

General Introduction

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There is a moment in Nietzsche's *The Birth of Tragedy* (1956/1990) worth recalling when we think about Cultural Studies today and the reasons for putting together a new anthology on the field. It is the moment when (according to Nietzsche) a voice enjoins Socrates, just when he is about to give up his life rather than his convictions, to "practice music." It is a thoroughly ambivalent moment, because throughout the book, Nietzsche has with characteristic iconoclasm described Socrates not as an intellectual hero but as a kind of intellectual monster who takes to extremes the idea that the beautiful is synonymous with the intelligible, that thought can separate true knowledge from illusion and error. Socrates becomes preeminently a teacher who teaches a powerful critical method of guarding against error. Hence, the Socratic spirit is optimistic and serene, devoid of self-doubt.

Nevertheless, Nietzsche concedes that there is another side to Socrates which makes him "the most problematic figure among the ancients." We remember Socrates' famous *daimonon*, that divine *voice* that spoke to him during those moments when even his magnificent intelligence faltered. It is true that for the most part, the Socratic *daimonon* is a negative inhibitory agent, speaking to dissuade, a kind of nagging Xanthippe, nothing if not critical. Nevertheless, there was one important instance when the voice spoke to him in order to persuade: during Socrates' last days, the voice said to him in a dream: "Practice music, Socrates!" "These words heard by Socrates in his dream," Nietzsche comments, "are the only indication that he ever experienced any uneasiness about the limits of his logical universe" (p. 90). It is said that in prison Socrates composed a song to Apollo and versified several of Aesop's fables.

"Music" in the above anecdote suggests at least two things for Cultural Studies. Firstly, it suggests the value of taking a powerful and dominant line of thought *elsewhere*, of opening oneself to other cultures and other orders of things. But it

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also suggests even more importantly that this “elsewhere” should not be taken too literally. For example, a music-practicing Socrates will have to do more than versify Aesop, just as Cultural Studies is more than just an interest in popular culture. Cultural Studies needs to speak not only against domination but, in order to do this with any success, it needs also to ensure that the hard-earned insights of the field – about marginality, otherness, local contexts and so on – should not be foreclosed by literal-minded applications. In Cultural Studies as in other terrains of study, literal-mindedness is the original sin.

And this brings us back to the aims of this anthology. One of our aims is indeed to take Cultural Studies elsewhere, to internationalize the field a little further. While Cultural Studies has long been conducted in various national and international contexts, it is unclear how the active and proliferating practices of Cultural Studies in other regions of the world are taken up, circulated, used, valued, or taught. A certain parochialism continues to operate in Cultural Studies as a whole, whose objects of and languages for analysis have had the effect of closing off real contact with scholarship conducted outside its (western) radar screen. In the current moment of what we call the “postcolonial predicament” of Cultural Studies, in which a broad hegemony of western modernity is increasingly being questioned among Cultural Studies scholars from around the world, we must consider any form of internationalization as an effort – and a critical context – for facilitating the visibility, transportability, and translation of works produced outside North America, Europe, and Australia. This proposed anthology is an attempt to make a political and intellectual intervention into a state of unevenness in the flow and impact of knowledge within Cultural Studies, to clear a space for an introduction to, and pluralization of, Cultural Studies work from diverse locales and intellectual traditions.

However, we need to remind ourselves that in order to achieve any kind of genuine plurality, we must allow the notion of “elsewhere” to retain its critical and interrogative edge. “Elsewhere is a negative mirror,” Italo Calvino makes the traveler Marco Polo remark, and this is as true of travel as it is of Cultural Studies. If the aim is to reveal and topple an underlying universalism, the means for doing so cannot be to revert to parochialism. Thus “Asia” cannot simply be opposed to North America, Europe, or Australia. Benjamin Lee (1995) makes a similar point when, in arguing for the need to resituate area studies to a critical internationalist framework, he suggests that debates over such things as multiculturalism or other conceptions of difference can “only be decentered by being examined from another perspective. This does not mean that the other perspectives will provide solutions to our problems, or that ours can solve their problems, but that they may suggest strategies for disaggregating issues which may appear to go together naturally. . . . We have reached a time when no values from any single cultural perspective can provide frameworks adequate to understanding the changes affecting all of us” (p. 588). These observations are in line with a flurry of critical debates that have confronted the question of whether the broad proliferation of Cultural Studies work in many parts of the world really means anything at all to the whole political ethos of Cultural Studies (see Birch, 2000; Chen, 1996, 2000; Cevasco, 2000;

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Desmond & Dominguez, 1996; Grossberg, 1994; Mato, 2000; Stratton & Ang, 1996). Practical articulations of an internationalist Cultural Studies have appeared in the form of journals and series with “postdisciplinarity” and even “postnational” and “heterolingualism” as their explicitly stated goals (e.g. *International Journal of Cultural Studies*, *Communal/Plural* [now defunct], *Inter-Asia Cultural Studies*, *Traces: A Multilingual Series of Cultural Theory and Translation*), in international conferences (e.g. the Dismantle/Fremantle Conference held in Australia in 1991, the Trajectories: Toward an International Cultural Studies conference held in Taipei in 1992, the International Crossroads Conferences in Cultural Studies held since 1997 in Europe, UK, and the US, and the Critical Dialogues in Cultural Studies Conference held in Hong Kong in 2001), and in the recent establishment of an International Association of Cultural Studies. If these initiatives have contributed to the establishment of critical internationalism, it is partly because they have implicitly or explicitly subjected the notion of elsewhere to critical and often contentious scrutiny.

The same attention will have to be directed to other important and historically complex notions like “otherness” or “the local.” Radical otherness is also radically incomprehensible, as Lévi-Strauss has shown some time ago in *Tristes Tropiques* (1976). Lévi-Strauss’s argument can be formulated in a question: how can we know others, without in the process surreptitiously reducing them to versions of ourselves? This is the theme of knowledge as betrayal, known in another guise as ethnocentrism. In the encounter with otherness, something is inevitably lost. “I had only to succeed in guessing what they were like,” Lévi-Strauss writes about natives in the jungles of Brazil never seen before by the white man, “for them to be deprived of their strangeness” (p. 333). The right distance is never achieved: you are always standing either too near or too far. And the result of this stand-off is a kind of *tristesse* or scholarly melancholy. We also know Lévi-Strauss’s solution to the problem, which was presented to the world as structuralism, the bold face put on *tristesse*.

There are different reasons why Lévi-Strauss is relevant for Cultural Studies. To begin with, after *Tristes Tropiques*, Cultural Studies will have to avoid speaking about otherness the way TV evangelists speak about god – as our familiar. But this should not blur the fact that the trajectories and positions of Cultural Studies are very different from Lévi-Straussian anthropology. Even a highly sympathetic text like *Tristes Tropiques* shows that in the encounter with the natives, the anthropologist never loses her/his position as observer and the privilege that the position bestows. The other is always an object of study, which is why the central issue in the text has more to do with epistemology (knowledge-as-betrayal) than with ethnocentrism. In Cultural Studies, these priorities are reversed and reversible. We find there a different mode of otherness, where the other is not merely an epistemological problem, but capable of looking back and talking back. We can mention here yet another perspective on otherness, that of Roland Barthes, a reader of both Marx and Saussure, a lover of cities and of signs, who sees an erotic dimension in cities because they are “sites of an encounter with the other.” The city-as-other is erotic because it makes possible exchange, discourse, and intercourse. In a text like

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Empire of Signs (1982) about Japan, written admittedly from a position of ignorance, Barthes is not a privileged observer or ambassador of “cultural exchange” or emissary of the West. Rather, it is at the moment when cultural understanding breaks down, when cultural translation fails, that insights are gained. Such insights are never epiphanies of knowledge about the other, but rather negative epiphanies that do not pretend to pose themselves as universality. Instead of the universal, they move us towards a politics of knowledge and culture, which we believe is the major trajectory in Cultural Studies.

We can briefly examine how the diverse meanings of otherness in different specific contexts can give rise to different kinds of cultural politics. A number of important voices – all occupying Third World, subaltern speaking positions – provide the relevant points of illumination here. Kuan-Hsing Chen, who co-edits the first Asian-based journal entitled *Inter-Asia Cultural Studies*, reflects on the critical trajectory he took in navigating the politics of Cultural Studies as an Asian scholar/subject:

After a long period of training in Anglo-American Cultural Studies, I went back to Taiwan in 1989 and have witnessed the most turbulent transformations. My critical training has driven my involvement in these changes. Meanwhile, the mood of “indigenization” (*ben-tu-hua*) provokes me to reflect on the necessity of decolonizing my intellectual work. But it also makes me realize that exclusive indigenization is a sheer dead end. Wavering constantly between a local critical theoretical stand and my personal historical experiences, I have been searching for a workable position, without which no research is possible. Compared with my theoretical writings abroad, discourse on “popular democracy” and “new internationalist localism” are harbingers of the results of my attempts. (Chen, 2000: 10)

Chen’s concern about “decolonizing [his] intellectual work” highlights the importance of seeing “Cultural Studies” as a politico-theoretical project that contests any leaning towards intellectual imperialism. Echoing a Fanonian analytic, Chen’s reservation towards both “Anglo-American Cultural Studies” and “indigenization” movements suggests the need to open up another space for Cultural Studies today. Politically speaking, then, the challenge for a critical internationalist Cultural Studies entails a workable definition of this other space, where “the canonical” must be recast (and not abandoned altogether) and “the international/local nexus” must be rigorously contextualized in relation to various historical, geopolitical, and intellectual positions. This is why in dealing with various thematic concerns being selected for this anthology (e.g. Cities, Technocultures, Gender and Sexual Politics, and so on), we will ensure that the selections will be sufficiently *diverse* (in terms of origins of work and in terms of covering both canonical and noncanonical works) and *self-reflexive* (in terms of attempts to offer theoretical reflections on the various operating positions of Cultural Studies, such as “international,” “global,” “local,” “indigenous,” “subaltern,” and so on).

A clear and necessary strategy provoked by Chen’s convictions is to perform comparative Cultural Studies work. While a seemingly banal strategy, doing com-

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parative work is especially crucial under the name of globalization, so as to resist forms of universalism and particularism.

Much of Cultural Studies work around the world has been concerned with the problem of globalization, including the globalization of Cultural Studies. One such articulation by a Brazilian literary critic, Maria Elisa Cevasco, takes the global transportability of Cultural Studies as a positive opportunity to perform critical comparative thinking. For instance, in tracing the transnational appeal of Raymond Williams's work, Cevasco describes her borrowing of Williams in this way: "In peripheral countries like mine, conditions of living are undisguisedly marked by the contradictions of a devastatingly unfair system. Under such conditions, it is more difficult to leave aside the thought that intellectual work cannot keep any sense of human relevance unless it sets out to oppose existing relations. Hence the respect for work such as Williams'" (Cevasco, 2000: 433). Yet she does not stop there, for ultimately part of the struggle is over the relevance of Williams's critical humanism for Brazil. She continues:

Reading Williams from Brazil enables me to trace the lines of convergence between the moment of the British New Left and a Brazilian tradition of cultural criticism, associated with the same University of Sao Paulo where all that reading was going on . . . Take, for example, what went on in the faculty of Letters: literary criticism was to view literature not only as another import from elsewhere – the place which issued the standards that everything had to achieve so as to "exist" in the so-called civilized world – but . . . analyses of literary works were to be viewed as potent means of discovering and interpreting Brazilian reality. (2000: 434–5)

Practicing Cultural Studies for Cevasco (and by extension, for many other Third World intellectuals), then, has the effect of "counteract[ing] the seemingly endless proliferation of particularisms and random difference that marked much contemporary cultural theory, and show[ing] that different projects were determined by the same world order, which helps explain their structural similarities" (2000: 436). One of the advantages of opening up the space for international Cultural Studies, as this anthology is attempting to do, is therefore to cultivate the ground for comparisons over *structured* differences (rather than random differences) under the conditions of globalization. But of course to do that means that we need to embark on a critical project that can satisfy two interrelated necessities: (a) the need to rediscover neglected voices and (b) the need to challenge the constructed singular origin of Cultural Studies.

A story was told about an occasion when, during an International Congress of the Latin American Studies Association, Néstor García Canclini, a well-known Mexican cultural theorist and public intellectual today, was asked whether his book *Hybrid Cultures* (1995) was ever influenced by Homi Bhabha's work. Canclini answered that he had not read Bhabha at that time. It remains doubtful, as the story tries to indicate, whether Bhabha was at any time asked about the influence of Canclini on his work.

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Daniel Mato, of the Universidad Central de Venezuela, told this story as part of his effort to topple the monolingual and monodiscursive tendencies of Cultural Studies, which according to him, conflates the diasporic with the indigenous. As a result, it continues to misrecognize critical intellectual work from Latin America as “Latin American Cultural Studies.” The Bhabha–Canclini “encounter,” as it were, illustrates an important lesson for a critical international Cultural Studies: a diasporic voice wedged in a western Cultural Studies institution and an indigenous voice active in a Third World Cultural Studies practice tell very different stories, about such things as “hybrid cultures” or any other business. Mato argues that whether or not any of the local intellectual voices concerned with issues of culture and power can be appropriated as Cultural Studies from Latin America, remains a matter of strategic articulation.

Mato’s position is similar to Chen’s, for both are concerned with finding ways to decolonize Cultural Studies. Mato’s strategy is twofold. First, through redefining Cultural Studies work across Latin America as critical intellectual social movements, Mato offers key exemplary figures who have developed their work independently of those initiatives in the English-speaking world, but which have shared with them some of their most significant characteristics. He offers a long list of Latin American intellectual figures as examples, e.g. besides Canclini, Rex Nettleford (Jamaican), Jesus Martin Barbero (Mexican), Manuel Garreton (Chilean), Lourdes Arizpe (Mexican), Gustavo Lins Ribeiro (Brazilian), Gioconda Espina (Venezuelan), Ana Maria Ochoa (Colombia), Angel Quintero Rivera (Puerto Rico), and so on. Under the name of *Estudios Culturales*, their work takes the framework that “[f]irst, Latin America doesn’t exist, at least not a sort of more or less homogenous unit; and second ‘Latin American Cultural Studies’ as a field does not exist in Latin America” (Mato, 2000).

Mato’s second strategy is to attack the constructed singular “origin” of Cultural Studies. What we need, he implies, is to write alternative genealogies. He cites Jesus Martin Barbero from Mexico as saying, “I did not begin to speak of culture because of ideas that came from abroad. It was reading the work of [Jose] Marti, and [Jose Maria] Arguedas that I discovered [the significance of] culture, and with it the process of communication that I had to study. I did not think of the media, the media were there: in the parties [‘fiesta’], at home, in the ‘cantina,’ in the stadium . . . We had done Cultural Studies well before this label appeared” (Barbero cited in Mato, 2000). Canclini too has stated, “I became involved in Cultural Studies before I realized this is what it was called” (cited in Mato, 2000). Similarly, some years ago, in an effort to argue for the specificity of Cultural Studies in Australia, John Frow and Meaghan Morris also provided an alternative genealogy:

Our first encounter with a “culture and society” approach in the late 1960s came not from reading Raymond Williams but from attending WEA [Workers Educational Association] summer schools on film run at Newport Beach in Sydney by John Flaus. Flaus works as a teacher in university and adult education contexts, as a critic who uses radio as fluently as he writes for magazines, and as an actor in a variety of media from experimental film to TV drama and commercials . . . we can say that Flaus (like

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Sylvia Lawson) helped to create a constituency for the project of Cultural Studies as well as train a generation of film and media critics. Yet his work, along with the socially mixed but intensely familial urban subculture and small journals networks which sustained it (both of which were historically deeply-rooted in the inner-city life of Sydney and Melbourne), has been erased from those Australian accounts of Cultural Studies which take bearings from the British tradition – and then pose problems for application. (Frow & Morris, 1993: xxvi)

That the alternative reference points mentioned by Barbero, Mato, Canclini, Frow, and Morris are relevant to a critical internationalist Cultural Studies is obvious, but significant. However, the current state of knowledge is that these are largely occluded reference points. It's time that a pluralization of Cultural Studies, including its varied intellectual inheritances, be brought to light.

Whether it is about combating academic imperialism, performing critical comparisons, or rediscovering alternative traditions, Cultural Studies need to be inclusive of a wide array of diverse speaking positions. At the risk of reductivism, let us outline some of these speaking positions that inhabit and move across the international sphere of Cultural Studies:

- 1 The canonical speaking positions, either from the metropolises or from the peripheries;
- 2 The alternative local, contextually specific position lodged in an indigenous intellectual tradition;
- 3 The alternative local, contextually specific position framed in a national intellectual tradition, or one lodged in a nationalist tradition;
- 4 The alternative local position couched in an “east–west” comparative framework (thereby possibly redeploying an anachronistic, outdated, Cold War framework);
- 5 The alternative local position lodged in a regional, comparative framework asserting regional alliances (thereby possibly redeploying the “triumphalist” rhetorics of such entities as ASEAN or EU);
- 6 The subaltern position that critiques either one or both of the hegemony of western modernity and local nationalist modernity;
- 7 The relocalizing speaking position after encountering and interacting with the metropole (with the possible variety of localist positions mentioned above);
- 8 The diasporic speaking position situated in the metropole but concerned with issues at the periphery, with or without a critique of the hegemony of the metropole;
- 9 The nomadic speaking position that performs critiques of alterity and difference on a continuous basis, with no privileging of any form of particularism.

What is clear in this list of speaking positions that have appeared in Cultural Studies around the world is the condition of tension between positionality as well as the condition of unknowability discussed above. These positions embody a sense of geographical and politico-intellectual tension (e.g. between universalism and

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particularism, metropole and periphery, nationalist and internationalist, internationalist and local internationalist, and so on). It is within such conditions of tension that we are arguing for the proper space for a critical international Cultural Studies. It is through these possible forms of critique that we name the “*postcolonial predicament of Cultural Studies*” (which is different from “postcolonial Cultural Studies”). To paraphrase Stuart Hall, it is when Cultural Studies is dislocated that some of the openness to cultural politics that underlies it can be recovered, like a “rush of cultural/political blood to the head” (cited in Chen, 1996: 407). What we have here, then, isn’t a book that captures all possible speaking positions, once and for all. We are not interested in producing a volume that positions itself as “World Cultural Studies” (cf. the pitfalls of the Norton Anthologies on World Literature; see Hassan, 2000). We resist the multiculturalist logic that fantasizes about a supermarket book along the line of “The United Colors of Cultural Studies.” What we have is a book that, through a reasonable and careful sampling of different works representing a variety of speaking positions, would clear a space for a research, resource, and teaching text that can illuminate the necessary tensions and incommensurabilities across area-based Cultural Studies. What this does is to help locate what Lawrence Grossberg calls the “complexly determined and determining contexts” of cultural practices (1996: 141).

Significant in our goal is that we are not interested in producing a “definitive” volume that pretends to offer a totalizing coverage. Rather, we see this clearing of space as a modest beginning, as a way to whet the appetite of Cultural Studies scholars and teachers to begin to discuss and use a broader canvas of work. This is therefore meant as a resource book and a kind of textbook. The chapters to be included will infer for the readers (a) some of the paths of development of Cultural Studies in various locations under specific local intellectual traditions; (b) key exemplars; (c) key problematics in the practice of Cultural Studies in the locations concerned; and/or (d) how these works contribute to a “decentering” of Cultural Studies. Regarding the scope and organization of the anthology, our thinking has been to stay away from geographical sections – too simplistic and insufficiently dynamic, and too laden with massive political flaws (e.g. over the question of “equity of coverage,” and so on). Rather, we shall have topical sections, with coverage of regional works within each section. Such coverage will have flexibility depending on actual selections from as many parts of the world as possible. The principle of selection here is to find exemplary, and not representative, works. We have selected a set of broad thematics for the book and invited section editors who are knowledgeable about international works to make a selection based on the principle of exemplarity – and not representativeness. Some of these section editors may work and reside in North America, but their locations of choice for their work (and implied professional trajectories) should not be viewed as a deficit to the project. Each editor has provided an introduction to their section. The sections (or parts) in this book are:

- Technocultures (edited by J. Macgregor Wise)
- Performance and Culture (edited by Della Pollock)

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- Gender and Sexuality (edited by Cindy Patton)
- Media Production and Consumption (edited by Toby Miller)
- Popular Practices (edited by John Nguyet Erni)
- Race, Ethnicity, and Nation (edited by Wimal Dissanayake)
- Visual Cultures (edited by Dominic Pettman)
- Global Diasporas (edited by Ping-hui Liao)
- Cities and the Urban Imaginary (edited by Ackbar Abbas)

Moving between and across different speaking positions – some of which are mentioned above – the section editors present their own take on what “internationalizing Cultural Studies” means. Let us highlight some of their perspectives here. For instance, Cindy Patton reminds us that with *or without* Cultural Studies, critical intellectual works that bear a different frame of reference than the Euro-American coordinates often cohabit with the postcolonial critique. It is therefore not Cultural Studies *per se*, Patton hints, but the broad and dispersed project of cultural decolonization around the world that shapes many critical initiatives, small and large, that can be referred to as Cultural Studies. Similarly, J. Macgregor Wise warns us about the desire of looking for alternatives. He argues that this desire often leads to a fetishization of the other, and therefore blinds us to cultural traffic, including the trafficking of Cultural Studies works. What we need is a more dynamic understanding of the “international.” Della Pollock emphasizes that the “inter/national” is a product and struggle of performance, i.e. of strategic evocations of the “inter” and the “national” through rituals, body politics, memories, and other violent acts. The “inter” and the “national” often trouble each other; hence a volatile frontier for Cultural Studies.

One of the important sites of this volatile encounter in the inter/national sphere today is cross-border cultural labor. Toby Miller maintains that labor issues – the substance of Marxian internationalism in the first place – cut across the entire chain of cultural production, distribution, and consumption, prompting him to reassess the current state of media studies within Cultural Studies. An internationalist Cultural Studies of the media, Miller argues, must move away from textual obsessions and engage with the spatial and temporal circuit of cultural labor that links different locales in uneven connections, along with habitats, tastes, cultural policies, and so on around the globe.

Together, 44 chapters are included in this anthology, representing diverse works about – and many hailing from – India, Mexico, Berlin, Taiwan, South Africa, Hong Kong, St. Petersburg, Egypt, Palestine, Toronto, Italy, the US, Cambodia, Japan, Argentina, the UK, and Nigeria. Ultimately, we hope this anthology will be taken up as a resource – and a symbolic space – that brings together transnationally transportable and contextually specific works in Cultural Studies from diverse locales and intellectual traditions. Several transnational Cultural Studies academic groups have been formed to overcome Cultural Studies’ Anglo- and Eurocentrism, such as the Public Culture groups interested in the studies of alternative modernities, the Inter-Asia group, the Traces group, and the Latin American Working Group on Globalization, Culture and Social Transformations.

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In addition, discussions and debates over the recent establishment of an International Association of Cultural Studies have been active for a number of years. This anthology does not only testify to the significance and rapidity of these developments, it also contributes a tangible resource and reference book to assist in further opening up the critical intellectual space for the international future of Cultural Studies. With this in mind, we want to proceed with a few important axiomatic assumptions that underline the conception of this anthology.

■ Five Axioms for a “Critical International Cultural Studies” ■

Axiom 1: Critical international Cultural Studies is a political and intellectual intervention into a state of unevenness in the flow and impact of knowledge.

This intervention involves an effort to *renarrativize* the foundational assumptions behind the “canonical” work in Cultural Studies, so as to encourage a new articulation between “the west and the rest,” the universal and the particular.

Axiom 2: Concomitantly, in its effort to locate international work, critical international Cultural Studies must render visible the nationalist assumptions behind nation-based and area-based work.

Even critical theorists committed to internationalizing Cultural Studies tend to romanticize the periphery’s perspectives, forgetting about the diffused hegemony that governs local traditions. Often, the nation-state is the most powerful chauvinistic enunciator of the hegemonic logic, producing its own system of power through a triumphalist denouncing of western modernity. Many voices, such as those of Canclini, Chen, and Mato, have already laid the ground for countering the political and epistemological power assumed by the nation-state. Such voices will have to be made more visible.

Axiom 3: Translation, whether formal or informal, conscious or unconscious, is a necessary but complex political component in the performance of critical international Cultural Studies.

Put simply, we need skillful translators. The formal practice of linguistic translation is itself a testimony to the historically unequal relations between Anglophonic and Francophonic Cultural Studies on the one hand and Cultural Studies written in other languages on the other hand. By positioning English/French as languages to translate *from*, and rarely languages to translate *to*, the normative practice of translation already calls attention to the incommensurability of different systems/ spaces of knowledge. Yet another politics of translation exists at a more diffused but no less practical level, which concerns the relaying, citation, absorption, paraphrasing, and recontextualization of theories into diverse regions of the world. Implicit in this second practice of translation is a politics of “transplanted authority” through which local works struggle for legitimacy through a borrowed canon.

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Axiom 4: The pragmatics and logistics of a critical international Cultural Studies are daunting, but listening to each other is a crucial first step.

A decentering of Cultural Studies requires multiple levels of coordination and experimentation, including the overlapping tasks of (a) engendering a dialogical spirit and actual opportunities for conversation; (b) building a system of regular and even exchange of works; (c) developing and sustaining cross-border collaborative projects; (d) facilitating the actual visibility of diverse local and regional works through the publishing industry; and (e) altering and expanding pedagogical curricula and reading lists. In these endeavors, speech is secondary to the listening and reading faculty, because more than speech, listening and reading summon a space of interaction.

Axiom 5: Critical international Cultural Studies takes situated optimism.

It requires a new “imagined community” that is more performative and experimental than we have seen. Situated optimism is built upon imagining the conditions of possibility, seeing that a critical internationalism in Cultural Studies – as a contested terrain – is worth struggling over.

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Introduction

J. Macgregor Wise¹

The range of work that could fall under the title “Technoculture” is potentially quite broad, encompassing all forms of culture that are somewhat technologically intensive. Technology itself can be thought of broadly, as Vandana Shiva does in her essay (chapter 2), as “ways of doing,” which would make “technoculture” quite broad indeed. But as an academic discourse, technoculture is restricted to narrower views of technology. For example, the germinal book *Technoculture* (1991), edited by Constance Penley and Andrew Ross, tends to focus on communication technologies (pornographic Japanese computer software, popular video, cyberpunk, popular music, the mediated discourse of reproduction and also of AIDS treatment, and so on), and Donna Haraway’s notion of the cyborg (which, though it is fairly flexible in its concerns, is usually about certain forms of advanced technology, computers, and prosthetics rather than looms and shovels). Kevin Robins and Frank Webster, in their book *Times of the Technoculture: From the Information Society to the Virtual Life* (1999), narrow the range of work even more to refer to computer-mediated communication technologies such as the internet. Indeed, it is in this latter sense that technoculture is most often understood in the western academy. Technoculture and cyberculture become synonymous terms.

The purpose of this selection is to re-broaden our sense of technoculture by addressing alternative discourses about “ways of doing” that speak to different concerns, and perhaps do not assume (or do not take uncritically) a certain level and type of prevalent technology. Wired into our offices on well-connected college campuses, it is easy to forget that the level of connectivity and technology that one may be used to is not common to all either nationally or globally. In short, I would want to broaden the idea of technoculture so that we aren’t simply looking at the role of computers and the internet in contemporary society, but at a variety of ways of doing in everyday life. This is not to say that we should abandon work on

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computers and the internet (indeed, much more critical international work needs to be done in this area²), but rather that these are not the only technologies that we should be looking at.³

In what has proven to be a remarkably generative essay, Arjun Appadurai addresses the process of globalization in terms of the disjunctions between “five dimensions of global cultural flows that can be termed (a) *ethnoscapes*, (b) *mediascapes*, (c) *technoscapes*, (d) *financescapes*, and (e) *ideoscapes*” (1996: 33). The flow most germane to our discussion here is that of the technoscape. “By *technoscape*, I mean the global configuration, also ever fluid, of technology and the fact that technology, both high and low, both mechanical and informational, now moves at high speeds across various kinds of previously impervious boundaries” (1996: 34). The global *flow* of technology is obviously an important dimension of critical Cultural Studies of technology. Such flows could be that of technologies of colonialist nation-building (for example, railways in India and Africa), of economic exploitation (sneaker factories in southeast Asia, sweatshops in Central America), or other more ambiguous movements of technology like that of computer hardware and software globally, or even karaoke technologies across southeast Asia. Such global flows of technology have been researched under the ostensibly benign term “technology transfer,” a seemingly apolitical, technocratic body of work. More commonly such flows occur under the heading of “development,” a problematic term with a contentious 50-year history. Historically the term has come to be associated with the imposition of western technologies (farming techniques and equipment, water management, electrification, communication technology, and so forth) on relatively impoverished countries with the goal of enabling these countries to “develop” so that they can be just like the industrialized west. The term has thus become associated with (neo- and post-) colonialism as well as discourses on nationalism (for example in the context of India, see the work of Ashis Nandy and also Sundaram, 2000).⁴ But along with Ashis Nandy in his following essay (chapter 1), should we not ask: “Can one not go beyond shedding tears copiously over the misuse of modern science by wicked politicians, militarists and multinational corporations, and scrutinize the popular culture and philosophy of modern science?”

A first step in scrutinizing the popular culture of both science *and* technology is the recognition of the radical contextuality of these terms (*science, technology, culture*); that is to recognize the fact that such terms do not have universal, fixed meanings but have specific histories. We can think of concepts as having trajectories through cultural spaces, trajectories which will be different in different contexts. For example, in the North American context the term technology has been articulated to other concepts such as progress, efficiency, and profit. But in the context of India the term is articulated to nation, development, and science, so that perhaps “nothing is more distinctive about Indian modernity than the intense, highly charged relationship it embodies between science and politics” (Prakash, 1999: 11). In another example, the view that Japanese technology and production is an expression of Japanese culture (a view prevalent in Japan but also picked up in the west as a form of techno-orientalism, according to Morley & Robins, 1995) is a

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historical articulation of the post-Second World War era, as Tetsuo Najita (1989) argues. Prior to the Second World War, culture and technology were thought distinct: technology coming to mean western industrialization and culture thought to be a shrinking premodern site of creativity and resistance to technology. So technology and politics end up being articulated differently in the United States, India, and Japan. However, we also have to map the trajectories of western (North American and European) technology, science, and their accompanying philosophies, *across* India, Japan, and the rest of the world where, as noted above, these can be read as forms of imperialism.

Critical approaches to technology often seek alternatives to these colonizing machines, processes, and knowledges (which are seen as violent, inhumane, and destructive to the environment), and in doing so look to indigenous technologies based on alternative ethical, often religious, assumptions. Thus, E. F. Schumacher writes the germinal book for the alternative technology movement, *Small is Beautiful: Economics as if People Mattered* (1973), based on what Schumacher calls Buddhist Economics. Likewise, Arnold Pacey, in the influential book *The Culture of Technology* (1983), sets out an alternative value structure for technology also based on Buddhist principles. And Jerry Mander turns to Native American culture in his critique of western technology, *In the Absence of the Sacred: The Failure of Technology and the Survival of the Indian Nations* (1991). In seeking out such alternatives, we must be careful not to strip such principles of their context and history, mining the Other to solve our problems, and reinforcing orientalist assumptions about the Other as holistic, natural, primitive, or even as completely separate from the west. This is not to say that the above volumes are orientalist, but rather that this is a subtle danger with which they flirt. The search for alternatives often reifies the Other in an unchanging, uniform cultural context. As Nandy warns, “[t]hey see in such a culture not merely an alternative civilization, but also a negation of the dominant culture in their own societies” (1980: 14). The fetishization of the alternative as completely different, as completely outside the modern west, allows us to ignore commonalities, shared histories and values which muddy such clear dichotomies. In other words, our response to modernization cannot simply be to abandon the modern for something else. We (and this includes almost all of the world to greater or lesser extents) are for the foreseeable future entangled with the modern in ways that are complex, if not messy, and critiques must be posed from within this messy context.

It is impossible to survey or sample such broad-ranging work as discussed above in the space given to this section. And so rather than being representative (either in terms of regions discussed, disciplinary approaches, or technologies addressed) in these selections, I intend these selections to be generative of future work. The first three selections all focus on India, and we can see these authors build and respond to different aspects of Indian modernity. The first selection is by Ashis Nandy, a founding figure in south Asian Cultural Studies. This essay is an excerpt from his introduction to an edited volume on science, hegemony, and violence. In it he discusses the collapse of the distinction between science and technology and the use of science as a political tool in the hands of the nation-state. He provides

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the extended example of nuclear scientists in India to illustrate on the one hand the nondemocratic nature of the culture of modern science and technology, but on the other “the global problem of knowledge and power in our times.” The selection ends with his challenge to generate new knowledges, in some cases by mobilizing traditional systems of knowledge still struggling to exist today, against the hegemony of modern science (and technology). Vandana Shiva, a well respected and widely published physicist, philosopher, and activist, in her essay excerpted below, critiques the hegemony of modern science and technology from feminist and environmentalist perspectives. She discusses the colonization of Indian manufacture and later agriculture by national and international forces of development. In doing so she uncovers the real effects of the so-called Green Revolution which destroyed the diversity of local crops and farming techniques and made agriculture dependent on industrial seed, fertilizer, and pesticide companies. But at the core of these debates she places the controversial claim that life-forms can be owned and patented, which she sees as the industrialized nations claiming ownership of what had been communal indigenous seed, exploiting the poorer nations. Scientific and technological decisions, she concludes, need to be made with human rights and environmental responsibility as their core criteria, not profit. Ravi Sundaram, one of the founders of the Sarai New Media Collective in New Delhi (www.sarai.net), addresses the more recent turn of Indian modernity to the booming computer industry in India. Countering nationalistic, class-centered myths of India’s technofuture, Sundaram focuses on the everyday realm of technology “recycling.” Recycling refers to those practices of scrounging and building computer systems and networks well outside of the glare of the spotlight of multinational cyberculture. Often illegal, these practices create a “pirate electronic space” within India, a space not directly oppositional to modernity, not even organized or coherent in its purpose, but a space created out of necessity. As such, these pirate spaces open up as yet unrealized possibilities for resistance at the level of the everyday.

The final two essays chosen for this section present quite different means of addressing modern technoculture. The first, on Karaoke in east Asia, by Akiko Ôtake, a writer and essayist, and Shûhei Hosokawa, a historian of Japanese popular music, maps a specific technoscape: the diffusion of karaoke technology and practices from Japan to other countries in east Asia. In the longer essay from which this essay is excerpted, the authors trace local responses to karaoke in Taiwan, Hong Kong, China, Vietnam, Korea, and Okinawa. Our excerpt begins after these summaries, where the authors consider karaoke as a cultural technology that transforms public and private spaces. Karaoke becomes a point of articulation for local practices of leisure (singing in public), the distribution of Japanese technology, and discourses of Japanese modernity. The result is a regional globalization, called Asianization, a complex interchange of culture, technology, and music.

Our final essay is by Viktor Mazin, editor-in-chief of the journal *Kabinet*, and founding director of Freud’s Dreams Museum, both located in St. Petersburg, Russia. Mazin’s essay, written especially for this collection, sketches an approach

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to technoculture based on the disciplines of psychology and art which sees human beings as the result of the co-evolution of technology and psychology. As an example of work that contributes to this body of knowledge, Mazin describes a recent exhibit, called “The Electromirror,” that took place at the Freud’s Dreams Museum in January, 2002. In the end, Mazin argues, what we are facing is a “dissolution of man in its machine,” made possible by contemporary technologies of digital hardware and pharmacology.

NOTES

- 1 I need to thank a number of people who responded to my email queries on global technocultures. Some provided suggestions of scholars whose work would be relevant to this area, and with others I’ve been engaged in conversations on this topic both extended and brief, but all have stimulated my thinking and energized this project: Gayatri Chatterjee, Greg Elmer, Myungkoo Kang, Viktor Mazin, Mehdi Semati, David Silver, Jennifer Slack, Ravi Sundaram, Keyan Tomaselli, and Yukhiko Yoshida.
- 2 See, for example, the special issue of the journal *Third Text* on the Third Worldwide Web (Summer, 1999).
- 3 For a more extended discussion of contemporary Cultural Studies approaches to technology, see Slack & Wise, 2002.
- 4 More recently the term has been rearticulated to indicate grassroots-level activities to improve the quality of life for impoverished populations.

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1

Science as a Reason of State

Ashis Nandy

The thinking person cannot but notice that since the Second World War, two new reasons of state have been added to the traditional one of national security. These are science and development. In the name of science and development one can today demand enormous sacrifices from, and inflict immense sufferings on, the ordinary citizen. That these are often willingly borne by the citizen is itself a part of the syndrome; for this willingness is an extension of the problem which national security has posed over the centuries.

Defying protests by (and to the mortification of) pacifists and anti-militarists, a significant proportion of ordinary citizens in virtually every country have consistently and willingly died for king and country. There are already signs that at least as large a proportion of citizens is equally willing to lay down their lives heroically for the sake of science and development. In 1985, one Japanese doctor praised the atomic bombing of Hiroshima and Nagasaki for the indirect benefits they have brought to Japan. In an election held soon after the gas tragedy in 1984, the affected citizenry of Bhopal returned the same regime to power that shared the responsibility for the disaster. Likewise, demands for new steel mills and large dams often come from the very regions and sectors in the third world which are most likely to be the first victims of industrialization.

What are the sources of such commitment to the development of science, and the science of development? Can one identify and challenge the philosophical and ideological framework within which the commitment is located? Can one not go beyond shedding tears copiously over the misuse of modern science by wicked politicians, militarists and multinational corporations, and scrutinize the popular culture and philosophy of modern science? May the sources of violence not lie partly in the nature of science itself? Is there something in modern science itself

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which makes it a human enterprise particularly open to co-optation by the powerful and the wealthy?

These questions have been with us ever since Archimedes devised new weapons for his city state with the hope that they would remain the monopoly of his country and not also become the property of the ungodly. But the questions had a different ring for a long, long time. From the halcyon days of Archimedes to the heady days of early colonialism, science was primarily an instrument, not an end; certainly not the end of any nation or state. Even the states which drew the most handsome economic dividends from the discoveries of modern science and technology, or justified global dominance by referring to their scientific and technological power – I have in mind the nineteenth century colonial powers – did not see science as a reason of state. The reader may remember popular anecdotes about colonial adventurers, or scientifically-minded explorers who sometimes scared off or impressed the natives of Asia and Africa with new forms of black magic based on the discoveries of modern science. The civilizing mission of colonialism thrived on this folklore of encounter between western science and savage superstitions. But in each such instance, it was science that was put to the use of the colonial state; the state was not put to the use of science.

The nature of science has since then changed, and so has the nature of human violence. [...] It is the contention of [this essay] that these changes can be understood with reference to the mediatory role played by the modern nation-state, the invitation which the culture of modern science extends to state power to use scientific knowledge outside the reaches of the democratic process and, above all, the growth of institutionalized violence in place of the personalized, face-to-face, impassioned violence associated with traditional concepts of sacrifice and feuds.¹

Ivan Illich has traced the contemporary idea of development to a speech President Harry S. Truman made in 1945.² Till then, the word 'development' had had other associations which had very little connection with what we understand by development today. But such was the latent social need for a concept akin to development that, once Truman gave it a new meaning, not only did it quickly acquire wide currency, it was also retrospectively applied to the history of social change in Europe during the previous three hundred odd years.

In a similar way, we can trace the idea of science as a reason of state to a speech made by President John F. Kennedy in 1962. The speech declared one of America's major national goals to be the scientific feat of putting a man on the moon. Though mega-science had already become an important concern of the state during the Second World War, science was, for the first time, projected in Kennedy's speech as a goal of a state and, one might add, as a substitute for conventional politics. A state for the first time on that occasion sought to out-rival another state not in the political or military arena, nor in sports, but in science redefined as dramatic technology. The formulation might have been older and might have been tried out haphazardly earlier but never had it been made so directly a part of the mainstream idiom of politics as in Kennedy's speech. Perhaps

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Kennedy was reacting to the Russian claim that the Sputniks showed the superiority of the socialist system and, especially, that of 'scientific socialism'. Perhaps he was trying to strengthen his political image as a leader who could help American society to cope with the scientific age. Whatever the reason, for the first time Kennedy's speech showed that a wide enough political base had been built in a major developed society for the successful use of science as a goal of state and, perhaps, as a means of populist political mobilization. Spectacular science could be now used as a political plank within the United States in the ideological battle against ungodly communism.

Kennedy's speech had another implication. The boundary between science and technology had been softening for about two hundred years. The histories of science and technology could at one time be written separately. But since the early years of the Royal Society, modern scientists had intermittently been seeking legitimacy not only from the philosophical implications of their theories but also from the practical pay-offs of science. The process reached its symbolic culmination in Kennedy's concept of science – a concept which not merely incorporated technology; it gave spectacular technology the central place in science. The speech in fact anticipated the vision which occupies so much space in the popular culture of our day, namely, the image of a science which, by the beginning of the twenty-first century, will be coterminous with technology. By the mid-1980s the proportion of pure scientists to all scientists in the world had fallen to less than five per cent, and the proportion is reportedly falling at a faster rate now. The pure scientist today is an even rarer species than the scientist who does not participate in military research and development.

Yet, at the same time, we can be reasonably sure that the concept of pure science and the conceptual difference between science and technology will be carefully retained. It will be retained not because of the demands of the philosophers of science but because it is only by distinguishing between science and technology that all social criticism of science can continue to be deflected away from science towards technology. A shadowy, ethereal concept of science that has little to do with the real-life endeavours of practising scientists can then be politically defended as the pursuit of truth uncontaminated by human greed, violence and search for power.

The studies assembled in this volume [*Science, Hegemony, and Violence: A Requiem for Modernity*] have these two basic issues – science as a new justificatory principle, and science as technological intervention – as their points of theoretical departure. However, these issues also intersect with a cultural dimension: all the studies are by Indian scholars and have primarily the Indian experience as their backdrop. This is only partly due to the accident of having an Indian editor for this volume. I shall argue that things could hardly have been otherwise.

India has been a remarkable example of an open society in which, since the early years of independence, the political élites have deliberately chosen to see science as the responsibility of the state and have, at the same time, treated it as a sphere of knowledge which should be free from the constraints of day-to-day politics. Every

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society decides what content to give to its politics and what to keep out of politics. The Indian state, representing the wishes of a powerful section of the nationalist movement and being led in the early years of independence by Jawaharlal Nehru, a gentleman Fabian steeped in the nineteenth-century vision of human liberation through science, decided to keep the practice of science outside politics but ensured that the scientific estate had a direct, privileged access to the state. It was as a part of this 'double vision' that Nehru, the modern élites which gathered around him, and the Indian state began to build science as a major source of justification for the Indian state as well as for their political dominance. That the formula did not keep science out of politics but only introduced another kind of politics into science is one of those paradoxes which lie at the heart of the distinctive relationship between science and society in contemporary India.

Thus, [...] the powers and freedoms that were given to nuclear scientists in India since the days of Homi Bhabha, India's first nuclear boss, were near-total. Firstly, nuclear scientists were freed from all financial constraints. The budget of the nuclear programme – the entire budget, not the budget devoted to research and development – was routinely pushed through parliament without any scrutiny whatsoever. And the expenditures – the entire expenditure, not only the expenditure on laboratories – were never publicly audited. [...]

Secondly, nuclear scientists were given enormous scope for research if they moved out of the universities into special research institutions. While universities were starved of funds and allowed to decay, research institutions were richly funded. This might not have been a matter of deliberate policy but it certainly set a context to India's nuclear policy, because what scientists gained in research opportunities in the new institutions, they lost in personal political freedom. [...]

Thirdly, once some of the finer minds of India were netted by the state in this manner and some of the less scrupulous among them were given access to power, the Indian nuclear programme could be safely handed over to the civilians; the army or the defence ministry did not need to be in the picture at all. The nuclear scientists could be their unofficial proxies. Thus, India's first nuclear explosion in 1974 was a civilian enterprise, with the army only playing second fiddle. Civilian scientists planned, initiated and executed the programme; the army and defence scientists played a peripheral role, providing organizational back-up, on-site security, and control or management of the villagers to be uprooted.

In fact, contrary to popular stereotypes, modern science or scientists in India have not been used by blood-thirsty generals, scheming politicians, and greedy businessmen. Rather, the science establishment, on its own initiative, has taken advantage of the anxieties about national security and the developmental aspirations of a new nation to gain access to power and resources. Not surprisingly, the record of mainstream scientists in India has been particularly poor in the matter of protecting democratic rights in the country. In fact, in recent years the privileged among Indian scientists have often been the most vigorous critics of civil rights groups struggling for protection against the hazards of a callous nuclear establishment.

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I give the example of the Indian nuclear establishment not to make a scapegoat out of it but to draw attention to the manner in which the link between science and violence in India has been strengthened by forces within the culture of Indian science, forces which in other cultures of science in some other parts of the world have been either less visible or less powerful.

The curious case of the nuclearization of India has not one but three morals to it. First, as modern science gets more and more incorporated into technology, it necessarily has to be increasingly justified in terms of technology. The frequent exhortations to have a more 'scientific temper' (exhortations to which all Indians, but particularly the 'less civilized' traditional Indians, are subjected by the scientific and political establishments) and the repeated references to the scientific worldview as a philosophical venture in learned seminars in India are not taken seriously by 'normal' scientists (who do 'normal' science *à la* Thomas Kuhn), or by their political patrons and their admirers. For both, the slogan of the 'scientific temper' is a means of legitimizing their new-found status in Indian society. Both like to define the 'temper' as the spirit of technology and the instrumentalism which is an inescapable part of that spirit. The invocation of the 'temper' almost invariably goes with a negative reading of India's traditional cultures and ways of life, seen as impediments to a modern technological order, and with the search for uncritical legitimacy for all forms of technology – seen as an undifferentiated mass of knowledge, institutions and persons.

As a result, conspicuous technology has become gradually the official goal of science in India, as well as the main source of legitimacy for science among the Indian middle classes. Thanks to the media, government-controlled as well as uncontrolled, and thanks to the values propagated by the westernized education system, the Indian middle classes have come to see science as primarily spectacular technology. They expect this technology to allow the country to tackle its basic political and social problems and thus ensure the continued political domination of an apolitical, that is technocratic, modern élite over the decision-making process, defying the democratic system. This expectation partly explains why science is advertised and sold in India the way consumer products are sold in any market economy, and why it is sought to be sold by the Indian élites as a cure-all for the ills of Indian society.³ Such a public consciousness moves from one euphoria to another. In the 1950s and 1960s, it was Atom for Peace, supposedly the final solution of all energy problems of India; in the '60s and '70s it was the Green Revolution, reportedly the patented cure for food shortages in the country; in the '70s and '80s it is Operation Flood, the talisman for malnutrition through the easy availability of milk for every poor household in the country. In this environment it does not matter whether the technology is innovative or replicative, moral or immoral, obsolete or new. For technology comes to represent an escape from the dirtyness of politics; it becomes an indicator of Brahminic purity, a form of social change which ensures a place in the sun for portions of the middle classes whom the democratic process otherwise tends to marginalize, an anxiety-binding agent in the public realm, and often a media-based exercise in public relations. That is why, as with nuclear science, the adaptations in India of decades-old western

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technologies are advertised and purchased as great leaps forward in science, even when such adaptations turn entire disciplines or areas of knowledge into mere intellectual machines for the adaptation, replication and testing of shop-worn western models which have often been given up in the west itself as too dangerous or as ecologically non-viable.

The second moral of the story is more disturbing. Because the concept of science in this model of scientific growth is that of the ultimate key to all problems facing the country, scientists subscribing to the model can lay claims to the charisma which in some other political cultures belongs exclusively to god-kings. In the process, scientists become one of the two ultimate sources of legitimacy for the Indian state among the middle classes – the others, as I indicated at the beginning, are development experts and experts on national security. These three kinds of specialists – the scientists, the developmentalists and the security experts – are the ones to assess and pass final judgement on Indian culture, on what is good in it and what is defective. Generally it turns out that what is good in the Indic civilization, according to these specialists, is exactly that which is good for modern science and what is defective in the civilization is exactly that which impedes modern science. Predictably, this presumption of a total fit between the needs of a good society and the needs of modern science leaves no scope for any assessment and evaluation of scientists by non-scientists, particularly by those rooted in the ‘little cultures’ of India. Nor does it give any scope for instituting controls on the scientific establishment through a competitive political process and democratic participation.⁴

The political asymmetry or inequality between the scientist and the laity is endorsed not only by the concept of expertise which dominates the culture of modern science globally, but also by a philosophy of science which allows the laity to criticize modern science only in terms of its use value, that is, its social and political deployment and not in terms of its end values, that is, the social and philosophical goals and assumptions built into the heart of the culture and the text of modern science. Even this limited criticism of the social and political relationships of science has to be ventured, to be audible to the modern world, in terms of the criteria specified by the dominant philosophy of modern science itself. Thus, a plethora of critical evaluations of the practice of modern science in recent times have ended up by arguing, rather pathetically, that they, the evaluations, are motivated more by the spirit of modern science than the normal practitioners of modern science themselves, that the criticisms are in fact congruent with the latest discoveries of post-Einsteinian physics, microbiology and post-Freudian social psychiatry. From Erich Fromm to Fritjof Capra to Maharishi Mahesh Yogi, it is roughly the same story.

The third moral of the story is even more painful. By the very nature of its instrumental-managerial orientation to Indian society, modern science has established a secure relationship with the philosophy and practice of development in India. Indian developmentalists are now faced with the obvious fact that the developmental vision cannot be universalized, for the earth just does not have the resources for the entire world to attain the consumption levels of the developed west. It does not have such resources now, nor will it have them in the distant

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future. The developmentalists, therefore, have a vested interest in linking up with the drive for theatrical science to create the illusion of spectacular development which, in essence, consists of occasional dramatic demonstrations of technological capability based on a standard technology-transfer model. Under this model, highly visible short-term technological performance in small areas yields nationwide political dividends. This model includes a clearly delimited space for 'dissent', too. While some questions are grudgingly allowed about the social consequences of technology – about modern agronomy, large dams, hydel projects, new dairy technology, modern health care systems, space flights, Antarctica expeditions, et cetera – no question can be raised about the nature of technology itself.

Roughly similar links have grown between science and the élite perceptions of the security needs of India. Like other third-world societies such as Brazil, India too has begun to show a high growth rate and export potentials in defence-related industries and, like some developed societies such as France and the United States, India, too, is perfectly willing to make security anxieties a central plank of its political identity.

Apparently, what Robert Jungk says about nuclear energy holds good for modern science in general.⁵ Namely, that modern science has the capacity within it to sustain a culture of science which is incompatible with democratic governance as well as with the democratic rights of those who are turned into the subjects of modern science and technology. In India at least, the culture of modern science *has* built an inverse relationship with the culture of open politics and has begun to produce new forms of secrecy, centralization, disinformation and authoritarian organizational structures. Nuclear science in this respect has only been true to the overall cultural design of modern science and technology in the country.⁶

Science, I have said, has become a new reason of state. The state and its various arms can kill, maim or exploit in the name of science. Science in turn, as a *raison d'état*, can inflict violence in the name of national security or development and – this is the change – increasingly under its own flag and for its own sake. There are now scientists, political leaders and intellectuals in India – as in other similarly placed societies – who are perfectly willing to close the polity if that ensures faster scientific growth. And there are now scientifically-minded Indian citizens who are as willing to sacrifice millions of ordinary Indians to advance the cause of science and science-based development.

In such a world, the intellectual challenge is to build the basis of resistance to militarization and organized violence, firstly by providing a better understanding of how modern science or technology is gradually becoming a substitute for politics in many societies, and secondly by defying the middle-class consensus against bringing the estate of science within the scope of public life or politics.[. . .]

Contemporary India, by virtue of its bicultural experience, manages to epitomize the global problem of knowledge and power in our times. There is a continuity between the Indian experience of an increasingly violent modern science, encroaching upon other traditions of knowledge and social life, and the western experience with modern science as the dominant cultural principle resisting the

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emergence of new cultures of knowledge. There is a continuity between the experiences of the two civilizations even at the level of élite and middle-class responses to the situation. The modern Indian élites and middle classes have a fear of the present, explained away, with the help of some forms of history, as only a fear of the past. The western élites and middle classes have a fear of the future, explained away, with the help of some forms of futurology, as only the fear of a future unrestrained by or disjunctive with the present. Evidently, the élites of both worlds have in common the ambition of containing the future by controlling the present politics of knowledge. The former fear the process of democratization of India which is marginalizing them; the latter fear the possibility of future democratization of the world which will marginalize *them*. And, as if to spite those who pin their hopes in matters such as this on generational changes, on the expectation that the youth will liberate them from the certitudes of the past, in India the emerging middle-class élites seem to nurture the same hope of substituting science for politics, because politics for them is irrational and messy, and science is rational, neat and controllable. Meanwhile in the west a project takes shape which seeks to derive all politics from science for roughly the same set of reasons.

Put simply, the challenge for the movements for alternative science and technology in the west is to generate new knowledge in the future by participating in the politics of knowledge today. But to participate meaningfully in the politics of knowledge today, they must take into account and build upon the ongoing intellectual and political battles in societies where alternatives, or at least alternative baselines, exist in the present, in the form of traditional systems of knowledge that have survived and are struggling against the hegemony of modern science. In India, traditional systems of knowledge may not have provided ready-made solutions to the present crisis of knowledge and power, but they have certainly become a part of the repertoire of the dissenting movements of science. Seen thus, the crisis of science in India becomes, for all practical purposes, coterminous with the crisis of science globally. And the crisis of global science, in turn, becomes an extension of the Indian experience with modern science over the last 150 years.

NOTES

- 1 Veena Das and Ashis Nandy, 'Violence, Victimhood and the Language of Silence', *Contributions to Indian Sociology*, 1985, 19, pp. 177–94. Also Ashis Nandy, 'Science, Authoritarianism and Culture: On the Scope and Limits of Isolation Outside the Clinic', in *Traditions, Tyranny and Utopias: Essays in the Politics of Awareness* (New Delhi: Oxford University Press, 1987), pp. 95–126.
- 2 Ivan Illich, 'The Delinking of Peace and Development', *Gandhi Marg*, 1981, 3, pp. 257–65.
- 3 For instance, P. N. Haksar et al., 'A Statement on Scientific Temper' (Bombay: Nehru Centre, 1981).
- 4 See a brief discussion of this in Nandy, 'Science, Authoritarianism and Culture'.

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- 5 On nuclear energy see, for instance, Praful Bidwai, 'Atomic Power on the Run', *The Times of India*, 13–15 October 1986; and Dharendra Sharma (ed.), *The Indian Atom: Power and Proliferation* (New Delhi: Philosophy and Social Action, 1986). On modern agronomy see, for example, the assessments by J. K. Bajaj, 'Green Revolution: A Historical Perspective', *PPST Bulletin*, 1982, 2, pp. 87–112; and Claude Alvares, 'The Great Gene Robbery', *The Illustrated Weekly of India*, 23 March 1986. On dairy technology see Claude Alvares (ed.), *Another Revolution Fails* (Delhi: Ajanta, 1984); Shanti George, *Operation Flood: An Appraisal of Current Indian Dairy Policy* (New Delhi: Oxford University Press, 1986); and 'Faulty Lactometers', *Economic and Political Weekly*, 31 May and 7 June 1986, 21, pp. 963–71, 1020–8.
- 6 See note 5 above. Also see Sharma, *India's Nuclear Estate*; Ashis Nandy, 'The Bomb', *The Illustrated Weekly of India*, 4 August 1985; Jatinder K. Bajaj, 'The Bhopal Tragedy: The Responsibility of the Scientific Community', and Sunil Sahasrabudhey, 'Bhopal: Science Must Share the Blame', *PPST Bulletin*, 1985, 5, pp. 6–14, 25–9; Shiv Visvanathan 'Bhopal: The Imagination of a Disaster', *Alternatives*, 1986, 11, pp. 147–65.