Book Review

Knowledge and Global Power: Making New Sciences in the South Fran Collyer, Raewyn Connell, João Maia and Robert Morrell

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The North-South divide within the global knowledge economy has been a focus in academia and the broader public for a long time. In recent years, scholars have begun to investigate how far emerging countries from the global South are becoming new knowledge powers, thereby potentially dissolving the North-South gap within global knowledge regimes. Knowledge and Global Power: Making New Sciences in the South, by Fran Collyer, Raewyn Connell, João Maia, and Robert Morrell, greatly contributes to this important debate by tracing the changing patterns within the global knowledge economy through three illuminating case studies. They investigate the structural conditions of "knowledge workers" in South Africa, Brazil, and Australia across three domains of knowledge production: climate change, HIV/AIDS, and gender. Providing thick empirical data, the authors enable in-depth insights into the situation Southern experts, researchers, and scientists are facing vis-à-vis global research networks and scientific practices that are still dominated by the global North, as well as how their activities re-shape existing structures. Although the predominant authority still lies within Northern knowledge institutions (p 173) – stabilised, among others, through funding, established methodological frameworks and concepts, an intellectual workforce trained by curricula modelled in the global North, etc:

"the agency of intellectual workers in the Southern tier is shown in the devices they have developed for participating from a distance, (...) in the shaping of agendas; insistence on the importance of poverty, inequality and development; the stressing of locations and context; and for some, drawing attention to the limitations of universal theorising" (p 173ff).

The book starts from the idea that social structures determine the production of knowledge. The authors explore the process of knowledge production itself, and show the extent to which the workforce engaged in knowledge production depends on networks of cooperation and sets of institutions. Drawing on decolonisation theories, the authors illustrate, using many examples, how such networks and institutions were historically built up in the global North, creating dependencies and hegemony in the spheres of knowledge-making over centuries and on a global scale. Based on extensive interviews, the authors demonstrate the intricacies that knowledge

workers from the global South still face in entering global networks and becoming visible. In order to attract attention, even in other peripheral knowledge production centres, for instance, innovation must usually first be adopted and publicised in the global North. Similarly, career biographies, in order to become favourable, have typically to run through Northern educational systems and institutions.

Focusing on the three "new domains of knowledge" (gender, HIV/AIDS, and climate change) the authors show how local scientific expertise in Brazil, South Africa and Australia, often driven by political activism, developed its own dynamics and engaged in global knowledge production. It becomes evident that even though strong links with Northern researchers or funding institutions exist in these knowledge domains, there was and is "more room for Southern researchers to use their expertise and location to swing the pendulum away from Northern dominance" (p 52). For instance, although South African scientists still heavily rely on international funding in HIV/AIDS research, their expertise in antiretroviral therapy resulting from huge clinical trials is enormous and became a key site for international programmes run, eg, by the WHO (p 41 ff). As another example, while climate change researchers in all three countries still get the majority of their modelling frameworks from the global North, it is their local expertise – their ability to observe how climate behaves – that enables them to collect the data needed, and to rethink and appropriately adapt the models provided (p 66ff).

The book zooms into the labour processes in the three domains in the respective countries. Analysing spaces and practices along daily routines in different research institutions, Collyer et al render visible that the notion of "extraversion" as defined by Paulin Hountondji¹ is still the dominating structural condition for knowledge produced in the Southern institutions: concepts, theories and methods are still made in the North, while data is gathered in the global South. On the other hand, the authors convincingly show that this structural pattern is undermined as "the flow of knowledge and resources can be negotiated, thus producing spaces for contestation and forms of 'local knowledge'" (p 86).

This assertion is further supported by statistical data of publications across different countries in the three domains in the years between 1980 and 2015–16 (data taken from the Web of Science). The data illustrate the strong presence of Northern scholars and their institutions, with the US at the forefront, UK and Germany as substantial contributors leading a second group, and China as a rising star, contradicting the otherwise clear-cut North-South publication pattern. However, the share of publications by Northern countries is shrinking overall, and China's new position signals a larger trend. Brazil, Australia, and South Africa are among the top 25 countries in publication output in 2015.

Combining context-content analysis with these statistics, and adding further interviews with editors, publishers and research managers at universities, the book provides an intriguing mapping of publication activities, funding, and labour conditions in the three domains on a global scale. This mapping thereby mirrors the dependencies of

P Hountondji, "Producing Knowledge in Africa Today. The Second Bashorun MKO Abiola Distinguished Lecture" (1995) 38(3) African Studies Review 1.

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Southern knowledge production as well as its growing dynamics and impact. While neoliberalism and the growing pressure from the overall knowledge commodification paradigm affect knowledge workers around the globe, the authors argue that it matters where on it you are based. They show that, in a contradictory trend to the above-mentioned growing importance of Southern knowledge production, there has been the "creation of a handful of massive publishing conglomerates with transnational reach" (p 121), holding the lion's share of publication outlets in natural sciences and social sciences, and that most of them are based in the countries of North America or Europe.

The book closes in a synopsis of what has been explored. Northern hegemony is present. Yet, in the analysed domains of knowledge, old patterns are changing due to knowledge dynamics arising within and from the global South. "(T)he creation of local research programmes, the founding of research centres and the linking of research to public policy addressing local problems in distinct ways" (p 166) build up structural counterbalances in the global South, so that "the complex interweaving of Northern paradigms and Southern tier experience" (p 167) leads to a re-structuring of global knowledge production. In this way, Collyer et al suggest redefining the notion of extraversion. Based on their case studies, they argue that one finds tensions in the studied knowledge domains, but not "abysses or rival epistemologies" (pp 154 ff, 167). Hence, extraversion should be better understood as "a pattern of agency, a way of dealing with a collective situation in the global economy of knowledge" (p 173). Key are the manifold initiatives and strategies to "participate from a distance", and to turn location in the global South into an asset for knowledge production.

Collyer, Connell, Maia, and Morrell provide a revealing and vigorous contribution to the exploration of the complex scenery of asymmetric global knowledge structures. On the one side, path-dependencies and the inertia of the existing conditions and practices of Southern-tier intellectual workers become obvious. On the other side, the authors show that institutional flux is taking place, and how Southern knowledge production uses open spaces for negotiating with the power and the resources of the North at many levels (p 174). The dense collage of insights is stunning. Particularly captivating are the numerous direct quotations from interviews, shedding light on manifold informative facets of the issue. The exploratory character of the research design, one that turns the case studies into a kind of "natural experiment" (p XVI), inspires for further development and additional studies. However, a few limiting aspects of the selection and use of empirical material must be pointed out. I wondered why the authors put so much emphasis on publishing. Publishing is no doubt a crucial part of knowledge production and dissemination, and an established indicator when it comes to eg innovation capacity measurement. But it is debatable what kind of information publication data is actually indicative of, particularly as the authors do not provide a theoretical framework that would establish causal links and hypotheses. Furthermore, the study refers to technology only in limited contexts, primarily to information technology in daily routines. However, in addition to the focus on such routines and strategic practices, the relevance of material artefacts requires more attention for picturing the structural conditions of knowledge workers in the global knowledge

asymmetries. Examining, for instance, the role of intellectual property rights for knowledge production in the global South is one potential component: who are the producers, potential right-holders and recipients of the relevant technology produced within research institutions, and how are they prefigured by or resisting against dependencies and asymmetrical dynamics around the commercialisation of research outputs? In as much as the authors provide conceptual and methodological ground for inquiring these questions, they induce further research into networks of technology transfer in order to illuminate changing patterns within the global knowledge economy.

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