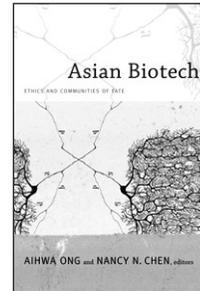




Book Review

Asian Biotech: Ethics and Communities of Fate

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The Human Genome Project (HGP) evoked responses from academics in social sciences and humanities and a significant portion of the literature on Ethical, Legal and Social Implications (ELSI) of the mapping of Human Genome was contributed by them. While the researchers on HGP raised new issues and concerns, some of the older issues like misuse of science in the name of eugenics, using science to discriminate, were also debated in the new contexts. But much of the ELSI literature was confined to developments and debates in Europe and USA and Asia did not figure prominently in those debates.

During the past decade or so, developments in S&T in Asia and their applications have caught the attention of academics in social sciences and humanities. Thus by now there is a growing literature on social and political analysis of biomedical/life sciences research and applications in Asia, particularly on India, China, Korea and Japan.¹ While the economic growth of Asia in the past decade and the projected growth in the coming decades is obviously one of the reasons for such an interest, the importance given to S&T in these countries, particularly to biotechnology and life sciences by states in terms of investment and the resultant rise in share of publications, patents and innovations, is another reason for this. China publishes more papers in biotechnology than any other country in the world although in terms of impact the USA retains the number one position. Thus, biotechnology in Asia is no longer in its infancy, even though only a dozen or so countries have invested heavily in biotechnology.

But what is Asian biotech and is it in any way different from biotech elsewhere?. Ong and Chen clarify that they are discussing ‘a configuration of common interests and imagination that we call ‘Asian Biotech’ “(P14). Both the editors and many contributors in the volume point out that how nation building and the respective biotechnology projects are inter

wined and how it is used to negotiate with and produce identities. Thus, biotechnology ends up as not just as a technology but as a part of the larger scheme to deploy S&T to achieve some goals and production of categories and identities.

For example, capacity building in clinical trials in India, or, stem cells with genetic characteristics of Taiwanese or using 'Chinese DNA' for ethnic categorisation, are different practices that are linked with nation building projects and/or with negotiation and production of categories at national levels or 'Asianess' at the continental level. But instead of measuring the deployment of biotechnologies in terms of universal bioethics the editors call for anthropological analysis of 'situated ethics' and they identify ethics as a process of moral reasoning rather than application of universal principles as measurement. Hence the editors state, "Instead of proceeding from a position of moral certitude to make judgments about particular ethnographic situations or seek to remedy them according to universal set of ethics (P13), 'an anthropology of ethics is necessarily about locating ethical practices, that is, tracking ethical configurations where 'ethicalizing' processes take place."

This ethics is situated, contextual and emerges from ethicalizing process and hence the analysis has to be empirically valid and should not use universal norms to assess how 'good' or 'bad' these ethical practices are. That is the processes rather than the principles that deserve greater attention here.

The impact of Foucauldian notions of biopolitics and governmentality, and also the influences of ideas of Paul Rabinow, and Nikolas Rose are evident in this volume. Rabinow introduced the concept of biosociality to refer to formation of groups, identities and practices around one's biological futures in the context where (human) biology itself has become artificial and malleable/configurable. Cohen put forth the idea of bioavailability to denote techniques and practices that facilitate (re)incorporation of biological matter of one being into body of another being.

But bioavailability cannot be reduced to commodification or mere alienation of parts. Rather biosociality and bioavailability should be understood in the light of technoscience that enables such alienation, circulation, incorporation and practices that result in new formations in identities and groups. Thus while biomedicine has made bodies malleable, this can occur in different settings and contexts, drawing upon the existing notions of morality, desirable conduct and social ethos. Hence what is

interesting is not just the deployment of biomedicine or techniques but also how they in their interaction with visions, ideals, projects and ambitions, at the levels of individual, community and nation produce new identities, and contribute to nation building projects or to strengthen prevailing ethnic identities.

For example, stem cells and cord blood banking have raised the hopes and expectations from life sciences and are inextricably linked with aspirations that were once in the realm of science fiction. Their wider availability in countries like India, China and Korea results in an ever increasing demand for them, particularly, from a middle class that has the resources to get access to them. The essays in this volume examine how different technologies, processes and practices that have their roots in biomedicine and technoscience are deployed in the Asian countries.

Does this mean that all Asian countries have followed the same practices disregarding the western bioethical framework and in the process have they established any alternative framework? The answer is a big NO. Instead the chapters demonstrate that ethics is deployed in different ways, sometimes as principles, some times as a ritual with no real ethical meaning, sometimes as a symbolic gesture and sometimes as an indication of affirmation of universal (read western) ethical norms.

This divergence is exemplified in the chapter by Thompson who describes stem cell research in South Korea and Singapore. While South Korea promoted and patronized its own scientists Singapore was keen to attract both investors and scientists from abroad, and hence built a massive complex called 'Biopolis'. To indicate that it is an international endeavor rather than a project by an island state in Asia, it followed the ethical standards in stem cell research that are at par with that of the West, i.e. North America and Europe. By this Singapore wanted to indicate to the world that its science is world class both in terms of scientific practice and ethics in doing science and wanted to promote itself as a leading hub in the global knowledge economy. So by aligning with what is best in science in the world, Singapore wanted to achieve national glory. This again is an example of situated ethics where in adherence to universal ethical norms is part of an ethicalising process that enables fulfilling two objectives, national glory and an unique place in global science. Thus ethics in this case is both an instrument and adherence to some principles.

In contrast in South Korea, ethics was not given that much importance as exemplified in the case of Hwang. South Korea too had the objective of

using stem cell research to indicate to the world its capabilities in frontier S&T and to use this to enhance national pride. Within Korea he was regarded as a national hero and his project was linked to 'Koreaness' so much so that his female assistants voluntarily donated eggs 'for the sake of the nation'. Thus, in two different counties opting for two different ethical practices, one technology was used as route to enhance national pride as well to indicate that to the world that 'they have arrived'. It is no wonder that many in Korea sympathized with Hwang and supported his research. To understand this one has to situate the stem cell research and the ethicalising process. Hwang was ambitious but his behavior could not be reduced to that of one scientist's unhealthy greed, and the resulting fall.

Kaushik Sunder Rajan discusses the functioning of Clinical Research Organizations (CROs) in India and clinical trials are outsourced to India through CROs. To meet global standards and for certification purposes it is essential that they adhere to norms developed elsewhere. In other words they have to ensure that they follow the guidelines on research involving human subjects. These guidelines themselves have a long history and they were developed in the post-second world war west. In letter and spirit these guidelines are based on some fundamental principles in bioethics, particularly informed consent. But in practice in the outsourced clinical trials in India, they are reduced to that of getting informed consent forms. It is easy to reduce this to a case of exploitation of the poor in the South by the rich and powerful North. But his analysis is more nuanced as it tells us the gaps between the lives and experiences of those who participate in these trials and the ethical guidelines that consider informed consent as an essential ethical principle. In other words, in such trials, ethics is reduced to an issue of following procedures than that of adhering to the principles per se. Another case study from India tells us how the cultural attitudes in India are manipulated by pharmaceutical industry even as they pay lip service to concepts like responsible corporate citizenship.

The other chapters in the volume tell us, *inter alia*, how the traditional hospitality of the Thai people is used to facilitate medical tourism, how DNA is linked with national ethnicity in China and Taiwan, how the response to stem cell and embryo research is shaped by the cultural values in Japan and how GM food is linked with bio sovereignty and food security in China. A reading of these chapters reveals not only the situated nature of ethical issues but also the multiple ways in which science and technology are used in different national and cultural contexts in which the cultural values and

national/community identities are affirmed by such uses as well as using cultural values and identities gives credence to science and technology. Thus, DNA means different things in different contexts, and so are material things like blood, embryos and acts like donating blood acquire different meanings across countries. A simple act like donating blood has a cultural and ethical significance even when it done in a different country and in a different cultural and market setting although those who do so may not be aware of bioethical notions like informed consent or review boards for ethics.² But technoscience while global in nature can be deployed to take advantage of these good intentions which are rooted in cultural values and noble intentions. The potential of technoscience to make organs and life processes more malleable is harnessed and deployed in so many different ways for different purposes. Hence GM food is much more than GM food in the context of China where food security is very important where as for an European consumer it is just yet another choice. So the response to acceptance of or resistance to a particular technology or product and the debates on the risk or perception of risk cannot be understood except in the larger context. This opens up the possibility of ambivalence in responses and such responses reveal the anxieties, hopes, fears and concerns about risks which themselves are shaped by social and cultural factors.

But much more than the cultural factors, it is the role of state that becomes important in deploying technology and in prioritizing some technologies over others although they all may be committed to biotechnology. Thus the development of biotechnology in Asia cannot be reduced to that of a single, linear narrative but should be seen as responses by different states and societies each having distinct history, priorities and concerns. While market forces play an important role in this, the political economy approach has to be supplemented with other approaches to understand the biotech phenomenon in Asia, particularly to understand the strategies of state in attracting investments and encouraging innovation.³

Ashis Nandy once wrote about Science as Reason of State. Perhaps the time has come to revisit that again in the context of biotechnology in Asia and emergence of bionation. The genetic basis of a nation can be asserted through DNA although that basis is not that of a racist notion that is based on ideas of purity and impure. Rather as Sung points out Chinese DNA is a cultural belief that is linked to social, institutional and political phenomenon. Sung puts it succinctly by stating that "Chinese DNA is an epistemic presupposition in China's building of a bionation" (P 275).

One is reminded of the controversies in India over the studies that linked genetic data with caste groups and ethnicity. It is not that caste can be attributed to DNA or genetic data but such data can be used to question or affirm some notions about endogenous caste groups and lineage of castes. But the bionation, affirms the unity as that is 'proved' through analysis of DNA and genetic data.

To sum up this book raises many important questions but hesitates to provide answers that affirm any universal principle or value system to be used as bench mark. But the question is whether this situated ethics is yet another call for relativism or it is not is an issue that needs to be addressed in a different context and in a different time. I for one would strongly recommend this interesting volume to anyone interested in gaining a better understanding of biotech in Asia.

-Krishna Ravi Srinivas

RIS

Email: ravisrinivas@ris.org.in

Endnotes

- ¹ For example *Biocapital* by Kaushik Sunder Rajan, Duke University Press 2006; *Local Cells, Global Science: The Rise of Embryonic Stem Cell Research in Asia* by Aditya Bhardwaj, Peter Glasner, Routledge 2009, *Biopolitics in Asia Special Issue, New Genetics and Society*, Vol 28. No 3. 2009, edited by H.Gottweis; *Frmeworks of Choice: Predictive and Genetic Testing in Asia* (ed) Margaret Sleeboom-Faulkner, Amesterdam University Press, 2010, Report : 'Shifting Perimeters': Social and Ethical Implications of Human Genomics Research <http://nias.res.in/docs/Shifting%20Perimeters%20Reporton%20HGRandELSI.pdf>
- ² "At the second of our sample-collection drives, a gentleman associated with the BAPS [Bochasanwasi Shri Akshar Purushottam] Swaminarayan temple (whose booth happened to be adjacent to ours) virtually took it on himself to send prospective sample donors our way. His enthusiasm for our study on the grounds that it would undoubtedly "benefit everybody in the community" and his success in attracting donors with that simple enticement rendered our carefully crafted, IRB-approved Informed Consent documents fairly irrelevant. Collective benefit was clearly what was at stake here, far more than the agency of individual donors." Deepa S.Reddy (2007) Good Gifts for the Common Good : Blood and Bioethics in the Market of Genetic Research *Cultural Anthropology* 22:3 429-472
- ³ See, for example, Salter B. 2009. "China, Globalisation and Health Biotechnology Innovation: Venture Capital and the Adaptive State." *East Asian Science and Technology: an International Journal*. 3(4): 401-423.