and practical reason: 'Kant has first split pure and practical reason and then, under *each* of those headings, has split pure and practical reason once again' (Abbott 2001: 8, original italics). One of Abbott's illuminations was of the intellectual creativity generated by the fractal structuring of ideational positions.

subject areas asserting their differences and similarities. If much of this continues today, it surely does so in a changed environment. What jumps out is something else. We could almost call it that common field to which Firth referred.¹⁴ However, given that it does not depend on disciplines collaborating in one another's corecognition in the same way, it more directly recalls the characterization of 1940s social anthropology as 'amorphous'.

In 2007, three North American sociologists (Camic, Gross & Lamont 2011) brought together an interdisciplinary mélange of scholars to discuss a field that they had identified as social knowledge. Field is not quite right: they refer to the 'vast expanses of the dense forest in which the making of social knowledge occurs' (2011: 1). Their concern was the working practices by which such knowledge is formulated.

At site 'after' site, heterogeneous social knowledge practices occur in tandem, layered upon one another, looping around and through each other, interweaving and branching, sometimes pulling in the same directions, sometimes in contrary directions (2011: 25).

Such practices cannot be circumscribed within traditional disciplinary enclosures, indeed, they 'are constituted (in part) from beyond the social spaces that they directly occupy' (2011: 28). Thought of together, they appear multiplex, polymorphous and porous, an 'intricate spider web ... in which social scientists and humanists, as well as other social researchers and experts, routinely participate as they produce, evaluate, and use social knowledge' (2011: 25). ¹⁵ And such scholars are not just open to disparate currents and heterogeneous contingencies, they are engaged in them too; engagement divides and multiplies their positions further. More reasons to seek fresh ground. Perhaps that is a glimpse of the future. Anthropology is in it, but very much in the company of others 'who may or may not read the relations in the same way'. What, for example, might come to be the 'social' in social knowledge practices?

In reflecting on identities and multiplicities in disciplinary interactions, I have intimated that the process of transplantation captures something of the separating and spreading character of academic knowledge practices in general. Now, if there is nothing new in new ground being constantly occupied, it used to be the case that continuity—and thus identity—was given by the repeated acting

¹⁴ The movement from disciplines to a common field and back again is likely to be a recurrent figure-ground reversal. Chandler (2009: 730–1) reminds us of Geertz's essay on the blurring of disciplinary genres and the 'vast, almost continuous field' of interpretation he saw in their stead.

¹⁵ There is no general term for those with such interests, although at once point the authors refer to 'practice scholars'. (The seminar participants were drawn largely from the social sciences.)

out of key disputes and disagreements. These were crucial relations, intellectual and interpersonal. In their 'fraternity', the disputatious social anthropologists of 1946 were bound by agreement about what was worth disputing theoretically. What we do not know is 'what kind of kinship among practitioners' will give identity to newly emerging fields, when fields look like forests, and when social specification as yet lacking form is literally amorphous. A challenge perhaps. Or, through a crack in the door, perhaps an opportunity to let go of even thinking that this might be important.

Metamorphosis–1: Changing Forms, Changing Contexts

Perhaps it is an already-present effect of a field collaborative by default that individual concepts—'ethnography' is one—are freed from their disciplinary moorings; so, too, individual theorists, who may hold the anthropologist's attention from almost any quarter. They do not even have to be 'social' theorists. There are countless scholars whom anthropologists read these days regardless of disciplinary background, or who seemingly morph into honorary anthropologists by this route. Above, I quoted the historian Davis; another prominent figure is the philosopher Annemarie Mol,¹⁶ who has introduced us to an interesting form of the multiple (Mol 2002): multiplicity through the metamorphosis of contexts.

My purpose in beginning with an interdisciplinary milieu—entailing divisions beyond as well as within social/cultural anthropology—was to leave behind any simple notion of the plural. Plurality implies the piling together of (singular) units, that is, of entities amenable to addition (resulting in a singular sum or whole) or subtraction. The practice of anthropology, however, does not grow simply through the accretion or dissolution of different interests. As we have seen, interests are developed in relation to one another and thereby create multiple, that is, divisible, forms of knowledge. When academics get into arguments over positivist and interpretivist paradigms, the components are relations rather than units. In life, growth does not mean more of the same; indeed, we should be on guard when it appears to.

For her part, Mol shows us how people 'imagine' a world of pluralities, even though that is not a very good description of it. (She proposes to re-describe it.) Medical science, which provides her examples, endorses the assumption that the physical world is continuous and the same for everyone.¹⁷ If so, the only shortfall

¹⁶ Admittedly the work cited here, what she calls an exercise in empirical philosophy, is in debate with social science and draws on an 'ethnographic' investigation (Mol 2002: x, 7).

¹⁷ Although she says she is not talking about 'Western medicine' (2002: 50). If the area of her concern is hospitals, that is an area at once larger and smaller than any one definitive context.

lies in knowledge of it, and diverse experiences are interpreted as a matter of diverse perspectives on it. Mol analyses the ontology of this perspectivalism (her term, 2002: 10 [not perspectivism, as in Amerindian perspectivism]), showing how the seemingly plural forms of objects in the world are produced by constantly shifting contexts of knowledge. Take, for example, the contexts in which a disease becomes evident through the instruments and methods by which its effects are recorded. A pluralist assumption would be that each such context is part of a larger whole, so all the perspectives brought to bear on a problem (different diagnoses, for instance) relate to one thing (a patient's health). Hence the surprise of people creating a singular world out of the plurally diverse ones of their behaviour and experience. However dense the forest of social-knowledge making, when it comes to people's interpretations we realize just how the 'one world' ('one nature' [Vivieros de Castro 1998]) of European (and North American) experience is apparently held together. But then her story is not a 'social' one in any conventional sense.¹⁸

Apprehending one world with many 'perspectives' on it, then, people's unitary vision works in conjunction with what they take to be a natural pluralism. As philosopher and ethnographer commenting on this world, Mol re-describes their state of being in other terms: the forms of their endeavours are created by overlapping and intersecting fields of practices that have a character she calls multiple. She thus denies any primordial status to the plurality and individuation of units. In developing a critique of (pluralist) perspectivalism, Mol in effect offers a narrative of the swiftly changing sites or contexts [my term] of events that hold entities captive-'no entity can innocently stay ... unaltered between various sites', not least because in their interactions at any one site entities 'depend on one another' (Mol 2002: 121). So what would a 'multiplist', rather than pluralist, assumption about contexts be? Her concept of 'multiple' implies forms of practices conjoined and disjunct from one another in overlapping, relationally complex¹⁹ ways that cannot be added up. Focusing on sites or contexts draws attention to how the environs ('world') of entities are summoned alongside their coming into existence. With this connotation, contexts effect a constant metamorphosis of people's sense and awareness, and we could say-although this is at a tangent to Mol's concernsit is from this process that they (people) derive their own sense of 'one world'.

¹⁸ She refers to it as a 'story about practices. About events' (2002: 53). Concerning events, Davis (1995: 154) makes the same observation of Merian's pictorial narratives.

¹⁹ 'Objects in practice have complex relations', by contrast with objects taken to be at the centre of perspectives that create the world as an assemblage of them (2002: 149). Practices that do not add up may well interfere with one another.



Figure 6. Metamorphosis-1: Changing forms, changing context

In talking of context, however, I have already turned Mol's account in an anthropological direction. Contexts render the world infinitely divisible (multiple), as when a team of medical experts, divided by their diverse disciplines, finds a patient's condition intelligible to one colleague rather than another (cf. Latimer 2004). Now unlike 'ethnography', of course, 'context' was never a term to which anthropology could lay particular claim. When the historian Davis drew attention to the ethnographic sensibilities of the seventeenth-century naturalist-artist whose work we have already met (Fig. 3), she noted that rather than wrenching the specimens from 'context' Merian's vision was 'ecological' (Davis's terms 1995: 151,167): Merian depicted individual caterpillars or frogs in the phases of their life-cycle, alongside their surroundings and the food they ate. Any particular being was caught up in the life of others; the caterpillar's leafy support was more than just background. 'Multiplicity' is the overview an artist might have of each form within its context, divisible manifestations of growth, as one context changes into another.

Simultaneously, Davis recounts, Merian depended on local knowledge. Seekers after knowledge are in the company of others whether they say so or not. It was known that naturalists went to distant places to make observations, as Merian did to the Caribbean in 1699, but the sugar planters of the Dutch colony in Suriname could not understand her preoccupation. 'People ridiculed me for seeking anything other than sugar', said Merian (1995: 173). But then, resident Africans and Amerindians assisted her more than the European planters, and Merian drew on the knowledge of both slaves and Arawak and Carib 'Indians'. Interestingly, the reader knows this was the case. Naturalists in Europe rarely mentioned the servants who assisted them with their research, whereas from Merian we hear of the conversations she had. Here, in the conversational tone Merian adopted, lay a distinctiveness of form: 'Merian's scientific style and conversational exchange encouraged ethnographic writing indifferent to the civilized/savage boundary' (1995: 190), a marked divergence from the burgeoning travel literature of the time.

Yet something of a surprise too, perhaps. The interpersonal context of Merian's work included her acknowledgement of other sources of observation than her own, although to conclude that she was deliberately giving her account a relational texture introduces a present-day sensibility. A converse anachronism to present-day ears is her reference to slaves and servants who assisted her work. At that time, in Europe, servants were regarded as extensions of the persons of their masters and mistresses (Steedman 2009), so the multiple hands we might today perceive in such products as the beautiful drawings Merian did from life were all part of 'one hand', Merian's. Her servants were at once hers, and her. These notions of property were, we might say with Mol's arguments in mind, another mode in which a sense of one-ness is created. What jumps out, however, is the contrast Merian herself made between the planters' preoccupations with the organization of sugar production and the context of her work with creatures in whose lives she was totally absorbed.

For in her contrast we see a radical juxtaposition of living forms. Or rather, 'if' we perceive a radical juxtaposition then in that comparative relation we also perceive possibilities for critique. Such a move is hardly unique to anthropology, although, in its practices of comparison, anthropology has a special interest in the comparison of relations. Like Mol's, its comparative juxtapositions create the conditions for a performative or critical multiplicity. It is something that anthropologists might want to take into the future.

A recent example is the contrast between 'scalability' and 'nonscalability' (Tsing 2012). The author, an anthropologist, suggests that scalability came into being with European colonial plantations between the fifteenth and seventeenth centuries, and not least with the sugar plantations of the Caribbean. The factories of the (then) future were to model themselves on such plantations. Scalability already exists as a term; the author's neologism is 'nonscalability'—it is time, she

says, to have a theory of it. With this suggestion for turning the concept into a relational one, scalability acquires a new resonance. So what is it?

Scalability points to processes, typical of industrial production, that allow infinite expansion in the size of activities without transforming their object or product. Scalability, Tsing says, is not an ordinary feature of nature: 'ordinarily, things that expand change as they take on new materials and relationships ... [so why] have people called expansion "growth" as if it were a biological process?' (2012: 506, sentences transposed). The success of sugar production lay in planters experimenting with types of cane and soil in order to facilitate the interchangeability of forms. The varieties of sugarcane propagated were genetic isolates without interspecies ties, that is, with 'no history of either companion species or disease relations' (2012: 511); the 'same' crop could be grown anywhere suitable. 'One must create *terra nullius*, nature without entangling claims' (2012: 513, original italics). If this meant rendering the landscape uniform for a uniform crop, it also meant erasing the land's social features, the claims, demons, ownerships (cf. Harvey & Knox 2010) of those already there. This encompassed the cane workers.

As cane workers in the New World, enslaved Africans had great advantage from the growers' perspective: slaves had no local social relations and thus no easy place to run. Like the cane itself, they had been transplanted; and now they were isolated' (Tsing 2012: 512).

Here, transplantation challenges continuity of identity: ingenious, indeed, this new era of expansion 'without' transformation, of growth 'without' metamorphosis. It reinforced, if it did not lay the grounds for, the pluralist ideas, the many as an amassing of units, in the cosmology that Mol re-describes. To take a critical view might be to ask whether the world of scalable plantation-like enterprises is available to similar re-description. 'Can it be re-described?' A door blown open?—A glimpse into a world that discourages or inhibits metamorphosis.

What jumps out here is what, to twenty-first-century readers, jumps out of Merian's seventeenth-century comment: tools for criticism, and the need thereof. In the very division between scalability and nonscalability, Tsing does attempt a redescription. Given the widespread acceptance of the advantages of the scalable and she makes it clear that both the scalable and nonscalable may have good outcomes—the critical thrust of her argument is to point to nonscalable things that we might wish to value, as for example arise under conditions of ecological complexity.²⁰ To theorize nonscalability is to de-naturalize the inevitability of the scalable. Such theorization could not proceed without relational finesse. Scaling, and its desirability, is not to be taken for granted: positing nonscalability 'allows scales to arise from the relationships that inform particular projects, scenes, or events' (2012: 509).

Transplant–2: Continuing Identity

Under this second rubric of transplantation, I note a second side to the concept, one as much about the soil as the plant. When in the Papua New Guinea Highlands a sister's child is called someone's 'transplant', ²¹ the idiom points to something of that person's clan material that has taken root elsewhere. Significantly, for the clan in / on whose soil the child now grows, fed by its crops, its external origins (also its 'roots') elsewhere are never forgotten. The positive value put on relations outside the clan is reflected in the ceremonial exchanges of wealth that follow a lifetime of payments from birth to death. The maternal kin about to appear on the funeral ground (Fig. 7) will eventually be given wealth in recognition of their lifelong support. The same logic is there in the emphasis that women in some parts²² place on always getting fresh planting material (vines) for their sweet potato gardens. Women aim to circulate planting material between different sites, and even different locations altogether. In their view, to replant vines in the soil in which they grew would impede both fertility and variety.

In the language of plant and soil, we can read the social compulsion of exogamy. Maintaining the diversification of origin—for sweet potatoes, for people—also requires continuity of recognition, for the specificity or nonscalability of their origins is not obliterated but explicitly cherished. Thus, the identity of the sister's child depends on the sister's continuing identity in relation to her natal clan;

²⁰ If not nonscalability itself, we shall need tools like it, not least for its critical crosscontextual edge (like Merian's crossing of the classificatory divide between plant and animal kingdoms in her depictions of individual species).

²¹ 'Transplant' or 'cutting' translates an indigenous term used in Wahgi by a mother's brother for his sister's child, as discussed in O'Hanlon and Frankland (1986: 185). Muke deployed it with reference to its overtones of spiritual welfare in a court case concerning the claims of maternal kin with respect to a clan that had let their 'sister's child' die: the 'transplant [of the maternal kin] was terminated and as root people, they felt that, [the man's clan] had violated their divine relationship' (PNGLR 1997: 132).

 $^{^{22}}$ The example in mind comes from Gawigl in the Papua New Guinea Highlands (Schneider 2010).

from the sister's child's perspective, continuing relations with its mother's people, with whom it has 'roots', is essential to its own flourishing.



Figure 7. Transplant–2: Continuing identity

Very different are the protocols of organ transplantation in North America. For many years—things have changed somewhat now—much was done to put to one side the social origins of bodily organs; as healthy and usable body parts, their origins were re-ascribed to the technologies and practices of professional expertise. Another instance of scalability.²³ I have to mention that Margaret Lock (2002) has, of course, described how different, in the past, have been the concerns in Japan.²⁴ So it is necessary to be specific. In Canada and the United States, it was possible for the material of the organ and its medical suitability to be considered separately

²³ Transformed into de-contextualized objects, human organs are shorn of their previous social history and what counts as far as the medical transfer is concerned is their quality – how well they have been looked after (Lock 2002: 49).

²⁴ She quotes Yonemoto (1985), who states that 'in contrast to 'Americans who think of organs as replaceable parts, ... the Japanese tend to find in every part of a deceased's person's body a fragment of that person's mind and spirit' (Lock 2009: 226). That does not mean that bodily integrity is not an issue (see 2009: 334, and people's revulsion at the thought of a stranger's organ within them).

from whatever other connotations it may have carried. In deceased donations, for instance, it was regarded as crucial to the (physical and mental) health of the patient that he or she did not dwell on the dead donor.

The surprise here, or perhaps no surprise to the anthropologist, has been the way in which the relatives of organ donors and recipients have sometimes reacted to the anonymity of transplant protocols. For some, the keeping of social origins matters a great deal. What was always true in non-anonymous, living donations between relatives or friends could be extended to embrace strangers in deceased donations (e.g. Kaufman 2009; Sharp 2006). In other words, the material of the bodily organ was also thought of as connective tissue. A metamorphosis of contexts. Imagining part of their relative continuing to live in another person has led to instances where deceased donors' kinsfolk have tried to identify the recipient, while families of both donors and recipients have been reported as feeling that the bond between them was enough to create social connections.

To tell the story this way implies that these families were restoring something of the relational context that had been excised in the process of organ extraction. At the same time, one supposes that these new bonds were regarded as substitutes for the 'real thing'. What we do know is that this is not a kinship system in which the transplant carries positive value in terms of social diversification. For that, one would need to consider what has been happening to ideas about genetic diversity in reproductive technology and the relational consequences of gamete donation and embryo transfer. Yet even here, the potential of multiple parentage is less likely to be regarded as of value in itself than as a complexity to be endured when conventional procreation is not possible. So the ways in which kin are put back into the picture underline the very different logic with which a Papua New Guinean scholar explains to an English-speaking audience that a sister's child is like a transplant. But what kind of comparison is this? Shouldn't we be comparing hospital procedures, say, in Papua New Guinea? I'll come back to hospitals in a moment. For sure, we cannot turn to horticulture or birth procedures in North America because we already know that we are not going to find the same nexus of soils, plants, and the growth of clanspersons. Nonetheless, bringing these modes of 'transplant' into relation with each other is a prompt to us, as anthropologists, to look further at what we think we do know.

Consider again the remedial implication that the North American organtransplant families were restoring something of a relational context. There is a suggestive analogy with the place of kinship studies in today's anthropology at large—a new burgeoning of discussions that finds kinship in all kinds of locations, taken root and grown, one might say, almost unseen. Topics once shorn of any kinship dimension have seemingly recovered it. But what is it that anthropologists are these days recovering as 'kinship'—what are they re-describing for the discipline?

Suppose, instead of the families and relatives of organ donors and recipients making up a social deficit, donors and recipients invent families and relatives for themselves. Just such a situation has been ethnographically described for living organ donations in Israel (Jacob 2012). Now, all kinds of bureaucratic conventions and international protocols accompany the planting of medical techniques in new places. This is where hospitals and questions about comparison come back in. An observation of medical practices in a Papua New Guinean hospital could not avoid taking into account any devolution of or innovation upon the very phenomena, medical and bureaucratic, that produce international perceptions of what a healthy transplant is.²⁵ The surprise question that comes from the Israeli ethnography is whether these medical and bureaucratic assumptions would produce the same kind of kinship in Papua New Guinea, too. This clearly needs elaboration.

Inventing families and relatives? The inventors were Israelis who had access to kidney transplant agencies prepared to match potential recipients with donors; the agency thus acted as an intermediary—between donors and recipients and between them and the system. The ethnographic study was undertaken just before the law was changed to make various forms of payment for organs illegal.²⁶ At that time, the existing consensus was that organ 'donations' were really only acceptable on grounds of altruism. To certify a donation required considerable legal and bureaucratic oversight. Now, one way for a matched pair to qualify as ethically suitable was to claim that their case fell into the category of living donations between kin. After all, between kin lay 'the naturalness of family duty and altruism' (2012: 83). Once biological compatibility was established, the potential donor and recipient would present their case to various committees, including an account of how they were related. As a match-making intermediary described it, 'We sit together, we talk, we try to find a story, make a connection. ... We invent a story, a cousin, an uncle, etc. ... from nothing' (2012: 69). Kinship before the transplant,

²⁵ That is not to say, of course, that re-readings of bureaucratic assumptions about the organization of care would not be interesting in themselves. There is much to be learnt about how medical technologies fare under conditions that render them specific. But I also take Mol's (2002: 50) complementary caution that the stories she is telling could to some extent be told about many other hospitals, and about 'hospitals anywhere else wherever there are hospitals'.

²⁶ The new Israeli law of 2008 prohibited trafficking in organs and offered donors compensation by the state. Nonetheless an earlier directive had already tried to curb trafficking, and 'enforce altruism in organ transplants' (Jacob 2012: 37), and part of the job of the committee system was to determine that the proposed donation was not being done for money or some other benefit.

rather than after: although it was built up from some of the realities of the pair's lives, this kind of relationship was not expected to endure beyond their obtaining the requisite paperwork.

While such tactics might well fail, they fed into the fact that for transplant regulators 'kinship connections are often thought ... to produce a natural propensity to donate and receive organs' (2012: 81). The ethnographer emphasizes that what distinguished the Israeli situation from others she knew about was deployment of a bureaucratic discourse on kinship. Pre-transplant kinship was not just the creation of the pair and their intermediaries seeking a match but of the whole administrative process that controlled transplant procedures.²⁷

[K]inship can evolve as a tool: for example, if the concept of kin may be played with tactically by the welfare state and its bureaucrats as a tool to allocate (or not) benefits, it can surely be maneuvered, in response, by people who wish to adapt to the state's definitions of kinship. Kinship can thus have a distinct bureaucratic and legal existence (2012: 6).

Transplant relatedness emerges from this analysis as a set of scripts privileged by an administrative apparatus. At the same time, the ethnographer insists, the kinship relation is not a substitute for the 'real thing' (2012: 65).²⁸ It evinces and enacts kinship values. 'What gets to be performed before the committee', she writes (2102: 81), 'is essentially the relation itself'.²⁹ Israeli transplant relatedness has its own character precisely as a contingent kinship that, in her words, exists on an ad hoc, instrumentalized basis for a specific purpose with limited temporality.

Kinship brought into being by the organ transplant process is not such a far cry from what in UK medicine has come to be called 'translational research', that is, research translatable into clinical applications and back again,³⁰ although this

²⁷ As a product, we may remark, of 'social knowledge'. As Jacob says (2012: 5), 'transplants cannot exist by themselves, as "just" the displacement and replacement of material substance ... [but] are always to be accompanied by a creative intercession of sorts'.
²⁸ She contrasts it both with traditional understandings of 'fictive kinship' and with 'strategic naturalizing' in the United States, where the reference points are notions of biological relatedness.

²⁹ '[I]t is unconvincing to see the pragmatic associations formed in the name of kinship as something other than kinship: since [people] claim kinship and impersonate it, their effects are indeed kinship effects and this kinship is at least as significant as blood or love relations in the understanding of transplantations' (Jacob 2012: 82).

³⁰ See also Franklin (2013: 55) on embryos as tools: the 'global movement of embryos is part of a contemporary dialectic of biotranslation through which new cellular models generate new applications, and vice versa. [K]inships of [relations between] scientific technique form a crucial part of the process of embryo transfer ... [being] motivated by an ethos of translation—of working up these substances to make them newly (re)productive, that is, translational'.

definition can be criticized for its linear simple-mindedness (see Latimer 2013: 47).³¹ The point is that a procedure or an idea is perceived to have moved from one operational base to another. While the model might have come from management practices such as iterative feedback, given the Israeli situation, one wonders about the form of ideas that travel this way. Just as potential organ donors and recipients set out to connect themselves through kinship, when researchers set out to make their findings translational, will *their* ideas not also be ad hoc, instrumentalized, for a specific purpose and with limited temporality? And 'translational scientists' would never say it was not the real thing—on the contrary they might pat themselves on the back for producing outcomes with demonstrable impact. Here, we suddenly do see a comparison with the transplanted sister's child who must forever acknowledge its (in its case, nonscalable) origins.

In the United Kingdom, research councils and higher education policy in general place huge and positive value on ideas perceived to have moved between different operational bases. You cannot show the impact of something without showing it has been transplanted from one location to another ('knowledge transfer' in the vernacular). Distinctiveness of origin is conserved; as it always was in assertions of intellectual property, these days conserving such distinctiveness has new purposes. Judgements about research performance place extra value on its impact beyond the discipline where it 'first' emerged and grew. Knowledge must be transplanted to have impact. Academics from the UK are especially sensitive here—colleagues are deeply embroiled in a national assessment exercise at this very moment in 2014—but I can speak for more than the UK when we see what is coming through the door.

You might think I have chosen a circuitous route, from Papua New Guinea transplants to organ donation to bureaucratic protocols. But consider: what jumps out is a question about research process, about what in the future will be opened up and what will be concealed. The current UK obsession with demonstrating impact is a local turn of the screw on contemporary data-evaluation protocols found everywhere. Demonstrating impact compels scholars to provide a paper trail of the stages by which an idea is rendered into one that can embed itself in other soil. They have to show how it arrived at its impact point. A bureaucratization of immutable mobiles! It is not that relations cease to be important, but that the relations picked out *as steps to knowledge-making* are, in terms of the paper trail, the ones that make

³¹ Latimer has in mind a contrast with Latour's more radical and more generous concept of translation as a constant in the process of innovation, where 'origins' become meaningless. The clinical notion of translation seems much closer to that promulgated in Higher Education policy in the UK (see below).

knowledge transferable, scalable. Origins become nonscalable, the different contexts become exogenous to each other, at least in one respect: when all that matters is that ideas have come from 'somewhere' else.

Again, there is not going to be anything special to anthropology here, except for one issue. For many anthropologists, exposing the relational construction of their ethnographic/theoretical accounts has been an important way in which they have made visible the contingency of their knowledge. The steps by which it is built up is part of the knowledge itself. They would say that for a transplant to grow in new soil, for knowledge to carry a truth, the relational construction has to be considered part of the outcome. A continuity of identity.

Its relational construction is how social scientists and others ordinarily distinguish knowledge from information: so, what are anthropology's specific interests here? The contingency of knowledge is bound up with its social source. When they write, anthropologists often weave into their accounts structures and idioms drawn from the concerns of their interlocutors, as we have seen in the ethnography of Israeli transplant professionals. More generally, anthropologists' exploration of relations of all kinds serves as a marker or stand-in for an aspiration to see beyond their own conventions of knowledge-making. What this nonachievable aspiration does achieve is a humility of sorts towards those who provide information, along with a commitment to a social accounting of its acquisition. (Such an interest in 'origins' keeps epistemic and social relations in tandem.) They may express this in terms of an open-ended approach to people's relational worlds. I say open-ended advisedly: relations are inherently transformative in that one is never sure of their outcome (Tsing 2012: 510, cf. Rabinow 2011).³² With the door now swinging on its hinges, there would indeed be some consequence to concealing such open-ended interest.

Metamorphosis–2: A Future for Anthropological Relations?

I have been sketching ways in which social/cultural anthropologists might engage with the multiplicity of phenomena while retaining anthropology's distinctive concern with relations both conceptual and interpersonal. Various thoughts have jumped out, glimpses of possible future entailments. Already with us, the three I have remarked upon are no more than place-markers. (1) *A field one did not realize was there.* The example was *social knowledge practices* in which disciplines both are and are not principal reference points. Always imaginable, that equivocation

³² 'Because relationships are encounters across difference', Tsing (2012: 510) writes, 'they have a quality of indeterminacy'.

about disciplines now enrolls new skills, and new questions as to what counts as 'social'. (2) *The need to keep creating conceptual tools for analysis, critique and social criticism*, out of attention to the here and now. The example was the dual concept of scalability and nonscalability, which has proven useful at diverse junctures even in this short address. (3) *The shaping of the research process through ever-changing techniques and conventions of knowledge-keeping*. The example was a bureaucratic re-describing of the steps by which knowledge is gained, displacing one set of relations by another.



Figure 8. Metamophosis-2: A future for anthropological relations?

Another door swings open. And what jumps out this time? It is the realization that had I listed these three examples at the outset they would have been seemed nothing—self-evident, banal, thoroughly inadequate for conveying the scope of the discipline. Yet each has quite dramatic import as interruptions to conversations already going on. Whether positive or negative, the interruptions divert existing preoccupations, transforming their contexts, and there is no short cut I could have taken—such as producing a list—to communicating that. We can expect contexts to go on metamorphosing. Let me conclude this last section with some specific moments of metamorphosis.

Is this a metamorphosed context for the life-cycle exchanges involving prestations to maternal kin built, to borrow Wahgi idiom, on the transplant status of the sister's child?



Figure 9. Fast or slow game?

(Photo by the author, Highlands migrants in Port Moresby 1971)

In mind is a study of card-playing carried out in 2009–10 in the New Guinea Highlands town of Goroka (Pickles 2014). Players regard the games as proceeding at different speeds, 'slow' and 'fast', and the anthropologist argues for the potential of such perceptions as an analytic by which people reflect on social change. As did John Muke, the anthropologist made a relation, a running analogy, to earlier ethnography, undertaken at about the time from which the photograph in Figure 9 dates, a relation, in fact, to Highlands ceremonial wealth exchange. Of particular interest were exchanges that had more or less acquired their own rationale independently of life-cycle events, and Pickles used such exchanges as a reference point for the conservative end of the spectrum ('slow' games). Yet-at the timethe exchanges themselves had been far from conservative. Rather, in being no longer solely tethered to life-cycle events such as funerals, one could say these forms of exchange had undergone inflation. The card games prompted the thought that they (the exchanges) had once, years ago, been the original 'fast game'. For participants at that time, did ceremonial exchange not involve imagining what new forms of wealth could do, what possibilities would come into being? And the

anthropologist seeing people undertaking their own analysis pushes old debates about reverse anthropology to new limits. A metamorphosis of the contexts of analysis.

To be 'with' anthropology in the future is not just a matter of keeping the ethnographic past alive by maintaining its relevance to the present, but of also taking seriously present developments, such as two-speed card games, that illuminate the past, re-contextualizing previous ethnographic moments in ways one would never have imagined. Do we wish to keep that relational facility, just as the social science disciplines in general for so long kept the distinction between interpretivism and positivism? Is it in relations like this where we would place the continuity and identity of anthropology?

Let us return to John Locke's seventeenth-century reminder of the oak tree and its life-cycle. The metamorphosis of the tree, and its many different forms, concretely underlines the non-obviousness of identity.³³ Identity is not something one sees without specifying relations between different moments. Now, the philosopher does not talk about relations in that context, though he does elsewhere. The point for us, in retrospect, is the non-obviousness of the concept of relation. Indeed, when Locke was writing, the English term 'relation' was undergoing a kind of metamorphosis. In the sphere of interpersonal relations, of all European languages, only English took it to one of its limits. In the seventeenth century English speakers began to use the term for kinsfolk – not just in relating connections between kin, as they might relate connections between any sets of entities, but as a substantive noun. My 'relations' (or my 'relatives') are my kin. This usage began then and, alongside all the other deployments, has been deployed thus ever since. Needless to say, English speakers have no problems about keeping the contexts of usage separate. Yet for many years, and it must have been an impetus to the ASA's vision of social anthropology, 'relations' had a concrete appeal in British social anthropology that to other anthropologies could seem quite strange.

³³ His own contrast was between the basis of identity for the human being (in life) and that of the person, the moral agent (in consciousness).



Figure 10. Seeing relations: Trees being transported as timber

(Source uncertain. Possibly from Air Nuigini in-flight magazine)

This seems a tiny change, when languages are always changing: a metamorphosis in just one corner of our larger field. Nonetheless, the example of relation is arresting to the extent that certain disciplinary traditions are coloured by the English language. Through the graciousness of our hosts, whom I would like to acknowledge once more, it is the language we are speaking this afternoon. Yet we need to be wary of it, too.





Figure 11.

Composition (birdwing moth)

(Merian's drawing, from *Insects of Suriname*, pub. 1705. Wikipedia, Creative Commons, file: Thysania agrippina par Merian.gif) Figure 12.

Composition (hairy caterpillar)

(Kitagawa Utamaro print, from Selected insects, pub. 1788. Photography is copyright of the Trustees of the British Museum, courtesy the BM Department of Photography and Imaging, and courtesy of generous support by the Art Research Center, Ritsumeikan University, Kyoto; from a reproduction on p. 19 of 'Haiku Animals', ed. Mavis Pilbeam, The British Museum Press, 2010)

But why have I gone into the past at all? Not just because what comes through the door is not necessarily 'new', but clearly because that is where we of the here and now will be in the future. For, alas, being a keynote speaker does not give one insight into the actual future any more penetrating that anyone else's. None of us knows. All the same, looking at these images from 300 years ago in ways Merian would never have done, and reading seventeenth-century philosophical arguments in a manner quite strange to the writer, compel a thought. If we survive the on-coming storm of data obliteration, should people 300 years hence find in today's preoccupations with relations of all kinds something illuminating for their 149

NatureCulture 2015 Copyright owned by the authors own, to us inconceivable, concerns, then a corner of 'our' anthropology will be with them in a future.

Acknowledgements

In keeping to the form of the original presentation, I hope to keep something of the pleasure it was to respond to Professor Junji Koizumi's invitation, and to be part of the IUAES-JASCA conference. What came in through the door with the comments of Hugh Raffles and Atsuro Morita was a surprise and a delight. This is also the occasion on which to recall the many kindnesses of Professor Sachiko Hatanaka. Natalie Z. Davies and Alan Strathern contributed at crucial moments in the argument.

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COMMENTS

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Starting with the history of British social anthropology and its pursuit of relations both between concepts and between persons, Professor Marilyn Strathern has argued how the relations themselves have metamorphosed and multiplied in often unexpected ways. As a great admirer of her work, there seems to be nothing to add to it. But, seizing the opportunity offered to me here to comment on her paper, I would like to try and shed light on some aspects of relations from a slightly different viewpoint.

Professor Strathern has demonstrated that making relations often brings about surprising effects: a new relation may transform the terms it connects, or it reveals unnoticed aspects of them and thus significantly expands our thought. In this sense, relations do epistemic work.

We can find a similar kind of performativity of relations at the core of science. Knowing is, after all, relating cause and effect, condition and event, and action and intention or agency. As science-studies scholar Andrew Pickering has argued, in experimental science, an object of inquiry emerges through its entanglement with the experimental devices and tools as well as the concepts that frame the exploration (Pickering 1995). Be it a particle or a molecule, what an object of science does and looks like depend on the particular relations formed in the experimental system. A consequence of this relational ontology is the multiplicity of objects, as described by Annemarie Mol in regards to objects in medicine (Mol 2002). As Strathern has made clear, this multiplicity is not made up of plural perspectives on a single reality. It is not the case that we can add up these partial enactments to reconstruct the whole object. Rather, it is the object itself, not the plural perspectives on it, that brings about this multiplicity.

Probably one of the most forceful points of Strathern's post-plural view of relations rests here. While denying a single reality that encompasses all the perspectives that may exist, Strathern, has also argued against the idea that partially enacted objects are isolated from each other. Relating observations gained in different experimental settings often reveals an unexpected aspect of the object under study. The notion of a singular reality, which encompasses all the partial enactments of an object, precludes these possible explorations of potential relations. If we stop insisting on a singular ultimate reality, we will find an expanding array of partially related objects, which keep multiplying through scientific efforts to relate divergent enactments in different observational and experimental settings.

It is of course not only Professor Strathern who has insisted on the relational nature

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of knowledge. Bruno Latour and Michel Callon's actor-network theory is also well known for a similar approach to knowledge (Latour 1993). There is, however, something unique in her way of dealing with relations. Unlike actor-network theory, which traces expansive webs of relations, Strathern focuses on the duality of relations that connect terms both from within and from without. New Guinea Highlanders transplanted from their maternal clan provide a telling example of this. A marriage creates relations between two clans that have already existed before the marriage, an occurrence that transplants a woman from one clan to the other. For clans, the relation can be seen as an external one, a connection between preexisting entities. From the viewpoint of the children, however, that result from this marriage, the transplant constitutes the very condition for their bodily existence and social identity. In this respect, the relation of the transplant is an internal relation that constitutes personhood.

It is not only the insistence on this duality of internal and external relations that makes Strathern's argument unique. There is also a certain symmetry between the object of inquiry and her ethnographic method. Strathern's ethnography is like a web of relations that is carefully woven together. In her analysis she not only describes the relation between the people and the things she studies, but she also often reveals unnoticed internal relations that come to constitute her own analytical concepts. In this sense, the relations she finds between and within the people and objects have a 'recursive' quality: the relations question the concepts that have guided the exploration and reveal the internal relations they involve.

Elsewhere, I have characterized Strathern's approach as an 'ethnographic machine' that directs attention to this web of relations constituting her work (Morita 2014). I applied the word 'machine' literally because mechanical engineers actually define a machine as a set of relations that perform a certain work. In a machine, parts are put in relation to each other so that they bring about a certain material effect. A machine involves dynamic relations within while, at the same time, working with external objects by creating relations with them. In a similar vein, I would say that Strathern's ethnography has a mechanical quality; it consists of a dynamic relation between analytical notions and the object of study; the machine generates the bringing about of surprises by relating the external relations between the objects under study with the internal relations that constitute the very viewpoint that describe these relations.

Here we come to consideration of the future. The notion of machine is not unrelated to the notion of future, not least in science. Both scientists themselves and science-studies scholars have seen at the core of science machines for generating the future. For example, criticizing the characterization of scientific development as linear, Pickering and Hans-Jörg Rheinberger have described the mechanical assemblages of which scientific experiments are part and which generate surprises beyond the scientists' own expectations. Borrowing the words of biologist François Jacobs, Rheinberger calls experimental systems 'machines for making the future' (Rheinberger 1997). In my view, Strathern has demonstrated that ethnography can be a similar kind of machine that generates surprise by creating and tracing relations.

But what kind of future do these machines create? Pickering and Rheinberger argue that there is no linear development in science, because the interaction between human and non-human agencies in experiments always brings about unexpected developments. Similarly, Strathern has evoked the non-linear image of the future in her keynote speech: sitting in a room and looking to see what may come through the door. Perhaps, the future is not out there down the linear path; rather, it is within the machine, which we create with anthropological relations. Like the image of a person sitting in a room, to be attentive to the uncertain behavior of the machines requires certain responsiveness to surprises.

The future of anthropology may rest on how we handle the relation between the conceptual relations that constitute one's own viewpoint and the external relations we describe. Because anthropology borrows analytical concepts from the people it studies, this relation connects the notions of the people we study and our own analytical notions. Furthermore, today's diversified anthropology makes it clear that analytical notions themselves also vary among different anthropological traditions. Conferences such as this will be a valuable occasion for making this diversity visible and for creating further relations between them. To return to the metaphor of 'machines for making future', the future of anthropology might reside within this complex set of interpersonal, conceptual, institutional and collaborative relations we have created in this complex set of relations has often generated surprises. I am quite optimistic about this unpredictability. After all, isn't life with surprises preferable to life without them? And all the more so for those who have chosen this strange occupation?

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Hugh Raffles The New School

I have only a little time, but I'd like to take a few moments of it to thank the organizers of this very special conference for bringing us all together, for bringing Marilyn here, too, and for giving me the opportunity to respond to her extremely thought-provoking talk. As for many of us here this morning, Marilyn Strathern's writing has had a profound effect on my own over the years and so it's in a spirit of gratitude as well, I hope, as of participation in a shared project of anthropological exploration and reimagining, that I offer these comments, trying to open up one very small corner of a very large paper, perhaps just a cat flap at the foot of one of its doors.

I'll begin, perhaps obliquely, where the paper ends, with Maria S. Merian, fiftytwo years old, already a noted painter of European insects, financially independent but hardly wealthy, twenty years of marriage and five more of ascetic withdrawal in the mystical Labadist community of West Friesland firmly behind her, riding a donkey through the tropical forests of the Dutch colony of Suriname, twenty-year-old daughter and Amerindian slaves alongside her, 'the only European woman who journeyed exclusively in pursuit of her science in the seventeenth and eighteenth centuries,' as Natalie Z. Davis pointed out.

Merian was raised in a family of artists and publishers and developed an early fascination for nature study. She began at thirteen with silkworms (a family connection and, of course, a connection that opens onto other histories of Europe/East Asia relations). But she was soon preoccupied by caterpillars in general and, above all, by their transformations. It was an eccentricity in a girl, but as with the similarly youthful heroine of the classic

Heian story 'Mushi mezuru himegimi' [The Lady Who Loved Insects]—who did not pluck her eyebrows or blacken her teeth, who was, in fact, not very ladylike at all—the young Merian's peculiarity was one of sensitivity and insight that indicated a philosophical refinement.

Merian collected her own insects and bred their larvae through their life cycle, drawing and painting from life. She occupied a world refreshed by the introduction of the microscope in which the new preoccupation was with observation and the classifications it made possible. She was fascinated by insects and her relations with them produced a further fascination with the profusions of time, place, 'and with relation itself'.

As never before, she gave the drama of metamorphosis unity. Her paintings present a dynamic and interactive nature, the kind of world that anthropologists are entirely habituated to both describing and critiquing: its principles are transformation, change, holism, and the overthrowing of an earlier European taxonomy of Aristotle and Aldrovandi that segregated the insects into those that crawl and those that fly, and so, without knowing it, segregated butterflies and moths from their larvae.

A hundred years after Merian was developing her proto-ecological vision, Jules Michelet—historian, insect-lover, author of an influential seven-volume history of the French Revolution, and an admirer of Merian's work—examined her hand-colored copperplates in Paris. He saw change, impermanence, and relation. He saw the vitality of life itself erupting against the artificial formalism of scientific categories.

But the questions that had been gnawing at him in his studies of European revolution were not answered in her paintings. What is it that carries through from one form to another, from one type of being to another? What is it that persists? What kind of thing is this? Is it one or is it many? What, in other words, is the relation?

The more Michelet stared at Merian's images, the more dissatisfied he became. He needed to access not just the *fact* of relation but the 'nature' of relation and 'the relation of relations too', the form and quality of relation, its means of holding-together and comingapart. Here is the larva and there is the adult. The event that lies between these states of being was, said Michelet, 'a revolution,' an 'astonishing "tour de force".

Because, the relation of these beings that an advancing science recognized as both one and multiple posed a special but also familiar problem: whereas the caterpillar is earthbound, hiding in the shadows, a leaf-eater, and without genitalia, the butterfly is always in flight, drawn to the light, a nectar-drinker, and entirely focused on sex. Metamorphosis, writes Michelet, anticipating Kafka, 'is a thing to confound and almost to terrify the imagination'. One being enters the chrysalis, quite another comes out. 'All is thrown aside', he writes. 'All is, and ought to be, changed.'

And then, he adds something in an altogether different register, something that unexpectedly and ontologically grounds his 'mystic materialism' in profound cosmic affinity: 'Throughout my life', he wrote, 'each day I died and was born again'. Many and many times I have passed from the larva into the chrysalis, and into a more complete condition; the which, after a while, incomplete under other conditions, has put me in the way of accomplishing a new circle of metamorphosis.

And, considering this, I wonder if perhaps the thing to wonder about this metamorphosis is not that it is an unfolding, or even that it is a break, a transformation, but that, in a deeply serious sense, it is completely mysterious and inaccessible. *Relation* may not be the term we need here, if only because in its profound lack of specificity it risks being attenuated to the point of blandness. What isn't a relation? How do we distinguish between relations of different value and significance?

But to continue with concretizing the metaphor, metamorphosis, in its mystery, may nonetheless be a powerful site from which to consider anthropology. This is not just because of the well-worn 'alchemy' of fieldwork nor just because the confounding fact of metamorphosis is best revealed by close empirical observation, but rather because it points simultaneously to a form of association that is both *relation* and *non-relation*, a form of connection that characterizes much of what anthropologists do and discover as our attention moves among connections that, as Marilyn puts it, are both conceptual and interpersonal.

For those of us concerned with non-humans—in the broad sense of not just animals, but of 'natural phenomena', of things, and of (let's call them, for want of a better term) 'energies'—the question of non-relation can be not only vitally ethnographic but deeply anthropological. Such entities are not simply the occasions for symbolic thinking. Their withdrawal, enclosure, apartness, radical difference, indifference, refusal, secrecy, silence, or detachment challenges us to situate humans and their affairs in the world more carefully and more humbly—to be cautious, for instance, about the parochialism of a concept like the 'Anthropocene'—and to imagine a future anthropology emergent in an unimaginably metamorphosed context, a world in which our place as persons may bear little relation to what we struggle to account for today. The best experiments eventually fail, collapse, and transform. Too often, as we know, persistence is the enemy of creativity. Even in the near future, in our pluralities, we might strive to create an anthropology willing and capable of breaking free of its cocoon, its founding conceit of the all-embracing anthropos.