

## A conference report: translating across difference

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The Quest for Personalised Health: Exploring the emergent interface of East Asian medicines and modern system sciences<sup>7</sup> organised by EAST medicine Research Centre at the University of Westminster and the School of Life Sciences through the Director Dr Volker Scheid with Professor Jan van der Greef and Professor Bridie Andrews, as well as the International Association for the Study of Traditional Asian Medicines (IASTAM). It was held in London on the 10<sup>th</sup> & 11<sup>th</sup> June, 2011.

An ‘emergent interface’ is an exploration of sharing data and information from one discrete system to and from another and looking for what new emerges from this process. This includes an assumption of significant heterodoxy in conception, structure, language and processes in the different systems attempting to interact. In the virtual world they may be overlain and some coincidence of nodes or pattern identified. Or they may float at some remove from each other with perhaps the occasional intersection forming new nodes and relations.

A conference or dialogic interface is a whole bunch of differently embodied people messily and sometimes gracefully engaging with each other. Contending, awestruck and perhaps disconcerted by difference, excited by similarities, delighted by mutuality, tantalised by glimpses into cracks or fractures in seemingly closed system boundaries, perhaps disappointed when those emerging cracks close over when examined directly. There was talk of ‘incommensurability’ – that it is (and perhaps was at the Conference?) impossible to measure or compare systems sciences and East Asian medicines. Acknowledging that the way biomedicine differs from Chinese medicine is a complex issue Hanson locates it as an ongoing historical conundrum since the Jesuits arrived in China in the late sixteenth century and more recently addressed in theoretical, historical and anthropological studies. She identifies ongoing dyadic frameworks to locate one in relation to the other: “[biomedicine] is more reductionist and atomistic and [Chinese medicine] is more holistic and system oriented.” Perhaps looking for commonalities with scientists who too are moving beyond reductionism toward systems thinking is a useful endeavour.

Dr Volker Scheid opened the conference with a Latourian challenge for us to form hybrid networks through focusing on translation of our different conceptions and practices; breaking out of our need to purify and refine our differences to locate ourselves within our own boundaries. He also identified one of the strengths of Chinese medicine lying in its capacity to personalise medical care as exemplified by Zhu Danxi extolling his teacher Luo Zhiti as never having used a single prescription twice in three years of studying with him.

The four keynote speakers were a tour de force. Firstly

Professor Denis Noble, a physiologist, began by detailing the principles that led him away from reductionist biology into systems theory. This material is covered eloquently in his book ‘The Music of Life’ an excellent and accessible read. By debunking the notion that genes are programs that guide our lives Professor Noble pointed to examples of ‘downward causation’ where incidences of feedback and constraint occur both up and down the linear hierarchy from gene, cell to whole organism as the body establishes alternative pathways when the main mechanism decline or vary. “Function at higher levels in organisms depends on an interaction between the genome, the cells, tissues and organs, and the environment, with the higher levels and the environment acting as constraints on the processes at lower levels. Without those constraints life could not exist. There is no privileged level of causality”. He called for systems biologists to focus more on the understanding of physiological and pathological processes at the higher levels of organisation (rather than substances) and for East Asian medicine traditions to move toward demythologising to make them more amenable to dialogue and perhaps synthesis.

The second keynote speaker, Professor Nathan Sivin, is another distinguished senior scholar but in the field of sinology and the history of medicine. He asked that we apply the rigour of contemporary analysis to all medical endeavours whether pre-modern, East Asian or biomedical. “Concentrating on principles that hold for not only popular but scientific medicine, for not only ancient but modern medicine, seems to me a good way to avoid self-delusion”. He asked the difficult question of why and how people who are ill heal. Drawing on the work of Daniel Moerman Professor Sivin emphasised that there are different responses to a medical intervention – spontaneous healing, a specific response to that treatment and a meaning response to all that surrounds the specifics of that intervention such as beliefs, the way in which it was delivered, the colour of the medicine and so on. It is this ‘meaning’ of the medical encounter that matters – and it matters by influencing outcomes. Examining the education of medical students in the US Professor Sivin identified the enlargement of ‘evidence-based medicine’ as being at the cost of training in the art of the doctor-patient encounter. It can only be hoped that the pressures on East Asian medicines to adopt an evidence-based practice will not undermine some of their major strengths.

The third scholar to speak was Dr Jane Calvert a specialist in the study of systems biology and systems biologists. Using a science and technology studies perspective she has been talking to systems biologists about their field and examining their projects. She used Keller’s (2005) argument that “For too long we have tried to build a biology out of nouns, a science constructed around entities. Perhaps it is time for a biology built out of verbs, a science constructed around processes” to define her talk – is systems biology such a biology? Dr Calvert addressed the issue of translation; that is, how the movement of knowledge occurs from one place to another – from laboratory bench to the bedside, from Asian medicines to systems biology – acknowledging that these are inevitably partial and imperfect interpretations rather than direct translations. And the

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difficulties that arise by removing knowledge from its context to make it portable and able to be standardised.

The final speaker of the first day was Dr Hans-Georg Moeller who used great scholarship to define the concept of 'qi' and by doing so placed the issue of 'translation' firmly into the centre of the discourse. He concluded: "The notion of Qi allowed for a worldview in which organic and inorganic things are, while clearly differentiable, nevertheless not fundamentally separate from one another, but instead "energetically" continuous." In so doing the tradition that has produced Chinese medicine side-stepped both anthropomorphism and the mind-body problem of the Western tradition.

The process of allowing a commentary and discussion after each speaker was obviously designed to promote dialogue and cross-referencing between such different contending ideas. It was helpful particularly as it did not displace the coexistence of such challenging concepts in one's mind – it just pushed them around a little allowing them to sometimes find common meeting points and sometimes move further apart. Surely the task of being a responsible conference participant at the end of day one required us to allow the tension of such different perspectives to remain at the foreground of our consciousness. And to have ringing in our ears Yi-Li Wu's question of whose perspective is being subsumed by the other: is East Asian medicine clipping its awkward bits to fit neatly within systems biology? Or as Andrew Flower suggests is it realpolitik at work with non-biomedical approaches being bulldozed before a wave of scientism and needing a sympathetic science to cosy up to?

The second day offered such diversity collected into 3 panels: on complexity and systems with Professor Andrew Pickering, Dr Hugh MacPherson, Professor Yi-Li Wu and Paul Kadetz; on effectiveness with Professor Claudia Witt, Dr Andrew Flower, Sue Cochrane and Michael Stanley-Baker; on the Chinese view of things with Jan Schroen, Dr Roel van Wijk, Dr Vivienne Lo and Professor Bridie Andrews. And then there were commentators and questions from the floor! It is difficult to convey all these contributions here. Perhaps the most effective method would be to share some of the detail that emerged from the discussion (in no particular order):

- That there are not enough mice in the world to be pressed into laboratory service to complete the genomic analysis.
- "The discovery of post-genomics is that this apparatus is beyond our ken even when we can see all of its parts".
- That the globalisation of Chinese medicine is displacing and reducing access to indigenous medicines in rural Philippines.
- That 80% of system biologists see systems biology as cumulative reductionisms into mathematical and computer models.
- That Chinese medicine details 3000 signs and symptoms and orders them into 730 syndromes or patterns.
- That rheumatoid arthritis sufferers can be grouped (via TCM) into heat-type and cold-type and these types have been found to have entirely different biomedically-assessed causation (hormones more related to Cold syndromes; immune factors more related to Heat syndromes).
- 80% of genes when eliminated from a living creature will have no effect on its functioning.
- Elderly people with neck pain participating in a clinical trial failed to recognise and accurately apply a VAS scale of their pain causing the trial to become meaningless.
- A TCM doctor in China regularly sees up to 220 patients in one afternoon session (this reflects "the tension between the ideal of individual specificity and the practical constraints of clinical work").

- There is seemingly an absolute taboo against moxa in acupuncture research.
- 8% of women (in endometriosis self-help groups) receiving surgery for their endometriosis found the result very or moderately effective (17% found it much worse).
- All medical traditions [are] the upshot of such dense performative interactions with bodies, and the establishment through such interactions of viable conversations, mediated by more or less stable fields of techniques and concepts".
- It might be "that biomedicine is passing through one of those Hegelian moments when traditions undercut themselves and stand themselves on their heads".
- Efficacy is always bound up in epistemic arguments about the primacy of intellectual systems, which are in turn, intrinsically bound up in power politics.
- 'Living traditions', successful by definition, inevitably transform in order to remain meaningful outside the social and cultural context of their origins.
- The 'hierarchy' from data to information to knowledge to wisdom can interact and inform both ways and all ways.
- Daoist healers use/used a diverse range of healing techniques such as more standard Chinese medicines and exercises, incantations, personal hygiene, rituals, etc – often in combination.
- In the mid 1990s the Chinese health authorities directed that all medical consultations (including TCM) must lead with a biomedical diagnosis.
- There is a movement of fluid within connective tissue & most acupuncture points are located where 2 connective tissues meet.
- Kites are flown (is complexity a useful concept to guide future research?) & blind men grope elephants (can the idea of systems encompass the 'whole'?).
- Water is often not liquid but a gel.
- Biophoton emission can be an effective biomarker that can be used to scientifically quantify the existence of the qi.

Listed like this it appears to have been a very disparate conference but there were definite themes emergent. These predominantly focused on what Andrew Pickering called 'performative knowledge' – the way in which science is 'done' and the way in which East Asian medicine is practised. That is, a focus on processes and relationships rather than the things or subjects.

Did this conference meet its objectives? For me the conference supported the wisdom that:

"When you are hunting you look for the places where opposites overlap, because you know that is where to find the highest concentration of life. This is a basic truth in nature – when opposites meet, a dynamic synergy occurs. Where high ground meets low ground, where sea meets land; all through nature, when opposites mix, they create something new that is better than either. It is not a compromise."- Tyson Yunkaporta 'Aboriginal synergy: Indigenous alternatives to binary oppositions.'

Certainly there was much discussion across disciplines and many thoughtful people accepting the challenges offered by the speakers. The most animated evidence of the possibilities of collaboration came from a post-Conference discussion of a joint research project on depression. Beginning with exploring how East Asian medicine can assist as a diagnostic framework which could then be used to identify different biochemical ways of being depressed this project seems very exciting and one to watch as evidence of the benefit of collaborative methods.

I commend the Conference organisers and speakers for the challenges they have given. Finding East Asian medicine a place in the future seems a particularly urgent problem in Europe. We need practitioners who continue to do East Asian medicine with clinical excellence. We also need people who are able to connect us with other medical traditions and pioneer studies such as systems biology. If our purpose is to bring the wisdom of our personalised health practises to a broader public then these systems biologists are an excellent and fertile starting point.

#### **CONFLICT OF INTEREST**

The authors have no conflicting financial interests.

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