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Review of James Leach and Lee Wilson (eds.) *Subversion, Conversion, Development: Cross-cultural Knowledge Exchange and the Politics of Design* (2014). Cambridge, MA: The MIT Press. ISBN: 9780262027168

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Abstract: Book review

In James Leach and Lee Wilson's edited volume *Subversion, Conversion, Development: Cross-Cultural Knowledge Exchange and the Politics of Design*, a challenge is laid down to many of the prevalent connections that are made between information, technology and knowledge, and this is done with a specific focus on design and use factors in a range of diverse cultural settings. Leach and Wilson's introductory essay contextualises the volume and discusses "alternative cultural encounters", alternative to the media consumption/information-technology nexus that is in place in First World societies. It asks how media practices can act as a "form of cultural resistance and subversion" to the un-negotiated effects of the colonising paradigm in these "DIY cultures"; how the models of technological appropriation and production that are adapted by those on the periphery *to enable representation, political participation, knowledge production and information capture* can inform an analysis of the epistemologies built into "mass-produced technology offerings"; what are the "hidden assumptions and politics behind design" and how these can "be productively challenged or subverted in action" (1). What the editors are trying to tease out here is, in a way, fairly well-trodden ground, from Heidegger through Ihde, Stiegler and Irrgang, but the material is challenging in the variety of perspectives and the sense of what can come from the type of adaptive facility which the contributors explore.

The focus on how "technologies and their design carry particular assumptions about social relations" is supplemented by a specific focus on a range of situated practices that readers are challenged to revisit in order to better understand "where ubiquitous, neutral-seeming tools are revealed as carrying normative principles when they are used in unfamiliar or unexpected settings". Leach and Wilson focus on the broader context of the treatment of knowledge in such settings: how is it possible for knowledge to be a "neutral good with universal reference [...] abstracted from the context of its generation and made to carry value into other domains through new technologies"? What comes from a concept of knowledge that is oblivious to the "social relations of (its) emergence"? A key point of focus is how ICTs "flatten difference" – with regards to knowledge – and the claim is that this is symptomatic of the "organising effect" (1) they bring when adopted.

While Leach and Wilson cite J. F. Weiner as support for a productivist metaphysics underpinning "the contemporary visibility of knowledge in knowledge economies" (for example, intellectual property), this is a Heideggerian notion which might have been more clearly articulated as such. Weiner actually speaks of Heidegger's characterisation of "the attitude which directs consciousness toward things as that of *care* and *concern*. In other words, our perception is directed by our own concerns and projects, and the world so constituted is thus a humanly resolved world" (1991, 13). This volume does, however, faithfully reflect these sentiments.

Leach and Wilson further describe the base from which they survey the considerations of knowledge as the "forms of collaborative work and uses of technology" (1) in search of the "inflections" cultures give to "the value of knowledge". The reason behind this is that they wish to "challenge the effects of the media" and "the politics of design that facilitate a kind of appropriation or disembedding of value from social action". They claim that the need to scrutinise "knowledge production in relation to media" and the ways in which knowledge production is too easily assumed to be a straightforward process – essentially easy ways of realising this as a product – "exclude many kinds of knowing" (2).

Mark Harris, whom Leach and Wilson cite for this claim, sees "a way of knowing" as "the movement of a person from one context to another"; less about philosophical, cognitive or socio-political understandings, this *movement reflexivity* is better understood as "an achievement of work, experience and time" or the "intellectual workmanship" outlined by C. Wright Mills (Harris 2007, 1-2). Leach and Wilson claim that what the rest of us are missing is exposure to "emergent and relation 'process-based' knowledge forms" (2) that anthropologists come to in their work with human groups in less stratified, less urban, subsistence-based societies.

In Leach and Wilson's estimation, knowledge is "being radically recast in the era of globalisation and digitisation" (2) and they cite open source software, free journals, online social networking and forms of preservation and performance in online environments as examples. They focus on the use and challenge to "existing design parameters for media and communications technologies" and highlight that while the "encoding and transmission" of "knowledge into kinds of information" is necessary for this recasting to occur, the important question is to ask whether "all knowledge is simply amenable to this form". As they see it, new communities entering the "field of knowledge production" deserve understanding for their perspectives (and the real knowledge they can offer the rest of those of us identifying as *homo academicus*). They say, as an example, what we might *do* with indigenous knowledge lacks context and a reliable basis due to, firstly, "assumptions about the separation from knowledge from relationships between people" and secondly, scientific (which they call Euro-American) "conceptions of knowledge" which they consider to be of a kind that is simply "representational of the world of nature" (3). The social epistemology trend would seem to have a part to play in reconciling these differences, concerned as it is with both the problems of inductive reasoning in scientific settings and with how disciplinisation has been "transformed from a defect to a design feature of knowledge growth" (Fuller 1988, 277).

Leach and Wilson say that "indigenous knowledge is often embedded in, as if it were in fact an object of, relations between persons and beings of different kinds" – these beings might refer to types of magical horticulture; art embedded in so-called "lifecycle events" and an amorphous set of instantiated, epitomised and personified events: "the entanglements of social and practical, natural and cultural, productive and decorative" (3). This tendency to resist separation of knowledge in the indige-

nous settings that form the bedrock of this collection links in with the incommensura-bility of these other forms of knowing with (more or less) scientific knowing as exem-plified in epistemology and philosophy of science. Tony Crook, to whom Leach and Wilson refer in their critique, makes a salient point in advancing the view that "re-newed anthropological interest in knowledge must avoid […] the privileging of 'knowledge' over those doing the knowing – that is, properly – thinking applied to knowledge tends to a slippage in terms of treating "knowledge" as a universal cate-gory in addition to being some pan-human possession" (2007, 246).

Appropriate media forms for presenting knowledge that is characterised as holistic are difficult to identify, but there are several examples given in this volume, from the Freifunk (free radio waves) movement in Berlin outlined by Gregers Petersen to Hel-en Verran and Michael Christie's discussion of postcolonial databasing as a form of experimental metaphysics in Australia's Northern Territory Aboriginal communities. Hildegard Diemberger and Stephen Hugh-Jones discuss the fascinating "redefinitions of communication technologies" among Tibetans and Amazonian Tukanoans as:

> [...] means to appropriate and control the encounter with a modernity coming from elsewhere: digital technologies have come to Tibet via a secularist state, China, promot-ing a technological and scientific development expected to lead eventually to a disenchantment of the world, and yet they have become part of Buddhist rituality; the Tuka-noans appropriate on their own terms the practice of pub-lishing books, objects that were once used by missionar-ies to undermine Tukanoan culture. (99)

Holism is a topic that has engaged many scholars since Durkheim advocated for a view of the social sciences' explanatory role as embedded in *methodological* holism, and there is a thread of holism running throughout *Subversion, Conversion, Devel-opment*. W. V. Quine's advocacy of the concept of the indeterminacy of translation, such that rival hypotheses *as* speech behaviours can approach a level of *equipoisal rational similarity* but remain incompatible, with resulting confusion in listeners evalu-ating the relative merits of arguments (1970), leads to a *holistic* view of scientific the-ory. Serge Grigoriev points to how we can develop preference for theory *x* over theo-ry *y* but, within the framework of indeterminacy, such choices are pragmatic and are not characterised by objective criteria for choosing one from another; "each theory has different implications for what we take the speaker's meaning to be" (2010, 399-400).

Within this holism to which Leach and Wilson allude it is possible to link with indig-enous knowledges at the level of "clarifying the meaning of our sentences"; it is not inappropriate to see how all cultures "privilege those series of implications which ter-minate in empirical checkpoints, which serve as touchstones of public accountability in the discourse about objective reality" (Ibid., 400). Miriam Solomon (1989, 129) out-lines the natural empiricism of a thinker such as Quine, and how "the generation of language is the generation of science." As "science aims to maximise predictions […] the observational content of a language is its significant content". Language's obser-vational content arises from "learned dispositions to sensory, non-verbal stimulation". This natural empiricism, according to Solomon, is that the generating of predictions is commensurate with the "natural state" we all find ourselves in, and not only in the act of "doing science". It is also a dispositional form of empiricism which proceeds from "sensory stimulation" rather than "intentional acts of naming".

Quine pointed out that his famous example of a *gavagai*, a fictive indigenous word for a rabbit, was illustrative of "the insurmountability of terms" and was aimed at helping to "reconcile the indeterminacy of translation [problem of true meaning] with the concrete reality of radical translation [problem of lack of reference]" (1970, 182). Discussion of Quine in this context becomes more understandable in light of David Golumbia's (1997) critique of "logics of imperial ambivalence." According to Golumbia, ambivalence acts as a form of cultural oppression with the colonial project – they have "a distinct logic or economics or structure…that is cultivated by colonial power". Golumbia argues that Quine's indeterminacy of translation thesis is in part a "theoretisation of colonial ambivalence" (Ibid., 6). He takes Homi Bhaba's concept of colonial ambivalence and links this to what he sees, with some justification, to be a wavering "ontological commitment" (Ibid., 8) at the heart of Quine's work. The indeterminacy of translation doctrine "is meant to contrast ordinary linguistic usage with the more hardened usages of science" and, while Quine acknowledges "the social character of language" this is "consistently downplayed in favour of the more reliable character of observation and inference from direct observation" (Ibid.). For Golumbia, Quine's philosophy creates a "relentlessly modern*ized* subject, a subject of science, a subject that serves an important ideological purpose". The difficulty of being able to "maintain at all times the rigid and sterile subjectivity prescribed in the ideology of modern science" leads to a "residue" of failure which Golumbia claims as "part of the substance on which cultural studies operates" (Ibid., 31).

Implicit in Leach and Wilson's view, and in Poline Bala's discussion in this volume of the redeployal of Internet technology for local priorities in Borneo, is that while the indigenous knowledge system in play does not mirror the predictive methods we are used to seeing, it does display rational theory-of-the-world and demands respect on these grounds. According to Solomon, natural empiricism's metaphysical character is often held to without sufficient reflection on the scientistic assumptions that accompany it. "Working from within" appears innocuous; indeed, it appears to be critical in the obstinately social sense that Graham Button gives to ethnomethodology (1991, 5), but there remain obvious incommensurable areas when theory and field work examples are provided as evidence. Looking at the story behind Quine's indeterminacy of translation is helpful in seeing that getting to grips with understanding is not a one-way street.

Solomon's view of natural empiricism, that it is "doubtful as a whole", is tempered with a respect for the possibilities that working from within offers; these possibilities require careful negotiation of what it means to move our "ordinary conceptual scheme in the direction of scientific advance" (1989, 114). In the context of the under-determination of theory by data (insufficient evidence), Grigoriev (2010) points out that, while simplicity works well in a natural science context, in interpreting a speaker we should not consider it always the right course of action, and nor should we assume that the interpreted speaker holds the same view of simplicity as we hold ourselves. Simplicity, unlike the ideal "dialogue between scientists" is not geared toward minimising indeterminacy. Indeterminacy, as recurrent "empirical slack" is problematic in creating "the possibility of incompatible empirically equivalent theories" and obscuring "the insufficiency of empirical criteria for choosing one of the alternatives" (2010, 408).

Jerome Lewis's chapter in *Subversion, Conversion, Development* discusses how Congolese Yaka hunter-gatherers use a GPS-enabled forest mapping tool that enables more equitable resource sharing. The sharing of data between the Yaka and the forestry companies enable loggers to plan their harvesting activities without unduly

disturbing food or cultural sites. Lewis's project with the Yaka shows how "models based on local ways of categorizing the world" can help to get a desirable result (in this case increased care of their patrimonial lands) by making the design interface efficient and simple (literacy is uncommon among the Yaka). Lewis makes the point that "by visualizing the impact of changes in their traditional areas in new ways" (151) by making maps that loggers could use for more responsible harvesting, the Yaka were also taking a step in educating themselves and other Congolese about changes to their ecosystem.

David Turnbull and Wade Chambers's chapter advances the view that in interactive digital spaces it is possible that the levels of interpretation within indigenous beliefs "from literal to spiritual to metaphoric to ecological" (170) can supply "the tacit knowledge hinted at but impossible to convey in a printed text" (171). Alan F. Blackwell's chapter makes clear that:

> [...] design is falsely characterized as a conjunction of consumerist brand loyalty and romantic hero-creators. The real practice of ICT design may be equally consumerist, exploitative, Westernized, and so on, but an understanding of this practice must be informed by an understanding of software itself as a technology of structure […] Reflective craft practices […] seek critical vocabularies for their work, as well as novel sources of insight into the nature of the problems they address. (184-185)

Blackwell points to the fact that this volume, while ostensibly about design, is often about knowledge system differences: the design element is assumed in the discussion of people's differing experience with ICT and information. His discussion of design research and initiatives such as ICT4D (ICT (for) Development) and Bridging the Global Digital Divide is illuminating, as is his reflection on the relationship between ethnographic description; the material aspects of digital technologies; the deeper considerations associated with the design of software; the nuances of ethnomethodology after Lucy Suchman's work and the complex relationship between anthropology; the design-use nexus; and how these relate to real design work.

Dawn Nafus's chapter unveils how "user-centred design purports to extend consumers' agency by involving consumers in the design process (and how) its emphasis on research also slips between an anticipation, where one simply makes better bets, and a more problematic rendering of people into predictable, and one might dare say docile beings" (201). To understand the source of appropriation (do designer-developers appropriate users' ways of acting, or is this simply irrelevant to the final, practical product that will satisfy some human need?), Nafus problematises prediction with the aim of looking to connections and disconnections between consumers and firms and the embeddedness of knowledge that allows for these to be negotiated. Marilyn Strathern points to how the inspiration for this volume is "the extent to which inspiration comes from people's ingenuity in making new tools out of old" and asks the question: why can this question "carry affect"? Strathern notes that the contributors here are scholars who "have learned to be wary of the productionist paradigm that sees a virtue in everything pressed into service, or uses usefulness as a universal measure" (223).

Leach and Wilson, in addition to introducing the volume, also offer the unusual but welcome summation that is subtitled "Imaginaries, Knowledge Forms, and the Uses of ICTSs." They are candid in noting that the volume is characterised by maintaining

a critical and reflexive stance on the "apparently attractive phenomena" of ICTs and "indigenous knowledge; interactive, participatory, and emancipatory social movements" and in this aim it surely succeeds. While proposing positive social results from both ICTs and indigenous knowledge systems (taken jointly and severally), the volume offers a signal point of guidance as to where advanced students and scholars from other fields might take their course. The volume self-declaredly accommodates "the relationship between subjectivity and materiality in considering the ways in which power and authority are embodied in technological objects", but seeks to offer a new take on "producer-consumer relationships" from analytical and critical perspectives and to focus on "the real and actual potential in specific situations of ICT-fueled social developments" (232).

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