

1 CONFERENCES AS EPISTEMOLOGICAL EXPERIMENTS: Purity, Plurality, and the Politics of Knowledge

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1 INTRODUCTION

*Ordnung ist heutzutage meistens dort, wo nichts ist.
Es ist eine Mangelercheinung¹ – Brecht*

So opens Feyerabend's (1993) seminal essay *Against Method*. The epigraph is apt for this commencement too, given the Conference theme which calls for diversification, in theory, method, and empirical contexts. The following amalgam of extracts gives the gist of Feyerabend's thesis:

¹The translation is problematic, and we were certainly "lost" for a while. But with the help of two native German speakers, we hope that we have arrived at a satisfactory resolution. *Mangelercheinung* was the trickiest element. Literally, it translates as "deficiency symptom," a medico-biological concept denoting the lack of some nutrient critical to physical well-being (e.g., a vitamin deficiency). Although the literal translation has a "clunky" feel, we decided to restrain poetic license and remain loyal to it, fearing the loss of relevant metaphorical content or the addition of spurious new meaning. We offer as our translation: "These days, order is mostly there where nothing is. It is a deficiency symptom." Presumably Brecht had a malaise of the soul in mind, not body!

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Science is an essentially anarchistic enterprise: theoretical anarchism is more humanitarian and more likely to encourage progress than its law-and-order alternative.... This is shown both by an examination of historical episodes and by an abstract analysis of the relation between idea and action. There is only one principle that can be defended under *all* circumstances and in all stages of human development. It is the principle: *anything goes* (pp. 9, 18-19).

The attempt to increase liberty, to lead a full and rewarding life, and the corresponding attempt to discover the secrets of nature and of man, entails therefore the rejection of all universal standards and rigid traditions [imposed] upon research and upon any kind of knowledge-creating and knowledge-changing activity (p. 12).

Two points stand out here. First, that the argument for epistemological anarchy is empirical, as well as theoretical and ethical: it is carefully grounded on an extensive historical analysis of how science actually develops, using Galileo and the Copernican revolution as the primary exemplar. Recent sociological narratives of scientific practice would certainly bear out the same argument (e.g., Latour 1999); these accounts reveal working scientists as pragmatists and tricksters, far removed from the popular stereotype of the disinterested scholar uncovering *a priori* facts. Second, the indivisible linking of the causes of liberty and of science is also noteworthy: Feyerabend clearly connects dogma of method and theory not only with epistemological stasis but with human oppression too, hence the Brechtian grace-note. Let us end this salvo of quotes with yet another, this one from no less a figure in the scientific pantheon than Einstein. Feyerabend cites him as writing

The scientist [should] not be too much restricted in his construction of his conceptual world by the adherence to an epistemological system. He must therefore appear to the systematic epistemologist as a type of unscrupulous opportunist (p. 10).

If anarchism is such “excellent medicine for epistemology” (ibid p. 9), then it is surely worthwhile to check out the intellectual health of our community. Stoler (2002) introduces the idea of archives² as “epistemological experiments.” She makes out the argument in the context of colonial archives; the general thesis readily extends, however, to other institutions and technologies of knowledge creation. This naturally includes conferences which, by design, leave an archival trace, in the durable form of books as well as more ephemeral documents (reviews, decision letters, minutes, e-mails, etc.). Stoler contends that scholars should view archives not as repositories to be passively mined for “facts” but as situated loci of knowledge production, “of taxonomies in the making, and of state authority.” Archival scholarship thus moves from being an extractive enterprise to an ethnographic one: interest shifts to what constitutes the archive, what form it takes, the systems of classification it embodies, and so on. In other words,

²Such repositories are, of course, information systems in their own right, albeit exotic ones.

what does the archive as a cultural artefact reveal about the nature of the world which produced it, and of the ambient politics of knowledge.

Given its stated theme, it is particularly apposite to use this conference as an object of epistemological study! But first, we will take another anthropological detour.

2 PURITY, PLURALITY, AND THE POLITICS OF KNOWLEDGE

Through the concept of “dirt,” understood generically as “matter out of place,”³ Mary Douglas (2002) famously established a bridge between the sophisticated contemporary world and other cultures which we conventionally dub as primitive. What they taboo, we denounce as dirty! In both cases, a threat or danger to the existing social order is controlled, either through avoidance (e.g., taboo foods) or via the enactment of purification rituals (e.g., ritual bathing) whereby the pollution is cleansed. Characteristically, some form of extreme (and implausible) threat is invoked to shore up the threatened breach. Often this involves the precipitation of a natural catastrophe, thus co-opting Nature to defend what is merely human convention.

The association of danger with dirt is the key to this defensive structure. But what is classified as dirt or pollution is a matter of perspective and institutional interest: “there is no such thing as absolute dirt: it exists in the eye of the beholder” (Douglas 2002). Within limits, a messy or untidy house is not a threat to health, yet such disorder, and dirt in general, is viewed with a degree of revulsion that goes well beyond any possible material risk. As Douglas archly notes, “I doubt whether the perfunctory rituals of passing through water can really destroy bacteria, or that I can be infected by slightly damaged crockery.” There is undoubtedly some instrumental basis for purification rituals, but this is often exaggerated. Pharmacologists may well seek to prove some medical basis for the prohibition against eating pork, but in another knowing aside, Douglas quips that, “Even if some of Moses’ dietary rules were hygienically beneficial, it would be a pity to treat him as an enlightened public health administrator rather than a spiritual leader.”

Turning back to epistemology and the sociology of science, there are intriguing implications. Is not the much-cherished peer-review process, for instance, a purification ritual? Certainly, in following a formalized and formulaic pattern, it has all the appearance of ritual. And dirt is absolutely integral to its operating rationale, which is based on the need to winnow good papers (technically sound, “make a contribution”) from those which are deficient. The “pollution belief” that the latter are dirty and must be weeded out underpins the entire process. And lest readers consider this fanciful, we should reflect on the strength of the sense of alarm evoked by the idea of “letting in” defective papers. It is potent indeed. The quality of the journal (and indeed conferences in fields

³The phrase is often attributed to Douglas. In fact, it was first used by William James (1936) in *The Varieties of Religious Experience*: “Here we have the interesting notion of there being elements in the universe which may make no rational whole in conjunction with the other elements, and... can only be considered so much irrelevance and accident – so much ‘dirt’ as it were, and *matter out of place*” [emphasis added]. Douglas acknowledges this source (p. 203).

like our own,⁴ which operate rigorous selection policies) must be protected at all cost from such defilement; disaster will ensue otherwise. But will it? Are “bad papers” really such a risk to our mental health and the purity of the corpus of scientific knowledge? Is not this abhorrence bought at a price that threatens intellectual vitality? Bad papers may fail to meet our epistemological standards, but they may yet contain ideas of value and interest, stimulating debate or otherwise destabilizing the *status quo*. Let us end this section with another pithy line from Feyerabend:

There is no idea, however, ancient and absurd, that is not capable of improving our knowledge (p. 33)

3 AN OVERVIEW OF THE PAPERS

It may seem somewhat ironic, given these prefatory remarks, that we seem to have so meekly fallen in with the ordering conventions of science, and of those practiced in our field in particular. Despite our misgivings, we have adopted a “rigorous” review process based on full papers; we have fitted all into a common format like Chinese shoes, and the papers have also been clustered into subthemes. Perhaps on reflection we should have been more radical. But the politics of knowledge is no different from politics in general; it is the art of the possible. We have, therefore, chosen to innovate around the edges and to dabble in a little polemic, rather than attempting revolutionary change.

Overall, we received a total of 40 submissions, from which 21 full research papers were selected. Three forms of contribution were sought: full research papers, short position papers of a polemical nature, and panel proposals. All papers were blind-reviewed by two independent referees, and we as program co-chairs also read every submission. We saw much merit in many of the papers which failed to survive the formal review process, and the majority of authors were invited to revise and resubmit their submissions as position papers. We were delighted that almost all agreed. Together with the submissions originally submitted in this category, there are 14 position papers in all. Invited papers were solicited from several leading academics and from two practitioners, representing the public and the commercial sectors. Given the Group’s commitment to relevant research, we were delighted that both Dave Carter and Gerry Pennell accepted these invitations, with a paper from Carter being published in the book. Bob Galliers’ keynote address and two panel outlines complete the published collection.

Acknowledging the arbitrariness of any taxonomy, especially where there are multiple criteria, we have nonetheless attempted to classify the papers around what seemed to be a number of natural themes. Ordering is not always pernicious; indeed it is fundamental to the way our minds work. Douglas herself offers the following sanguine observa-

⁴Other disciplines do not. An inclusion agenda would seem to guide the selection of papers in other fields, with decisions based on abstracts and minimum criteria, rather than on full papers aping the “hard currency” of the journal article. Such rigorous sorting would seem inimical to scholarly debate and knowledge development. Why do we set such stall by having low acceptance rates; why is this good? To an outsider, it would seem perverse to mark prestige in this way. Surely a high rejection rate implies failure of the field, not its prosperity; such vice-like control hardly betokens open, vigorous discourse.

tion: “Dirt offends against order. Eliminating it is not a negative movement, but a positive effort to organize the environment” (p. 2). Five themes were described and we shall briefly comment on the papers under each heading. Given the space limitations, we shall restrict our commentary to the full papers only. We will then stand back and take a critical view of the results of our *epistemological experiment*. To assess theoretical progress, we shall draw on Flynn and Gregory’s (2004) survey of the prevalence of theory in IS research (based on IFIP WG8.2 conferences) supplemented by our own retrospections as WG 8.6 veterans. We were both involved in developing the program for the 1997 Conference, which provides a handy 10 year reference point (McMaster et al. 1997).

3.1 Keynotes and Invited Papers

Galliers provides an extended abstract of his keynote address in which he enthusiastically takes up the conference theme, arguing for greater diversity and innovation in method, as well as topic, in Information Systems research. Basing his arguments on recent critiques of injunctions to narrow our research focus (on the IT artifact and IS design), he highlights the expanding boundary of the field of Information Systems and what this means for the IS academy. He argues that it is only through a dynamic, exploratory, and transdisciplinary approach to our research (with concerns for societal, ethical, and global issues) that innovation and diversity will thrive.

Carter provides us with an intriguing account of how the City of Manchester is addressing in practical terms the “digital divide” and urban regeneration through the Manchester Digital Development Agency (MDDA). This draws together a number of interconnected “e-based” initiatives at local, regional, national, and European-wide levels. He describes in detail the Eastserve Project and how it addresses deprivation and social exclusion. The work of ONE-Manchester (Open Network E-Manchester) is also outlined. This partnership embraces various contiguous local government neighbors (Tameside, Salford, Oldham, etc.) as well as some private industry partners, and how these fit with national and European attempts to address similar problems of regeneration and social inclusion.

Truex and Holmström’s stimulating essay is also right on the conference theme, addressing many of the issues which we have highlighted in our opening remarks. They too see the dangers of a totalizing tendency, which they dub the “*supremacist strategy*—a strategy aiming at establishing one theoretical approach as universally applicable.” They call on IS scholars to drop their tools, hold their concepts lightly and update them frequently (the original exhortation comes from Karl Weick). Caution is not thrown entirely to the wind, however, and pollution anxieties still have a hold. Truex and Holmström warn that “we need to be particularly careful in the rush to find new or different theoretical lenses.” Dilettantism or dogma; where lies the greater danger?

León discusses the merits of “open innovation” partnerships, with an emphasis on technology transfer (which he defines as the transfer of technical knowledge in its simplest form between a transmitter and a receiver). He describes three similar, but crucially different innovation models: the subcontracted model, the cooperative model, and the open community model. These are set in the context of European policy instruments for technology transfer. León advocates greater cooperation between govern-

ments, universities, and private sector organizations to exploit and benefit from such partnerships.

The distinction between factor and process perspectives is often made in delineating genres of IS research. Newman and Zhu are firmly committed to the latter paradigm. They hail the richer causal narratives yielded by longitudinal research that are able to map the shifts in project trajectories triggered by supervening events (critical incidents). The paper describes the application of their punctuated equilibrium model to the development of an information system in a major retail organization, highlighting the role of contextual forces in shaping dialectical change.

3.2 Novel Perspectives in Innovation Research

In response to the conference theme, we have tried to single out submitted papers in this first group which embody significant departures from the *vade mecum*, illustrating innovation in theory in the main but research methodology as well.

Bunker, Kautz, and Anhtuan focus on potential differences in organizational culture between the contexts of IS development and IS use, arguing that the vicissitudes of IS implementation could reflect incompatible assumptions, values, and skills. Differences in attitudes to managerial control were found to influence the contrasting fortunes of a time-sheet application in two neighboring settings, with the tool faring better where management control skills were more strongly developed compared to the more *laissez faire* regime. The treatment of skill as a dimension of culture is a distinctive feature.

An irony of the scientific method is that, although its epistemology is founded on the principle of replicability, replications are seldom carried out! Webb addresses this issue and presents a useful taxonomy of seven different forms of replication strategies involving different combinations of method, theory, and context. The methods-only extension, for instance, takes an existing theoretical question and tackles it using a different research approach. Webb illustrates this strategy by applying a grounded theory analysis to a model of multimedia systems development previously generated by a content analysis. In broad terms, similar results were found, strengthening the theory, although there were significant nuances.

Igira's paper is noteworthy for its use of activity theory, which has attracted desultory interest over the years within the IS discipline (see Flynn and Gregory 2004). The paper begins with a very thorough and readable account of CHAT (cultural historical activity theory), emphasizing its ability to address "the mutual shaping of context and work practice." There follows a fascinating description of the health-care system in Tanzania, which is used to illustrate the way that contextual influences from the management domain (e.g., the need to generate statistical information) create tensions at the operational level and how these have prompted the development of new local tools.

Whereas classic diffusionist accounts of innovation presuppose a hard-and-fast distinction between users and artefacts, SST (social shaping of technology), like its cousin ANT, emphasizes the dialectical relationship of the two. Burns and Light apply an SST approach to the design and use of software (in the form of "scripts") in call centers, showing how operational staff modified the scripts in order to adapt to local exigencies. In doing so, Burns and Light problematize the boundary between development and use, and underscore the nondeterministic nature of innovation processes.

In order to understand the barriers that all too often frustrate and obstruct organizational efforts to innovate, Bednar and Welch suggest complementing traditional methods with contextual analysis techniques. This entails a concentration on actors' individual assumptions, which when articulated can help those involved understand better the inherent complexities, and therefore the realization of such ambitions.

The novelty of Larsen and Levine is methodological rather than theoretical, and lies not so much in its individual elements, but in their combination. Their concern is the identity of the MIS field as a coherent discipline and on how this should be studied, in terms of its development over time and the diffusion of its core knowledge. Various methods are possible: classification and citation analysis, expert forums, etc. The authors conclude that all methods have a part to play and that a composite will give the most complete picture.

3.3 Software Process Improvement (SPI)

Since its inception, WG 8.6 has maintained a continuing interest in software engineering innovation. This theme unites the papers in this section. Börjesson, Holmberg, Holmström, and Nilsson are concerned that the conventional methods of SPI are founded on a problem-solving paradigm, which can stultify creative thought. They are interested in the potential of appreciative enquiry to stimulate a deeper level of critical reflection. Their case study, however, reveals that engineers find it difficult to let go of solution-oriented mental habits. The paper is also notable for its use of the punctuated equilibrium model that forms the basis of Newman and Zhu's invited paper.

Basili's goal-question-metric (GQM) approach is a well established SPI methodology. A novel feature of its deployment by Börjesson, Baaz, Pries-Heje, and Timmerås is its encasement in an action research framework. The rationale is to facilitate organizational learning and the evolution of the measurement mechanism over time. The results of a 6 year SPI initiative are presented and the paper ends with a reflection on the key lessons learned, including the need for well-defined goals and an iterative approach.

Conboy and Fitzgerald address agile methods, presenting a Delphi study on attitudes and beliefs. The results indicate that such techniques are, or appear to be, generally immutable and not, therefore, readily amenable to tailoring. Yet ironically, tailorability is the very essence of agility! Against a number of identified critical success factors for method tailoring, they highlight the deficiencies inherent in agile methods, concluding with recommendations for industry-based proponents and others who have an interest in such methodologies.

In an apparent contrast, the questionnaire study of the use of methods by Parsons, Ryu, and Lal confirms previous research showing that software technologies are characteristically deployed flexibly, adaptively, and contingently by developers. Their study also focuses on agile methods and techniques, and the findings show important gains in productivity and quality, which are accrued apparently without incurring extra cost.

3.4 Actor Network Theory (ANT)

A clutch of six papers in all feature ANT in different guises as the primary theoretical lens. We note in passing that ANT also sits atop Flynn and Gregory's "league table" of social theories in terms of its prevalence in WG 8.2's deliberations.

Elbanna takes the idea of “modalities” from Latour (1987). Like Newman and Zhu, she is concerned with shifting trajectories, or “drift,” over the course of project life-cycles. Whereas positive modalities strengthen the formation of “black boxes,” negative ones question the emergent *status quo*, and potentially move the project in different directions. This novel conceptualization is well-illustrated in a detailed account of an ERP implementation.

Linderoth discusses the interesting notion of whether technology should be made visible or invisible through built-in inscriptions that affect and change processes in the host organization. He presents three case studies, two of which provide contrasting accounts of visibility. The third case deals with another related ANT concept—in this case, whether or not the ICT system should become an obligatory passage point. He argues that organizations need to make special efforts in some cases to keep technology visible, thus maintaining a degree of control that might otherwise be lost.

Mohammed and Richardson attempt to combine contextualism with ANT in their study of the strategic processes entailed in constructing and implementing a customer services information system for a UK institute of higher education. They argue that the use of such a theoretical framework enables richer understanding and deeper insights into ICT implementation processes.

Rodon, Pastor, and Sesé provide a retrospective and interpretive account of the “black-boxing” of the network of actants which comprises the Port of Barcelona, along with a related interorganizational information system. The account covers an 11 year period. Their analysis uses the ANT concepts of problematization, interressement, enrollment, and mobilization to trace the translation processes through five phases between 1994 and 2005, during which time the system evolved and was eventually implemented.

Lin and Chiasson suggest that ANT concepts combined with innovation diffusion theory can provide a richer theoretical foundation for understanding the relationships among actors engaged in the diffusion of IT. Their study focuses on the technologies and contexts of a pilot study of mobile TV services being conducted in the UK.

In the final paper in this section, Vuokko and Kartsen present an ambitious attempt to integrate concepts from complexity theory with ANT. The theoretical exposition is particularly strong, lucidly articulating the inability of reductionist cause-effect models to account for complex, nonlinear processes. A case setting is described (hospital intensive care) where it is argued that their framework is required in order to address the complex work practices and interactions involved. The application of the framework is briefly outlined, although only at a very high level.

3.5 Technological Interlude: The Case of RFID

Radio frequency identification (RFID) technology has recently come to the fore as a potential breakthrough in the management of business supply chains. Huyskens and Loebbecke address the relatively slow progress of its adoption and elaborate an extended version of the technology acceptance model (TAM) as a generic factor model for studying adoption at the organizational level, rather than individual decision making. The model has three sets of factors: external influences, perceived benefits, and organizational characteristics. A case study in the fashion industry is presented. Some factors (coercive power, top management support) were found to play a more influential role than others.

RFID technologies are by their very nature immensely complex, and as such traditional research approaches are by and large inadequate for studying these new technologies. Brown and Bakru's thoughtful contribution provides a critique of traditional research methods, arguing that only the combination of process (or stage) models and IS diffusion research seems theoretically adequate for understanding such complex intra- and extra-organizational systems.

3.6 Firm Level Adoption Factors

The papers in this section share a concern with the adoption of technology at the level of the individual organization, and the factors which influence this. Vega, Chiasson, and Brown paper is of particular interest in two areas. Theoretically, it extends the core DOI (diffusion of innovation) model to address broader network-based influences, specifically those emanating from economic development policies. Addressing the role of government support is also timely given the increasing enthusiasm of the state for intervening in all public spheres. Such hubristic interventions often fail to deliver. The authors present a detailed case study illustrating a daunting range of structural factors which inhibit the effectiveness of such programs.

Zhang, Cui, Huang, and Zhang take up a similar theme, again assessing the effectiveness of governmental action. Their theoretical model is based on the technology–organization–environment (TOE) framework, extended with ideas from institutional theory. In a survey of firms in the Shanghai area, they find that the effectiveness of government action varies across sectors and by the type of ownership. Interestingly, local firms are more influenced by government action than enterprises with foreign investment.

Ramdani and Kawalek also draw on TOE in looking at the adoption of enterprise systems among a number of SMEs in the UK's Northwest region. They take a classic factor-based approach, derived from Rogers and others, in their study. Pointing out that there is not a single adoption model, they show that adoption factors in this sector differ from ICT studies in, for example, larger organizations. Their conclusions are presented as implications for software vendors which could assist them in improving their marketing efforts in this particular segment.

Finally, Abu-Samaha and Mansi provide us with insights into the challenges facing Jordan Telecom (JT) as it seeks to recapture ground lost to competitors and changing market demands. The strategy includes the adoption of new and emerging technologies such as microwave, VoIP, and wireless-based systems to compete with other commercial telecommunications providers. They provide a rich description of these technologies, as well as a brief historical perspective of JT and its marketing environment.

4 FINALE

Quoting from Larsen and Levine's final remarks, "In a rich field, many flowers bloom." A pretty enough trope, but we would do well to remember that the originator of the phrase was Mao Tze-tung shortly before wresting China back into the iron cage of central control! Certainly there are grounds for the anxieties expressed by Galliers, echoed by

Truex and Holmström, regarding what the latter dub as the supremacist tendency in our field. In scholarship in general, there are powerful institutional mechanisms exerting an ever tighter grip on what goes and what does not. Those of us in the UK currently engaged in RAE 2008⁵ preparations know this only too well! In this audit-driven exercise, papers in top-ranking journals are prized above all else. But top-ranking journals are well-defended by powerful purification rituals, pride themselves on exclusivity, are run by elites, don't take risks with their reputations, and are typically main-stream and monoclonal. What place for the speculative, the idiotic, the unorthodox, the inter-disciplinary hybrid, the maverick? What place for dirt, in other words?

In her coda, Douglas offers the contrast between “dirt-affirming” and “dirt-rejecting” philosophies. She speaks approvingly of those who reject the hegemony of monistic systems of truth; pluralism and “healthy-mindedness”⁶ are one and the same. She argues that we need dirt, indeed many religions sacralize the abhorred: “Purity is the enemy of change, of ambiguity and compromise” (Douglas 2002, p. 200). This is Feyerabend's credo too. Engineering also appreciates the epistemological importance of impurity; without mistakes and failures, there is no learning (Petroski 2006). Dirt is therefore to be celebrated, not to be spurned. How dirt-affirming and healthy-minded are we in our tiny niche of WG 8.6. Our epistemological experiment gives the opportunity to take stock. In our selection of papers, we have “worked around” the purity agenda in the interests of inclusion and plurality. Let us now assess the extent to which the Conference has achieved its overarching aim of diversification in theory, method, and empirical context. As noted above, we will use the 1997 conference as a rough baseline (McMaster et al. 1997).

Certainly we have a rich crop of papers, but overall how different is the landscape from a decade ago? Yes, there is some embellishment and the substantive content has moved on, but the main lineaments of our discourse have a remarkably familiar look. Mischief tempts one to say that the face is the same, just a little older! In terms of methodology, we have much the same mix of surveys, case studies, and action research. Domainwise, the majority of papers continue to address commercial rather than public organizations. This is despite the enormous increase in ICT expenditure in the public sector in recent years, and the critical role ICT is playing in driving forward the “modernization” agenda across the globe. Not a single paper explicitly addresses e-Government for instance, despite the burgeoning of this phenomenon, coming from nowhere in the last decade. Why this continuing infatuation with business, one is prompted to ask!

Perhaps theory provides the best indication of movement. In 1997, there were two main camps: DOI was the incumbent dogma and ANT was the new kid on the block. ANT may since have waxed but DOI seems still a powerful force, and they remain the chief protagonists. Indeed one does wonder, with more than a dash of irony, whether

⁵The Research Assessment Exercise is a periodic survey of research performance across the UK higher education sector, which regulates the allocation of much research funding. The last survey was conducted in 2001. This is not the place to rehearse the dysfunctions of the RAE; they are rich and varied, and much discussed elsewhere, for example, Elton (2000) and Pierce (2000). to name but a few!

⁶Again, a phrase from James (1936).

they have merely switched roles and that ANT has now become the new default position! It is surely salient that ANT is at the top of Flynn and Gregory's top ten. There is, of course, no explicit supremacist strategy at work here. Path dependency is enough to produce such conformity; it is easier to fit the mold than to break it, and we may need one of Newman and Zhu's "critical incidents" to punctuate this comfortable equilibrium. Perhaps our continuing failure to engage with practice, lamented by Truex and Holmström, will provide the needed crisis.

These authors go on to exhort us to drop our tools and hold our concepts lightly in order to straddle the gap with practice. This invites us to consider that redemption may lie not with more theory, but with less. Our enchantment with models and frameworks reflects our natural need to order the world. But while pastry cutters produce neat shapes, the form they create is the shape of the pastry cutter, not the pastry! Dirt is the source of change and renewal, the antidote to sterility and stagnation. Perhaps, then, we should loosen our attachment to frameworks and models with all their Euclidean orderliness, and dig in the dirt that their ceaseless ordering inevitably creates and sweeps from view. Ciborra (2002, p. 21) put it well: "How come researchers have come to privilege the geometry of a line connecting abstract concepts in a model while they remain blind to the *blurred reality that any, even slight, ethnographic study would have revealed?*" Ethnography and grounded theory may show the way to go. Latour (2004, p. 67) has uttered much the same *cri du coeur*, and it would seem fitting to leave the last word to the begetter of the new orthodoxy! Horrified by our fetishization of theory, he writes mordantly:

My kingdom for a frame! Very moving; I think I understand your desperation. But no, ANT is pretty useless for that. Its main tenet is that actors themselves make everything, including their own frames, their own theories, their own contexts, their own metaphysics, even their own ontologies... So the direction to follow would be more descriptions, I am afraid.

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