# 6 | Knowledge, justice and democracy

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The Norwegian sociologist Johan Galtung once talked of a painting that hung in the ante-room of the late Ghanaian leader Kwame Nkrumah. It was a giant picture, inevitably of Nkrumah himself, struggling loose from his chains. There is thunder and lightning in the air and in one corner of the picture are three men, three white men. The first is the capitalist, and he carries a briefcase. The second figure is a missionary, and he clutches a Bible. There is a third figure in the remotest corner of the picture. He is holding a book whose title can be barely discerned. It is entitled *African Political Systems*, and this third figure is the scientist as colonial anthropologist.

The iconography of the picture used to fascinate me. It represented the power and fury of nationalism battling against the depredations of capitalism, missionizing religion and colonial science. I would begin my introductory classes in political sociology with a discussion of this picture. Yet looking back, it appears mildewed, embarrassing and outdated. Nationalism, which was a liberating movement, has graduated into the national security state, which is often genocidal. Development, which was meant to create justice and equality, has virtually become a war by other means against marginals, tribals and peasants in the Third World. Science, which was seen as a magic wand against poverty, has behaved counter-intuitively. Modern democracy appeared to be a social contract between science and the nation-state to guarantee security and development. It is this new social contract between science, development and the nation-state which creates the other science wars that few philosophers talk about. One needs the passionate scholarship of Ivan Illich to grasp it (Illich 1992). Unfortunately the story of the science wars is read today as a trumpet sound from *Social Text*, which has brought down the Jericho of social science. If positivism was a quarrel between two university dons, Alan Sokal's (1996) article could be considered a superb joke, the work of an almost Jungian prankster. One can add one's laughter and drink to it, even dine out on the story. If it is a spoof on science as a *system*, it is welcome. But the same joke sounds poor when seen from the life-world of a tribal, a marginal or a slum. Jokes from the system are not equivalent to laughter in a life-world. If the trickster in Sokal is ready to perform a pilgrimage to the life-world, a conversation of a different sort could begin. These are notes from one such journey.

I wrote the original jottings for this chapter for economists and activists talking about sustainable development from a World Bank perspective. I remember that at that time we had made a set of pleas, four in all. We had requested that:

- Human rights teams (or at least an ombudsman for each technology) be attached to every development project.
- An audit of each development effort be provided in the language and categories of the people involved or affected. Quality of Life (QOL) indicators are adequate but one needs to experience them in the vernacular of a people. The idea of the good life needs its own idiom of rumour and gossip.
- The scientific epistemology of the project be understood in terms of local theories of knowledge. It was a hint that empowerment in terms of a people's voice alone was inadequate. A people's epistemology is as central as people's participation in any discourse on democracy.
- One needs some form of insurance, of security against development projects.

Of course, we realized that our pleas were part futile, part utopian, a playful wager against the odds. So we finally suggested, as a Sokalian joke, that a wailing wall should be instituted in the World Bank office so that we could mourn or grieve together in the aftermath of some projects. No doubt pathologists' reports are scientific, but one also needs the catharsis of mourning rituals. One mourns over the body of a friend, one performs an autopsy on a corpse (Romanyshyn 1989).

How do the science wars look from the history of marginality in the Third World? This is not to set the ethnocentrism of the Anglo-Saxon world against the parochialism of the Third World. But one has to realize that epistemology is not a remote, exotic term. It determines life chances. Science as development, plan, experiment, pedagogy determines the life chances of a variety of people. Here epistemology is politics. The positivist–anti-positivist wars need a larger theatre. It is from such a site that one must issue an invitation to a different science war. Many readings see fundamentalism and science as incommensurable words without realizing that the spectre haunting India is a variant of techno-fundamentalism, which hybridizes science with the most bloodthirsty communalism. These notes are one set of reflections on the other science wars. But to understand this we must create a certain relation of map to territory, particularly as regards science and democracy in discussion of issues such as development.

In attempting to understand science, development and technology, one feels the same sense of horror and surprise that Hannah Arendt did

when she was reporting on the Eichmann trial in Jerusalem (Arendt 1963). Arendt found it difficult to reconcile the sheer ordinariness of the man with the enormity of his crimes. To attempt to do so she formulated the idea of the banality of evil, the idea that violence does not require evil, all it requires is normalcy, bureaucratic expertise and a clerical project (see also Ravetz, this book). The scientific equivalent of a project is a research programme. The scientist in pursuit of a normal science is also capable of radical evil.

The works of Ivan Illich, Vandana Shiva, Ashish Nandy or Boaventura Santos are challenges to the normal science of today (see Nandy 1980; Shiva 1989; Santos 1992; Illich 1992). What they introduce is both resistance and the carnivalesque, suggesting that a science that diversifies its paradigms attempts to minimize the hegemony of one of them. For instance, Boaventura Santos's seminal essay is not only an exercise in intellectual hospitality, but also a suggestion that it is not good fences which make good neighbours but good conversation and concepts, which are disciplined trespassers (Santos 1992). Santos's suggestion is that the flow of concepts across the social and natural sciences has rendered the demon between them a creative gatekeeper. In fact, it has created a powerful hybridity of social science concepts such as complexity, uncertainty, risk, and populations seeding the sciences to create a domain that challenges the standard hierarchy that Thomas Kuhn and every modern university impose on the natural sciences, social sciences and humanities. Santos's work is still the work of a scholar talking to other scholars in a research community. But there is a wider audience, and in fact another world of participants, that gives it a different meaning. To enter this world, we have to understand the civics of the modern world, whose political core is the idea of the transfer of technology.

## The civics of the transfer of technology (TOT)

The idea of technology transfer is one of the most quotidian ideas of governance regarding technology. It nestles peacefully in World Bank reports, Population Council monographs and non-governmental organization (NGO) project reports. In an ordinary sense it captures the hegemony and violence of everyday life in a policy world. John Maynard Keynes claimed years ago that behind every dictator and his policies is a book or a philosopher that the tyrant had read years earlier. Arendt (1963) adds that behind every technocrat and a tyrant is the banality of a project. How have grass-roots movements as philosophers of science attempted to counter them at the levels of knowledge and justice? One must emphasize that, particularly in India, the critique of science arose not in universities but from human rights activists, ecologists and feminists fighting a battle