

## East Asian STS: Fox or Hedgehog?

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In his position paper for the *EASTS*, Professor Fu raises a series of issues that help define the mission and outlook of the journal. They may be summarized in question form as follows: (1) Is East Asia a useful category for science and technology studies? (2) Is East Asia STS simply the application of existing theories from the United States or Europe to East Asia? Is its aim simply to produce case studies modeled on Western scholarship? How can East Asian STS be fruitfully distinctive from what is being practiced in the West today? And (3) how can we best put East Asian STS into social practice?

I agree with much of what Fu has to say on these questions. I certainly share his belief that East Asian STS can make significant contributions to science and technology studies in general. As laid out in Fu's paper, however, East Asian STS seems a little too circumscribed and limiting; it leaves out many interesting possibilities and opportunities. Put facetiously, I've imagined East Asian STS to be a fox, but what comes out of Fu's paper looks rather like a hedgehog. Let me explain why.

### 1

Fu reflects on recent theories concerning the relationship between “the West and the rest.” Anthropology, postcolonial studies, and allied disciplines have questioned area studies and such categories as center/periphery and metropole/colony. They have proposed and emphasized another set of concepts, such as networks, traffic, and circulation. Fu sees a problem here. If one followed this trend of thinking far enough, wouldn't one have to give up the category of East Asia all together? One would instead focus on the traffic of ideas, the circulation of cultural productions, the networks of social relations, etc. on the local and the global level. But Fu also wants to maintain the usefulness of East Asia as an analytical category: Why else would we need a journal on East Asian STS at all?

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To justify his position, Fu refers to two historical conditions. One is the shared historical experience of the countries in the region. The other is the geopolitical condition of power relations. According to Fu, if one goes too far in emphasizing the phenomena of traffic, networks, and circulation, one is at the risk of forgetting the reality of domination, dependency, and even center/periphery. In this historical matrix, then, one can mark out East Asia as a particular geographic and historical region for STS research.

I am sympathetic to Fu's position and perspective. I think that he raises an important issue that all of us have to think seriously about. However, I would like to complicate the issue a little bit. First, I am not sure that I can agree with the theoretical conundrum Fu sets up in his paper. The main thrust of postcolonial studies and other related approaches he discusses is to avoid essentializing the center/periphery, metropole/colony, and other such categories. They try to develop conceptual frameworks that treat historical actors in a symmetrical way—symmetrical not in the sense that they were equally powerful, but in the sense that they can be analyzed in the same methodological terms. These approaches do not deny the reality of power differentials. There were of course domination and resistance (as well as appropriation, submission, complicity, and translation, all of which deserve study), but all power relations had to play out in local contingencies. We cannot simply accept the center/periphery as conventionally defined and assume that their relationship was stable. The dominant struggled to maintain the existing order of power relations, but the order could be disrupted or subverted or reversed in particular contexts. It is our job to document and explain such changes.

Second, is the area drawn by Japanese imperialism and the Cold War necessarily the best way to define East Asia? I don't mean that that definition is not valid, but I wish to see more justification for characterizing East Asia in such terms. Weren't there long-term historical, societal, and global changes that cannot be squeezed into the box of Japanese imperialism and the Cold War? If so, then, isn't the definition a selective way of reading history? Shouldn't it be made clear what historical factors are privileged over others and why? In the 1980s, in the heyday of the chorus of Japan as No. 1 and the Four Little Dragons, many scholars, as well as politicians, characterized the core of "East Asia" in terms of Asian values, Confucian ethics, and other similar cultural traits. With the recent "rise of China," one shouldn't be surprised to see another bunch of definitions of "East Asia" being manufactured. The fact is that there are many competing or alternative interpretations and definitions of East Asia. They vary according to time frame, standpoint, and emphasis on culture, political, or economic factors. Categories such as East Asia must be relational and contextual; they don't exist outside particular reference frames, which are in turn defined in particular space and time, by particular groups of people, and for particular purposes. Historical actors defined it differently. Different groups of people today define it differently. Hence, we cannot avoid the multiplicity and heterogeneity of what is called East Asia. This doesn't mean that East Asia doesn't exist—it simply means that it doesn't exist prior to the interplay of power and knowledge.

We need not feel disturbed by this. But we certainly ought to be more reflexive when we use these categories—in fact, not only when we talk about East Asia, but also when we use the seemingly less controversial categories such as Korea, China, Japan, and Taiwan. We tend to take for granted these categories, though actually they

can be as poorly defined as anything. Often, authors use them to mean, indiscriminately, nations, states, societies, geographic areas, and cultures, even though these are not the same thing. Just as often, authors are confined by such categories in thinking about historical and technoscientific changes, even though they may not be useful in analyzing transnational or transregional developments in science and technology. Thus, we should not leave these stones unturned. In pursuing East Asian STS, we inevitably have to confront the problem of analytical categories and methodological tools. Case studies don't come from nowhere. Why do we choose particular subjects, themes, categories, and approaches? How are they related to the particular culture, society, and political condition we study? Why are they relevant? These are questions that we should keep in mind when we go about doing East Asian STS.

## 2

Fu's second set of questions asks: Do we simply apply SKK, SCOT, ANT, cyborg feminism, and other popular theories to cases found in East Asia? Do we merely produce case studies of East Asia along these lines? If not, what can be the distinctive intellectual contributions of our research? In answering these questions, Fu quickly urges us to turn to social practice and "new appropriate technology." I will consider these two topics in the last part of my paper. Here I would like to say a few words about developing distinctive theories (or analytical tools, conceptual categories, and interpretive frameworks) that can better inform East Asian STS.

When the Anglo-American STS community and discipline started out in the 1970s, it had its particular intellectual and social concerns. This background helps explain the development of the specific STS approaches and their strengths, emphases, and limitations. Until about ten years ago, their primary focus was on the modern scientific establishment and its knowledge production. This focus gave STS a high concentration of energy and scholarship. The outcome was impressive. Success came with a price, though. A close focus led to a narrow field of vision. For a long time, STS neglected science and technology (or various forms of knowledge and practice) that was not conventionally defined as modern and Western. It was most likely that an STS article would scrutinize a controversy over an experiment in a laboratory at a university in North America rather than analyze the making and use of roads, houses, motor vehicles, or fertilizers in, say, Southeast Asia, even though the latter subject could be as complex and politically charged as the former. Not surprisingly, STS sometimes fell behind other fields in absorbing certain new ideas and perspectives. For instance, it was slow to incorporate postcolonial studies into its research, lagging significantly behind comparative literature, anthropology and history. Similarly, STS began to consider the agency of users much later than did cultural studies. STS in Anglo-American academia is far more diverse today than before—this is a welcome development—yet one can still argue that it can use more history, political theories, and anthropology. This is not to criticize STS in Anglo-American academia. We have all learned a lot from it and have benefited tremendously from the work it has done. It is just to point out that we cannot expect to find in "mainstream" STS all the tools we need.

The STS community in East Asia has a different makeup from its Anglo-American counterpart. There isn't a clearly delimited academic discipline of STS in East Asia, and the community includes historians, anthropologists, sociologists, public health experts, cultural studies scholars, philosophers, and even scientists. As a result, it is exceptionally open to different perspectives and methodologies. This inclusiveness and diversity can be a strength, especially when the field is still trying to develop suitable and effective approaches. Ultimately, what East Asian STS needs are middle-range theories that are sufficiently grounded in particular historical and social contexts and that tackle historical and/or contemporary problems in East Asian societies. Such theories may also engage in fruitful dialogue with STS in the West. For precedents in STS and other disciplines, one thinks of the dependency theory from Latin America in the 1960s and 1970s, subaltern studies from South Asia in the 1980s and 1990s, and STS approaches developed in northern Europe in the 1980s and 1990s, all of which started out addressing problems in their own social, cultural, and political environments. In so doing, they challenged, complemented, or reconfigured the views and knowledge dominant in the "center."

East Asian STS shares with its counterpart in the West certain critical issues for inquiry, notably, gender. However, there are certain areas of inquiry that must loom large in research on East Asia have received but little attention from mainstream STS. One such example, discussed in Fu's paper, is local innovations which appropriated both traditional and modern technology. Because of their humble origins, these innovations in everyday technology have been flying under the radar of STS. Here I would just like to mention two other aspects that mainstream STS has left uncultivated, but that should be important to East Asian STS, namely, macropolitics and long-term history. Generally speaking, STS is still rather weak in dealing with macro and long-term social processes. It tends to produce case studies in snapshots of time. As Fu points out in his paper, however, there are broad historical and political forces that have helped shape science and technology in East Asia. Shouldn't we take them seriously? A short list would include state, geopolitics (which, I believe, cannot be reduced to only Japanese imperialism and the Cold War), nationalism, and political economy (global, regional, and national). We need to develop conceptual tools for handling these issues.

### 3

STS scholars in East Asia have been very active in putting their knowledge into social practice and political action. They have been on the front lines of major social controversies over science and technology (such as those involving nuclear power plants, industrial pollution, dam building, and new sources of energy). Indeed, STS should have an active role in society. In his paper, Fu unfurls the banner of "new appropriate technology" and plants it in the center of the social practice of East Asian STS. I admire Fu's conviction and I recognize the importance of "new appropriate technology" to East Asian societies. Yet, I also think that the concept may prove too limited for social and political action. It leaves out much of what we usually consider to be science, technology, and medicine, unless, of course, we define the concept so broadly as to be too general and amorphous. For instance, it is

not clear to me how under the guidance of “new appropriate technology,” STS should act on a controversy over the definition of science, such as that which occurred in China recently when it outlawed “pseudoscience” or the public battles over evolution in the United States. These kinds of incidents are not rare in modern societies, in East Asia or elsewhere.

Moreover, I wonder if the standpoint of “new appropriate technology” is always the most effective way to intervene in the technoscientific order in modern societies. Although, like Fu, I also object to the “past-the-point-of-no-return” view, which asserts that the very size and momentum of modern technoscience renders the cause of “new appropriate technology” unrealistic, I nevertheless feel that the complexity of the technoscientific order may require various strategic positions for social and political intervention. STS can speak from within as well as without mainstream technoscience. For the so-called technoscientific establishment is hardly a single coherent entity; it is rather more like a loose composite of numerous parts that contest as much as cooperate with each other. The perspective of appropriate technology, therefore, probably concedes too much to the image of modern technoscientific hegemony (just as does the past-the-point-of-no-return view, though they go in opposite directions about social and political action).

Finally, appropriate technology has not had a lot to say about certain important social and political issues concerning East Asia, some of which have direct bearing on science and technology (e.g., state, nationalism, inter/transnational relations). Is appropriate technology the best or only perspective when critiquing, say, international industrial competition, the global spread of military technology, and labor relations in high-tech parks? Is it the best tool for problematizing state, nation, geopolitics, macro political economy (other than in a vague, philosophical fashion), long-term social changes, etc. in relation to science and technology in East Asia? Although the notion of appropriate technology is not incompatible with these tasks, it has not confronted them head-on, either. And there are other approaches and theories that have. To make itself relevant, then, East Asian STS should be able to employ all valuable critical tools in order to make effective interventions. Thus, I prefer to see East Asian STS have many tricks in its hat.