

THINGS AND THINKING SOME INCORPORATIONS OF INTELLECTUALITY

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As these things often do, it started out as a question of money. A Dutch organisation had money available to invest in so-called *cultural* projects in the South. However, this money went with an ideal. The ideal was to use the money in such a way as to foster the role of *intellectuals* in the *public sphere*.¹ A conference was organised in which this ideal was opened up for discussion. Your present author participated in this conference. Given my background in the field of ‘science and technology studies’ I was asked to talk about the *infrastructure* required for being an intellectual. However, I tried to slightly twist that topic by not subordinating materials to thinking but giving practice back the primary importance Western *thought* seems to always forget about. So widespread is the neglect of *things* in intellectual discussions that a lot more noise is needed to make us all turn towards them. Which is why it seemed a good idea to shift my text about *things and thinking* to the present context, that of the journal *Quest* and its discussions about philosophy such as pertaining to, articulated in, or radiating out of Africa.

Refusing the question

What does one need, materially speaking, in order to be an intellectual? Is it a personal computer? No. Two decades ago they didn’t exist, but people thought and wrote even so. Is it food? Well, perhaps, but though food is needed for thinking, it isn’t specific to being an intellectual. So maybe we need to start somewhere else. How about a place to publish? Well, indeed without such places there is little chance for exchange and discussion. But then again, there are other means of spreading thoughts. Films, plays, paintings, music, television. So publication is only one possibility.

What is the material basis of intellectual activity? My first reaction to this question is to say: I don’t know. I wish I knew a lot more about materialities and intellectuality, I wish I had the time (and the money!) to read about them more, or to investigate how they link together. However, my second reaction to the question is more radical: I would suggest to reject the question itself, at least in the general formulation given above. The reason? Because I want to avoid the idea that I am – or am in – a knowing *center* from which the various *elsewheres* in this large world may be *overseen*. And this is not a

matter of personal modesty. It isn't because I am European, or from the Netherlands. My reluctance to put together an answer, to assemble knowledge about the crucial materialities for thinking goes beyond that. To put it simply: I don't think that the *overview* is a proper mode of knowledge in a complex world where, or so it seems to me, the crucial political and intellectual challenge is to find ways of living with difference. Not indifferent. But in difference.

In practice – this is my argument – we need to work in a different way. Not by searching for an answer in a single center, be it a scholar with research time or an assembly of people with complementary experiences. Instead it is better to expect that different answers will come from, and be relevant to, different places on the globe. This means that a knowledge practice needs to be developed in which these different answers will be heard and will be related to. What might this imply?

One is *not* to list 'crucial materialities' (as if, somehow we could get an overview of these), but instead to make sure that the question is addressed in the diverse contexts where it matters. If a funding organisation wants to know how to best spend its money, it should not ask an expert, but engage in a quite different practice. It should design good application forms. Forms that allow the people who apply for the money to tell what they need and argue why in their particular site and situation this is an urgent need. Why it is important to them, to, let us say, buy a computer that gives them access to the internet. Or, alternatively, why they would rather like to buy a donkey able to carry film-equipment to remote villages. Engaging in a dialogue about these requests is a better knowledge-practice than any research might hope to be.

So instead of trying to draw knowledge about *materials for thinking* together at a single site, my study, my computer, my text, and then spreading it out to you, the audience, I will take up another task. I will write about some of the ways in which things and thinking might relate. About practices of knowing. About the transportability and the flexibility or fluidity in those practices. And about their adaptations and the interferences between them. My point is this: if we start to attend to the materiality thinking, this will push us into asking questions about intellectuality in a down-to-earth, a practical way. All intellectuality: from natural science through to political theory. From what is taught in primary school to what in Quest one might seek to question.

To do this I'll tell stories, anecdotes, about practice, knowledge practice. And these stories do not begin in the political arena, the so called *public sphere*. They begin instead in a class room, a laboratory and a health care clinic. I do this because in relation to politics and political theory the idea that the world

might not be a homogeneous, open space where universal truth travel freely, has by now become widely shared. But in relation to *scientific* truth, far less attention tends to be paid to where it comes from; what practices it links up with, and where it travels or may not go. I hope that attending the materiality of *all* thinking, will push us into asking all questions about intellectuality in a practical way.

The first story I'll tell is about measurement in English and Yoruba, and I mobilise it in order to claim that a dialogue between them is helped by understanding measurement not as setting up a reference to an essence of nature, length, but as a practical way of dealing with numbers and size. Second, I'll take as my object of consideration an apparently universal scientific truth, in this case: 'water boils at 100°C'. I'll argue that claiming universality for this fact implies losing sight of the very specific (and often rigid) practices on which it depends. Third I'll mention the way in which the norm that differentiates between having or not having anaemia, transports itself in practice – and adapts itself to different locations, becoming fluid rather than rigid as it moves from a rich and well equipped location to its elsewhere. Fourth, I'll reflect on some of the peculiarities of the notion of 'the intellectual' – its often disembodied specificities and its limitations. And through it all I will argue for a practical, embodied, and decentralised understanding of what it is to know.

Co-existing thought practices

My first point: things are crucial to intellectuality. Yes, they form its *infrastructure*. But they do more. They are also part of the *activity* of thinking. This is not a feature of recent times in which impressive technology seems to reign, but it has always been the case. Even in places where intellectuality primarily takes the form of religious inspiration. The spiritual leader is as dependent on material objects as the high energy physicist. For instance, I was raised as a catholic. A crucial element of this upbringing, of the Catholicism passed on to me, was the *smell* of the incense burned during Mass. And then there were the benches to kneel on, the bread to eat from – as well as the omnipresent figure of a bleeding white male body on a cross. The material system of Catholicism isn't rigid. It allows for interferences and change – so that in Mexico on All Saints day, a celebration dedicated to the ancestors, sugar skeletons are baked, sold and eaten – while in my village in the South of the Netherlands we had to make do with decorating graves with white chrysanthemums.

This small story already gives an indication of *how* things relate to the activity of thinking. Tightly. Devotion intertwines with a smell to the point where they cannot be separated. But then again: the relation is also fluid enough to allow accommodations and transitions. Death may be remembered either with sugary *memento mori*, or with white flowers: depending on the other routines and investments these imply.

I'll tell you a story written by Helen Verran.² She is Australian and worked in Nigeria trying to help primary school teachers in a Yoruba community to improve their teaching. Her story is about teaching children how to measure. The children were given a string. They had to hold this up next to each other. Then they had to lie this body-length string down on the floor and mark the floor at each end with chalk. Finally they had to measure this length with one of the few metre rulers available. That is what they were *supposed* to do. However, one of the teachers worked differently. He made cardboard cards ten centimetres long and taught the children to hold the string next to a classmate, make a knot next to the top of the other child's head, and then wind the string round the card until they came to the knot. Maybe it was nine times round, plus a little something left over. Count nine times ten and measure the left over bit. There's your length.

What, asks Verran, to make of this? She suggests various possibilities. Perhaps the teacher simply wasn't teaching *length* properly. Perhaps he didn't fit the dominant – Western – mathematical interpretation which says that length is to do with *extension*. But this interpretation naturalises Western categories by suggesting that length *is* what Western mathematics says it is. An alternative interpretation would be that the teacher cleverly and bravely withstood the pressure to submit to Western modes of calculation and stuck with the Yoruba mode of grasping length, where it is a *multiplicity* rather than extension. This interpretation would be a relativist mode of celebrating each culture's authenticity – with anti-imperialist overtones. But Verran comes up with a third way of understanding what happened, and of telling the story. She takes us along with her, from her own classroom to that of Mr Ojo, the dissident teacher. And it turns out that Mr Ojo didn't think of himself as a Yoruba rebel, but thought that he had done what Verran had suggested: teaching children to measure. Verran says that the whole episode made her feel like laughing. But why?

In answering this question, Verran points to the strings and the cardboard cards. These are crucial. They are the objects Mr Ojo used to *translate* between Yoruba and English ways of measuring and counting, but also talking. Because in English, and its world of practice, counting begins finger by finger. Then you add the fingers together to form a whole. In Yoruba, and *its*

world of practice, counting begins with a whole set of fingers and toes, twenty of them. Then this set is separated into two tens, and each of the tens is divided into two fives, until there are twenty small digits.

What do we learn from this? Two things. One is that counting and measuring are not simply *mental* operations. They are not just a matter of conceptualising and thinking. They are spread out over bodies – heads, hands and feet. And they are also spread over the objects that are manipulated – metre rulers or cards. But second, and equally important, Verran's stress on materials suggests that we may be able to avoid either naturalising Western categories or relativistically enclosing everybody in a culture of their own. It is a difference between 'theory' and 'practice. In 'theory' English and Yoruba ideas of length contradict one another. But when we look at materials and practice, they interact together much more interestingly, sometimes in tension, sometimes productively. It is not an 'either/or'.

If we take thought to be a matter of mental operations, of 'theory', we risk to essentialise divides between traditions. This may, in a relativist mode, imply a 'proper' culture for everyone – or every group – on earth. Meanwhile engaging everyone *inside* their 'culture'. But only attending to 'theory' could have even worse effects: that of an ongoing triumph of what is then called 'Western' – but that, mind you, is but an impoverished version of the alleged 'West', excluding a lot of its more radical and creative subsets and side lines. If, however, we are after co-existence, interferences, dialogue, exchange – what have you – then we better shift from the abstract notion of *thought* to caring about knowledge practices and the way thinking is, in various sites and situations, being *done*.

Transporting thoughts

So this is the suggestion. If we attend to the materials and practices of thinking this is much more promising for the possibility of exchange, dialogue and co-existence than enclosing 'thoughts' in 'minds' or 'conceptual schemes'. Attending to practicalities is likely to help us live in difference. But it does more: it also brings along new modes for asking *transportation* questions. Transportation questions become crucial, since attending to materialities and practicalities brings along a loss of belief in there being such a thing as a 'universal truth'. Let me talk about this by telling another story.

Sometimes people say 'water boils at 100°C. This is said to be a fact. A universal truth. A truth that is so self-evidently true that it doesn't need to be transported. It moves all by itself'. I came across this example fifteen years

ago when we were arguing about feminist engagements with the sciences. Some feminists said that it was a waste of energy and time to doubt the truths of physics and chemistry in a world where women suffer such hardship and so much injustice. The argument was: doesn't water boil at 100°C whether it's heated by a feminist or an old-style man!

Well, that's a good question. My immediate reaction was to ask why a feminist would *want* to heat water. It might be better not to hang about in the kitchen, but to read a book instead, or go for a walk, give a talk, or play with the children.

This first reaction won't do, but it points the way. It points the way because what it does is to shift attention from the words to the *practices* of science and its truths. From the idea that this sentence about boiling water mirrors a state of nature, to the idea that science is about an active, practical engagement with material entities. So it moves science from the out-of-place site of alleged universals to the kitchen – for laboratories and school classrooms have a lot in common with kitchens. It moves science from a sentence on paper to the very cooking it talks about and that is needed to bring the truths of science into being.³

Let us look at the cooking. Then we find that, for instance, it *isn't* a universal fact that water boils at 100°C. High in the Andes or the Himalayas boiling temperature is a lot lower – something crucial to local cooking practices. So the transportability of this supposedly universal fact is restricted to places at sea level. And this is not simply a game of words because it is tightly linked up with a way of shaping *theories* about 'nature' that is dominant in Western sciences. Western scientific theorising does not attend to *practices* in which objects are handled but to the alleged *essence* of objects. It does not attend to practical shapes or behaviours, but to a hidden essence which is said to reside *inside* objects. Thus, fluids are supposed to have a hidden essence in the form of a specific and discrete 'boiling point'. But it is not necessary to be a scientific essentialist. We might as well study objects as parts of their surroundings right from the start. This would mean that they would no longer have a fixed boiling point, but instead a *boiling trajectory*. As it moves from place to place water boils at different temperatures that together form a boiling trajectory: different points on a line, relevant to different settings.

Situated characteristics instead of hidden essences. Displacements and shifts instead of rigidities. And once we put materialities and practicalities to the fore, other questions rise. For instance, why is it important to know the temperature at which water *boils*? In most parts of the world it is more important to know the temperature at which the most aggressive local

bacteria are sure to have perished. Even more important may be the question of where to get water in the first place; and how far to carry it. Or, then again, where to find the wood or gas to heat it. To be sure, these are more often than not practical questions faced by *women*. And it is for this reason that I think there are excellent reasons for offering a feminist critique of the alleged universality of the fact that ‘water boils at 100°C’. It is as simple as this: to talk in such universal terms is to leave out the *things* that need to be mobilised in order to make the sentence come true; and it is, at the same time, a classic way of *hiding* the work, here the work of women, that goes into making it come true. Things and practices. Both get lost in the insistence on universals.⁴

Facts can – sometimes – be transported. But this takes a lot of practical effort. Bruno Latour has expressed this quite beautifully. I quote: ‘When someone talks to me about a universal, I always ask what size it is, and who is projecting it onto what screen. I also ask how many people maintain it and how much it costs to pay them. I know this is in bad taste, but the king is naked and seems to be clothed only because we believe in the universal.’⁵

Hanging together

Facts don’t move around by themselves, but only as part of some larger network of words and things with which they are intertwined. In this they resemble *cars*. Indeed, the similarities are striking. People describe cars as ‘transportation devices’, implying that they transport by themselves. But they don’t, since they depend on passable roads, petrol stations and skilled mechanics. So facts are like cars. But so are *norms*. They only move around as part of a network of things, words and people which keep them going. I will not talk about complex norms – such as those implied in the declaration of Human Rights, or the norm that there should be Freedom of Speech for all. Instead I will take a simple norm as my example: the *normal haemoglobin level*.

The story is that for a person to be judged as *healthy* by a doctor practising Western medicine, he or she should have a high enough haemoglobin level. Say, you are a woman. In the Dutch town where I live, you would be called *anaemic* if your haemoglobin level were to drop below 7.5 mmol/l. You walk to the general practitioner close by, or take your bicycle, and there the assistant has a small device for measuring haemoglobin levels. A small finger prick is sufficient to squeeze out some blood, which is inserted into the machine on a small piece of specially prepared paper. A number appears on a display. There you are: normal. Or not.

How easy is it to work with this same norm elsewhere? To answer this question, I didn't travel across the globe, but visited a few towns in the Netherlands where I spoke with Dutch doctors who had worked in very different clinics in various places in Africa.⁶ At medical school they had embodied the knowledge about how to link up *anaemia* with a *low haemoglobin level* and when they stepped onto an aeroplane they took this knowledge with them. But that didn't mean they could continue to put it into practice. If they worked in, say, Harare perhaps they could. But somewhere more remote along a bumpy road for a few hours, it became a lot more difficult. They had no assistant able to do the measurements for them, or the assistants were too busy doing more urgent things. The calibration fluids for the measurement device were ordered three times but failed to arrive, which made measurements grossly inaccurate. Sometimes there just was no measurement machine at all. Or sterilising the pins for pricking fingers wasn't possible – and nobody is going to risk transmitting HIV in order to diagnose anaemia.

Transporting rigid norms is as difficult, laborious *and* material as transporting facts. But wait a minute. Finding a *figure* may be impossible in a small Zimbabwean village. So the fixed norm doesn't work. But most of the doctors nevertheless looked for anaemia – and all too often they found it. And how? By rolling down their patients' eyelids, and looking to see if they were white. And if they were they would give iron pills – there were usually plenty of these. And, if the patients were lucky and practical resources allowed it, they would look for malaria or worm infections (which both cause anaemia). The argument, then, is that diagnosing anaemia *clinically*, that is, by looking at white eyelids, is easier to transport than establishing fixed figures because it requires gestures and gazes instead of shiny technology.

Two lessons. One: specific facts and fixed norms can be moved – but only if an elaborate network of practices and materials is in place. But if they can become more *fluid* – the difference between a red and a white eyelid – then they can move more easily. They can flow. A fluidity some people – and indeed some machines – can handle.⁷

And two: those who talk about globalisation as if this were a process of imposing uniformity are missing out on something. They are missing out on the changes behind the invariances when we look at the practices, the details, at how things are actually done in the kitchen. The *same* Raï music 'is' something entirely *different* in Algeria or in Paris.⁸ Or *the same* McDonalds with its *same* food and its *same* golden arches is attractive for *different* reasons in Chicago and Hong Kong. In Chicago eating hamburgers is cheap and fast. In Hong Kong the McDonalds is comparatively expensive, but a fine, cool place to linger, chat with women friends without there being too many men and al-

cohol around, or even a place where teenagers, fleeing from tiny apartments, do their home work.⁹ Global transportability is a matter of fluid adaptations. Practices may only hope to transport if they are *interfering* with one another.¹⁰

Sorts and sites of intellectuality

Is it a good thing to materially support world-wide *the intellectual in the public sphere*? To be publicly personal: I don't know whether and where I would self-identify as 'an intellectual'. Somehow I don't trust the word. It is too *French*. No, more specific still, too *Parisian*. To me it seems as if the figure of the 'intellectual' comes with a very specific set of materials that are not at all easy to transport. Parisian sidewalk cafés. Newspapers easily accessible for intellectual discussion – or should I be more specific and say, indeed, *Le Monde*? The PUF, VRIN and Maspéro. Institutional configurations where several functions come together. In the sites and situations where the term 'intellectual' was coined, teaching, that is, passing on knowledge, connected with criticising and engaging with state oriented politics by intellectual means. A single person could shift between one genre and the other or even try to engage in both at the same time. Words were taken very seriously, but one was unlikely to get killed for speaking up or for writing down wild thoughts. What is more, Paris, for all its alleged modernity, resonates with various features of the old Greek polis that still forms the unspoken point of reference in political theory if words like 'public sphere' or 'discussion' are being used. A place where unarmed free men talk together freely – while soldiers, women and slaves take care of all material needs.

Does this configuration transport? Should it? To start somewhere: could it transport to *women*? This does not just raise the practical questions to whom *they* – or I might say *we* – may shift the responsibility for child care. This can be dealt with (although I would like to point out here that in my country, the Netherlands, whatever the fantasies about it's modernity you may have, this is a big problem. The cultural pressure on mothers to mother is huge. This is one of the reasons why only 5% of those at the top of the academic profession, the professors, are women. Yes, you heard it correctly: 5%. This is lower than in anywhere else but Botswana.) But fine. Where was I? The practical tasks of cooking, cleaning and childcare can maybe somehow be delegated – or done in a few hours every day. But what still remains is the fact that the typical Parisian intellectual has no body, no physical engagement with his surroundings. Simone de Beauvoir caught this in an interview. Talking in a high voice, with a straight back, she said 'Pour des enfants, il n'y avait pas de place dans ma vie'. (For children, there was no place in my life.)

I understand this perfectly well, and it is easy to sympathise with her personal position. But it also points to a structural problem. If ‘the intellectual’ can only exist in a life without children, this hardly seems like a figure we should try to universalise. A resistance to universalisation which links with the overall argument of my talk : if *the* intellectual only attends to minds and words, and neglects the physicalities, the *things* with which thinking intertwines, then there may be a problem with the term.¹¹

Let’s extend this worry. Must this figure ‘the intellectual’ be kept together, or might it also be broken into pieces, altered, shifted, adapted? For once we attend more closely to the practice of engaging in so-called intellectual practices, it may no longer be necessary to combine efforts like teaching and writing; or teaching and engaging in criticism; or engaging in criticism and opening up new possibilities for expression; or addressing matters of the state and the configurations of interpersonal relations; or cherishing the word and drawing, filming, making music. A lot more fluidity – and attention to specificities – seems to be called for.

A material ‘infrastructure’ may be sought that would allow every ‘intellectual’ in the world access to the global intellectual space. But – this is the point of my argument – there *is* no global intellectual space. My own provincial experiences as a Dutch philosopher are enough to illustrate this. If I want to publish in English I have to make a detour and relate to issues relevant to what is going on in Boston – or some such place – where they edit the journal I want my article to appear in. Even most of my intellectual friends in the Netherlands, none of whom has any problems reading English, are not going to read my articles in English, because there are so many ‘international’ journals, and they only get to see those of their specialised sub-field. The advantage of the Boston journal is that someone in Delhi may get to read it. But then again: that doesn’t imply it reaches Lusaka, for the journal is likely to be too expensive for the local library. While in Yaounde they’re having trouble enough keeping up with some of the French literature. Besides: my piece is likely to be a compromise between my Dutch preoccupations and those of the Boston editorial committee – so it may speak to the concerns of readers elsewhere, but unless I’ve taken the trouble to *incorporate* these in my text, it is unlikely to do so. And there is, such is life, a limit to the number of situations one may incorporate into a single text.

On with it. If I write something in Dutch my French friends will not quote it in their French articles because it is inaccessible to them. I notice that if I write just the smallest piece in one of the big Dutch newspapers, suddenly many of my acquaintances have read it – but only, of course, my Dutch acquaintances. I can stop here because you all know the problem, in your

own specific version. Engaging in whichever form of intellectual work is something one does *somewhere*. The localising tropes are varied: geographical places, nation states, disciplines, specialities, concerns, relevances, languages. They are indeed that, *localising*. But let's be careful. Just because we are all *somewhere* – and just because the *global* doesn't exist – doesn't mean that we are stuck in little patches, little regions, which exist (or could exist) side-by-side without interacting. The world is – or if you like, the spaces of the world are – more complex than that. It is a matter of connections, connections between elsewheres, between specific places.¹²

Another anecdote. An Argentinean sociologist of science recently explained in a science studies conference, that the one genetics laboratory in Argentina that regularly manages to get articles published in big American scientific journals, has the advantage, not of any direct access to the 'global', but of a personal connection between the head of the laboratory and the lab in Cambridge where he did his PhD and a postdoc, made some serious contributions, and to which he still sends his own best PhD students.¹³ Such personalised links may work far better for making connections between us than some idea of participating in a global 'public sphere'.

Look again at language. The Netherlands was a fairly successful colonial power but failed in its cultural imperialism, partly because it never properly invested in schooling in Indonesia. This is why, like most of you, I had to learn English and French to avoid suffocating in provincialism. The interesting thing about the co-existence of these *two* master languages in discussions in and about Africa, is that each comes with its own repertoire of *doing intellectuality*. Two repertoires: so there is not one globality, but there are already two to begin with. Now languages are material: they each come with their own specific sounds (and the physical effort to make them), their own writing systems, and loads of books that have been written or translated into them. They each come with their own *lacks and absences* as well: the inability to express things that are easy to say in Yoruba, Hindi, or even Dutch.¹⁴ Their power is an interesting one. It *forces* us: to learn English and/or French and twist our other selves that are hard or impossible to express in these languages. But the power of these master languages also *enables* us: to converse with one another. Something that would have been a lot harder if we all had to learn the native languages of everybody we would want to talk with. So they localise, confine – and open up, connect. All in one go. Not a single global, nor a fragmentation into ever so many locations. But a complex pattern of connection.

A world map or a walk

I have tried to argue that we literally think *with* things. Cardboard cards and meter rulers; thermometers, water places and cooking devices; haemoglobin measurement machines and observant hands and eyes; letters or materials being exchanged between different local spots; books and, indeed, computers. Attending to these – and so many other – *things* to the materiality of intellectuality, will have profound effects not just on the *infrastructure* but also on the *internal structure*, the content, of intellectuality. For it brings with it a different way of imagining what ‘intellectuality’ might be: something that breaks up into a series of practices. Knowing, teaching, or criticising. Improving water quality or making music. Being useful or rather doubting industrialist versions of ‘usefulness’. Arguing against error or evoking self-doubt – or, elsewhere yet again, contributing to some group of people’s pride.

And then come the endless questions for each of us about the possible practices we might engage in: how to establish them; where, when, how they may link up; how they might clash, interfere; what their materialities might be; how they might embody their knowledges; how and where they might transport; who they might be embodied in; what the artefacts spreading them might look like.

To summarise.

One. I have not answered the question which materials are needed to think with, but suggested setting up a *knowledge practice* that allows for a good process of dealing with it.

Two. Attending to knowledge practices will help us to find ways to not enclose *thought systems* into their own *cultural tradition* each. Two modes of thinking, when mixed, tend to produce what logicians call *incoherence* – and that is not good. Two modes of going about things practically, however, *interfere*. Such interferences may bring problems but also hold promises.

Three. If all thought is *somewhere*, if it is *done*, in practice, then the question rises how knowledge practices transport, and where, and where they cannot go. It becomes plain that a so called ‘universal truth’ tends to be exceedingly expensive to maintain.

Four. Nothing travels alone. But the networks in which elements hang together may be more or less rigid, more or less fluid.

Five. This also goes for the practices making up ‘the intellectual’. The term ‘intellectual’ deserves unpacking. Rather than wondering how to *be* an intellectual in a global public sphere, I propose that we ask what to *do* – which specific critical, or evocative or imaginative practices to engage in.

And then, six, there is the question *where* to do these things. For one is always somewhere. There *is* no such thing as a ‘global public sphere’. The

question is not how each of us might become *global* but how we might, while acknowledging a load of differences, in practice, *relate*.

Notes

- ¹ This article was originally written as a paper for the conference ‘The role of the intellectual in the public sphere’ organised by the Prince Claus Fund in Beirut, February 2000. I would like to thank Mieke Aerts, Claudia Castañeda, Marianne de Laet and John Law for inspiration, discussion and comments.
- ² Hellen Verran ‘Staying true to laughter in Nigerian classrooms’ in: John Law and John Hassard eds., *Actor Network Theory and After*, Oxford, Blackwell, 1999. See also Hellen Verran, *Science and an African Logic*, Chicago, The University of Chicago Press, 2001.
- ³ For an introduction to this way of understanding science, see: Bruno Latour, *Science in Action*, Milton Keynes, Open University Press, 1987. This book expands on an earlier one in which Latour reported on an ethnographic study of a laboratory, that used the techniques of cultural anthropology in order to unravel the practices of science, so far celebrated as if it were ‘beyond culture’. See: Bruno Latour and Steve Woolgar, *Laboratory Life. The construction of scientific facts*, Princeton University Press, 1986.
- ⁴ For a series of critically analyses of Western practices as utterly located and infused with specific corporate interests only, as well as for a call to build different kinds of knowledge/s, see: Donna Haraway, *Simians, Cyborgs and Women. The Reinvention of Nature*, London, Free Association Books, 1991; and Donna Haraway, *Modest_Witness@Second_Millennium.FemaleMan@_meets_OncoMouseTM*, Routledge, 1997.
- ⁵ Bruno Latour, *Les Microbes, Irréductions*, 4.4.5.1, Scolie; Paris, Métailié, 1984
- ⁶ For a more extensive version of this example, see: Annemarie Mol and John Law, ‘Regions, networks and fluids. A social topology of anemia’ in: *Social Studies of Science*, 1994, pp 641-71
- ⁷ For an example taking up the notion of fluidity while talking about machines, see: Marianne de Laet and Annemarie Mol, ‘The Zimbabwe Bush Pump. Mechanics of a Fluid Technology’, *Social Studies of Science*, 2000, pp 225-263
- ⁸ Marc Schade-Poulsen ‘Which world? On the diffusion of Algerian raï to the West’ in: Karen Fog Lowig and Kirsten Hastrup, eds. *Siting Culture*, London, Routledge, 1997
- ⁹ James Watson, ed. *Golden Arches East. Mc Donalds in East Asia*, Standford University Press, 1997
- ¹⁰ This is far more extensively argued and illustrated in: Arjun Appadurai, *Modernity at Large. Cultural Dimensions of Globalisation*, University of Minnesota Press, 1996. I only seek to stress that the culture/s of science do not form an exception but nicely fit the pattern.
- ¹¹ For the opening up of an approach in which ‘things’ are given a place in political theory, see: Luc Boltanski and Laurent Thévenot, *De la Justification. Les économies de la grandeur*, Paris, Galimard, 1991; and: Raison Pratique 4, 1994, *Les objets dans l’action*.

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- ¹² John Law and Annemarie Mol, 'Situating technoscience: an inquiry into spatialities', in: *Society and Space*, 2001, vol 19, pp 609-621
- ¹³ Pablo Kreimer, *Understanding scientific research on the periphery: towards a new sociological approach?* Paper at the EASST conference in Lisbon, September 1998.
- ¹⁴ There are various good detailed analyses of the im/possibilities and consequences of translation. See for instance: Kwasi Wiredu, *Universals and Particulars. An African Perspective*, Indiana University Press, 1996.