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A Correlative STS? Lessons from a Chinese Medical Practice[1]

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Abstract

How might STS learn more from the intersection between ‘Western’ and ‘other’ forms of knowledge without reifying it or washing it away into a confusion of complexity? The principle of symmetry is a promising point of departure since it treats the two even-handedly, while at the same time the term comes from a tradition that frames description in a ‘Western’ manner. In this paper we mobilise the ‘multinaturalism’ and ‘equivocal translation’ explored by anthropologist Eduardo Viveiros de Castro to shift the balance of betrayal to the logic of ‘other’ knowing practices.

We explore the implications of this argument for a moment of encounter in a Chinese Medical consultation in Taiwan in which the practitioner hybridises Chinese Medicine (CM) and biomedicine. Our description is symmetrical, but creates a descriptive equivocation in which a ‘Chinese medical’ reality is coded into ‘Western’ terms. We also use the principle of symmetry to explore the mode of equivocation in the consultation. Drawing on the history of CM, we argue that this is ‘correlative’ rather than analytical, seeking functional correlations, patternings, flows, and propensities in local collections of things and symptoms. This mode of equivocation handles difference without unearthing particular stable causal mechanisms, and easily assimilates new elements such as features of biomedicine. Parts of STS (and especially ANT) also work relationally, but the resources of CM for thinking and working correlatively to bring together difference are particularly rich. We conclude by briefly considering the scope of a possible ‘correlative’ STS. In such an endeavour the mode of descriptive equivocation would begin to look very different and STS would start to betray itself in favour of its CM subject.

Keywords

Post-colonialism, Chinese Medicine, balance of betrayal, controlled equivocation, correlativity, mode of equivocation

Introduction

STS treats knowledges as expressions of practice. But what does this mean in a post-colonial context? How might one think about the overlaps and intersections between 'Western' and 'other' ways of knowing and intervening in the world? To pose the question in this way is already to risk being tugged from the specificities of practice. The so-called post-colonial is multiple and diverse. So too is the 'West'. And the locations of overlap are indefinitely complex. The quick lesson and the starting point is that while large categories may catch something important, they also have to be treated with extreme caution. So how to think about difference without reifying it or washing it away into a confusion of complexity?

Post-colonial scholars have tackled this in a range of ways. Dipesh Chakrabarty (2000, 5) describes the one-way circulation implicit in the 'un-provincialised' understanding of authorised forms of knowledge. Zhan (2009) has explored the modes of material and symbolic circulation of CM between China and the USA since Maoism, Vincanne Adams (2002) has charted the variable and often exploitative links between pharmaceutical research and traditional Tibetan medicine, and in a quite different context Peter Redfield (2002) has considered what he calls the 'networks of empire' in the discourses and practices of outer space in French Guyana. Others have attended to *practices*, treating these as enactments that are simultaneously epistemological and ontological. Helen Verran (2001) shows how Yoruba and Western practices of numbering rub up together and are artfully intertwined in Nigerian classrooms. Elsewhere (1998) she has looked at how Aboriginal and settler versions of land and land ownership are enacted, again in creatively hybrid ways, and at practices of conservation (Verran 2002). Arturo Escobar (2008) has shown that nature, the social, the political and the economic are *all* radically unlike those of capital and technoscience in the practices of indigenous and mestizo people in Colombia. Marisol de la Cadena (2010) has considered how different 'political' entities – not simply people but, for instance, *Pachamama* (roughly speaking 'nature') – have found a place in the constitution of Ecuador. Analogous arguments have been made for the encounters between first nations and governments or large corporations in North America (Feit 2004; Noble 2007), and for the case of Chinese medicine (CM), a case to which we will return.

Some STS authors have refracted anthropological debates about cosmological difference. Here the work of Eduardo Viveiros de Castro(1998; 2004a; 2004b) is a marker for a much larger discussion about the character of anthropological knowledge across difference. Viveiros de Castro is not afraid of large categories. Amerindian cosmology is distinctive, he says, because it is 'perspectivist' and 'multinatural'. In the multiculturalism characteristic of 'the West' we recognise many cultures but only one reality, one nature. In Amerindian cosmology there is only one *culture*, but there are multiple *natures*. So jaguars see

themselves as human. They drink manioc beer, just like us. But *we* see them as jaguars and see them drinking blood. Agents (people, jaguars) have the same kind of souls ('culture') but live in different bodies ('natures'). The message is that there is a *single* ('cultural') perspective on a *multiple* nature. So how does knowing work?

> 'The problem for indigenous perspectivism is not … of discovering the common referent (say, the planet Venus) to two different representations (say, "Morning Star" and "Evening Star"). On the contrary, it is one of making explicit the equivocation implied in imagining that when the jaguar says "manioc beer" he is referring to the same thing as us (i.e. a tasty, nutritious and heady brew). … the aim of perspectivist translation — translation being one of shamanism's principal tasks … —, … is not that of finding a "synonym" (a co-referential representation) in our human conceptual language for the representations which other species of subject use to speak about one and the same thing; rather, the aim is to avoid losing sight of the difference concealed within equivocal "homonyms" between our language and that of other species, since we and they are never talking about the same things.'(Viveiros de Castro 2004b, 6-7)

Here's the problem: if homonyms hide ontological difference, then how do we hold onto that difference? And how might we learn from the shaman's concern with equivocal translation between natures to inform anthropological (or STS) thinking about difference? Indeed the argument is that *any* description bridges or translates ontological difference. Our translations are always hybrids because they draw analogies between different worlds. Vivieros de Castro's message is that the art of anthropology is to dwell in this space of equivocation (though we have no choice), and then to control that equivocation by recognising it. But how to do this well? He tells us that a good translation is one that:

> 'betrays the destination language, not the source language. A good translation is one that allows the alien concepts to deform and subvert the translator's conceptual toolbox so that the *intentio* of the original language can be expressed within the new one.'(Viveiros de Castro 2004b, 5)

The message is controversial, but it has been enthusiastically adopted by many in anthropology(Henare, Holbraad & Wastell 2007). Brought to (post-colonial) STS, then it becomes clear that we are in the business of translating across ontological difference. Our STS words are hybrid and they necessarily 'betray' what is said both in the places we come from and the locations we are describing. But Viveiros de Castro's take-home rule-of-thumb is that it is better to betray the stories told in the places we come from than those of other worlds. At the risk of sounding mechanistic, we might think of this by asking: what is the '*balance of betrayal*?'

There are many STSs, and in this way of thinking they all count as hybrid equivocations. This means that we need to take the question case by case, and tradition by tradition. Even if we stick to post-colonial STS we can see that there is no simple answer. Our analytical tools open up difference in important respects; think of the work done by the notion of 'symmetry' in all its variants, but also of actor-network theory (Jensen & Blok 2013). But then it loses difference too in other contexts (Anderson 2002, 643). The balance of betrayal shifts. It depends on question and context. Indeed, to talk of 'a post-colonial STS' in the singular is to lose that specificity. It homogenises 'the West' (Mol 2002). It doesn't reflect on the fact that this covers endlessly many alternative knowledge traditions. It also fails to see that if we take controlled equivocation seriously then STS will be fragmented, diasporic, and multiple; that indeed, there might not be an 'it' at all.[2]

These observations provide the context for what follows. Working within the conventions of an STS that draws on post-ANT and feminist material semiotics (Haraway 1991; Haraway 1997; Latour 2005; Law 2004; 2008), we follow Jensen, Morita and Blok by reworking this in a post-colonial context of equivocation (Jensen & Blok 2013; Jensen & Morita 2012). To do this we characterise an encounter between a version of CM and its intersections with biomedicine by exploring a Taiwanese consultation between a patient and a CM practitioner. It comes as no surprise to discover that biomedicine and CM are mixed together. We are not exactly in the world of manioc beer and blood, but the 'same' words certainly index different things. But *our own description is an equivocation too*, balancing between the clinic on the one hand and our post-ANT conceptual toolbox on the other. Mostly we are located in that toolbox, but we attempt to push the balance between the two in the direction of CM by attending to the *logic* of hybridity. We do this by drawing on historical writing on CM and Chinese classical philosophy, to argue that CM works *correlatively* rather than analytically. The argument is that correlative practices: *hybridise without purifying*; give priority to *contextual* knowing; enact a version of the body that is *non-reductive* even in principle; *weave patterns* between what the Chinese philosophical tradition calls 'the ten thousand things' (wàn wù, 萬物); and, finally, adopt a dynamic approach to the *propensities* caught up in a context.

We are still working in 'Western' analytical terms. But this descriptive equivocation suggests the possibility of a different and *correlative* STS, and we conclude by briefly characterising this. In the present paper this is no more than a gesture, but our reasoning is that if Viveiros De Castro was able to learn from his post-structuralist adventures into Amerindian cosmology there is no reason why STS cannot learn from Taiwanese medical practice. Such a

[2] There might be multiple sciences and studies thereof. Eduardo Viveiros de Castro (2011) makes a similar point about the dissolution of anthropology.

correlative STS would be a post-colonial STS, no doubt one of many. It is with this thought that we turn to a 2012 encounter in a CM clinic in the northern Taiwanese city of Hsinchu.

Hybridities

> Mr Wang has been on dialysis for twenty years. Three years ago he started visiting CM practitioners after a major health crisis that biomedicine failed to treat. Now he visits Dr Lee weekly.
>
> He enters Dr Lee's clinic, registers with his National Health Insurance (NHI) IC card and sits in the waiting room. There are around ten people there already. Dr Lee is popular so patients often have a lengthy wait. She is thorough, takes her time with each patient, and is one of best-known CM practitioners in the city. In the waiting room there is a display cabinet with rare and precious samples of Chinese medication. Some of these come from endangered species and are no longer used in the clinic. There are also copies of Ministry of Health licences and certificates for Dr Lee and her colleagues, and a certificate about the electronic patient record system (the latter is unusual in a CM clinic.) Other certificates reveal that Dr Lee and her colleagues are graduates of The Chinese Medical University. This means they have studied both biomedicine and CM. Then there are noticeboards with CM and biomedical posters about osteoporosis and diabetes, quality control reports about the safety of the 'scientific Chinese medication' (kē xué zhōng yào, 科學中藥, hereafter SCM), and details of the blood tests done in the clinic.

Scientific evidence-based biomedicine is often distinguished from traditional experience-based CM, but this is not what is happening here. People come for CM, but Dr Lee with her double training also offers biomedical examinations.[3] Traditional herbal and SCM are prescribed. CM is being mixed with biomedicine professionally and pharmaceutically. *CM practice is being hybridised*. So how might we think about this?

An obvious answer is that this is an expression of imperialism. STS has often described the hybridity and heterogeneity of imperialist science, technology and medicine. Actor-networks transported Newton's laws of physics from England to Gabon (Latour 1988); and the moving metropolis hybridised with the colonies to make tropical medicine (Arnold 1993; Stoler & Cooper 1997). The waiting room in the clinic fits with this. Indeed, it tells the subaltern side of the story, since its heterogeneity witnesses the weight of the colonial and post-colonial

[3] However unlike their colleagues in mainland China, Taiwanese CM doctors cannot prescribe biomedication and biomedical treatment.

history of Taiwan and China, and the imposition of biomedicine in these countries. In Taiwan this started in 1860s with Western missionaries, doctors and gunboats, but biomedicine was really institutionalised during Japanese colonialism after 1895 when CM was nearly eliminated. After 1945 the postcolonial republic created a biomedical health system, but it was not until 1958 that CM practitioners sought to revive their tradition by establishing the first CM institution, the Chinese Medical College (where Dr Lee studied.) Even so, CM needed to adapt to the administrative, epistemic and curricular practices of biomedicine (Hsu 2001; Scheid & MacPherson 2012; Taylor 2005; Zaslawski 2012; 王致譜 & 蔡景峰 1999; 何小蓮 2006; 林昭庚 2004; 葉永文 2011)..

From this we learn that in Taiwan: CM knowledge and diagnosis have been hybridised with modern science and technology; the traditions of clinical mentoring and reputation-based practice have been replaced by curricular education and exam-based certification; and CM medication has been transformed by biochemical analysis and located within the political and economic concerns of biotechnology (Hsu 1999; Hsu 2001; Kim 2006; Kim 2007; Lei 1999; Scheid 2002; Zhan 2009). The message is that the waiting room reflects the fate of CM in a global world; it is a sign of its *subordinated hybridity*. Seen in this way CM and Western biomedicine mangles (Scheid 2002), translates (Farquhar in press-a; Kim 2006; Lei 1999) or hybridises its indigenous alternatives (Zhan 2009). Perhaps it also seeks to purify the colonised body and turn it into objective valuables (Anderson 2013; Arnold 1993). Overall it counts as another instance of modernism at work (Latour 1993).

But how does this account look in terms of the ‘balance of betrayal’ we mentioned above? The answer is complicated. On the one hand, if we use the STS principle of symmetry to describe CM and biomedicine then this shifts the balance in the direction of CM. On the other hand we’re working in ‘Western’ STS terms. Unless all descriptions qualify, perhaps it isn’t fair to describe this equivocation as ‘epistemic violence’ (Spivak 1988). But what differences *is* it concealing? And how is it shifting STS’s own toolkit? The answer to the last question isn’t obvious, so let’s think about how describing this encounter might shift the STS repertoire. To do this we ask what is distinctive about the hybridity in this clinic.

Correlations

> Mr Wang goes into the consultation room. Dr Lee is sitting at a desk with a glass desktop and a computer underneath. On her right there is a small pillow and a light torch. On the left she has an IC card reader. She welcomes Mr Wang, inserts his IC card and starts to take his pulse (bǎ mài, 把脈). He rests his left wrist, inner side up, on the pillow and Dr Lee gently presses the tips of her the index, middle, and ring fingers of her right hand close together to his radial artery for around ten seconds. Then she

does the same with his right wrist. She moves to and fro between his hands a few times and looks at the top and bottom of his tongue with the torch. Finally she says: 'As usual your pulsation is string and deep (chén xián, 沈弦), but it's a bit faster and stronger.' She types a note about this and about Mr Wang's tongue into her computer: 'white, thin coating'. Then she asks: Have you been sleeping well recently?

Mr Wang: 'Not too badly but I can't get to sleep before midnight.'
Dr Lee: 'Are you sleeping well?'
Wang: 'Yes. I'm sleeping fine'.
Dr: 'How long have you been waiting out there?'
Wang: 'About half an hour.'
Dr: 'Did you drink any tea today?'
Wang: 'Yes, about an hour ago, after dinner.'
Dr: 'That explains why your pulsation is deep but faster. And what about your diet? Are you eating the usual things?'
Wang:' I've been eating away from home more than usual this week.'
Dr: 'So is the food heavier? Does it taste stronger?'
Wang: 'Maybe not, but haven't been eating at regular times.'
Dr: 'Eating in different places and at different times might disturb your digestion.'
Wang: 'My stomach feels okay. But I notice that in the morning my poo is a bit… how to say…not very 'solid' ….'
Dr: 'Not solid…mmm. Is it like diarrhoea?'
Wang: 'Yes, a bit like diarrhoea.'
Dr: 'At a particular time of day?'
Wang: 'Yes, in the morning.'
Dr: 'Do you feel uncomfortable before you go to the loo?'
Wang: 'Yes, sometimes, I feel that I have to go immediately.'
Dr: 'Have you been having any other problems?'
Wang: 'I've been tired recently. And today there's something wrong with back of my left shoulder.'
Dr: 'Did you carry something heavy on your shoulder?'
Wang: 'No. I don't know how to describe the feeling…'
Dr: 'In CM we say that the left part of the body belongs to the circulation of the blood and the right to the qi (zuǒ xiě yòu qì, 左血右氣). This might mean that you are 'struck by wind' (shòu fēng, 受風) or 'struck by coldness' (shòu hán, 受寒)… Not in the sense of getting a cold in biomedicine. It is about coldness going into the body …. Does your chest feel tight?'
Wang: 'No.'
Dr: 'Do you feel palpitations?'
Wang: 'No.'

Dr: 'What about your emotions? Have you been getting more excited, or anxious, or irritable?'
Wang: 'Yes, my work has been exhausting recently; we are in a rush to get a project done. Sometimes I feel 'fidgety with internal heat' (fán zào, 煩躁).'
Dr: 'I see. When someone weak is busy and doesn't have enough energy they will feel 'fidgety with internal heat'. We say that 'a depleted person is more likely to have fire/heat' (xū rén duō huǒ, 虛人多火) especially in the liver meridian.'
Wang: 'Do you mean that there is fire in my body? Is that why I feel fidgety and hot?'
Dr: 'Yes.'
Dr Lee calls the nurses: 'Please take his blood pressure.' A nurse comes with a hemadynamometer, while, Dr Lee feels his pulsation in both wrists again. Then the nurse speaks: 'It's 102 over 78.' Dr Lee repeats: '102 over 78', and keys the data into her computer. Then she checks the records, looks up at Mr Wang and asks: 'How about the problem with your leg? Have you brought the examination results?' Mr Wang gives her his blood test result and a leg scan report.

This is hybridity again. Dr Lee does the 'four diagnoses' (sì zhěn, 四診). She smells and listens, looks, asks, and feels Mr Wang's pulse. This is CM at work. But she also takes his blood pressure and looks at the scan and blood test results. These belong to biomedicine. The different logics and cultural contexts of pulse-taking in biomedicine and CM have been widely explored (Kuriyama 2002), but how does this work here?

The hemadynamometer and blood tests are tools for a specific way of knowing the body. Their results may lead directly to a diagnosis because they indicate what is wrong with – and usually within – the body: they are used to tease out the *underlying causes* of ill health. But the four diagnoses work differently. First, they do not look for direct underlying causes. No individual sign leads to a specific diagnosis. Instead CM explores the person in a specific and *located* composition of embodied, emotional and social *correlations* (Zhang 2007). To use Donna Haraway's term, it is a form of knowledge and practice that is not only situated but takes it for granted that it is situated. The God trick is not at work here (Haraway 1991). Particular signs and symptoms are associated with diet, sleep, excretion, lifestyle, the emotions, and the practitioner's own training and contexts. So the four diagnoses do not see symptoms or bodies in simple causal contexts but in contexts that are *complex* and *correlative* (Farquhar 1994). This extensive *contextualisation* is the second feature of CM. It is *hybrid* but it is also *correlative*.

But what should we make of the fact that Dr Lee checks both pulsation and blood pressure? One answer is that there are varying degrees of hybridisation between CM and biomedicine. At one end of the spectrum some CM doctors insist on traditional forms of practice. They prescribe herbal medication, perform the four diagnoses, avoid using biomedical

instruments, and even write notes in classical language using classical calligraphy. At the same time others modernise CM by working analytically, using experimental methods and the technologies of modern science and engineering (Lei 1999; Lei, Lin & Chang 2012; Ward 2005; 黃進明 2007). As we can see, Dr Lee works somewhere between these two extremes. She keeps her medical records on a computer, prescribes SCM, uses biomedical devices and reads biomedical reports, but she still performs the four diagnoses. She also talks of 'circulation of the blood and qi' and uses correlative contextual reasoning to specify problems.

So how to understand this? Our suggestion is that we should neither worry about the presence of biomedicine, nor reify biomedicine and CM as two separate unities (Farquhar 1994) Instead we should take a leaf out of CM's insistence on correlation, and ask what biomedicine actually *does* in a correlative context. How does this hybridity *work*?

Modes of equivocation

> Mr Wang complained that the backs of his legs were sore and that when he walked his right heel ached. His biomedical dialysis doctor suspected tendon injury, neuropathy caused by parathyroid hyperactivity, or arteriosclerosis, and ordered the biomedical tests we mentioned above. Dr Lee encouraged Mr Wang to go for the tests, but also doubted whether the dialysis doctor was right. She thought that the problem lay with the kidney meridian. 'It is the end of autumn,' she said, 'and winter is coming. It is time to rest the body. It is time for the 'yang qi' (yáng qì, 陽氣) to go into the body to be conserved and renewed in the spring. The kidney (meridian) is where this is stored. But you've been working too hard. You've been under pressure. This means that qi is flowing out of the kidney instead…. Your pulsation tells me that. You are sore and you ache near the kidney meridian. And aching is also a sign of lack of qi to warm your body. You need,' she concluded, 'to go to bed earlier and to work less hard.'
>
> The biomedical scan revealed no sign of arteriosclerosis. The parathyroid hormone was far too low to cause neuropathy. The dialysis doctor said that there was no particular problem, so nothing could be done. He advised Mr Wang not to not walk too much. But back in the CM clinic Dr Lee disagrees when Mr Wang says that he thinks the tests were a waste of time: 'The tests have eliminated some possibilities. We will stick to the original plan. We'll stick with my previous diagnosis, the problem with your poo, and your back pain…. The root of the problem, revealed in your pulsation; the pulsation at the 'chi' position (chě, 尺) in both your wrists is always deep, but it is stronger on the left. This shows that you are constantly drawing out energy to keep your body going on a daily basis…. The pulsation tells us about the overall dynamics and function of the

> meridians, but it doesn't tell us about all somatic morbidity, particularly if you've got a problem that hasn't yet caused any dysfunction. So we can also make good use of biomedical tests ….'

We have already seen that the tests do different things in the two clinics. In the dialysis clinic they work by finding out what is wrong *inside* the body. The assumption is that surface appearances conceal causal realities. The aim is to discover and to represent these, to analyse them, and if possible to intervene to put them right. So scans look *inside* legs and search for signs of clotting; blood tests look for abnormal thyroxin increases to find out whether the parathyroid is malfunctioning. They work by finding relatively simple causal contexts to explain the symptoms. If they find nothing then there *is* no causal link. Perhaps, then, Mr Wang is lucky. There is nothing detectably wrong with his biomedical legs, though the down-side is that this means that nothing can be done.

The logic of practice in a CM clinic is different. Dr Lee *adds* the biomedical results to her findings. They supplement her diagnosis. Yes, there is a biomechanical body with its specific anatomy. But she *also* works with a body that has circulating qi and meridians.[4] This means that she is able to relate *two* kinds of bodies together. But *how* do they relate? The answer to this question is crucial. We want to suggest that Dr Lee is not wrestling with a colonising body on the one hand, and a colonised body on the other. She's not *reducing* the qi body to a biomechanical alternative. She's not setting them up against one another to generate relatively simple sets of causes. *Instead she is correlating them*. She is putting at least parts of them *alongside* one another and relating them contextually and correlatively. Some comments on this.

First, though biomedicine tends to present itself as causal and analytical, in practice it is less reductive than this might make it sound. There are too many tools, diagnostic systems and modes of representation for a ruthless reduction to work in practice. Indeed, much of biomedical practice is about tinkering different kinds of causes together (Mol 2002; 2008; Mol, Moser & Pols 2010). Even so, the aim of much diagnosis is usually to find – or rule out – direct causal explanations for symptoms. The body is decomposed into elements or processes in order to explore these. So how do qi and its flows fare in this causally oriented world? The answer is: not well at all. The meridians and their flows are not explicable in terms of biomechanical mechanisms. They do not belong within its understanding of the body. Neither are there technologies within biomedicine to detect meridians or their possible imbalances. The consequence is that there is no space for qi in the biomechanical universe. It simply does not exist.

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[4] The boundaries between this body and the outside world are less sharply drawn than is usual in biomedical practices, since qi moves through both, and ebbs and flows with the seasons.

As we have just seen, in Dr Lee's CM practice it works differently. It is not simply that there is room for meridians, flows of yang qi, and indeed thyroxin levels. It is also that she works the hybridities that she discovers together within an alternative correlative context. The emphasis is not on hidden elements with fixed mechanisms. Neither is it on relatively simple causes. Instead it is on the ever-changing and situation-specific character of things and their relations. For CM doesn't reduce things to essences. Instead the logic is *functional*. Kaptchuk puts it so:

> 'The Chinese assume that the universe is continuously changing. Its movement is the result not of a first cause or creator, but of an inner dynamic of cyclical patterns. Just as the sun maps our four distinct seasons in its yearly round, so all biological organisms go through four seasons in a lifetime: birth, maturation, decline, and death. The constancy of the cosmos is in these patterns of change, which are regular. The cosmos itself is an integral whole, a web of interrelated things and events. Within this web of relationships and change, any entity can be defined only by its function, and has significance only as part of the whole pattern. (Kaptchuk 2000, 15)

This has an interesting consequence for those of us schooled in analytical traditions. It means that entirely new *kinds* of things are able to enter the world – albeit with debate and controversy (Henderson 1984). This includes things that come from, or relate to, the anatomical and physiological body, with all its elements and its pathways (Lei 2013 forthcoming; 皮國立 2006; 2012). How does Dr Lee think of that body? The answer is that she handles it *functionally*. So she takes the test results and relates these to CM's body of meridians and flows. Those results don't challenge any fundamental CM commitments or understandings about the nature of the world or the body. And, as a consequence, they are not excluded. On the contrary: they are welcomed in and functionally incorporated (馬光亞 1998). This is correlativity at work. There are endless things. The issue is always: how to relate them together in ways that work in the context in question.

There is nothing new about correlative reasoning. This is how it always was. Indeed CM has been transforming itself correlatively since the Han dynasty. *The Yellow Emperor's Inner Canon* (huáng dì nèi jīng, 黃帝內經) which described the yin-yang (yīn yang, 陰陽) of the CM system, collected theoretical principles and probably first compiled records of the five schools of ancient medical practice of the Warring States Period (475 to 221 B.C.) (山田慶兒 2003). Note that: *five schools*. The five phases and meridians were added and changed during the Qin Dynasty (221 to 206 B.C.) and Han Dynasties (206 B.C.- 24 A.D.) (徐復觀 1993; 廖育群 1994). The qi body and the theory of meridians have been heterogeneous from the beginning, though they remain diverse (李建民 2000). And the classics that followed *Yellow Emperor's Inner Canon* were also hybrid classifications, taking the form of collections of

medical records (yī àn, 醫案), interpretations of classic texts and (more recently) new biomedical facts (Sivin 1987).

We are arguing, then, that both biomedicine and CM work by putting things together: by hybridising. To the extent that they are descriptive they are both modes of equivocation. But biomedicine imagines a bodily coherence beneath the symptoms, albeit in practice often failing to discover this. It assumes that symptoms are caused by particular mechanisms, which means that a major task of medicine is to reveal those mechanisms. CM's equivocations work quite differently. Its practices exhibit some principles: yin and yang, the five phases, and meridians. But it does not break the body into parts, and neither does it seek to re-build it as a series of linear mechanisms. Instead it works by *correlating* whatever is present within and beyond the body contextually. Adding the parathyroid gland? This is no problem at all, either in theory or in Dr Lee's practice. We might, then, think of this as a *mode of equivocation* quite unlike that of biomedicine.

Propensities

> **Dr Lee**: 'Your pulse is like a guitar string. That means you have 'depleted-fire' (xū huǒ, 虛火) in the liver (meridian). This corresponds to your lifestyle. You are busy and stressed; you're exhausted and irritable. Your emotions relate to fire in the liver (meridian), because the liver (meridian) is like the general in the body. It governs your emotions and your determination.'
> **Mr Wang**: 'Hmm…fire. Should I take more cold drinks?'
> **Dr Lee**: 'Oh, no! On the contrary, you shouldn't drink anything icy. Warmer is better if you want to look after your yang-qi. And you need to 'nourish yin' (yǎng yīn, 養陰). By the way, though they are partially related, the liver in CM is not the liver organ in biomedicine. In CM the liver is the 'general' of the body. It is like the neurological and emotional system in biomedicine. It relates to stress.'
> **Mr Wang**: 'I see. Does the soft and watery excrement signify anything serious?'
> **Dr Lee**: 'It indicates that your body is cold (hán, 寒) and a bit damp (shī, 濕) inside. In CM the stomach and spleen meridians (in charge of digestion system) are like the fuel tank of a car. When your body is short of yang qi, it cannot digest its fuel properly. Wet excrement means that the tank is leaking; the fuel is coming out before it's completely oxygenized. So you don't have enough fuel and you easily get tired. This also has to do with your liver; since wood (mù, 木, symbolises the liver meridian) controls earth (tǔ, 土, symbolises the gastric meridian). Weak wood can't control the earth well. In fact, your leg problem is a further indication of the core of the problem. The kidney and the liver meridians are water (shuǐ, 水) and wood; water should nourish wood. But you're short of yang qi to warm the kidney, so the water is cold

> and doesn't nourish your liver. Your liver has to extract its own energy and that leads to a 'depleted–fire'. They are all connected. We need to tackle the kidney, stomach and spleen, and liver all together.'

In CM theory the somatic structures of a qi body is not the point. As we noted above, it is a body of *functions* such as digestion, breathing and thinking. Those functions are aggregated and associated with the circulation of two primary functional entities, qi and xue (blood), which move between the visceral systems of the five zang (wǔ zàng, 五臟) of heart, liver, spleen, lung, and kidney and the six fu (liù fǔ, 六腑) of the gallbladder, stomach, large intestine, small intestine, bladder and three burns (sān jiāo, 三焦)[5] in the twelve meridians.[6] The relations between the visceral systems correlate to the dynamics of five phases (wǔ xíng, 五行: wood (mù, 木), fire (huǒ, 火), earth (tǔ, 土), metal (jīn, 金), and water (shuǐ, 水)) of qi dynamics. Indeed, all the phenomena in the universe and nature can be correlatively assimilated to these five elemental qualities, so lines of correspondence can be drawn between meridians, directions, colours, climates, musical notes, emotions, tastes, sense organs, and parts of the body.

So what to make of this? One answer is that like de Castro's jaguars and people, biomedicine and CM engage in different worlds. But the styles of those worlds or their modes of equivocation are also different. Unlike the biomedical analytical style, it is the ten thousand things following the correlative dynamic of yin-yang and five phases that constitute the Chinese medical world. So how are correlations done in this encounter?

> **Dr Lee**: 'Basically I will stick to Wendan decoction (wēn dǎn tang, 溫膽湯) with some modifications[7] to warm the body and therefore increase the yang qi. I will prescribe a week's medicine. You can see if you get less fidgety and hot. And you should do your best to get to sleep before eleven o'clock.'
>
> She goes back to her screen, types in the rest of the symptoms and starts to prescribe medicine. However, what she writes doesn't have to do with qi or meridians. Instead she uses WHO's International Classification of Diseases' (guó jì fēn lèi, 國際分類) and types '30742, 5649, 7291'. ICD diagnostic entries get thrown up on her screen, entries such as 'persistent disorder of initiating or maintaining sleep', 'unspecified functional disorder of intestine' and 'mtalgia and myositis, unspecified'.

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[5] Three burns is one of the most radical differences between the visceral systems of the qi body and the organ system of the anatomical body and has drawn CM doctors' attention in the very beginning of encounter (Lei 2013 forthcoming).

[6] The cycle of nourishment is liver (wood), heart (fire), spleen (earth), lung (metal), and kidney (water), while the cycle of control is lung, liver, spleen, kidney, heart.

[7] The composition of Chinese medication is a very important topic regarding CM correlativity and propensity (Farquhar 1994; Scheid 2002), and we will explore later.

Mr Wang looks at the screen and asks: 'Is my sleep disorder so serious? Isn't kidney failure and dialysis my primary diagnosis?'
Dr Lee smiles: 'Sure, kidney failure is serious. But in the ICD the treatment for kidney failure is dialysis, and CM doesn't offer that. In fact, patients surviving with kidney failure for years were never reported in CM before dialysis, and CM uses symptoms rather than diseases to think about problems. So we use the ICD by sticking to your symptoms (zheng zhuàng, 癥狀) rather than the disease. It's so called 'syndrome differentiation and therapy determination' (biàn zhèng lùn zhì, 辯證論治). Not 'disease differentiation and therapy determination' (biàn bìng lùn zhì, 辯病論治).

This can be read analytically, in which case it tells a colonising story. This is a world in which there is no room in the ICD for qi or liver fire or wood. As Sivin puts it, 'modern scientific medicine replaces part of reality. It creates new facts, and destroys the faciticity of the old ones.' (Sivin 1987, 198)[8] But it can also be read correlatively, and this is being done by thinking about propensities. But what are *propensities*?

Guang-ya Ma (mǎ guāng yǎ, 馬光亞) taught Dr Lee at the Chinese Medical University. In the Preface of his well-known textbook on diagnosis he observed that:

> 'The difference between Western and Chinese medicine is the distinction between 'examination' (yàn , 驗) and 'pattern' (lǐ, 理 [9]). The examination … investigates details with scientific methods … technologies and methods become ever more innovative and precise… and can examine everything in the greatest detail…. [By contrast] Chinese medicine … is all about 'pattern' … It is accumulated from experiences, implicitly building on and systematising the fundamental principle that 'the full will empty and the depleted will grow' (yíng xū xiāo zhǎng, 盈虛消長) in the study of yi (yì xué, 易學; here means the *book of change*, 易經)'. (馬光亞 2006, 3-4)

The key word here is *pattern*:

> 'Yin and yang are the halves of two sides. You compare them and you elaborate them, and then you know the pattern of yin and yang; you understand depletion, excess,

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[8] For a dramatic biomedical example posed in terms of equivocation, see Bonelli (2012).
[9] The word '理' in Chinese means texture, pattern, logic, principle, reason. Here Ma (2006) refers to the logic and pattern of the genesis of the world, as in the dynamics of Tai chi (tài jí, 太極) where yin and yang play the fundamental roles. Originally yin and yang signified the presence and absence of sunshine, and they subsequently slowly evolved into dynamic, pairings including qi, gender, celestial bodies, food, personalities, location, social relations, seasons, temperatures, directions and power. Indeed they correlate everything (徐復觀 1999)

> coldness and heat. What is 'depletion'? To be 'depleted' means that the body is deficient, and that is yin. What is 'excess'? 'Excess' means that pathogeny and evils predominate, and that is yang... Chinese medicine can improve any difficult disease with such methods of syndrome differentiation. Many problems that lie beyond the power of [Western medicine] can be resolved by [Chinese medicine].' (馬光亞 2006, 7-8)

The yin-yang dynamics of the body and the ten thousand things are complex, and Ma's words are little more than a gesture. At the same time, Ma is not the only CM practitioner who has attempted the equivocation of describing correlations analytically. *The fundamentals to Chinese Medicine*, part of the *Eleventh Five-Year National Plan* from the People's Republic of China, observes that the rhythms of the seasons are fundamental to yin-yang correlative propensities (王秀 2011, 32-7). Then it adds:

1. 'They *contrast and conflict with one other*: the opposing pairs compete to dominate; as, for instance, in the changes of the seasons from spring, summer and autumn to winter, when warm, hot, cool and cold predominate in turn.
2. They are *mutually inclusive*: one half cannot exist alone; a warm winter, hot without cold, is deviant and dangerous.
3. They are in *dynamic balance*: they move, they change, and they increase and decrease; so summer (stronger yang) comes after spring (weaker yang) and winter (strong yin) comes after autumn (weaker yin).
4. They are *mutually transforming*: in certain conditions yin and yang transform into the other; so midwinter (with the strongest yin) transforms into early spring (mild yang).'

So yin and yang are *correlative propensities*. Mutually dependent, in tension, included in each other, and in a dynamic and reciprocally transforming balance, they offer a rich set of correlative metaphors for thinking about the endless movements in the world and the body as creative and complementary tensions or propensities. And in practice when they are trained CM doctors learn strategies for transforming propensities into interventions. They are taught (in different ways in different schools) to observe and explore the situation of the patient[10]:

> 'The analytical phase…must be seen as opening a range of possibilities that are variously deployed according to the conditions of the moment. These conditions

[10] Such as the eight rubrics (bā gāng, 八綱), six meridians (liù jīng, 六經), four aspects (wèi qì yíng xiě, 衛氣營血) , and zang-fu visceral (zàng fǔ, 臟腑) analyses, each has its own emphasis (Farquhar 1994; Scheid 2007); the six meridians analysis emphasized by the Cold Damage school and the four aspects analysis recognized by the contrasting Warm Illnesses school usually have different strategies (Farquhar In press-b).

> naturally include the habit and the training of the doctors as well as the manifestation of illness with which he is dealing.' (Farquhar 1994, 134).

And this is how Dr Lee works. Mr Wang's problem becomes a serious imbalance between the kidney, liver, and stomach and spleen meridians, and she prescribes the specific prescription needed to tackle that imbalance. Her diagnosis, plan for treatment and the medication all have to do with re-arranging the unfolding of propensities. As she gathers biomedical tests results and asks Mr Wang about his daily life, his diet and emotions, and feels his pulse, she is locating relational propensities and imbalances. She is working correlatively. Those correlations include: having been on dialysis for a long time; a sore leg and a lack of yang qi in the kidney (shèn yáng xū, 腎陽虛); a general lack of yin; and too much fire (yīn xū huǒ wang, 陰虛火旺). And there is more: adding biomedical examination to her diagnosis, explaining the ambiguous meaning of liver and gastric system to patients, and using ICD to register traditional practices. Thus biomedical technologies, reports and the concepts done in this encounter become parts of the pattern of propensity without unearthing a transcendent reality underpinning appearances. This is how an alternative balance of betrayal is done in a contemporary Chinese medical encounter.

A Correlative STS?

In this paper we have used the tools of STS to explore a standard post-colonial issue. Entering reservations about the terms, we have asked how to think about the intersections between 'Western' and 'Other' knowledge practices. In particular, we have asked how STS might make sense of that intersection. There is a straightforward way in which the STS commitment to symmetry puts right the assumption that 'Western' forms of knowledge and its practices are better grounded than those of 'Others'. Each has to be taken seriously and understood in the same terms. But the attachment to symmetry opens up a second problem. If 'Western' and 'Other' knowledge practices are understood in the same terms, then question is: whose terms? STS is fragmented and comes in variants. But historically it is a fairly recent product of work by Western academics. It has not grown out of (say) Amerindian societies, Taiwan, or China. In short, to understand post-colonial knowledge relations in STS terms is currently to understand these in a 'Western' way.[11] So how to think about this?

[11] This has caused anxiety among STS scholars not located in the West when they find that they are being asked what is distinctive about 'their' STS (Fu 2007).

In answer to this we have drawn the work of anthropologist Eduardo Viveiros de Castro and his STS interpreters including Casper Bruun Jensen. Like many Viveiros de Castro argues that anthropological description is *translation*. Anthropologists tell stories in *their* language about other worlds, but translations are also betrayals since equivalence is impossible. The issue then becomes *how* to distribute those betrayals. How far should we betray those whom we are describing? And how far should we betray our own methodological and theoretical languages? For Viveiros de Castro a good translation is one in which we betray our own languages, methodological and conceptual toolkits, and practices. We shift. We change. We move on.

As we noted in the introduction, as a general rule this is no doubt too simple – though it has its defenders within anthropology. Do we always want to betray ourselves? This isn't obvious. It depends on what we are trying to do. Or, more subtly, it relates, too, to *how* we want to betray ourselves. But the larger point has to do with ontological difference. The problem with translations, and more generally with descriptions, is that they are *equivocal*. Homonyms – the same words – index different things but (here's the problem) those differences tend to get lost. The inspiration for Viveiros de Castro is Amerindian. Here cosmologies are multinatural: *worlds* are multiple and ontologically different. It is talking, subjectivity and *culture* that is singular. This means that descriptions are always equivocations.[12] And this dovetails with those STS traditions that discover ontological difference not only between the 'Other' and 'the West' but also *within* the latter where homonyms index and conceal different realities.[13]

So how to think about the issue of post-colonial encounters in STS? Our first response in this paper has been characteristic of STS. We have worked with practices and specificities. In some sense, yes, 'Taiwan' and 'the West' or 'Chinese Medicine' and 'biomedicine' exist, and inform our focus: we are concerned with the intersection of these larger categories and realities. But we have also stayed with specificity by describing a particular consultation in a particular medical practice in Taiwan. Inflected by the STS commitment to symmetry and our own material semiotic sensibilities, we have argued that CM and biomedicine are *combined* in that consultation. We also touched on Taiwan's colonial history. We observed that CM was pressed to the margins. The description is interesting though scarcely surprising: CM becomes a hybrid that is also being subordinated. That's the first step. At this point we are firmly in the Western STS tradition. Our translation, equivocal though it is, takes CM seriously by pulling it into the STS apparatus. The balance of betrayal is no doubt complex,

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[12] Viveiros de Castro isn't always consistent. Sometimes he appears to say that non-equivocal description is possible. But more often his message leads in the other direction. It is a *condition* of description that it is necessarily equivocal.
[13] See, for instance Mol(2002), Law (2002) and Law and Mol (2002).

but the STS framework has barely shifted. But consider this. CM has always done without a commitment to strong causal mechanisms. It works without presuming an ontology like that of biomedicine, that hinges on pursuing a hidden reality. In short, it has always hybridised correlatively. What happens if we use this mode of correlative equivocation to describe Dr Lee's clinic? Do we still see subordination? It's an open question, but there is at least a case for saying that the answer is: no we don't. Correlatively, we are no longer looking at domination. We are no longer looking at subordination. Instead what we are looking at is CM business as usual.

Then, and in a second move, we have attended to the style or *mode of equivocation* in the clinic and argued that this is distinctive: that it is *correlative* rather than *analytical*. Dr Lee does not seek specific causes for symptoms in determinate somatic structures, as would be common in a GP consultation in (say) the UK. Instead she works on a *functional* body-in-its-environment. For her everything is functionally related to everything else, and there are indefinitely many possible correlations. It becomes the job of the practitioner to sense out and influence imbalanced correlations by working upon the propensities. And then, another observation, since Dr Lee is working in terms of an endlessly complex *functional* body, we have shown that, at least for her, it is easy to add elements of biomedicine to the mix. There are no causal pathways or patches waiting to be undermined by such additions. While biomedicine keeps unearthing underlying mechanisms and entities and challenging Chinese medicine, the latter manages ontological clashes time after time. This way of talking about a mode of equivocation still skews description in favour of our STS description. But this is the point where it becomes possible to see how that balance might shift. Indeed, since it has been more interested in associations rather than causes or their equivalents, the ANT tradition is helpful here (Jensen Forthcoming 2013). Perhaps this renders it relatively open to the non-coherence of equivocation: to ontological difference. Certainly ANT does not look for hidden or causal patches and it is almost fiercely non-reductionist. Thus while it isn't correlative in the CM sense, the *idea* of correlation is not so difficult. And this is the move that we have worked towards in the paper. Using the CM consultation to think with, we have reached the point where we can ask *what a correlative STS might look like*. We have not got there yet, but this is the cusp, the place where the balance of betrayal starts to move. It is our particular version of Viveiros de Castro's controlled equivocation. It is the move that starts, and unpredictably, to shift the toolkit of STS as it translates between post-ANT and CM.

So what might a correlative STS look like? The art, as Ma noted, is to grasp the *pattern of things*. This resonates with the teachings about propensity of the Tao (道) by Lao-zi (lǎo zi,老子):

> 'Tao engenders One,
> One engenders Two,
> Two engenders Three,
> Three engenders the ten thousand things.'[14]

In a more analytical version Sinologist Graham offers us a hint:

> 'The great interest of system-building of the Ying-Yang type, odd as its results may seem, is that it tries to lay out explicitly the full range of comparisons and contrasts which other kinds of thinking leave implicit. Simply to apply a common name one has already to be classing as similar and distinguishing from the dissimilar.' (Graham 1986, 2)

This suggests that correlation is a rich toolkit for describing – and working upon – patterns of association. Such is the character of Dr Lee's consultation: the mobilisation of rich and complex functional relations. But now the post-colonial shift. If we draw on the correlative to inflect our own academic toolkits we are moving towards a style of knowing or a mode of equivocation that is different; a potentially 'correlative' STS. In such an inquiry what counted as knowing – the balance of translation – would start to move. Recall our comment above. Knowing in the CM tradition has rested on clinical apprenticeship rather than a formal curriculum. Practitioners have depended on reputation rather than examination and certification. CM has also been disparate and multiple: there are endlessly many ways of working with and on the correlations that form its corpus. And as we have also argued, it has been syncretic and additive too. In her practice Dr Lee absorbs biomedical tests and test results: ontological heterogeneity is no problem at all. If we were to bring this home then STS – in this possible correlative version – would begin to change socially, administratively, epistemically and educationally. What counted as an 'explanation' would be different. Of course, as we have noted, 'Western' STS is not a monolith. But the implications of this novel multiplicity would themselves be – multiple.

So we see subordinated hybridity in Dr Lee's clinic. But we also see managed ontological heterogeneity, the equivocal translation of syncretic patterns, propensities, and the correlativity of ten thousand things. These are what are thrown into relief in an alternative and correlative STS. We do not necessarily want to make this move. There can be no general rule. There will be other locations that resonate with the story of domination, and equivocations may come in violent forms. In any case, we would need to think about how correlativity recognises hierarchy. But the very suggestion that the world looks different,

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[14] This translation comes from Lao Tzu's (2007b) *道德經*, ch42.. For discussion of the translation of this chapter see Lao Tzu(2007a, 143-44) by Hall and Ames.

indeed that the world *is* different, hints at the possibilities and uncertainties that follow once we start to shift the balance of betrayal. The descriptions offered in a correlative STS might look very different.

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