Editorial

BioSocieties (2011) **6**, 277–278. doi:10.1057/biosoc.2011.12

This issue of *BioSocieties* ranges across many of the contemporary concerns of social studies of the life sciences. Two papers focus on the question of whether we are seeing some ‘paradigm shifts’ in the life sciences. Jörg Niewöhner examines the debates between those who argue that epigenetics simply extends our knowledge of gene regulation and those who are ‘enthusiastically proclaiming a paradigmatic shift in developmental biology’. On the basis of his own laboratory research, Niewöhner argues that the most important developments in current environmental epigenetic research are temporal and spatial reconfigurations, involving a shift from viewing humans as socio-ecological beings to new framings of individuals’ biographies and milieus in molecular terms.¹ Human bodies become embedded in their milieu at the same time as sociality becomes somatic. ‘The social’ and the terms that are used to conceptualize it become redefined in biomolecular terms. Niewöhner gives us a lively history of how this unfolds in one particular laboratory as the key concept shifts from chronic stress to early life adversity, and some scientists begin to assert the local nature of biology (c.f. Lock, 1993).

For decades, we have been awash in the hype that relentlessly accompanies innovation (for example, Brown *et al*, 2006). Here, promotion often displaces description in the neo-liberal rhetoric of the sciences, as well as those of politics. In his discussion of the problem of brain reconstruction, Jack Price, from the Centre for the Cellular Basis of Behaviour at King’s College London, questions the claim that we are on the verge of an epoch where nothing is biologically impossible. Price notes that brain damage is ‘probably the largest socio-medical problem in the western world’ due to strokes and accidents. Indeed, as we drafted this editorial, the consequences of exposure to explosions in warfare, heretofore ‘mild concussions’, were being reframed by new technological assessments as more serious forms of damage, further expanding the potential ‘patient base’. Price details the scientific challenges of histogenesis, issues of ‘true stem cells’, the practicalities of stem cell transplantation, and ongoing debates about brain plasticity and their implications. Especially compelling are the challenges of assessing in animal models the results of new products ultimately intended to repair human brains.

Two articles in this issue are concerned with the normal and normalization processes and their consequences from very different angles. Susan Pickard examines *Health, illness and normality: The case of old age*. We have long known that end-of-life care constitutes the bulk of western health care expenditures. But as patients’ ‘choices’ as consumers proliferate, very old people are increasingly offered major interventions to ‘extend life’ (for example, Kaufman *et al*, 2006). They must decide in situations where discourses about ‘choosing

1 For a parallel analysis of toxicogenomics, see Shostak (2005).

health’ may all too easily displace more challenging conversations about how one might ‘choose’ to approach the end of life – death – as a person, patient, family member and care-giver. Pickard’s genealogy of normality helps us to grasp emergent discourses about ‘choosing health’ for the older body and older self in late modernity.

The paper by Ulrike Felt and Ruth Müller also exemplifies concerns with the normal and normalization processes. Their research centres on people experiencing genetic testing for the first time in Austria, a technopolitical culture where, despite sophisticated biomedicine, such testing is not yet supported by public insurance and is still very rare. Genetic testing is thus not at all ‘normalized’, even among those with diseases known to ‘run in families’. Felt and Müller’s EU funded project was done in cooperation with and at one ‘key counselling centre in the Austrian testing landscape’ that in many ways created its own social world. They found a ‘matrix of multiple forms of collectivities’ generated through the testing practice and its distinctive situatedness. This first generation of genetic testees created several kinds of ‘tentative (id)entities’ through which they negotiated their own diagnoses and shared these with (some) blood kin, creating ‘genetic families’. Because the biomedical clinic staff and ‘genetic families’ became well known to one another over time, ‘hybrid families’ of providers, testees and their kin also emerged. Felt and Müller argue that these had ‘a highly normative undertone’ excluding non-biomedical arguments for dealing with genetic risk and casting dissenters from the logics of genetic testing as irrational and immature – echoing the deficit model in the public understanding of science literature.

We also publish a Books Forum, edited by Nicolas Langlitz, that seeks to complicate the ‘deconstruction of interspecies otherness’ by considering conventionally ‘alien life forms’ – microbes and insects.

References

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