

When policy meets practice - colliding logics and new forms of knowledge production

Jacky Swan, Warwick Business School, University of Warwick, UK**

Mike Bresnen, Manchester Business School, University of Manchester, UK

Maxine Robertson, Queen Mary University London, UK

Sue Newell, Bentley College, Boston/Warwick Business School, UK

Address for correspondence jacky.swan@wbs.ac.uk

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Considerable debate has been generated by the thesis that we are transitioning away from traditional ‘Mode 1’ science, with knowledge production being the domain of academe, towards ‘Mode 2’ forms, characterised by non-linearity, trans-disciplinarity and co-production by heterogeneous groups (Gibbons et al, 1994; Nowotny et al, 2001). Whilst others question the thesis (Ziman, 1996, 2000), policy initiatives and funding bodies, nevertheless, emphasise the need for transdisciplinary working and co-production in their quest for ‘relevant’ research. It is unclear, however, how far, if at all, such initiatives are driving institutional change in the way academic scientists produce knowledge.

In theorising the process and extent of institutional change, it is helpful to position these different modes of knowledge production as reflecting alternate ‘institutional logics’ – i.e. shared beliefs and practices that guide decision-making within an organizational field (Friedland and Alford, 1991). As a logic becomes more deeply institutionalized, the beliefs and practices associated with it become accepted as legitimate and taken-for-granted (Colyvas and Powell, 2006). Institutional change is seen, then, to be an outcome of a dialectical process whereby a new competing logic is mobilized that competes with, and gradually displaces, the beliefs and practices associated with the previously dominant logic (Seo and Creed, 2002). Whilst it has been suggested that this process is likely to be contentious (Seo and Creed, 2002), with logics sometimes co-mingling for extended periods, rather than simply replacing one another (Smith-Doerr, 2006), the dynamics of this dialectical process are poorly understood (Lounsbury, 2007; Jarzabkowski, 2008).

In this paper, we examine this dialectical process by drawing upon a longitudinal study of a policy initiative in the UK – the Genetics Knowledge Parks - aimed at promoting a ‘Mode 2’ logic of knowledge production in genetics science that was co-present, and competing, with the dominant (‘Mode 1’) logic surrounding the production of academic science. Our research questions are twofold. First, we contribute to ongoing debates about the realities and effectiveness of ‘Mode 2’ knowledge production by asking: how does a policy intervention,

ostensibly designed to change the production of knowledge, shape (and become shaped by) embedded institutionalised practices of policy and scientific communities over time? Second, we contribute to the dialectical perspective on institutional change by asking: how do competing logics related to the production of knowledge combine, collide and play out in practice across different constituent communities within an organizational field? Our analysis is derived from interviews with major constituent groups of policy makers and GKP scientists (N=40), policy reports and documentation, and two longitudinal case studies of GKP projects (in different GKPs). These case data comprised further interviews with project members (N=50), observation of project working and project documentation.

With regards the first question, the espoused ambition of the GKP policy initiative was to open (literally) new spaces for collaborative working and co-production – an ambition much in line with a ‘Mode 2’ vision of what knowledge production *should* look like. In line with this ambition, our analysis of GKP project practices (and some policy practices) did reveal efforts to operate according to a ‘Mode 2’ logic. It was also the case, however, that these practices owed a lot to established ‘Mode 1’ logics around how science is produced and legitimated. In this regard, our findings echo Smith-Doerr’s (2005) in that, rather than deinstitutionalize, or reject, more traditional academic practices and forms of control, GKP scientists accommodated them alongside new sources of legitimacy.

Moving to our second question, previous theorists have observed that institutional change may not be ‘smooth’ or ‘linear’, with core processes of legitimacy and taken-for-grantedness sometimes moving forward at different rates (Colyvas and Powell, 2006). However, they have also usually presumed that these processes reinforce one another by moving *in the same direction*, resulting in one logic ultimately displacing the other. Here, in contrast, we found that the ‘Mode 2’ initiative, and practices associated with it, actually reinforced deeply entrenched, taken-for-granted ‘Mode 1’ mechanisms. For example, the novel and rather unpredictable forms of project working encouraged by the initiative proved hard to monitor and assess, leaving policy makers, who were accountable for the outputs from government funding, in doubt of their effectiveness. This led to a reinforcing of traditional (‘Mode 1’) forms of quality control thus creating a vicious circle of control that promoted stability rather than change.

Our analysis begins, then, to untangle the dynamics of *praxis* amongst actors in the field. Proponents of a dialectical perspective explain institutional change as “*the outcomes of a political struggle among multiple social constituencies with unequal power*” (Seo and Creed, p 223). This assumes that constituent groups hold logics that are internally consistent but contradictory to one another. Our analysis revealed, in contrast, how institutional change was constrained by contradictory logics at play across, but also *within* constituent groups, including policy groups, so that the actions they took to promote and initiate ‘Mode 2’ ways of working ultimately reinforced *their own* ‘Mode 1’ defensive routines and actions that inhibited change in the medium term. We suggest, then, that sources of contradiction that drive (or resist) change may derive not just from logics colliding between constituent groups, but also from collisions in the logics underpinning sociopolitical legitimacy and taken-for-granted practices within the same constituent groups.

We conclude that continued debates about the value of shifting from one mode of knowledge production to another may be rather fruitless since, in effect, it is the co-mingling of alternate logics, and the praxis entailed, that drive progress. In short, a ‘Mode 2’ way of working produces its own internal set of contradictions that ultimately gives rise to the resurrection and reinforcement of elements of ‘Mode 1’ working. Whether such a cycle can be broken is a question for future research. However, we would the co-mingling of ‘Mode 1’ and Mode 2’ is likely to remain prevalent in the production of academic knowledge precisely because of this mutually reinforcing cycle of interaction across logics over time.

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