RE:WIRING BODIES

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THE CENTRE FOR THE INTERNET & SOCIETY

Researchers @ Work

Histories of the Internet in India

HISTORIES OF THE INTERNET

The last two decades have marked the rise and spread of digital and internet technologies in the rapidly globalizing world. Especially in the first ten years of the 21st Century, we have seen governments fall, markets reorganized and civil societies mobilized through extraordinary civic action mediated by easy and affordable access to the everyday citizen/user. Despite the marked change that the digital revolution has ushered in a large section of emerging ICT landscapes, there is a presumption that these technologies were built in specific centres of the developed world and were seamlessly transplanted on to the developing world.

In research, policy and practice, while there is an emphasis to using digital and internet technologies, very little attention is paid to the polymorphous and localized growth and emergence of internet technologies. Although many disciplines, organisations and interventions in various areas deal with internet technologies, there has been very little work in documenting the polymorphous growth of internet technologies and their relationship with society in India. The existing narratives of the internet are often riddled with absences or only focus on the mainstream interests of major stakeholders, like the state and the corporate. We find it imperative to excavate the three-decade histories of the internet to understand the contemporary concerns and questions in the field.

The Centre for Internet and Society's Researchers @ Work (CIS-RAW) series was designed to build local intellectual resources for mapping and understanding the complex interactions between the rise of digital and internal technologies and the spheres of living that they influence. The pervasive and ubiquitous presence of Internet technologies in our rapidly globalising lives, is forcing us to revisit older concepts, formulate new frameworks, and pose new questions within academic and practice based research.

For the first cycle, CIS-RAW adopted "Histories of the Internet(s) in India" as its thematic focus. The impetus in formulating this theme was to complicate the picture of how Internet and digital technologies are perceived in existing discourse and practice. We wanted to first propose that the Internet is not a monolithic object that exists in the same way across geographies and social borders. It is necessary to approach the Internets, as plural, available in different forms, practices and experiences to people from different locations and sections of the society. This pluralistic approach allows us to break away from a grand-narrative of the Internet which generally thinks of the technology as built in the West and seamlessly transplanted on to the East and the South. It opens up the idea that the Internet can be an object, a process, an imagination, and that each of these nuances adds to how we can study its techno-social existence.

The second proposal was that while the digital and Internet technologies are new, they do not necessarily only produce new things. There is a need to map the histories and pre-histories of Internets. These histories cannot be merely historical accounts of infrastructure and access. They have to contextualise and locate the interactions between Internets and Society, through different historical approaches. The idea was to show the continuities and disjunctures that the Internets are a part of, by locating them within a larger technology complex. The histories need to show how the Internets have shaped and been shaped by various concepts, bodies and practices in India. And for this, we went to the histories that preceded the Internets as well as the futures that have been articulated around how these technologies will change the world that we shall one day live in.

To produce context specific, locally relevant and accessible histories of the Internets was the third proposal. We wanted to emphasise that while global referents can be useful in shaping a trans-national, hyperterritorial discourse around the Internet and its practices, there is a need to deepen the research through located knowledges and frameworks. We wanted to suggest that the research that emerges out of this inquiry is indeed very specific to the Indian context. It cannot simply be used as

a framework to understand another geo-political position, because it draws from specific actors' ideas that have influenced and created the complex interplay between internet technologies and socio-cultural-political-economic practices in the country. Simultaneously, we hope that the different modes of inquiry, methods by which new dialogues were generated between different disciplines, and the methods by which frameworks of inquiry were created, would be useful tools for any researcher, on any site, interested in questions of Internet and Society.

The 9 monographs in this series are dramatically different in writing styles, in subjects of study, and in length. Each one pushes the argument from a particular discipline position and concentrates on specific objects and spaces for the inquiry. And yet, it is possible to cluster them around three specific sub-themes which make visible the over-laps and the synergies between them.

I. PRE-HISTORIES OF THE INTERNETS IN INDIA

One of the attempts of the CIS-RAW research was to break away from the utopian public discourse of the Internets as a-historical and completely dis-attached from existing technology ecologies in the country. It was imperative for us to produce frameworks that help us contextualize the contemporary internet policy, discourse and practice within larger geo-political and socio-historical flows and continuities in Modern India. The first cluster of research charts three different pre-histories of the Internets while focusing on specific disciplines and practices from a technology-society point of view.

Asha Achuthan initiates a historical research inquiry to understand the ways in which gendered bodies are shaped by the Internet imaginaries in contemporary India. Tracing the history from nationalist debates between Gandhi and Tagore to the neo-liberal perspective based knowledges produced by feminists like Martha Nussbaum, it offers a unique entry point into cybercultures studies through a Feminist epistemology of Science and Technology. The monograph establishes that

there is a certain pre-history to the Internet that needs to be unpacked in order to understand the digital interventions on the body in a range of fields from social sciences theory to medical health practices to technology and science policy in the country.

This finds many parallels and linkages with Ashish Rajadhyaksha's work that is informed by the 'last mile' which has emerged as a central area of discussion in the domains of technology and governance since the 1940s in India. Beginning by mapping technology onto developmentalist-democratic priorities which propelled communication technologies since at least the invention of radio in India, the project conceives of the 'last mile' as a mode of techno-democracy, where connectivity has been directly translated into democratic citizenship. Giving a comprehensive overview of the different histories of technology mediated governance structures in the country, the monograph explores how the new state-citizen-market relationships gets radically restructured with the emergence of Internet technologies in India. The analysis looks at contemporary debates on policy, pedagogy and practice by offering a new prism to explore instances like the Unique Identity Project without falling into older partisan positions that these projects often inspire.

The third research inquiry by Aparna Balachandran and Rochelle Pinto is a material history of the internet archives, that looks at the role of the archivist and the changing relationship between the state and private archives in order to look at the politics of subversion, preservation and value of archiving. Looking at the dual sites of Tamil Nadu and Goa state archives, along with the larger public and State archives in the country, the project looks at the materiality of archiving, the ambitions and aspirations of an archive, and why it is necessary to preserve archives, not as historical artefacts but as living interactive spaces of memory and remembrance. The findings have direct implications on various government and market impulses to digitise archives and show a clear link between opening up archives and other knowledge sources for breathing life into local and alternative histories.

II. PROCESSES OF THE INTERNETS IN INDIA

One of the biggest concerns about internet studies in India and other similar developed contexts is the object oriented approach that looks largely at specific usages, access, infrastructure etc. However, it is necessary to understand that the Internet is not merely a tool or a gadget. The growth of Internets produces systemic changes at the level of process and thought. The technologies often get appropriated for governance both by the State and the Civil Society, producing new processes and dissonances which need to be charted. The second cluster looks at certain contemporary processes that the digital and internet technologies change drastically in order to recalibrate the relationship between the State, the Market and the Citizen.

Zainab Bawa looks at the emergence of Internet technologies, the rise of e-governance initiatives and the way in which the rhetoric of 'transparency' has informed different ways by which the relationship between the state and the citizen in India have been imagined. The project produces case-studies of various e-governance models that have been variously experimented within India, to see how Internet technologies through their material presence, through different paradigms of interaction, and through the imagination in policy have brought about a significant change in the state–citizen relationship.

These debates are taken to an entirely different level by Namita Malhotra's focus on pornography, pleasure and law, where she finds a new point of entry into existing debates by looking at legal construction of pleasure through different technologies of mass consumption. She revisits the arguments around pornography, obscenity and affect in recent times. Malhotra produces a comprehensive over-view of different debates, both in the West and in India, to concentrate on how the visual aesthetics of pornography, the new circuits of pornographic consumption, the privilege of affect over regulation lead to possibilities of interaction and negotiation with heternormative power structures in the country. The monograph demonstrates how the grey zones of pornography and the law's inability to deal with it, offer new

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conceptual tools of understanding the spaces of digital interaction and identity.

Anja Kovacs examines another set of relationships as she explores the emerging field of online activism in India. She maps the actors, audiences, messages and methods privileged by online activism as it is emerging in India, to build frameworks which understand the ways in which such activism reconstitutes received notions of activism and activists in the country. As online activism, in the process of its materialisation, reworks master narratives, and refashions what are seen as 'appropriate' processes, methods and goals for political engagement, what are the new contours of the public sphere — of which the larger landscape of struggles for social justice in India, too, is part — is what emerges from the project.

HISTORY OF THE FUTURES OF INTERNETS IN INDIA

The third cluster looks at contemporary practices of the Internet to understand the recent histories of movements, activism and cultural practices online. It offers an innovative way of understanding the physical objects and bodies that undergo dramatic transitions as digital technologies become pervasive, persuasive and ubiquitous. It draws upon historical discourse, everyday practices and cultural performances to form new ways of formulating and articulating the shapes and forms of social and cultural structures.

The monograph on Internet, Society and Space in Indian Cities, by Pratyush Shankar, is an entry into debates around making of IT Cities and public planning policies that regulate and restructure the city spaces in India with the emergence of Internet technologies. Going beyond the regular debates on the modern urban, the monograph deploys a team of students from the field of architecture and urban design to investigate how city spaces – the material as well as the experiential – are changing under the rubric of digital globalisation. Placing his inquiry in the built form, Shankar manoeuvres discourse from architecture, design, cultural studies and urban geography to look at the notions of cyber-publics, digital spaces, and

planning policy in India. The findings show that the relationship between cities and cyberspaces need to be seen as located in a dynamic set of negotiations and not as a mere infrastructure question. It dismantles the presumptions that have informed public and city planning in the country by producing alternative futures of users' interaction and mapping of the emerging city spaces.

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Nitya Vasudevan and Nithin Manayath bring to light the relationship between queer identity and technology in their work, looking at both the histories and the futures of sexuality and its relationship with internet technologies. They claim that the Internet is treated as a site of knowledge and practice, involving not just the imagined individual with his or her personal computer but also physical spaces, categories of subject formation, ways of knowing, aesthetics and modes of identification. They look at the ways in which Queerness as an identity is shaped by technology and also how the imaginations of being queer propel technology usage in new and unexpected directions. Their focus is to posit the idea of 'Queer Technologies' that challenge existing gender-sexuality debates and provide hints of what the future has in store.

Joining them in keeping a finger on the pulse of the future is Arun Menon, who enters the brave new world of gaming. His project aims to examine 'attention' as a conduit for material and non-material transactions within and outside of game worlds. This includes the internal market in the game world as well as the secondary market which operates outside of the game world. The possibilities of transaction in 'attention currency' and the intricacies of the 'attention economy / gaming economy' in the game world is explored through a series of interviews and participant observations. It produces a glossary of some of the most crucially debated terms in the field of gaming studies and also unravels the complex interplay of gamers, servers, gaming communities and how they contribute to the new gaming economies by looking at case-studies in India.

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I hope that this collaborative research series initiates the first dialogues in the country around questions of Internet and Society within the academic and research communities. The monographs are all available for free downloads online and each one is accompanied by a teaching module which can help educators to introduce these questions in their classrooms. I see these monographs as the beginning rather than the end of research, and hope that the knowledge gaps identified and recommendations made by each research inquiry will lead to further collaborative endeavours in deepening our knowledge in each of the areas.
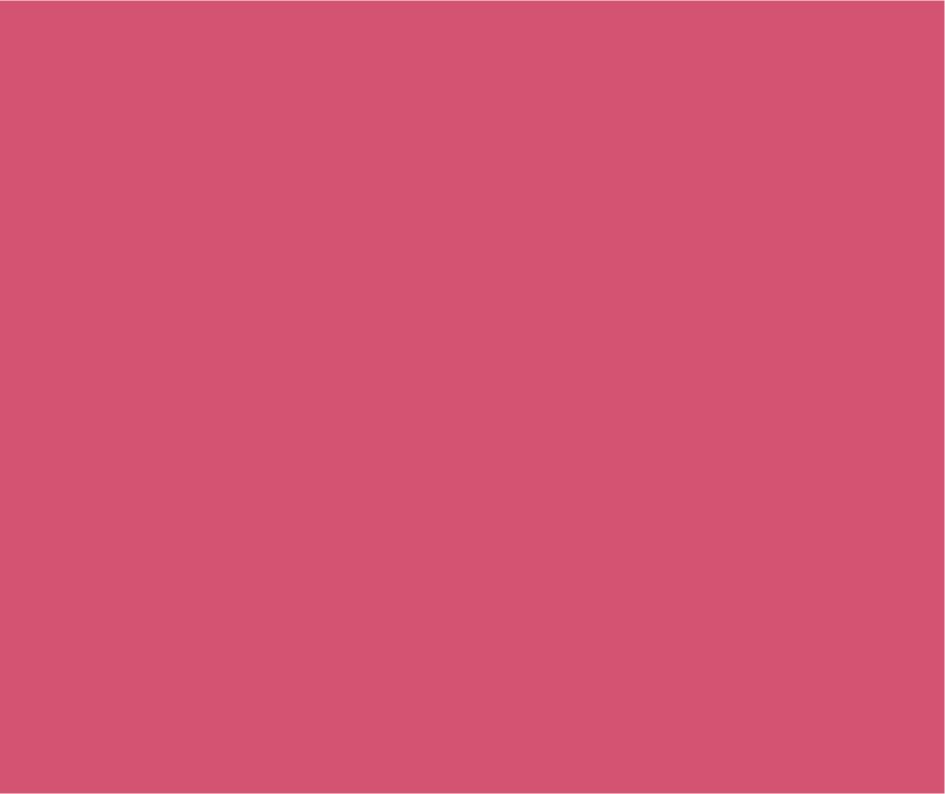
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SECTION ONE

SECTION ONE:

ATTITUDES TO TECHNOLOGY

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Rather than rely on the literal meaning of 'attitude' that might suggest a mindset as distinct from activity, I propose the word as a metaphor to actually denote a constitutive relationship between mindset and activity, between discursive and non-discursive practices, as also between textuality and materiality, that produce the effect of the movement between resistance and acceptance.

The language of the relationship between 'man' and technology in India has changed considerably since the time of Nehruvian socialism. While this has partly to do with more and more constituencies asking for attention in the industrial polity and development frameworks, it also has to do with changing perceptions of technology itself. Thus, it is that strongly positive and dynamic images of technology (to be found in the Indian scientific and medical establishments) as well as strongly critical positions (anti-development stances, eco-feminist movements, postcolonial theorizing, to mention a few) reside side-by-side in the discourse around technology in India, in a manner that appears to be the particular characteristic of postcolonial societies today. **I will refer to this somewhat cryptically as attitudes to technology – a concatenation of textual and material practice that produces an effect not simply of acceptance or resistance but of a constant movement between the two.** This attitude may be found in policy, popular discourse, and critiques, and this is what I hope to elaborate upon through this investigation.

Such positive and negative images of technology are, however, not neatly allotted to State and 'civil society' positions, respectively, meaning that it is not a simple State-versus-the-people problem. A cursory examination of development scenarios in the area of

Nehruvian socialism, as named here, was, during pre and early post-independence years, a reflection of the nationalist engagement with Marxism, an engagement that espoused the scientific view of progress, a metaphor for planning, in Nehru's own view. Such a view would espouse adequate distribution of resources, rather than politicize the fact of differential distribution. Also see Chatterjee (1986) for a detailed exposition.

Civil society, in classical frameworks, has been seen as the complement to State, as also the site from which

a response to the State's responsibility towards the citizen could be made. As such, it was also seen as the site for a critique of State apparatuses. Current understandings of State domination, however, complicate this neat divide of character and responsibility. In other words, binaries of the State as guardian-perpetrator, and civil society as resistant, no longer hold.

reproductive health as an instance yields evidence of a situation where the state population policy dictates, as part of infrastructural requirements, an increasing use of technology, while at the same time insisting on paying attention to women as repositories of "indigenous systems" in order to "fill in gaps in manpower at village levels" (National Population Policy, 2000). Science and technology policy in recent documents **(S&T Policy, 2003)** also encourages increased entry of women as professionals into institutions of technology. Represented in both policy and critiques, across state and civil society positions, are approximately four responses to technology – presence, access, inclusion and resistance. Reflected from the vantage point of women as one of the disadvantaged constituencies with respect to technology, these are voiced as the demand for the presence of women as agents of technological change – either through presence in production or through incorporation of their "native" wisdoms into the system; sometimes as the demand for improved access for women to the fruits of technology; at other times the demand for inclusion of women as a special constituency that must be specially provided for by technological amendments. And then again, the demand for a need to recognize technology's ills particularly for women, and the consequent need for resistance to technology on the same count.

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There seems to be a connection between these seemingly disparate responses. For one, they each espouse a vision of technology as discrete, bounded, and separate from the human (body), woman being a 'case' thereof. The 'human' is sacred, either in control of such technology, or its frail victim. While the story of science's triumphant

progress would adopt the version of control, critiques of technology that found greatest voice in postcolonial theorizations would consider the human as rendered frail through exclusion from technology, or by the violence of objectifications engendered in technology. **Following such a vision of technology as instrument or tool separate from human agency, and as the necessary corollary of the pristine human who is in postcolonial theorizations aggravated into subalternity, the debates seem to hover endlessly over technology being beneficial, devastating, or a judicious mixture of the two.** Complementarily, the 'pre-technological' – available either in the past or in the 'undeveloped', depending on the lens of examination – appears free of, or lacking in, the instrumentality of technology; and 'everyday technologies' relying on women's lived experience, for instance, seem to offer respite in the shape of an embeddedness in community. At the very least, they appear to possess the mythicity, the poiesis, that critics so wistfully regret the absence of in modern science. And these two – everyday technologies and the pre-technological, in their common possession of such poiesis, such anarchy, seem organically tied and a natural vantage point for a critique of the modern technology. **While what I call the access critiques have mostly believed therefore, in asking for more (inclusion in the technological world), these latter critiques, from the vantage point of organicity, have been asking for less — for withdrawal.**

I will expand, in Section 1.II.b, on the notions of exclusion and marginality that get attached to the subaltern, and the peculiar ways in which the notion of the subaltern itself remains tied to the human of liberal discourse. For a historical account of the subaltern, refer the glossary.

What is most often referred to while highlighting 'dominant' strands in Western philosophy is the nature-culture dualism that is associated with Descartes. This dualism has been shown by critiques

We might point to the more obvious elision here. The separation of technology from the human subject is, in these critiques of technology, sometimes enacted through a separation of technology from her body, begging the question of the assimilability of the body to the subject. **And further, while a pointer at this separation is used to critique the classical mind-body duality that constitutes dominant strands of Western philosophy, it carries within it the same duality, and we might see that the reality of digital technologies complicates this duality.**

I will flag here the point that such a response to technology is an expected accompaniment to the aesthetic and political semantics of representation that constitutes the vocabulary of critique today. I will attempt to unpack this notion of representation through the monograph.

to penetrate and inform most Western knowledge systems, including scientific knowledge. Strands like the phenomenological have attempted to transcend this duality.

What, then, obviously happens to an understanding of technology as discrete, and to this version of critique, with the arrival of digital technologies? It may be accurately stated that digital technologies are employed by state agendas on the same principles of access, information, or development as earlier technologies. The ICT technologies are a case in point. Once we widen our attention, however, from digitisation as the route to building databases, to digitisation as attempting the work of representation, for instance in didactic versions of diagnostic systems like immersion medical simulators, digital diagnostic systems, or robot surgeons, we find a curious (some would say deadly) shift. Representation in the classical scientific tradition is no longer what is at stake, if nothing for the simple reason that separations between 'wo'man-technology are not easy to observe in these technologies, and they can therefore, not simply be read as providing extensions of, or voice to, the human.

What is happening, rather, is simulation, with a putting together of 'wo'man-machine as co-constituents of a system, which now produces neutral yet arbitrary predictions, and these predictions cannot be tied to ethical responsibility in the way that representation could be. For where does technology end and the woman begin? Where are the boundaries, the separations, the detachments between knower and known that have hitherto helped us complain of the problem with neutrality and objectivity of scientific knowledge and practice? Old wirings of women-technology where one is independent of the other have become circumspect with evidence, at least on the surface, of overdetermined relationships of wo'm'an-machine-nature. Technologies are no longer conceivable as envisioning, objectifying woman, for technologies are now touching, enveloping her, in messy, unpredictable ways. This is not, however, a new holism, a philosophical promise against duality. More recently, this messiness, this difficulty of separation, has been suggested as purported evidence of a hybridity between body and technology, and by extension between the human subject and technology. However, this imaging of the relationship between bodies and technologies does not need to do away with the dualism either; it is a sharing of parts where bodies and boundaries remain intact.

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Following on such a sharing, hybridity is used more as an accurate description of the ambivalence at the heart of dominance, sometimes a curtailment of dominance itself, and the heterogeneity of the sites of resistance. Could we, on the other hand, see this messiness as not only a disaggregation of power but as a movement, as Donna Haraway puts it, from old hierarchical dominations to a new informatics of domination? (Haraway, 2000) An unpacking of the word or concept 'technology' itself has also therefore, forced itself to attention in this scenario.

I suggest that these surface complications as brought in by new technologies may actually be seen as a symptom of the malaise of the old understanding rather than as a new development. And it is in this context that it might be useful to unpack the concept of technology. **More specifically, I would suggest an unpacking of the relationship of technology to its constituencies. What might result is the development of a field that we could tentatively call critical technology studies – a field that does not merely name each new technology as example and carve a field around it, but brings back a study of each to enrich the originary understanding of technology.** I conduct this investigation around one implicit node – women-technology. I therefore, insert into this investigation a series of questions – once we give up on the wiring between women-technology that populates mainstream positions as well as the critiques, which also means a giving up on the representational relationship between women and technology, how does one speak at all of gender and technology? Of gender and science? Gender and development? Further, the relationship, of wo'm'an-machine-nature, an overdetermined relationship, need not necessarily be a symbiotic one. Once this is taken into account, how does one talk of the difficulties of technology? The devastating effects? If we shift our expectations of technology from the beneficial or the symbiotic to the arbitrary, and moreover, once we have refused to talk of nature or pre-capitalism or cultural practice as pristine or prior entity, what of the critique?

Such a field cannot work with externalist accounts that would be offered by classical sociologies of technology, in the mould of the sociology of scientific knowledge. Internalist reflexive accounts of science and technology are also not what I am suggesting. Rather, following on the overdetermined nature of the relationship between technologies and bodies, it is possible to read differently the power differentials in this relationship, the mechanisms of exclusion.

Bearing in mind the existing attitude to technology that I speak of, and the fresh set of tools that I arrive at in this exercise, and that could provide a more adequate

response to technology, I shall briefly flag them here, leaving to the succeeding sections the work of further elucidation. First comes the question of representation. The classical scientific tradition is predicated on the method of objectivity, that is, a purported representation of natural kinds that is neutral, detached, publicly available, existing independently and separately from us, and as things really are. **While much ink has been put to paper in speaking of the mediations inherent in representation, or in the attempt to rethink objectivity and its characteristics, thus challenging the stated conditions of transparency or neutrality, the shift into a different register of reality – one of simulation – where natural kinds 'in the field' are no longer the starting point even for data collection, and where separations between woman-machine are not discernible – has not been taken into account by critique.** It is therefore, in this classical framework of representation that an empirically identifiable excluded perspective – of a different culture, or a constituency, say women – may be spoken of, as one which now needs inclusion. It is such a perspective that may also resist or disallow technology. It is such a perspective that may perform the exception, the anomaly that resists explanation.

I try to suggest that given the loss of the classical, such a notion of perspective as fixed cannot provide an understanding, or a response, to the technology question. Rather, a sense of perspective as bizarre with respect to the given common sense about the world, but one that provides therefore, a completely different picture of the world; hence an aporia, might help here. Such a perspective is contingent in both space and time, therefore, can be held only temporarily, momentarily perhaps. **It is when such a perspective reaches the state of absolute aporia that a different view of the world is made possible.** This is the state of revolution that Kuhn refers to in his work on anomaly-crisis, a state that is reached when a scientific anomaly becomes crisis (1970). This is perhaps also an analogy that can be drawn for politics. Resistance has, in our contexts, often, couched in Marxist metaphor, been made to stand in for revolution. It might be worthwhile to recognize that revolution indicates a paradigm shift, in Kuhnian language – a language useful for our purposes here. Revolution requires not merely a turning one's back on, but a turning on its head of,

These two exercises have largely taken place, however, in disciplines remote from each other, the first in the fields of representation qua representation – like literary studies and cultural studies, among others, and the second in science studies.

A theoretically insoluble logical difficulty.

the common-sensical picture of the world. These are the connections I see between the metaphorical tools I use in this investigation.

I seek to approach afresh, on therefore, the nature of the relationship between women and technology that may help articulate a response to the 'problem of technology', without turning it into either a monster or a benevolent entity. This would involve understanding power or control strategies which, as Haraway puts it again, may have more visibility on border regions rather than as disturbing the integrity of 'natural objects' – women and their bodies among them. This would involve a shift from articulating better policies, and politics, of representation, to understanding simulatory strategies of new digital technologies. And this would involve, putting these two together, recovering not a pristine narrative of women's experience – either homogenous or varied – but an attention, instead, to the *possible aporeticity of women's experience vis-à-vis dominant systems.*

A. TECHNOLOGY FOR DEVELOPMENT

> *The key to national prosperity, apart from the spirit of the people, lies, in*
> *the modern age, in the effective combination of three factors, technology,*
> *raw materials and capital, of which the first is perhaps the most important*
> **(Scientific Policy Resolution, 1958)**   http://www.dst.gov.in

The Department of Science and Technology was established in May 1971. Its mandate was to formulate policy, co-ordinate among different organizations engaged in research at state and non-state levels, and articulate programmes in newly emerging areas through various apex bodies. **It was also required to liaise through Central**   http://www.dst.gov.in
and state government S&T departments and with allied departments like space, earth sciences, atomic energy or biotechnology, as also with professional bodies like the Indian National Science Academy for the promotion of the sciences, and with statutory boards that provide financial assistance to promote the development and commercial application of indigenous technology, or to adapt imported technology for wider domestic application.

This consolidation into a state department may be considered the logical culmination of an attitude to technology in the nationalist and post-nationalist phases of India's history. The understanding of nation-building and development in these imaginations was one that would involve large-scale industrial advancement with a trickle-down effect, and the constitutive attitude to technology as a necessary and welcome tool of development is well in evidence in the first organised articulation of S&T policy in India in 1958. Here, in the climate of science as the promoter of wealth, values, and welfare, technology as an application of science was sought to be developed.

It may be useful therefore, to briefly reflect on the trajectories of development as they played out in Indian and other 'Third World' contexts. **I will, to this end, trace the changing meanings of development from economic growth in the 1800s to social parameters in the mid-1900s, the translation into and production of a 'Third World' through this shift of parameters, and the somewhat forceful insertion of culture and indigenity into the argument in a manner that both shapes policy and drives critiques of technology today.**

I introduce the term 'Third World' in scare quotes in order to flag its usage in particular contexts that may not be relevant in the frame of my own argument. It is however, important to discuss these particular contexts, since they have been instrumental in constituting the attitude to technology, and this is what I attempt to do in the next sub-section.

A.1. DEVELOPMENT ECONOMICS

W. W. Rostow, economist and political theorist, a significant player in shaping American policy in South East Asia and an advocate of capitalism and free enterprise, identifies three conditions that made possible the birth of development economics in the early 1980s – **wartime planning for the post-Second World War period,** the shift during 1948-49 from **European reconstruction towards developing regions,** and the Korean war, all of which meant that foreign aid took the form of security rather than development for about a decade (Rostow, 1990). It is by now well known that

This included the Bretton Woods conference (formally called the United Nations

The first loans being sanctioned, Truman's speech on the Trusteeship of Palestine in the 1948 UN General Assembly.

Monetary and Financial Conference, held during World War II and intended to make foreign capital available long-term for states requiring foreign aid, as also to regulate short-term imbalances in international payments), the institution of the Food and Agriculture Organization, the setting up of the regional commissions for Asia and the Far East.

For a detailed account of these six phases of the context of growth of development economics, see Rostow 1990.

the 1950s were a period that saw the establishment of connections between development theory and policy, with major resolutions for the economic development of under-developed countries, and in the latter 1950s, increased development assistance. **The 1960s further saw the formation of the Alliance for Progress for Latin American nations, and a 27 per cent increase in official development assistance by OECD countries between 1960 and 1965.** With increased growth rates but mass poverty and unemployment, there was also an intellectual revolt against the orthodox development positions of the '60s, with a resultant mooting of the "basic human needs" strategy. The year 1969 saw the publication of the *Partners in Development: Report of the Commission on International Development* that led to the Columbia Declaration of 1970. **There was also the discovery of the second oil shock in 1979-80, set off by the Iranian revolution.**

The Organisation for European Economic Co-operation (OEEC) was another of the many bodies put together at the end of World War II, in 1948, comprising 30 countries regarded as "developed", to plan for European reconstruction after the war. Later, it was reformed into the Organisation for Economic Co-operation and Development (OECD), with membership extended to non-European nations, and with the aim of promoting financial stability, world trade, and the highest sustainable economic growth for member nations.

Mainstream theorists like Rostow saw the earlier concentration of economic analysis on Anglo-American nations as having to do with the parochialism of American and European economists who dominated the formal literature. Also, in the period 1870-1939, when economics became a professionalized and academized discipline, not much multi-disciplinary work – required for development analysis – was happening. **From the 1950s, however, critiques of colonialism that associated its evils with those of capitalism began to dominate the scene, and the stage was now set for development economics at the 'periphery'.**

The centre-periphery model was, for economists of the time, a frame within which to explain both economic growth and domination among nations. Dependency theory worked with a notion

Apart from the movement of economic analysis to the periphery, and the associated birth of development economics as a discipline, another shift is to be taken

The Organisation of Petroleum Exporting Countries was formed in 1973, comprising thirteen oil-producing countries in the Gulf region. It is interesting to see how development, hitherto synonymous with economic growth, and hitherto measured by hard-core economic indices like gross domestic product, began to additionally mean social indicators – education and literacy, health and nutrition, work participation rates, environment, and women. These were indicators

into account – a shift on the referents of development, from straightforward economic indices to 'social' indicators – literacy, the quality of life, or the condition of women, to name a few. These fresh indicators of development had been put in place post-1945. But while development as a category is said to have emerged around this time, when it was addressed to East European countries – latecomers to European industrialization – in literature originating from the Royal Institute of International Affairs (later this included Asia, and in the post-1960s, Africa), it was only around the 1960s, with the beginning of the first development decade, that the shift in the official meanings of the word 'developed' became visible. **This is evident especially after the setting up of the OPEC.** And this was accompanied by another shift in economic thinking – from a critique of State as hampering the market (the incentive to *laissez faire*) to a categorical conferring on it of the responsibility of containing the collateral effects of economic growth or skill specialisation. The classical economists, notably Mill, had already demonstrated the impulse to press for education and better status for women. The State now became the fundamental instrument in the process that can make this possible. And it is in these contexts that population policy and social indicators of the wealth of nations brought into focus a new notion of *growth as development*. A shift from the economic to the social in understanding development, in a scenario where the separation was already in place post-1870s, could now begin.

of inequality between nations as a centre-periphery, metropolitan-satellite, or dominant-dependent model, proposing that these inequalities are perpetuated through the interaction between nations, and that underdeveloped nations are so because of this. This was against the notion of free markets where growth would be beneficial to all. Marxists among dependency theorists proposed that capitalist exploitation was the root cause of such inequality.

of distribution as against wealth of nations. These were also indicators that the 'Gulf countries', catapulted into prominence – and equality with white nations – through the formation of OPEC and consequent wealth, were far from matching up to.

These campaigns had also broken away from the left wing campaigns of the turbulent 1960s, when women in the movement realized that these could not be part of socialist commitments, at least in the US. It may be well to remember, however, that abortion rights, state responsibility for child care, or easy divorce laws, were among the earliest to come into effect after the revolution in Russia. What the socialist state failed to acknowledge, perhaps, was difference, not equality. Kollontai's marginalization following her attempts to initiate debates around sexuality, or Clara Zetkin's famous debates with Lenin

There was more happening. **As Rostow and others (Kabeer, 1994: 2) have identified, this was also the period of protests in the South against the prevailing economic order, protests in the North against racism and class oppression, civil rights and black liberties movements especially in North America, and the culmination of several third world liberation struggles.** Liberal feminism, the second wave, and the **campaigns for what could be defined at the time as the particular interests of women – access to abortion, equal pay for equal work – had reached their height in the US and parts of Europe.** These were movements for social space, for space within the social.

The identification of the *social as a domain* that housed problems was, therefore, well in place through these moves. But did this strain the explanatory potential of the *economic model* of growth? Rather, it might be said that it became, for post-classical economic theories, the domain of collaterals that needed to be taken care of in order to ensure that growth progressed adequately. In the event, the movement from growth to development, from the centre to the periphery, from the economic to the social, may be seen as shifts in visibility rather than shifts in perspective. The only point of contention was the route through which these problems might be addressed.

I am aware that I am, in this analysis, offering a different explanation of the 'growth to development' trajectory than that available in the critical literature. In this literature, we have spoken about the pressure brought to bear upon mainstream economic analysis of growth by political movements, and the ways in which this pressure translated into and produced a contestation over the meanings of development. Post-classical economic literature may indeed be read in this light, as grudgingly acceding the role of the social, and as then proposing an absence of

Kabeer's work carries an excellent review of the Women in Development paradigm asking for inclusion of women in development agendas that came up around the 1970s and entered World Bank language in 1987, its theoretical underpinnings, its criticisms of mainstream development policy, its allegiances to liberal political philosophy and the neo-classical approach, and its silences.

on the 'woman's question', come to mind. Difference was considered divisive, or bourgeois, or as espousing individualism.

accounting of social factors as an obstacle to growth itself. Classical economists, however, primarily, Mill, Smith and Hume, at whose door these allegations are usually laid, had an entirely more complicated notion of growth than this, as has been well laid out in Rostow. This merits a larger discussion than can be done justice to here but for the purposes of my work I propose that this legacy of classical economics needs to inform critique. If this is done, the separation of 'growth to development' – seen as the effect of critique – from 'growth as development' – seen as the appropriation of critique by mainstream economics, is no longer clear. In other words, this is to point to the overlap between critique and mainstream explanations. The recognition of this overlap will, I hope, help me develop the notion of critique itself further in the later sections.

A.II. THE "THIRD WORLD"

"[Q]uite simply, "the nation gains its independence and theoretically adopts the economic structure it finds most attractive" ..." (Cabral 1966, quoted in Munck 1986: 110).

In India, socialism was the prominent route through which development, or at least development policy, was conceived. Already, post-1945 and World War II, various nationalist struggles in the 'Third World' – identified as a cohesive space on the dubious plea of their greater population and colonization by western powers – were being re-read as anti-imperialist, and therefore, as class struggles in the Marxist frame. This therefore, involved, as a response, the recruiting into world history of this 'Third World', as against the ideology of these as 'non-historic' nations that had had to be brought into history by European explorers. It also imputed to struggles in this imagined Third World a moral weight that legitimized them, and demanded for them a relationship to the centre that was not exploitative. This form of third-worldism apparently emerged out of the crisis of Stalinism, and prospered mostly in the 1960s. **In this movement to the periphery, therefore, it was important to mark the position of third world societies in the universal scale of growth, as the 'stages theory' of Amilcar Cabral does.** Marxist readings of history had, as against Marx's own method of immanent critique, by now declared a science of history, where history was a rigid evolution of economic conditions and a true realisation of the enlightenment ideals of reason, progress and science. **For Marxist theories,**

This is visible most famously in the shape of the 'mode of production' debates in the late 1960s – Rudra et al versus Utsa Patnaik on empirical realities of agriculture in India, and later on the accurate definition of the capitalist mode of production (1990). While Rudra et al. concluded from their separation of "big" farmers from capitalist farms in Punjab that the transition to capitalism had 'failed' in India, Patnaik asserted from her own findings in Orissa, Andhra Pradesh, Mysore, Madras, and Gujarat, that capitalist farms were indeed emerging in India in the late 1960s, although there were specific factors impeding its development. Her observation was based on a definition of capitalism that, according to her, was reworked keeping in mind India's complex economic realities, and her understanding that transition must needs take into account the relationship with the process of development in the "centre country" – Britain. Chattopadhyay defined capitalism as the highest stage of commodity production where labour power itself became a commodity, and identified the two conditions of capitalism as i) commodity production being the general form of production and ii) production being performed by free wage labour. It followed that surplus value would be generated and reinvested. Patnaik responded by stating that in the Indian reality – where both state investment was poor, and reinvestment invariably took place in unproductive spheres like usury, trade, and the purchase of land to be rented out to peasants – it was important to add the condition of re-investment of surplus at the very site of its appropriation. Patnaik's impulse here was to also hint at the element of colonial exploitation – the revenue system, land settlement policies, etc. – that actually reinforced, in her view, pre-capitalist relations of production, thus 'blocking' the organic movement towards a capitalist time. This was a view, however,

this meant classifying the means of production in the Third World as feudal, semi-feudal, and so on, a debate that is familiar enough in the Indian intellectual-political landscape. While generally Marxist theorists were divided on the question of whether it was the objective forces of production or the subjective experience of the proletariat that would bring about change, the Indian Left were deeply divided on the composition of the agents of change as well – the national bourgeoisie, the working class, or the peasantry. Post-Lenin, Marxist readings of the nationalisms in various parts of the Third World also entered into a variety of relationships with non-Marxist nationalist elements, addressing them as 'progressive' nationalism, rather than 'reactionary' nationalism. This constituted the internationalism of Marxism, but it also often meant that the 'political core' of Marxist practice in these spaces became confined to a series of organisational and strategic questions (Seth, 1995). The Indian Marxist model itself – once its political core had been redefined in this way – was divided on the correct mode of production represented in the Indian reality, a division that led to the two major splits in 1962 (the CPI and the CPI [M]) and 1967 (CPI [M] and CPI [ML]) among the political parties on the Left in India. The cluster of conceptualizations continuing to place themselves under the name Marxism have since undergone many shifts, from this position of seeing development as class struggle and as a narrative of transition from pre-capitalist to capitalist modes of production (adopted by dominant Marxist theorists [Patnaik 1990] and within Left

that was entirely refuted by Chattopadhyay, who insisted on a single definition of capitalism (1990).

This hyphen between Marxism and nationalism was evident in the Indian nationalist movement as well. A version of Marxism pervaded Nehru's nationalism – one that espoused the "scientific, economic sense" of progress. Some of the emphasis the Indian National Congress placed on economic issues, particularly during the 1937 elections, was the direct result of Nehru's urgings. This changed after 1937, but Nehruvian socialism, in as much as it valued a materialist conception of history, or considered the economic as important in the last instance, continued to pervade nationalist agendas. Analyses of India's problems too were in this mode – "Parties [in an independent India] will be formed with economic ideals. There will be socialists, anti-socialists, *zamindars, kisans* and other similar groups. It will be ridiculous to think of parties founded on a religious or communal basis" (Nehru, 1931, quoted in Seth, 1995: 212). **Nehru's stand on nationalism, by distinguishing between oppressor and oppressed nations, also legitimized certain nationalisms, while remaining critical of nationalism in general. Needless to say, this vision of nationalism had rationalist Enlightenment thought as its underlying philosophy, and was also tied to internationalism and progress – a progress that would bring socialism as a "saner ordering of human affairs" rather than as a "moral issue" (Nehru, 1987, quoted in Seth 215). To that end, the scientific**

parties), to a re-reading of multiple class processes that challenge the 'capitalo-centrism' of traditional approaches (current theoretical debates among Marxist theorists like Fraad, Resnick and Wolff [1994] or Gibson-Graham [2001]). The Indian Marxist scenario, however, continues to be firmly anchored in the modes of production debate, with rethinking being sited in different modes of addressing the 'pre-capitalist' mode. We will keep this in mind when looking at the Marxist postcolonial formulations.

To identify overarching standpoints within oppressed nations was also therefore, problematic in this frame, for, "[d]o we place the masses, the peasantry and the workers first, or some other small class at the head of our list? Let us give the benefits of freedom to as many groups and classes as possible, but essentially whom do we stand for, and when a conflict arises whose side must we take? (Nehru 1987: 4-5).

"Differences [in national realities] there are but they are chiefly due to different stages of economic growth" (5).

Re:wiring Bodies Asha Achuthan

"It is better to understand a part of the truth, and apply it to our lives, than to understand nothing at all and flounder helplessly in a vain attempt to pierce the mystery of existence … It is the scientific approach, the adventurous and yet critical temper of science, the search for truth and new knowledge, the refusal to accept anything without testing and trial, the capacity to change previous conclusions in the face of new evidence, the reliance on observed fact and not on preconceived theory … not merely for the application of science but for life itself …" (Nehru 1946, quoted in Chatterjee 1986: 139).

Various controversial theses have been propounded on the career of science in India that reflects on this attitude. It has been suggested by Gyan Prakash, postcolonial scholar, for instance, that science carried to the masses in India not as science, but

temper, as Nehru reiterates again and again, is the requirement. And to realise that requirement, Nehru did take up the philosophical debate, apart from his policy efforts, by pointing to "the essential basis of Indian thought for ages past … [which] fits in with the scientific temper and approach" (Nehru 1946, quoted in Chatterjee 1986: 139). In this version of nationalism, the scientific temper informed analyses of colonialism, cultural difference, religion, and industrialisation; the first three were attributable to economic backwardness and disparity, and the removal of these disparities, accompanied by the development of 'big' science and technology, was the answer. As far as Nehru was concerned, the colonial state was the enemy of such industrialisation, partly owing to its own selfish commercial interests, but more importantly because such interests went against universal models of economic growth wherein developing nations also needed to grow in order to keep the rich nations healthy. For his version of scientific socialism, then, a critique of colonialism could not simultaneously be a critique of reason or modernity – colonialism was 'wrong' primarily because it did not fulfil the requirements of modern growth. Clearly, for Nehru this also involved certain expectations of the national bourgeoisie who would provide political leadership. What confounded him, therefore, were the 'spontaneous' peasant uprisings, as also the Gandhian philosophy of development that was singularly in conflict with his own notions of progress. Both of these meant for Nehru a shift not only from reason to unreason, but also a parallel – and in Nehru's view problematic – movement, from the political to the utopian.

Chatterjee (1986) suggests that Nehru solved the problem by granting to Gandhi a stage in the 'passive revolution' where, once the stage had been set for the real political battle, the 'masses' could be won over to the larger nationalist cause through faith, emotion, or other such means both incomprehensible and vague of objective (to Nehru). The larger nationalist cause was the promotion of large-scale industry over small-scale or cottage industries, since "the world and the dominating facts of the situation that confront it have decided in favour of" the former (Nehru, 1946, quoted in Chatterjee, 1986: 144). The 'masses', by whom Nehru usually meant the peasantry, needed to recognize, like the rest of India, that small-scale industry

as magic – that was the intended, not accidental, career for science. Similarly, Ashis Nandy reads big dams as 'spectacular technology', and by extension science, where science is performed as miracle rather than experiment. This argument might be worth examining in terms of the larger implications for the contours of science as a hegemonic entity in Indian contexts.

Seth (1995) has concluded, differently from Chatterjee, that this was not a simple appropriation of scientific Marxism, leaving its political core alone.

in these "dominating facts of the situation" could only function as a "colonial appendage" (413). Industrialisation and expert knowledge were what were needed for progress and a modern nation. After independence, this project of the modern nation was taken up by planning – what Chatterjee calls the new systems-theorists' utopia. In this scheme of things, once political independence had been achieved and independent state control set up, economic disparities would gradually disappear, for the only real problem would be one of access, a technical rather than political issue. Planning, as far as Nehru was concerned, would take care of this. Planning involved experts, and an approach to individual concrete problems at a practical level, not a political philosophy. "Planning essentially consists in balancing" ... (Nehru, 1957, quoted in Chatterjee, 1986: 159) and "co-operation in planning was particularly soothing ... in pleasant contrast to the squabbles and conflicts of politics" (Nehru, 1946, quoted in Chatterjee, 1986: 160). Further, "[s]cientific planning enables us to increase our production, and socialism comes in when we plan to distribute production evenly" (Nehru, 1962, quoted in Chatterjee, 1986: 159). Socialism too, rather than being a system of thought or a violent class struggle, becomes, in such a formulation, the pragmatic planning of a national economy – one that, if adequately planned, would automatically produce the "classless society with equal economic justice and opportunity for all, a society organised on a planned basis for the raising of mankind to higher material and cultured levels, to a cultivation of spiritual values ... ultimately a world order" (Nehru, 1936, quoted in Chatterjee, 1986: 161). **Chatterjee sees this selective appropriation of scientific Marxism as a way in which the reason-unreason binary was precipitated, giving rise to a different politics for the elite and the subaltern in mature nationalist thought. In the next sub-section I will try to demonstrate how this formulation of Chatterjee's was one of the foundations from which the critiques of development too took off.**

My point in elaborating these debates here is to cull from them both the routes taken in development thinking, and the consequences for postcolonial approaches to the science and technology question. **Marxism, in its early nationalist avatar, presented an approach to science that involved its accurate interpretation,**

At his second Presidential address to the Indian National Congress in Lucknow on 12 April 1936, Nehru repeated some of his earlier commitment on this, "I am convinced that the only key to the solution of the world's problem and of India's problem lies in socialism, and when I use the word I do so not in a vague, humanitarian way but in the scientific, economic sense." From Jawaharlal Nehru, Selected Works, vol. 7, p. 180, quoted in Seth 1995: 222.

application and access, rather than any critique. As is evident from the debates between Nehru and the Communist Party of India (CPI), and Nehru's own writing on the subject, colonialism was considered equivalent to capitalism, the anti-imperialist struggle of the Indian masses was the route to independence, and the change in forces of production would bring about a change in the means of production. For Nehru then, the nationalist agenda consisted at least in part of bringing to the third world access to technology and a transformation in the forces of production that would address poverty and unemployment. In the Marxist-nationalist space, the debate was about what would be the agent of change – the nationalist bourgeoisie or the working class; also whether it would be forces of production by themselves or the subjective sense of the proletariat.

Third-worldism in this form, however, did not last. Cabral, in his analysis of the trajectory of third-worldism, speaks of the shift from a 'revolutionary' third-worldism to a reformist agenda, which works with a picture of the third world as ex-officio revolutionary, virtuous, and exploited. This later provided the impulse for state intervention and development policy. Nehru's own turn to development policy in independent India may be usefully read in this frame. This translated later into the Non-aligned Movement, the Soviet line, etc. Later, however, this too died out, with a movement into peaceful co-existence, dependency instead of non-alignment, and so on. Reformist third-worldism too had come to an end.

In this sub-section, I have presented the move in the discipline of economics from a focus on growth to development, the trajectory of development thinking in its movement away from the Anglo-Saxon world to its former colonies, as also the legacies of classical economic theories of growth carried in this trajectory. These legacies included social reform agendas, the sense that increased population is not enough stimuli for growth, the attitude towards 'unproductive' labour, the shift in discussions on population from the metropole to the periphery, and the insight that development is a discontinuous rather than an organic phenomenon. It is clear in an examination of these trajectories that technology and industry

stand in as metaphors for development, and by extension, growth and economic advantage for nations. This also helps identify, in the Indian context, the Marxist-nationalist responses to technology and development that transformed into the later postcolonial critiques of development and western science and technology. With this picture in mind, let us now proceed to look at the critiques.

A.III. POST-DEVELOPMENT POSITIONS

Both third-worldism and Indian nationalism had other, powerful and different approaches to the same questions – the analysis of colonialism and the required response, the question of technology, the concept of the state/cultural difference, than the ones we have been discussing. For post-development positions like that of Arturo Escobar, the visibility of the social had been some time in gestation. Escobar notes:

> As a domain of knowledge and intervention, the social became prominent in the nineteenth century, culminating in the twentieth century in the consolidation of the welfare state and the ensemble of techniques encompassed under the rubric of social work. Not only poverty but health, education, hygiene, employment, and the poor quality of life in towns and cities were constructed as social problems, requiring extensive knowledge about the population and appropriate modes of social planning (Escobar, 1992). The "government of the social" took on a status that, as the conceptualization of the economy, was soon taken for granted. A "separate class of the poor" (Williams 1973, 104) was created. Yet the most significant aspect of this phenomenon was the setting into place of apparatuses of knowledge and power that took it upon themselves to optimize life by producing it under modern, "scientific" conditions. The history of modernity, in this way, is not only the history of knowledge and the economy; it is also, more revealingly, the history of the social.
> **(Escobar, 1995: 23)**

Having critically read the separation of the economic from the 'social' in the nineteenth century, Escobar suggests, following Foucault, that the social was being created, conceptualised and produced through strategic interventions. The social here was produced *as pathological*, and poverty as a social evil related to the pathologies in question, both therefore, justifiably constituting domains of intervention and exclusion, with the modes of exclusion acquiring new meaning. With the flowering of this "governmentalisation", and the beginning of the process of "developmentalisation" post-1945 with the definition of two-thirds of the world as poor, the link between poverty and the social was made self-evident, and turned into a justified zone of intervention (Escobar, 1995). Women too, in this ever-expanding frame, came in as a group requiring governance in the interests of development. Escobar is clear here that this production of categories as domains of intervention "relies today not so much on homogenization of an exterior Third World as on its ability to consolidate diverse, heterogeneous social forms ... The global economy must be understood as a decentered system with manifold apparatuses of capture – symbolic, economic and political" (Escobar, 1995: 99).

In Escobar, this 'making' or production of the third world, or the social, as a zone of intervention for the hegemonic "by the discourses and practices of development since their inception in the early post-World War II period" (ibid: 3), activated a response that included both a micro-politics of *negotiation* with the hegemonic, and the need to reclaim the third world as *resistant*. Such a position categorises itself as 'post-development'; while it offers a critique of these categorizations as hegemonic and embedded in western philosophical systems, it also makes the case for a re-making, through a re-imagining, of the Third World. For Escobar, while such category formation may indicate an appropriation into the hegemonic, the activation of epistemic privilege is important, and the formation of uncontaminated categories a possibility, allowing a reclaiming of the Third World. In trying to call for both an 'end to development' and for alternatives, post-development critique asks for "alternative regimes of representation and practice, discourses and modes of intervention that both challenge and exceed the terms imposed by the

Escobar is here important in that he aligns himself alongside critiques of colonialism. He draws heavily on Foucauldian notions of power/ knowledge and Said's work on Orientalism to make the point that what is needed is a different regime of truth other than the ones in place. What that might be he does not offer clear clues on, and this is the space where post-development critiques have repeatedly faulted.

development/ underdevelopment dyad" (Gibson-Graham, Ruccio 2001: 159). **Feminist and gender work like that of Gibson-Graham too has engaged in this task, asking for a greater attention to marginalized groups working to defy dominant strategies (2001). A typical example of such a reclaiming of categories could be seen in the attention paid by these scholars to autonomous projects taking up "traditional craft skills and indigenous knowledge (especially those of women) of endangered communities" (ibid: 173), reading their practices and philosophies as "introduc[ing] commodification and money flows into non-capitalist and previously non-commodified class processes ... [but producing] an income flow into the local community that sustains non-capitalist class processes, protects traditional knowledge and maintains indigenous technologies" (ibid: 174).**

Post-developmentalists and feminists drawing from their work come closest to enacting discursive shifts that can challenge dominant representations. Escobar, for instance, makes it clear that a focus on discourse is what enables a Foucaultian understanding of the production of reality in discourse. How, however, does "[t]hinking of development in terms of discourse [make] it possible to maintain the focus on domination ..." (Escobar, 1995: 6)? How is it evident that "clear principles of authority were in operation" through this discourse; in other words, how are the closures to discourse operating to render domination successful? These are not questions Escobar or other post-developmentalists attempt clear answers to. More germane to this discussion is the dilemma of "reconstruction" that Escobar sets himself, and the consequent question of whether the discovery of practices that in themselves challenges dominant representations, and using them to re-make categories like the Third World, fulfils adequately the brief of critique that post-developmentalists set themselves. A clue to the problem may be found in Escobar's own promise to analyse "in terms of regimes of discourse and representation ... [where r]egimes of representation can be analyzed as places of encounter where identities are constructed and where violence is originated, symbolized, and managed" (ibid: 10). In the event, the question may be asked of what might be the ontology of such an encounter. Is it about the violence of categorization, an

Katherine Gibson and Julie Graham, who write under the single name Gibson-Graham (2001, 1996).

This strand, drawing from post-development, also however critiques its "capitalocentrism" (Gibson-Graham's usage) in order to step away from post-development's "presumption that economic knowledge reflects the true state of a real entity called 'the economy' ... [thus] allowing the putative dominance of capitalism in the 'real' world of the economy to go unquestioned" (ibid: 160).

imposition of categories upon reality? Or is it about inaccurate representation that can now be corrected? What are the vantage points of the reconstruction that Escobar considers essential for an end to, or an alternative to, development? What is the basis on which another reality is sought to be imagined? Do the assertions slip into a form of ideology critique, not the least because they take the route of more adequate representation for a third world that apparently exists *prior to* the dominant one – a route that neither fulfils the promise of understanding the production of reality in discourse, or of re-imagining reality itself, as Escobar would have? This, after Escobar has resisted the solution offered by sharp tradition-modernity divides, and stated clearly that doing an "anthropology of modernity in terms of hybrid cultures does not intend to provide a solution to the philosophy of the subject and the problem of subject-centered reason" (ibid: 221). He clarifies his position most clearly when he says, in passing, that "the subaltern does in fact speak", even though the speech may be unintelligible in existing developmentalist frames (ibid: 223).

Ajit Chaudhury's eloquent response to the argument of worker as ex-officio resistant to capitalism might sum up the problem:

> *Labour reacts, resists, launches the counter-offensive, and smashes the world of objects and the machine – his principal enemy. But this is not inversion. This is turning things upside down, which is different qualitatively. The inversion of a function implies an interchange in the places of the arguments – in this case of the master and the servant. The qualitative space of capitalism precludes the possibility of a functional inversion because of the absence of a concrete master visible to the servant – in this case the worker.*
> **(Chaudhury, 1987: 250)**

Although Chaudhury makes the argument in the light of the specificity of workers' rebellion as different from peasant rebellion, his general argument in this essay

has to do with understanding the 'outsideness' of Lenin's socialist consciousness with respect to concrete labour, or the worker. He is at pains to demonstrate that resistance to the capitalist frame cannot be understood in terms of a physical turning upside down – such as is seen to be activated by the worker alone. Such a turning upside down, he wryly remarks, cannot effect a downside up, that is, a standing of *capitalism on its head*. **In the event, marking physical rebellion may mark resistance to the framework, but not necessarily revolution, or in this case, counter-hegemony.** It is this distinction that post-developmentalists too would do well to take on.

I have mentioned, at the outset, resistance as one of the modes of response to technology in the Indian context. The present discussion helps show how the desire for an inversion of the dialectic – in other words, the metaphor of revolution – marks all positions of resistance. We encounter this problem in postcolonial theorizing, and in the articulation of the 'subaltern' in critiques of technology. We will go into this more fully in Section II.

FIELD MAP

This section has so far tried to put down in some detail the historical conditions for the attitude to technology in the Indian context. To recapitulate, the discussion began from economic growth being seen as the crucial requirement for the progress of nations, went on to trace the shift from growth to development as the focus of economics, the naming of the 'social' as at least as important as the 'economic' as indices for development, the associated shift from the centre to so-named peripheral nations within these analyses, and the naming of the 'third world' and its urgent need for development in this frame. Such a notion was also reflected in nationalist thinking in India, and, accompanied by the notion of technology and industry as bulwarks of development, resulted in a full embracing of the 'trickle-down' effect in Nehruvian as well as, paradoxically, Marxist agendas that stood on the 'change in the mode-of-production' dialectic. There are, however, other movements in

Physical rebellion, therefore, will likely give rise to "what has come to be called anarchy or nihilism ... [while] replacement ... can be a new idiom in the revolt of the working class at a mature stage" (Chaudhury 1987: 250).

place that contested this picture or this resolution, namely, the post-development positions. These positions speak of resistance to classical development agendas that have produced the social, or the Third World, as lacking, as pathological, as requiring governance; in so doing, they have attempted a deconstruction of the notion of development. The resistance they speak of involves a reclaiming of the name, a re-making of the third world, for instance, that will neither be caught in the rhetoric of pathologization nor in the philosophy of linear growth that inheres in development. I have suggested that this resistance proposes an inversion of the dialectic, in other words, a revolution – a proposal that I will examine in greater detail in the next section. Other nationalist responses, however, took on the mantle of resistance in different and interesting ways, and this will be the focus of the next sub-section. As to other methodologies of critique, like the frameworks of hybridity and disaggregation that have informed much postcolonial and gender work in India since the major development decades, these have taken on the task of resistance while attempting to steer clear of ideological critique; in doing so, they display their own set of difficulties vis-à-vis their explanatory potential for a robust reading of hegemonic systems.

B. MARXIST

Ranajit Guha, writing in 1982, was the first to consider, within Indian Marxism, the structure of subaltern consciousness. Questioning the incidental place hitherto given to the peasant in both Marxist and nationalist frames – in Marxism as part of the mode-of-production debates, in nationalism as part of the trickle-down theory of development – Guha proposed a re-cognition of the subaltern – here the local peasant – as political and politicised, and not merely a cog in the wheel or an included member of a revolution conceived of by the vanguard. In thus re-conceptualising the political, the Subaltern School brought up an analysis of colonialism that challenged early and neo-colonialist historiographies, as dominance *without hegemony* in at least the first 50 years of its existence. This analysis suggested that colonial power not only had *not* worked with the active

consent of 'the people'; it had placed everything before colonial time in the realm of non-history, and by extension, in the realm of the pre-political. Nationalist historiographies had followed the same patterns in addressing the peasant, thus leaving out the 'politics of the people' (Guha, 1982). The Subaltern Studies School therefore, raised the question of subaltern consciousness; it uncovered and articulated the 'role of the peasant in nationalist movements' as the subaltern domain of politics – a domain separate from the 'elite' nationalist domain – rather than an un-political 'sticks and stones' activity; re-read colonialism as a discourse of dominance without hegemony that resulted in separate elite and subaltern domains of politics; challenged existing 'elite historiography' — both colonialist and nationalist; and made these moves through a different mode of history-writing that took into account unconventional sources and used different methodologies, producing, on that account, a different history.

I will not go into the two significant challenges to the Subaltern School that came up with Subaltern IV. For my purposes, the early Subaltern phase, in its shifts from the Marxist-nationalist movement, is important for the ways in which it aligns with (or rather, facilitates) various critiques of technology that permeate discussions around development today, and that sometimes seek alliances with Gandhian philosophy in doing so. Needless to say, all of these relied for their critique on the vantage point afforded by the subaltern. **That subaltern was an empirical category or condition as set out in Subaltern Studies. I examine here two spaces where this shift from earlier Marxist to subaltern perspectives is visible – the people's science movements and the critiques of technology available in the postcolonial school.**

'The word "subaltern" ... as a name for the general attribute of subordination in South Asian society whether this is expressed in terms of class, caste, age, gender and office *or* in any other way'. And the

Spivak on subaltern agency (Can the Subaltern Speak?), and Ajit K. Chaudhury on Subaltern Studies' dismissal of Lenin's consciousness as 'elite' (In Search of a Subaltern Lenin). In effect, both moves challenged the empirical subalternity on which Subaltern Studies perspectives seemed to stand.

A third space where this shift is visible are the post-trade-union movements, not examined in this monograph.

work of Subaltern Studies therefore, relates to 'the history, politics, economics and sociology of subalternity as well as to the attitudes, ideologies and belief systems – in short, the culture informing that condition' (Guha 1988: 35).

http://srai.org/sra.htm.

B.I. PEOPLE'S SCIENCE MOVEMENTS

The **Science and Rationalists' Association of India** (name of the organization in Bengali is *Bharatiya Bigyan O Yuktibadi Samiti*) established on 1 March 1985,says: our organization is made up of like minded people coming from different professions. We are not affiliated to any political party.

Our aim is to eradicate superstition and blind faith, which include religious fanaticism, astrology, caste-system, spiritualism and numerous other obscurantist beliefs.

Our view is that rational way of thinking shall be spread among the people as against spiritual or religious teachings, and that alone can bring about social change. **(Science and Rationalists' Association of India)**

The Medico Friends Circle was set up in 1974 at a national level, to critically analyse the existing health care system in India and 'to evolve an appropriate approach towards health care which is humane and which can meet the needs of the vast majority of the people in our country.' With an emphasis on the necessary role of the state in providing such health care, it demanded 'that medical and health care be available to everyone irrespective of her/his ability to pay ... that medical intervention and health care be strictly guided by the needs of our people and not by commercial interests'; and asked for 'popularisation and demystification of medical science and ... the establishment of an appropriate health care system in which different categories of health professional are regarded as equal members of a democratically functioning team.' Alongside, it also decided to push for 'active participation by the community in the planning and carrying out preventive and promotive measures,' for 'a pattern of medical and health care adequately geared to the predominantly rural health concerns of our country ... a medical curriculum and training tailored to the needs of the vast majority of the people in our country,' and asked, further, that 'research on non-allopathic therapies be encouraged by allotting more funds and other resources and ... that such therapies get their proper

place in our health–care.' **It also asked that we be attentive to the role of 'curative technology in saving a person's life, alleviating suffering or preventing disability.'**

Community Development Medicinal Unit, an independent non-profit voluntary organisation, was set up in 1984, to 'achieve the basic societal need of facilitating access to essential medicines,' to 'provide unbiased drug information to health professionals and consumers, to weed out spurious and "irrational" drug combinations from the market through consumer information and pressure on government, to **"negotiate with the government to formulate people-oriented drug policies and weed out irrational and hazardous drugs from the Indian market, [and to] … conduct community-oriented research on drugs"**.

These were only a few of the many organisations that grew in the 1970s and 1980s to nurture the 'social', 'civil', 'cultural' space. Alongside other organisations like the *Janakiya Samskarika Vedi* (Democratic Cultural Forum) in Kerala, these determinedly claimed an autonomous, non-profit *guardianship of 'the people'*, reacting as much to the violence in the political life of the entrenched Left as to its vanguardism. Their primary aim, therefore, was to increase access and availability not only to the fruits of scientific knowledge, namely drugs and curative technologies, but to that knowledge itself, so that programmes of 'popularisation and demystification', rural needs, 'alternative system use', were incorporated and taken up as the activities of local science clubs.

On the other hand, the stress was on 'active participation', which did not need an unpacking of knowledge systems or knowledge-making, but rather an involvement at the level of knowledge-dispensation, as also an extension of the WHO slogan '(think globally) acting locally'. **But the stress itself possibly had other histories. Autonomous or otherwise, these organisations came out of what Raka Ray has called the 'hegemonic field' of the Left, in Bengal and Kerala, among other spaces.** In attempting to move away from the notion of vanguard party and the 'mass', 'the people' of a democratic state became the organising metaphor for these 'movements'

Another element of the organizational perspectives is a certain divide between the political and 'other' activities that this period saw. Paralleled by the base-superstructure divide or the massline versus military line was this socio-cultural activity versus political activity, a debate well demonstrated in the history of the Janakiya Samskarika Vedi (Sreejith K., EPW Dec. 10, 2005).

Raka Ray, in her work on women's movements in Bengal in the context of hegemonic Marxist practice, has suggested that the character of any

movement, in the political field created in Bengal by the hegemonic Left, would necessarily be different from its character elsewhere. Autonomy of other movements, in such a case, was not to be expected.

that not only 'took science to the villages', but also admonished technology for its inattentions to the people. Appropriate technology and best practices, then, were the logical next step, as also the accompanying challenge to big dams – all manifestations of technology that suppressed subaltern voice.

While the *Bigyan O Yuktibadi Samiti* may be the most caricatural version available today, most of the people's science movements did rely on associations between 'rationalist' and scientific ideas, using the one to bolster the other, or, in the later turn to the PSM, accuse the one on account of the other. In this later turn, the PSM share the philosophy of the anti-development positions, in their attention to the vantage point of the subaltern as an empirical identity from which to critique the existing knowledge frames. Part of the earlier expectation from such movements, that they would eliminate 'nativism' and challenge 'fundamentalism', then, was obviously not met in the later turn, and explains a complaint by Nanda – an activist-scholar wedded to the rationalist cause:

> Why have PSMs not taken the fight to the priests and the temples? …
> I believe that the nativist turn by an important segment of Gandhian social activists and intellectuals made it unfashionable to question tradition and religion. It became almost obligatory to defend the 'wisdom' of the masses, as opposed to the 'violence' of modern scientific ideas themselves. This kind of thinking moved the focus to 'safer' targets, like big development projects, MNCs and such in which 'modern' technology and modern institutions were the main culprits and people's traditions the source of resistance (I am not suggesting that the left should not oppose MNCs and big development projects, as and when they need to be opposed. But they have to be opposed while defending a progressive, secular worldview; not in order to defend the 'people's wisdom' which contains many inherited prejudices and superstitions). Science movements imbibed the populism and cultural traditionalism of leading Gandhian/postcolonial intellectuals who

took a highly anti-modernist position for nearly three decades, starting around late 1970s (coinciding with Indira Gandhi's emergency).
(Nanda 2005)

http://www.sacw.net/
index.html.

Nanda's statement is at the cusp of the postcolonial appropriation of Marxian terminology in its anti-technology arguments. We will go into these in more detail in the next sub-section.

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c. POSTCOLONIAL POSITIONS - THE TERRORS OF TECHNOLOGY

I have been building towards an understanding of how the anti-technology arguments in India have been posed in the nationalist and Marxist positions. I now go on to look at the arguments put out by the postcolonial school, their appropriation of Marxist terminology, and their stances against Marxism in responding to science and technology in general.

Everywhere we remain unfree and chained to technology, whether we passionately affirm or deny it.
(Heidegger 1949: 279)

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 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 capacity based on a standard technology-transfer model. Under this model, highly visible short-term technological performance in small areas yields nation-wide 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.
(Nandy, 1988: 9)

Science and technology have sustained various forms of systemic violence ... [p]lanned *obsolescence*, with its de-skilling of communities, ... [s]ocial *triage*, a rational framework for treating vulnerable communities as dispensable, ... *extinction*, ...[m]*useumization* of tribals and other defeated and marginal groups who are unable to cope with modernity and development", ... the violence of *development*, including internal *displacement*, ... the violence of the *genocidal mentality*, ... [n]*uclearism* ... [m]*onoculture* ... [e]*xclusion* or *enclosure* ... as central to the globalisation process ... [i]*atrogeny* ... in which the experts' solution increases the endemic violence or suffering of a community ... [and] the violence of *pseudo-science*, or anti-technological movements.
(Visvanathan, 2003: 170-2)

Grassroots movements in India have suggested the ideas of "cognitive justice" and "cognitive representation." Cognitive justice ... holds that knowledge, especially people's knowledge or traditional knowledge, is a repertoire of skills and a cosmology that must be treated fairly in the new projects of technological development. Cognitive representation, which is a corollary, presupposes that in the act of science policy-making, the practitioners from various systems would be present to

articulate their concepts, theories, and worldviews. Both concepts seek to pre-empt the liquidation of certain forms of local or marginal knowledge.
(Visvanathan, 2003: 165-6)

Modern science began as a powerful dissenting imagination, and it must return today to becoming an agent of plurality, of heretical dissent.
(Visvanathan, 2002: 50)

The philosophies of anti-development, as is evident from some of the positions quoted above, have largely turned on the metaphor of violence — the violence of technology, the violence of science, the violence of reason and the violence of the market. **The starting premise of most of anti-development has been the correlation between the ideologies of these phenomena – science, reason, the market, and their collective exclusion of experience. The question of science itself has been charted through the question of technology.** These connections have permeated western as well as nationalist and postcolonial critiques of mainstream development, with violence being seen as constitutive of scientific knowledge rather than simply an effect of scientific practice or policy. This position is, of course, built by challenging the premises of scientific knowledge as objective, value-neutral, verifiable, and unified. **Shiv Visvanathan, Vandana Shiva, and others challenging these premises of scientific knowledge, suggest that an exclusionary violence is constitutive of such**

"... both science and market are amnesiac communities, ... hegemonic groups that force products, processes and communities into obsolescence. Both are seen as progress. But what is progress but a genocidal word for erasure, for forgetfulness"
(Visvanathan, 2002: 43).

Vandana Shiva would make this case particularly with respect to nature, which, she says, is treated as passive in the

There are many sides to this debate between whether the scientific and technical traditions were two streams that, for most of recorded history, run apart from each other. For most of postcolonial practice, which wants to work against a simple version of the technological as applied science, a connection is sought to be made between the two that is, however, not

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western scientific knowledge binary of subject-object.

knowledge that activates a subject-object dichotomy although its claims to objectivity are shown up to be false in its imperializing tendencies; further, that it works with a systematization "wherein science becomes an organizer of other mentalities, [affecting] … the domains of work, education, sex, and even memory" (Visvanathan 2003: 164). Like Shiva, Visvanathan marks western science as dualistic, as imbued with a knowledge-power nexus, and as vivisectionist. While Shiva makes a strong proposal for choosing pre-existing alternative knowledge as against reductionist modern science, which she defines through her identification of the ontological and epistemological assumptions of reductionism, traced to Descartes, Visvanathan, however, is reluctant to consider a simple return, looking, rather, for an "escape from the dualism of Luddism versus progress" (2003: 172). He refers to the 'chaos', 'play', or uncertainty that science traditionally allows but that gets disallowed once it enters the text. For Visvanathan, the scientific self is one without shadows, cut off from the moral one, as well as from the playful, spiritual, anarchic self of its initial imagination. The scientific community is merely an "epistemologically efficacious" one that has no internal filters to exercise "ethical restraint", to confront the "perpetual obsolescence that science and markets impose on a community" (2002: 43).

explored or explained carefully, except when referring to the everyday technologies, where, paradoxically, the separation of the scientific and the technological is what is drawn on, to suggest the value of one over another.

"The tear may transform the scientific 'eye/I'" (2002: 46).

He asks, therefore, at a conceptual level, for a return to a more ambivalent, anarchic self, to play, to a place for grief, to memories of change in a community; at the policy level, for a plurality and democratization among skills and knowledge

systems. Such a return to what Visvanathan names a sacred root, is a rescue from the present homelessness of modern science in its secular, proletarianized form – a condition where science is treated as apart from and above a culture instead of being embedded in it. On the other hand, "[m]odern science began as a powerful dissenting imagination, and it must return today to becoming an agent of plurality, of heretical dissent" (2002: 50). Such 'play', such an anarchy of perspectives, such a form of democracy, embodied for him in "grassroots movements" like the popular science movements of the 70s, where the citizen is seen as a "person of knowledge", and where those "currently designated scientists" become "prisoners of conscience", is what could effect a response to what he calls the secularization and proletarianization of science. He charts a series of exercises that might make this possible – renunciation of science, cognitive indifference to it, a different cognitive justice being among them. "One wishes one had a Gandhi or a Loyola to construct ... a book for science, with exercises which, while spiritual, are also deeply cognitive and political. I think in this lies the real answer to the Cartesian meditations or to Bacon's *Novum Organum*" (2002: 47).

While Shiva makes fairly straightforward substitutions between science and technology in her critique, citing the violence of one to indict the other, Visvanathan suggests, at various points, that *technicity* (2002: 41) – by which he refers to an attitude that treats the human as immortal, nature as resource, and technology as both instrument and nearly universal antidote – *is the problem with a science* that might otherwise have been better. "Everyday technologies", on the other hand, being apparently embedded in cultural requirements and practices, release science from expertise.

My purpose, in charting these positions, is partly to identify this peculiar connection, or substitution, between science and technology that most of the critiques stand on in pointing to the violence of mainstream development. The "will to power" granted to technology in these positions seems, more often than not, an obverse of the "will to mastery" over technology in its most instrumental sense, which

is why the debates seem to hover endlessly over technology being beneficial, devastating, or a judicious mixture of the two. The pre-technological appears free of the instrumentality of technology; "everyday technologies" seem to offer respite in the shape of embeddedness in community; at the very least, they appear to possess the mythicity, the poiesis, that Visvanathan so wistfully regrets the absence of in modern science. And these two – everyday technologies and the pre-technological – in their common possession of such poiesis, such anarchy, seem organically tied, providing a natural vantage point for a critique of the modern technology.

All these critiques, then, try to offer a release from the 'instrumentality' of technology, but by attaching themselves to a certain instrumental view of technology itself. An instrumental view might be, as Heidegger puts it, the correct view, the fundamental characteristic of technology; is it the true (essential) one? **The correct view of technology – in other words, what technology is – for Heidegger, is the instrumental and anthropological view, namely, technology as a tool and means to an end, and technology as human activity.** To move from the correct to the true requires an understanding of instrumentality itself, and Heidegger takes up the task of this movement in trying to understand 'man's relationship to technology. To understand instrumentality is to understand the early Greek sense of responsibility, a bringing forth. "The principal characteristic of being responsible is this starting something on its way into arrival", i.e., an occasioning or an inducing to go forward (Heidegger, 1949: 283). **This is the essence of causality in Greek thought, and not a moral or agential sense, as populates**

"We ask the question concerning technology when we ask what it is. Everyone knows the two statements that answer our question. One says: Technology is a means to an end. The other says: Technology is a human activity. The two definitions of technology belong together" (Heidegger 1977: 252).

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"Today we are too easily inclined either to understand being responsible and being indebted moralistically as a lapse, or else to construe them in terms of effecting. In either case we bar to ourselves the way to the primal meaning of that which is latter called causality. So long as this way is not opened up to us we shall also fail to see what instrumentality, which is based on causality, actually is" (283).

postcolonial and other critiques. This bringing forth is basically a revealing, demonstrates Heidegger, an entry into the realm of truth – *aletheia*. "Bringing-forth, indeed, gathers within itself the four modes of occasioning-causality and rules them throughout. Within its domain belong end and means, belongs instrumentality" (ibid: 284).

What of the difference between the older sense of craft and modern technology? Can it be said that this sense of revealing, bringing into unconcealment, is true only of Greek thought, and can be applied at the most only to the "handicraftsman"? Heidegger holds that modern technology too is to be understood in its essence as a revealing; with the difference that in modern technology, the revealing becomes a challenging that perhaps converts nature into resource, a "setting-upon" rather than a "bringing-forth". "But the revealing never simply comes to an end. Neither does it run off into the indeterminate … [r]egulating and securing even become the chief characteristics of the challenging revealing" (288).

A turn to Heidegger, then, at least seems to imply that a simple description of technology as instrumental and therefore, somehow morally evil cannot be the basis of critique. Whatever the difference between the pre-technological or the everyday on the one hand, and modern technology on the other, both the fundamental characteristics and the essence of technology remain the same; further, techné as a form of knowing is hardly, in its originary sense, reducible to the 'machine', defined in opposition to a romantic vision of 'man'. Although both eco-feminist and postcolonial critiques have declared themselves apart from such a Luddite view, they fail, in their persistent definitions of technology, to sufficiently separate themselves from it.

This 'man'-machine opposition also follows on the debate around a clear separation between the two. In the various engagements with technology, or rather with the

machine, we see attempts to bring it around to terms of friendliness with 'man', or to humanise it, or to get it to mimic 'humanness'. Artificial intelligence projects look for the anthropomorphic answer – look in the mirror – to understand intelligence; science fiction longs for the monster machine that can be made human. The critical debates on the artificial intelligence project too, insist on some 'extra', some remainder, in human consciousness, that *must* escape computation – an "essence" in Searle (1984), the search for a likeness in Nagel (1989), a methodological mystery for Chomsky (1980) and others. For more external critiques, questions of machine learning, representing 'man' adequately, or emotive capacity, take centre stage. It is not too difficult to trace continuities between these positions and the postcolonial ones I have just delineated above, with the development that the frail 'human' rendered even frailer in subalternity now takes centre-stage; and it seems that in both, keeping alive the sacred boundary between 'man' and 'machine' is at stake.

Haraway, speaking from within the late-twentieth century scientific culture of the United States, refers to this now "leaky distinction ... between animal-human (organism) and machine" to suggest that "[p]re-cybernetic machines could [also] be haunted; there was always the spectre of the ghost in the machine. This dualism structured the dialogue between materialism and idealism that was settled by a dialectical progeny, called spirit or history, according to taste. But basically machines were not self-moving, self-designing, or autonomous. They could not achieve man's dream, only mock it. They were not man, an author to himself, but only a caricature of that masculinist reproductive dream. To think they were otherwise was paranoid. Now we are not so sure. Late twentieth-century machines have made thoroughly ambiguous the difference between natural and artificial, mind and body, self-developing and externally designed, and many other distinctions that used to apply to organisms and machines. Our machines are disturbingly lively, and we ourselves frighteningly inert" (Haraway, 1991: 152). The technological determinism that drives socialist feminist critiques of science and technology, then, and that offers natural collectivities of women, or class, in their empirical connotations, as vantage points, is re-opened, so that the fact of destruction of 'man' by 'machine' no longer suffices

as critique. Putting together Heidegger and Haraway, it is clear that it never did, and that boundaries are indeed the sites on which control strategies function, rather than the integrity of natural objects. With such a view, it is obvious that neither questions of vivisection nor of representation stand, with their reliance on wholeness and organicity.

Finally, it might be useful to take note of Sanil V.'s suggestion that the history of technology *is* the history of culture, and not the history of an opposition as is often suggested in the critiques. A critique of technology arising from culture, therefore, as the postcolonials seem to articulate, particularly, in their accessing of anterior difference (as in connections drawn in postcolonial work between the 'resistant' past as prior to colonialism and an 'other' modernity produced within colonialism), is hardly a useful, or sound, critique. It is, moreover, an instrumental critique, *as* caught in the thrall of technology as the mainstream itself, indeed more so. The necessity might be to recognize the impurity in the separation itself, rather than in the negotiations with technology by culture, as the hybridity framework seems to suggest.

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To sum up this and the preceding few arguments, therefore, I put down telegraphically the following steps. Predominant critiques of science in India that continue to have valence today have been voiced as critiques of technology. These have drawn partly on Gandhi's critique of technology as instrument, and have articulated the empirical subaltern as seat of resistance to technology, retaining, in this move, the commitment to the 'human' of liberalism that they also purport to critique. Such a subaltern is also seen as having cultural continuities, in whatever inchoate fashion, with an anterior difference – an immutable past. When such a 'subaltern-as-resistant' is purported to offer crisis to western science, as the hybridity framework suggests, resistance is asked to carry the referent of revolution, without fulfilling the promise of inversion of the dialectic that revolution, to merit the name, must carry. **I would suggest that, in such a case, resistance remains the Kuhnian anomaly, without converting to crisis.**

Kuhn considers the anomaly as part of normal or paradigmatic science. According to Kuhn, it is the transformation of anomaly to crisis that ultimately challenges the existing paradigm, instigates the work of revolutionary science, and drives the search for an alternative paradigm that can take its place (Kuhn, 1970). While disciplinary exercises in both the physical and social sciences have stressed on the notion of paradigm that Kuhn brings to the fore, it seems to be the work of pointing to the anomaly, and the crisis, that both spaces seem to have actually engaged in. In the histories of science in the Indian context, all driven by a commitment to postcoloniality, the attempt to articulate difference is very strong. Looking at them through this lens, I would suggest that the notion of difference is held forth in these disciplines as the anomaly that is expected to do the work of crisis in the paradigm that is Western science. This is most visible in the resistance-revolution pair of terms that is at work in histories of science and critiques of technology, and I would tentatively suggest that this is the problem with the work that the hybridity framework is put to, or expected to support – a pointer to anomaly, which is difference, and the expectation of its always already graduating to crisis, which is revolution.

D. GANDHI AS INTERRUPTION

Having examined the Nehruvian agenda for technology in India, I now go on to discuss two movements that speak a different resolution, one in nationalist language itself, that proposed the opposite stance to that of Nehru – in a word, resistance to technology; and the other, in Marxist agenda – the turn to culture. This sub-section will deal with the nationalist movement of resistance.

> Pandit Nehru wants industrialization because he thinks that, if it is socialized, it would be free from the evils of capitalism. My own view is that evils are inherent in industrialism, and no amount of socialization can eradicate them.
> *(Gandhi 1940, quoted in Chatterjee 1986: 88)*
> Instead of welcoming machinery as a boon, we should look upon it as an evil.
> *(ibid: 87)*

Division of labour there will necessarily be, but it will be a division into various species of body labour and not a division into intellectual labour to be confined to one class and body labour to be confined to another class.
(ibid: 92)

But where am I among the crowd, pushed from behind, pressed from all sides? And what is this noise about me? If it is a song, then my own *sitar* can catch the tune and I join in the chorus, for I am a singer. But if it is a shout, then my voice is wrecked and I am lost in bewilderment. I have been trying all these days to find in it a melody, straining my ear, but the idea of non-cooperation with its mighty volume of sound does not sing to me, its congregated menace of negations shouts. And I say to myself, "If you cannot keep step with your countrymen at this great crisis of their history, never say that you are right and the rest of them wrong; only give up your role as a soldier, go back to your corner as a poet, be ready to accept popular derision and disgrace.
(Tagore 1921, quoted in Bhattacharya 2005: 56)

The Tagore-Gandhi dialogues – as a window on the contestations between the ambivalent 'modern' somewhat removed from the mainstream of nationalist politics, and the recalcitrant 'pastoral' within the same stream – give a different, more complex idea of the attitudes to modernity and science-technology than the Nehru-Gandhi debates or the former's reading of the latter's philosophy. In a series of letters exchanged between 1929 and 1933, and earlier, in debates conducted on the pages of *Young India* and *Modern Review*, Gandhi and Tagore spoke to each other of rural reconstruction, of the possibilities and limits of handicraft industries and the *charkha* programme, of the discourse of science as opposed to that of religiosity. Although a lot of the dialogue between them is neither direct nor addressing the other's concerns fully, both had blueprints for rural programmes of self-sufficiency; both were opposed to large-scale technology, both were critical of state views on

education as being top-down and uninvolved with the daily lives, language, and culture of the people. For both thinkers, the anti-colonial struggle was symbolised in the protest against foreign cloth, heavy technology, or government-sponsored education. This protest, in the form of the call for *swaraj,* differed in nuance in Tagore and Gandhi, but essentially it signified a moral freedom from the West, a dignity of human labour, a protection of the intellect from colonization. *Swaraj* would involve, for both, a reconstruction of life – the moral as well as the material.

For both, the moral and the material were inextricably linked; the difference seems to be in the stress on attaining material freedom through the moral in Tagore, and on attaining moral freedom through material activity in Gandhi's thought. Nowhere was this more evident than in the different systems of schooling, both outside the state-sponsored system, which Gandhi and Tagore set up, in Wardha and Shantiniketan respectively. Both had different and powerful analyses of the hegemony of western science, and consequently different views on the nature of what could constitute oppositional practice. A point Akeel Bilgrami has noted about Gandhi's thought may be true of both thinkers here, namely, the integrity of their thought, the difficulty of picking strands of it regarding particular issues, or of separating their ethico-political impulses from their epistemological ones. **Let us, for our purposes, however, force such an initial strand, and take up the programme/ metaphor of the charkha as "cottage machine" to look at the debate around development and technology that ensued around it between the two thinkers.**

(Gandhi 1925, "The Poet and the charkha", 125).

D.I. THE COTTAGE MACHINE

For Gandhi, the *charkha* programme was a symbol for rural cooperation – a "non-co-operation ... neither with the English, nor with the West [but] with the system the English have established" (1921, 'The Great Sentinel', addressed to Tagore). That system indicated the broad sweep of Western materialism, expressed in hugely consumptive desires, and for Gandhi, the *charkha* stood for a rejection of this exchange value for use value – a project of self-sufficiency. Gandhi's early

proposals around spinning the *charkha* offered an alternative programme of rural construction, in particular the exercise of self-sufficiency. These were followed up in 1921 in the laying down of "indispensable conditions for *swaraj*" (188-9). Later, he stood firm through Tagore's qualified scepticism and other critiques of the *charkha* programme, moving from the larger programme to *charkha* as spiritual metaphor; to the perplexed, he said that "I do regard the spinning-wheel as a gateway to *my* spiritual salvation, but I recommend it to others only as a powerful weapon for the attainment of *swaraj* and the amelioration of the economic condition of the country" (Gandhi 1958, quoted in Chatterjee 1986: 108). In response to the poet's chagrin at the requirement of all to spin, "I do indeed ask the poet and the sage to spin the wheel as a sacrament. ... The call of the spinning wheel is the ... call of love. And love is *swaraj*. The spinning wheel will 'curb the mind' when the time is spent on necessary physical labour can be said to do so. ... I do want growth ... but I want all these for the soul. ... A plea for the spinning wheel is a plea for recognising the dignity of labour." (Gandhi 1921, quoted in Bhattacharya 2005: 88-9). That growth of the soul, that spiritual salvation, the actual realisation of *swaraj*, meant for Gandhi the rejection of the 'system' – the moral force that made it irrelevant. **That system included the railways and hospitals, which, however, Gandhi was not "aiming at destroying ... though [he] would certainly welcome their natural destruction ... Still less ... [was he] trying to destroy all machinery and mills" (Gandhi 1921, quoted in Bhattacharya 2005: 33).** For he made the conventional acknowledgement that "[m]achinery has its place; it has come to stay. But it must not be allowed to displace the necessary human labour ... I would welcome every improvement in the cottage machine but I know that it is criminal to displace the hand labour by the introduction of power-driven spindles unless one is at the same time ready to give millions of farmers some other occupation in their homes" (Gandhi 1925, quoted in Bhattacharya 2005: 125).

The cottage machine? Was the *charkha* then a smaller kind of technology, and was it small, sustainable technology that Gandhi was advocating against large, impersonal, unwieldy 'things' where human labour was not even visible? Or was the *charkha* actually a metaphor for materiality, for human labour and practice itself, in a way

Gandhi's critique of these articles of faith of the scientific world, then, couched as it was in moral language, was clearly outside the thematic of nationalist politics, and more an attitude of selfness. While Nehru, for different reasons, had ambivalent responses to nationalism as an ideology, his responses were within the ambit of Enlightenment critiques of nationalism – a position Gandhi was clearly out of.

that challenged Western materialism, the concept of the subject as discrete, and hence the concept of technology as instrument?

D.II. YANTRA DANAVA

Was Tagore too as clearly opposed to large-scale technology? **The *yantra danava* is a recurring theme in his poetry, and even at the time of his critique of Gandhi's *charkha* programme, he was writing, in plays like *Mukta Dhara* and *Rakta Karabi*, searing critiques of the effects of technology on people's lives.** As far as the rejection of the West went, also, he was with Gandhi, holding him up as the "Mahatma [who], frail in body and devoid of material resources, should call up the immense power of the meek …" (' Tagore 1921, quoted in Bhattacharya, 2005: 55), and reminding his readers that "I have seen the West; I covet not the unholy feast, in which she revels every moment, growing more and more bloated and red and dangerously delirious …" (ibid, 55-9). **His was not the mode of Non-Cooperation, however, for this movement, with its "noise", its particular stratagems that instrumentalised, made "barren and untrue" the spirit of the Mahatma's words, failed to provide for him the 'melody' he needed.** On the yantra itself, **Tagore clearly had ambivalent views, for on other occasions in his poetry he offers what might be *homage – namo yantra*. (Tagore 1922).**

Probably the sentiment Tagore experienced when he expressed his abhorrence of an instrumentalist view of satyagraha which he felt was being used as a "political gamble [while] their minds [continued to be] corroded by untruth …" Tagore's 'Call of Truth', *Modern Review*.

Mukta Dhara – Free Current – on the question of construction of a large dam as symbolizing 'man's' desire to control nature, or Rakta Karabi – Red Oleander – the story of a cruel king who lives behind an iron curtain while his subjects, working under terrible conditions in underground mines, suffer untold cruelties meted out by him, speak of displacement, the facelessness of technology, of power, of dehumanizing impulses in technology.

While the withering critique of railways, doctors and lawyers in Gandhi's *Hind Swaraj* exemplifies at least the early Gandhi's views on these symbols of modernity and the need for their unconditional rejection, Tagore reacted again and again to such a view, particularly to the moral element shoring it up, complaining, for instance, about the principles of the *charkha* programme – "economics is bundled out and a fictitious moral dictum dragged in its place" (Tagore 1921, 'The Call of Truth'). While being opposed to heavy technology, Tagore refused to accede to the "magical formula that foreign cloth is impure" (Tagore, 'The Call of Truth'). "*Swaraj*," he says, "is not concerned with our apparel only - it cannot be established on cheap clothing; its foundation is in the mind ... in no country in the world is the building up of *swaraj* completed ... the root of such bondage is always within the mind. ... A mere statement, in lieu of argument, will never do. ... We have enough of magic in the country ... That is exactly why I am so anxious to re-instate reason on its throne." (ibid, quoted in Bhattacharya 2005: 82).

D.III. THE SCIENCE QUESTION

What, then, of his critique of Western materialism? "You know that I do not believe in the material civilisation of the West just as I do not believe in the physical body to be the highest truth in man. But I still less believe in the destruction of the physical body, and the ignoring of the material necessities of life. What is needed is establishment of harmony between the physical and spiritual nature of man, maintaining of balance between the foundation and superstructure. I believe in the true meeting of the East and the West. Love is the ultimate truth of soul. We should

do all we can, not to outrage that truth, to carry its banner against all opposition. The idea of non-cooperation unnecessarily hurts that truth. It is not our heart fire but the fire that burns out our hearth and home." (Tagore 1921, quoted in Bhattacharya 2005: 59)

This, from a Tagore who consistently held an anti-statist position, on the grounds that unlike in Europe, the State was never a central entity in the life of the Indian nation, and that further, in the present time, i.e., in British India, the state is external to society, rather than a part of it. "Our fight" as he puts it, "is a spiritual fight ... to emancipate Man from the meshes ... [of] these organisations of National Egoism ... We have no word for Nation in our language. When we borrow this word from other people, it never fits us. For we are to make our league with *Narayan* ..." (Tagore's reflections on non-cooperation and cooperation, Modern Review, May 1921).

In this sense, there was an affinity between Tagore and Nehru – with respect to desirable national attitudes to faith, unreason, or imperialist policy. For Tagore, *swaraj* was, as he wrote to Gandhi, "*maya*, ... like a mist, that will vanish leaving no stain on the radiance of the Eternal. However, we may delude ourselves with the phrases learnt from the West, *Swaraj* is not our objective*" (Tagore 1921, quoted in Bhattacharya 2005: 54).

On the ability of the *charkha* to bring about rural reconstruction, Tagore avers – "The discussion, so far, has proceeded on the assumption that the large-scale production of homespun thread and cloth will result in the alleviation of the country's poverty. ... My complaint is that by the promulgation of this confusion between *swaraj* and *charkha*, the mind of the country is being distracted from *swaraj*." (Tagore 1925, quoted in Bhattacharya 2005: 118). "One thing is certain, that the all-embracing poverty which has overwhelmed our country cannot be removed by working with our hands to the neglect of science. ... If a great union is to be achieved, its field must be great likewise ... the religion of economics is where we should above all try to bring about this union of ours." (ibid: 104-6-7). What Tagore perceived as happening in the *charkha* programme, on the other hand, was the "raising of the *charkha* to a higher place than is its due, thereby distracting attention from other more important factors in our task of all-round reconstruction" (ibid: 112).

Tagore had other problems with *charkha* and its being tied to *swaraj*. For one, the 'cult' of the *charkha* would not work for *swaraj* because it is an "external achievement", apart from being a call to obedience that only recalled slavery in its worst form. For another, the isolationism enshrined in the act of rejecting foreign cloth only seemed to bring back the "sin of untouchability" in the guise of the *charkha* versus 'impure' foreign cloth. Further, and here Tagore raises his most eloquent objection, his failure to see a difference between the *charkha* and the high machine that introduces repetitive activity, boredom, and alienation in human labour. "Humanity", he says, "has ever been beset with the grave problem, how to rescue the large majority of the people from being reduced to the stage of machines. ..." (ibid: 104-5). The discovery of the wheel signified, for Tagore, "[t]he facility of motion ... given to inert matter [which] enabled it to bear much of man's burden ... [and t]his was but right, for Matter is the true *shudra*; while with his dual existence in body and mind, Man is a *dwija*. ... Thus, whether in the shape of the spinning wheel, or the potter's wheel or the wheel of a vehicle, the wheel has rescued innumerable men from the *shudra's* estate ..." (Tagore 1925, quoted in Bhattacharya, 2005: 104). In such a scenario, it may be argued that "spinning is ... a creative act. But that is not so; for, by turning its wheel man merely becomes an appendage of the *charkha*; that is to say, he does himself what a machine might have done: he converts his living energy into a dead turning movement. ... The machine is solitary ... likewise alone is the man ... for the thread produced by his *charkha* is not for him a thread of necessary relationship with others ... He becomes a machine, isolated, companionless" (ibid). And why is this? Tagore refers back, here, to the discus of Vishnu which signifies the "process of movement, the ever active power seeking fulfilment. ... Man has [therefore] not yet come to the end of the power of the revolving wheel. So if we are taught that in the pristine *charkha* we have exhausted all the means of spinning thread, we shall not gain the favour of Vishnu ... If we are wilfully blind to the grand vision of whirling forces, which science has revealed, the *charkha* will cease to have any message for us." (Tagore 1925, quoted in Bhattacharya 2005: 104) Therefore, we must realise that "*swaraj* will advance, not propelled by the mechanical revolution of the *charkha*, but taken by the organic processes of its own

living growth" (Tagore 1925, quoted in Bhattacharya 2005: 121).

Tagore refers, again and again in his polemic, to the dynamicity inherent both in the truth of Vishnu, and in the progress of science, as against the dead burden of "rites and ceremonials" that have produced in "India's people" the habit of relying on external agencies rather than on the self. The *charkha* embodies for Tagore such an external object, static. Is he then subsuming the wheel and its dynamicity in the discourse of science? A careful reading of Tagore's polemic seems to suggest that his point is rather in examining the nature of material activity and making the connection, through dynamicity, without which neither science nor the *charkha* might have any value.

There were other differences. Tagore recognized that for Gandhi, productive manual work, such as that embodied in the *charkha*, was the prime means of intellectual training. The sort of oneness that such collective occupational activity may create for Gandhi, however, fails to move Tagore, for whom the act is a performance of sameness and stagnation. *Charkha*, he says, in one of his many tirades against the programme, is "a befogged reliance on ... narrow paths as the sole means of gaining a vast realisation" (Tagore 1925, quoted in Bhattacharya 2005: 114). As such, the philosophy of *swaraj* as it was being enacted, along with the programme of non-cooperation and rejection of the West, only produced an isolation, a soliloquous discourse, a "struggle to alienate our heart and mind from those of the West ... [that could only be] an attempt at spiritual suicide ... India has ever declared", he said, "that unity is truth, and separateness is *maya*. This unity ... is that which comprehends all and therefore, can never be reached through the path of negation ... Therefore, my one prayer is: let India stand for the cooperation of all peoples of the world. The spirit of rejection finds its support in the consciousness of separateness, the spirit of acceptance in the consciousness of unity" (Tagore, 1921, quoted in Bhattacharya 2005: 62). More disturbing for him was the violence enshrined in the principle of non-cooperation. "The idea of non-cooperation is political asceticism. ... It has at its back a fierce joy of annihilation which at best is asceticism, and at its worst is that orgy of

frightfulness in which the human nature, losing faith in the basic reality of normal life, finds a disinterested delight in an unmeaning devastation ... [non-cooperation] in its passive moral form is asceticism and in its active moral form is violence. ... The desert is as much a form of *himsa* (malignance) as is the raging sea in storms, they both are against life" (ibid, 57-8). **Tagore was, perhaps, making a stronger critique, here, of the violence embedded in political collectivities, and the moral questions contained in non-violence as a practice.**

Tagore draws parallels with his reading of the negativity of Buddhism to make his point – "Brahma-vidya (the cult of Brahma, the Infinite Being) in India has for its object mukti, emancipation, while Buddhism has nirvana, extinction ... Mukti draws our attention to the positive and nirvana to the negative side of truth. Buddha ... emphasized the fact of dukkha (misery) ... and the Brahma-vidya emphasized the fact of ananda, joy ... The abnormal type of asceticism to which Buddhism gave rise in India revelled in celibacy and mutilation of life in all different forms ..." (Tagore's reflections on non-cooperation and cooperation, Modern Review, May 1921, Chatterjee 57). A significant difference in Tagore's and Gandhi's approach to the

Gandhi responded to the polemic in several ways. At pains to explain to the poet the relevance of the *charkha*, he reminded the latter, in some exhaustion, that "I do not draw a sharp distinction ... between ethics and economics." (Gandhi 1921, quoted in Bhattacharya 2005: 90). Elsewhere he clarifies in no uncertain terms:

> I am always reminded of one thing which the well-known British economist Adam Smith has said ... he has described some economic laws as universal and absolute. Then he has described certain situations which may be an obstacle to the operation of these laws. These disturbing factors are the human nature, the human temperament or altruism inherent in it. Now, the economics of *khadi* is just opposite of it. Benevolence which is inherent in human nature is the very foundation of the economics of *khadi*. What Adam Smith has described as pure economic activity based merely on the calculations of profit and loss is a selfish attitude and it is an obstacle to the development of *khadi*; and it is the function of a champion of *khadi* to counteract this tendency.
> **(Gandhi 1958, quoted in Bhattacharya 2005: 90)**

Further,
> ... I have asked no one to abandon his calling, but on the contrary to adorn it by giving every day only 30 minutes to spinning as sacrifice

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'moral' seems to be in evidence here – while for the former it is a need for creativity that will be stifled by subjection to any constraint like collective action without the conviction of the reasoning intellect, for Gandhi, it was about self-denial – "Our civilization, our culture, our swaraj depends not upon multiplying our wants – self-indulgence, but upon restricting our wants – self-denial" ("The Conditions of swaraj", Young India, 23 February 1921, Chatterjee 189).

for the whole nation. ... The poet thinks that the charkha is calculated to bring about a deathlike sameness in the nation and thus imagining he would shun it if he could. The truth is that the charkha is intended to realise the essential and living oneness of interest among India's myriads ... All I say is that there is a sameness, identity or oneness behind the multiplicity and variety. And so do I hold that behind a variety of occupations there is an indispensable sameness also of occupation.
(Gandhi 1925, quoted in Bhattacharya 2005: 124)

D.IV. "INDIGENOUS TECHNOLOGY"

Does that involve a separation from the world, an isolationist discourse? Perhaps not ... for

the message of non-cooperation, non-violence and swadeshi, is a message to the world ...[through] non-cooperation [which] is a retirement within ourselves ... [for i]n my humble opinion, rejection is as much an ideal as the acceptance of a thing. It is as necessary to reject untruth as it is to accept truth. ... I make bold to say that mukti (emancipation) is as much a negative state as nirvana. ... I therefore, think that the poet has been unnecessarily alarmed at the negative aspect of non-cooperation. We had lost the power of saying 'no'.
(Gandhi 1921, quoted in Bhattacharya 2005: 66-7)

As to the rest of the world, "I want the cultures of all the lands to be blown about my house as freely as possible. But I refuse to be blown off my feet by any ... Mine is not the religion of the prison house. It has room for the least among God's creation. But it is proof against insolence, pride of race, religion or colour" (ibid: 64).
Elsewhere, in response to alternative positions like that of Bankim Chandra Chattopadhyaya, who believed the absence of cultural attributes had resulted in India's subjugation by the British, Gandhi spoke, rather, of the disjuncture between

the prevailing politics and the morality of the community that had resulted in the same. Chatterjee presents the moment of Gandhi in nationalist politics as the moment of manoeuvre, proposing that Gandhi's critique of civil society and representative democracy emerges through his reworking of the relationship between the moral and the political. Without going in to the merits of Chatterjee's formulation here, we could try to understand this separation that Gandhi makes, in order to better understand his accompanying take not only on the value of science, but on a necessary relationship between its use and the morality of the community. Again and again, in response to industrialisation, in response to the work of doctors of medicine, in response to "much that goes under the name of modern civilisation" (quoted in Chatterjee 1986: 80), Gandhi reacts. "I overeat, I have indigestion, I go to the doctor, he gives me medicine, I am cured. I overeat again, I take his pills again. Had I not taken the pills in the first instance, I would have suffered the punishment deserved by me and I would not have overeaten again. The doctor intervened and helped me to indulge myself" (ibid: 84). And so with history, and so with the law, all of which are the record of visible illness rather than of the truth. In Gandhi's world, it would seem that "[t]rue knowledge [which] gives a moral standing and moral strength" (ibid: 119), can be the only basis for any politics. To that extent, non-cooperation or satyagraha, as "intense political activity" rather than passive resistance, but in the form of a negation of the existing political frameworks, was born. The "disobedience" here was not only of the British administration, but of existing modalities of resistance. The positive content of the programme was that of rural construction through *khadi* and the *charkha* programme, which for Gandhi would be the true method of non-violent *swaraj*. This too, however, needed the abdication of the state from responsibility. The collectivity that Tagore found so suspect in this regard was for Gandhi an experiment in the modalities of non-violent mass resistance. And to Tagore's eloquent argument against the *charkha* on account of its staticity, what more eloquent answer than this – "It is a charge against India that her people are so uncivilized, ignorant and stolid, that it is not possible to induce them to adopt any changes. It is a charge really against our merit. What we have tested and found true on the anvil of experience, we dare not change" (ibid: 96).

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How does this otherwise rich polemic help us to understand positions on science and technology? Is Gandhi a pastoral philosopher or a peasant intellectual proposing a separate epistemic realm from that of the West? Can he be labelled a Luddite? Is he caught, like the European Romantics were, in the dilemma between reason and morality? Or is he making a fundamental distinction between truth and the knowledge encompassed in disciplines like science and history, suggesting that truth cannot but strike elsewhere from knowledge? While the answers to each of these may be difficult, while individual examples for each of these arguments may be found in Gandhi if not seen as part of the integral picture, and while any attempt to intellectualise his thought in isolation from his politics, or indeed his moral stances may be doomed from the start, I might perhaps attempt to say that there is, here, a critique of existing knowledge systems, of which scientific knowledge is one, that calls for a fundamentally new theory of knowledge, a theory of knowledge inextricably linked with morality, rather than a choice of alternate system from the 'West' or any other.

And in the tensions between these two thinkers, both of whom had strong reactions to technology, may be seen an unpacking of the notion of technology itself. Tagore may be read mostly as decrying the ruthlessness, the demonic nature, the lack of soul, in other words the anti-humanness of technology, thus going back to that notion of technology as instrument that Heidegger demonstrated to be peculiar to Western thought. For Gandhi, on the other hand, the *charkha* is a symbol of labour, *human* labour, thus challenging modern formulations of technology, including Marxist definitions of technology as means of production. The spinning of the *charkha*, then, might well signify a potential recognition of the individual. And this might explain why the *charkha* — what could clearly be a metaphor for material practice, or a living example of the same, in Gandhi, is in near-obstinate fashion resisted as insignificant material by Tagore, in an otherwise incomprehensible misunderstanding between the two minds.

This debate in itself did not assume great proportions on the Indian political landscape, nor did it have a profound impact on nationalist agendas vis-à-vis technology policy before or after independence, remaining, perhaps, at the level of a moral insight that had its own faithful band of followers. Gandhi's own thought, however, was to prove influential in offering to postcolonial scholarship the impulse to resist technology, in a particular conflation of his materiality, Tagore's instrumentalism, and the Marxist cultural turn, as we have already seen.

SECTION TWO: *MAPPING TRANSITIONS*

DE-FRAMING: WHERE ARE THE WOMEN? RESPONSES TO TECHNOLOGY IN FEMINIST AND GENDER WORK IN INDIA

I have, in the preceding section, attempted to trace the trajectory of the critiques of *technology standing in for science* in the Indian context. In so doing, I have also tried to trace the methodology of critique itself that animates the political in India. I have shown the ways in which these critiques access anterior difference, the ways in which they posit resistance as providing the crisis to closure of hegemonic Western science (through the appropriation of the language of resistance of Subaltern Studies into the hybridity framework), and the ways in which this resistance fails to meet the promise of crisis (the crisis being a reference to the Kuhnian understanding of crisis that might signal the fall of a paradigm). It follows that the sometimes implicit claim for the rise of alternate systems of knowledge also fails since the criteria for paradigm shifts is not met.

This section involves, in the attempt to explore these themes, a shift in register from technology and science as institution with their collapse at various times, to science as knowledge. The present discussion thus turns on two axes. One is that of the political, within which I place the various arguments within feminism and gender work that examine and explain science as a political institution, and the options available to negotiate with its power. These arguments understand the political as contained in a discussion about power; they also chart shifts from the responses to power as coherent, singular and monolithic, to a more disaggregated notion of power itself that also then apparently demands a disaggregated response. This shift makes sense if we also follow a parallel shift in the twenty-first century from a politics based on ideology to one that proposes an attention to micro-negotiations that proposes a thick description of these negotiations as the alternative. It is such an alternative that pays attention also to context or situation, as also to experience.

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Along my second axis in this discussion – that of the epistemological – I examine the case for situated knowledges, for experience as the situation of knowledge-making, and the possible movement from here to the articulation of a standpoint epistemology. Indications for this direction I will lay down in the section following this one.

Let us, to begin with, examine some of the shifts in the turn to experience that took up the cause of the 'local', the 'third world', 'women', vis-à-vis science and technology in India. These shifts have happened in the context of postcolonial theorizations, Marxist shifts from the vanguard to the mass, and feminism's own movement from the structural to the micro, as I have suggested in the preceding section.

A. PRESENCE

(The 'typical' breast-feeding mother as depicted in Community Health posters)

Feminist political philosophy has frequently been sceptical of universal normative approaches. I shall argue that it is possible to describe a framework for such a feminist practice of philosophy that is strongly

As is evident from the poster, breastfeeding is part of the exercise of third-worlding that is promoted by development agendas and globalist feminist rhetoric alike. Shorn of any talk of natural birthing or

universalist, committed to cross-cultural norms of justice, equality, and rights, and at the same time sensitive to local particularity, and to the ways in which circumstances shape not only options but also beliefs and preferences.
(Nussbaum, 2000: 7)

The first day of the typical SEWA education program for future union and bank leaders is occupied by getting each woman to look straight at the group leader and say her name. The process is videotaped, and women grow accustomed to looking at themselves. Eventually, though with considerable difficulty, they are all able to overcome norms of modesty and deference and to state their names publicly.
(17, fn. 20)

Stories of "two women trying to flourish" as perceived and told by Martha Nussbaum. "Unlike Vasanti, Jayamma has been examined previously in the development economics literature ... I am very grateful to Leela Gulati for introducing me to Jayamma and her family and for translating." (Nussbaum 2000: 17, fn. 21). Leela Gulati, known for having brought anthropological perspectives to bear for the first time on seemingly economic issues, was the first to discuss widow and brick-kiln worker

Vasanti and Jayamma entered the development literature when the imperative to attend to the local gained legitimacy, as quintessential representatives of poor, "illiterate" women caught up "in particular caste and regional circumstances in India" (Nussbaum, 2000: 21); women situated, especially, on the lower rung of sexual hierarchies, and yet "trying to flourish" (15).

Despite all these reversals (and others), Jayamma is tough, defiant, and healthy. She doesn't seem interested in talking, but she shows her visitors around, and makes sure that they are offered lime juice and water.
(19)

Persistent take-off points, they, or their names at any rate, have gained iconic currency as the 'real' local women who can now speak of the sufferings they endured till they moved from the 'informal sector' or a place "marginal to economic activity" (15, fn. 14) to the avowedly different and more agential category of 'self-employed'. Of Vasanti it is said, "She now earns Rs. 500 a month, a decent living" (17, contrasted in the text with the Rs. 180 per month allotted to destitute women under

Jayamma in her work on widows in India (appearing in 1998, in Martha A. Chen, edited, Widows in India: social neglect and public action), and also in other work on women's studies perspectives.

the Indian Criminal Procedure Code in 1986). In a world where "letting the women speak for themselves" (17) is the task at hand, and one that is entirely possible, they speak. They break sanctions, form political alliances, *learn to name* themselves. And it is as a first step toward making possible this movement *from the local particularity to the universal value* that Nussbaum works hard to prepare the ground for herself as justified observer of Vasanti's and Jayamma's struggles. Such a universal will render possible for these women choice, the capability to make that choice, the right to demand political rights according to needs. For Nussbaum, detachment coupled with concern and familiarity is the ideal (and achievable) point from which this is possible.

Speaking to the local

Nussbaum, therefore, begins her discussion on development, women and social justice by stating and grounding her primary focus on "the case of India, a nation in which women suffer great inequalities despite a promising constitutional tradition" (9). It is also a country she is familiar with, and this, she says, helps her "write on the basis of personal observation and familiarity, as well as study" (9):

… I went to India to look at women's development projects, because I wanted to write a book that would be real and concrete rather than abstract, and because I knew too little to talk about the problems of poor working women in a country other than my own. *I had to hear about the problems from them.*
(ix, italics mine)

Drawing on Jawaharlal Nehru's concept of "One World that can no longer be split into isolated fragments" to host her project, she also, however, describes being "both a foreigner and a middle-class person", and thus "doubly an outsider vis-à-vis the places about which" she writes. Nonetheless, a certain mixture of "curiosity and determination" helps "surmount these hurdles – especially if one listens to

what people say". As a foreigner, Nussbaum believes she possesses a "helpful type of neutrality amid the cultural, religious, and political debates" that a local scholar would not be free from. "In a situation of entrenched inequality", she feels, "being a neighbour can be an epistemological problem" (10).

Speaking of tradition, Nussbaum finds it "impossible to deny that traditions, both Western and non-Western, perpetrate injustice against women". But though traditions – "local" or otherwise – cannot be denounced as "morally retrograde" through "hasty judgement", it is important not "[t]o avoid the whole issue" and "stand around in the vestibule" refusing to "take a definite stand on any moral or political question" (1999: 30), because "there are universal obligations to protect human functioning and its dignity, and … the dignity of women is equal to that of men." Referring to what she calls Western tradition, an example of sexual harassment at the workplace shows that "[c]learly our own society *still* appeals to tradition in its own way to justify women's unequal treatment"(1999: 30, italics mine). But although "there is no country that treats its women as well as its men … [d]eveloping countries … present *especially urgent problems*" (2-3, italics mine). In such a situation, the need for a cross-cultural universal becomes imperative. As a possibility, it is already in place.

The urgency mounts with paragraph upon paragraph listing the "uneven achievements" of developing nations with respect to areas considered necessary to women's quality of life – female employment statistics, rape statistics, workplace harassment statistics, literacy, health, and nutrition. One must of course be careful, says Nussbaum, even where favourable statistics are concerned, for "local governments tend to be boastful."

And through the increased magnitude of the problems, only vestiges of which apparently "still" contaminate

the West, does one glimpse the spectre of the white woman who takes on the onerous responsibility of saving the brown woman from her traditions? **Of course, armed with curiosity and the determination to satisfy it, the "neutral" foreigner, the disinterested observer who is not an embroiled critic, can serve, apparently, as trusted confidante for the 'innocent' subaltern – a sensitive alliance, as it were, between the concerned intellectual and the yet-to-be-capable-agent – the moment not yet *realized* in representation.** The brown woman "scholar", despite her however, tenuous commonalities with Jayamma or Vasanti, might here be, by very virtue of her "enmeshed"ness, more suspect than the "unimplicated" foreigner.

It would be important to note here that the 'subaltern' is another space of contestation. Is the subaltern a person with a pre-given identity? Does there exist a subaltern consciousness? Can the subaltern be known? Can the subaltern be 'developed'? The answers to all these questions within development discourse, and especially in Nussbaum's version of critique, would be yes.

It is at this secure subject who is sought to be arrived at or revived on the premise that she exists somewhere before context, and must be reinstated, or given voice, that Nussbaum's capabilities approach is directed.

B. ACCESS

The "capabilities approach" has been proposed by Nussbaum in basic agreement with Amartya Sen. Nussbaum talks of the capabilities approach as a "foundation for basic political principles that should underwrite constitutional guarantees" (70-1), and draws on "Aristotle's ideas of human functioning and Marx's use of them" (70). It is proposed as a universal and ethical approach that must nevertheless "focus appropriately on women's lives" (71) in order to be relevant, that is, it must "examine real lives in their material and social settings" (71). Premised on the "intuitively powerful", "core idea ... of the human being as a dignified free being who shapes his or her own life in co-operation and reciprocity with others" (72), an "awe-inspiring something" that is "above the mechanical workings of nature" (73), the capabilities

approach moves primarily in the direction of looking at each individual as an *end* in her own right, and endeavours towards promoting "central human functional capabilities", that is, capabilities that deliver readiness to make (certain) choices regarding functioning in 'multiply realizable' ways that are "truly human" (72), and living "a life that is shaped throughout by these human powers of practical reason and sociability" (72). These capabilities are to be promoted, and social and political institutions so structured, so that at least a threshold level, a "social minimum", of these capabilities may be attained. It is the idea of this threshold that Nussbaum concentrates on, stating that "we may reasonably defer questions about what we shall do when all citizens are above the threshold, given that this already imposes a taxing and nowhere-*realized* standard" (12, italics mine).

Based on an approximation of "what seems to be part of any life we will count as a human life" (Nussbaum 1995: 75), Nussbaum lists, provisionally, what are "basic functional human capabilities …

1. Being able to live to the end of a human life of normal length …
2. Being able to have good health; to be adequately nourished …
3. Being able to avoid unnecessary and non-beneficial pain …
4. Being able to use the senses; being able to imagine, to think, and to reason …
5. Being able to have attachments to things and persons outside ourselves …
6. Being able to form a conception of the good and to engage in critical reflection about the planning of one's own life. …
7. Being able to live for and to others, to recognize and show concern for other human beings …
8. Being able to live with concern for and in relation to animals, plants, and the world of nature …
9. Being able to laugh, to play …
10. Being able to live one's own life and nobody else's …
10a. Being able to live one's own life in one's own surroundings and context."
(Nussbaum 95: 83-85). Each of these are, stresses Nussbaum, "*separate components*

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[such that] [w]e cannot satisfy the need for one of them by giving a larger amount of another one" (81).

 "On the other hand," says Nussbaum, "... [one is] not pushing individuals into the function; once the stage is set, the choice is up to them."

There is a distinction drawn, and stressed, between capability and functioning. The concept of capability is generally discussed in conjunction with rights, and the State is seen here as guarantor of these rights, not an enforcer of discipline. The presence of capability, then, is taken as reflection of a developed State, and the presence of functioning flowing from this capability as reflection of a good State that encourages citizens to express the choices they have been initiated into. Nussbaum says, "Thus, we want soldiers who will not *simply* obey, when an order is given...."

But in cases where functioning is considered important, like casting one's vote once the capability has been given, citizens might be forced into exercising their given capabilities – that is, into functioning. This argument is extended to innumerable situations, including children who need to function in a particular manner to make for capable adults, the spheres of health, maintenance of environments, literacy, nutrition, citizens' responsibilities like the paying of taxes, and others. "In general, the more crucial a function is to attaining and maintaining other capabilities, the more entitled we may be to promote actual functioning in some cases, within limits set by an appropriate respect for citizens' choices" (92). "Even compulsory voting would not be ruled out, if we were convinced that requiring functioning is the only way to ensure the presence of a particular capability" (93).

In attempting to arrive at a normative theory of social justice, Nussbaum considers state policies and principles of development in the Third World as faulty not in as much as they do not take into account the perspectives of *women*

in an essential sense, but in as much as they neglect women "as people who suffer pervasively from acute capability failure" (6). A focus on "women's problems ... will help compensate for the earlier neglect of sex equality in development economics and in the international human rights movement" (6-7). Her approach to development, therefore, is from the point of view of asking for recognition and inclusion in the category of the "truly human", and towards producing the ability to deserve it. Capability building and agency are, to this end, essential components, as is also the taking into account of the lived everyday experiences of women in the third world that reflects on the absence of this capability.

Before addressing the several questions begging to be asked on universalist values endorsed by Nussbaum, I will briefly go into what implications such a position might have for a response to science. Nussbaum sees in her listing of "central human functional capabilities" the potential to suggest a normative ideal of bodily health, as well as a principle that has been applied in definitions of reproductive health:

> The 1994 International Conference on Population and Development
> (ICPD) adopted a definition of reproductive health that fits well with
> the intuitive idea of truly human functioning that guides this list:
> "Reproductive health is a state of complete physical, mental and
> social well-being and not merely an absence of disease or infirmity,
> in all matters relating to the reproductive system and its processes.
> Reproductive health therefore implies that people are able to have
> a satisfying and safe sex life and that they have the capability to
> reproduce and the freedom to decide if, when, and how often to do
> so." The definition goes on to say that it also implies information and
> access to family planning methods of their choice. A brief summary
> of the ICPD's recommendations ... "1. Every sex act should be free of
> coercion and infection. 2. Every pregnancy should be intended. 3. Every
> birth should be healthy."
> *(Nussbaum 2000: 78 n. 83)*

Following from the general notion of capability, this approach has a critique of modern medicine and development with regard to inclusion, taking as neutral and commonsensical the definitions of health or illness; the key question then is one of building the capability to make informed choices on contraception, for example. For women vis-à-vis development programmes, the question would not be about the resources available at their command, or their satisfaction with those resources (the Rawlsian account), but of what part of those resources – medical facilities – they are capable of using – "what her opportunities and liberties are" (71). **The argument then is one for access and inclusion into an apparently universal(ly understood) framework.**

c. INCLUSION

In this framework, then, advocacy for inclusion will concentrate on raising questions about contraceptive side effects, ethics of population control programmes, the campaign against hormonal contraceptives; prescriptions will advise "[t]hose who implement [progressive health policies and] programmes [on the] need to work with potential allies such as women's groups, development groups ... programmes that promote not only health but also rights and the empowerment of women" (Datta and Misra, 2000: 24). The very shift in language from family planning to reproductive health – and the consequent shift from population control to rights – is seen as part of this inclusion, with the 1994 International Conference on Population and Development serving as the watershed principle. Reproductive technology continues, in this frame, to be the one space where women as a recipient constituency are most 'naturally' defined and the technology accordingly modified, directed towards women. A case in point is the Assisted Reproductive Technologies (Regulation) Bill 2010 which

There is also, of course, an elision between sex and reproduction in the Third World here; how it follows from the ICPD recommendations that a satisfying sex life is being talked about is a mystery.

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was prepared in order to supervise the functioning of infertility clinics and related organisations like semen banks not only to protect the legitimate rights of individuals involved, but to make sure that the recipient constituency, women, received maximum benefit; a National Advisory Board for Assisted Reproductive Technology was set up with a view to promote, among other things like ethical practice, encouraging and regulating embryo research. The Board requires having at least six women among its member experts. This can of course be done, rather, can be done only, when the naturalised connection between women and fertility is kept alive. It is also the classic example of a coming together of impulses of both presence and inclusion – the presence of more women experts purporting to make the technology more women-friendly, and such modifications then allowing more women to receive their benefits. **While a lot of the 'right to health' campaigns have been 'advocacy against' bad policy, at least some of these have been in the spirit of 'advocacy for' reproductive rights and better policy geared towards women's needs, as Datta and Misra put it.** Of course, such a 'special-needs' approach often translates also into a 'soft' issue, occupying space lower down in the hierarchy.

"Organisations such as Health Watch are actively working with the government to ensure the inclusion of RTIs, training and community needs assessment in the new Reproductive Child Health (RCH) programme" (Datta and Misra, 2000: 26)

II. FROM KNOWLEDGE TO EXPERIENCE

A. ORTHODOX MARXISM TO SUBALTERN STUDIES – FROM THE VANGUARD TO THE MASS

I have already discussed, in Section One, the turn in Marxist takes on the nationalist question. This turn is important for my purposes because it has at least an associative link with the turn to experience in later feminist theorizing in the Indian context. Once the twentieth century introduced the question of context into the political, that difficult or too-easy question of context was answered in various ways. One of the ways, for a self-reflexive turn in a Left attempting to move out of vanguardist politics, was to say what would have immediate intelligibility to all other members of the community. Anything that seems to say something else, therefore, is seen, at worst, as obscene, irrelevant, *irreverent*, so that the questions

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allowed/ formed within the hegemony of context then become a truth-in-itself. At best, it must wait for its time. This has become for us the new truth of the political – moving away from *a politics of vanguardism to a politics of location*. The object of reverence here has changed from Marx to culture, so that there is a pressure to shift loyalties to a cultural past that is imagined embodied in the 'mass' today. For feminism, this has meant a shift from the ideological proposal to the 'women-in-their-material-lives'. If this has multiple connotations, not the least of which is the relevance question for feminism, feminist scholars themselves have responded with powerful formulations influencing the postmodern turn in Marxism (Gibson-Graham [2001]), the resurgence of materialist feminist questions (Landry and MacLean 1993, Wicke 1994), and more relevant to my purposes – the analyses of marginality from the perspectives of women's lives – in feminist standpoint theory, among others. I will go into a more detailed discussion of the latter in the last section, but to dwell a bit on the relevance question, let us look at the next turn.

B. HISTORY TO ANTHROPOLOGY

There is another kind of scholarship now in currency that negotiates meanings of gender differently. Global gender work disdaining the universalist approach takes on the hybridization argument and works towards identifying contingent movements of resistance. This scholarship is in alignment with postcolonial approaches. Anthropological investigations into midwifery and childbirth practices exemplify this position. This is what I call the space of not-feminist gender analysis. **I take up, in this sub-section, a particular text that is fairly representative of such analysis, and that, to begin with, marks its separations from post-development positions like Escobar's,** concentrating instead on the **heterogeneity**

"Arturo Escobar has proposed that development is first and foremost a discourse, a coherent system of representation that creates the "reality" of its objects and exerts control over them. … This Foucauldian approach accomplishes a radical relativization of development discourse by showing it to be a distinctively modern and Western formulation. It suggests, as

"… anthropologists have begun to examine the diverse and uneven ways … [in which] childbirth is being biomedicalized throughout the world" (ibid: 15).

"Unlike the situation in the United States and many parts of Europe, the biomedical establishment's control over childbirth in India can by no means be viewed as hegemonic" (ibid: 55).

of experiences as well as the disaggregated nature of institutional apparatuses that apparently make a description of hegemony difficult, and further, on **the impossibility of even identifying such a hegemonic role for Western science in the Indian context.** Of course, having made this argument against the hegemonic nature of Western science, in this case Western medical frameworks, this kind of **global gender analysis also carries with it the imperative to separate itself from universalist positions, both in justifying the impulse of choosing subjects of research** as well as in **declaring an attached commitment to such research.** This work also, in suggesting the difficulty of identifying Western science and its technologies as hegemonic, speaks of the multiple and measured negotiations women make with reproductive technologies, rather than being intimidated by them, completely appropriated into them, or hostile to them. The separation, then, from an earlier anti-technology position, where women are seen as a statistic, having no agency with respect to technologies and policies that perform the act of information-retrieval and include them in data bases but do not see them as agential, is clear.

well, that the logic of development discourse is fundamentally cohesive. Ethnographic research, however, highlights the gaps in what appears to be a totalizing development discourse. The perspectives and experiences of both the people who are constituted as the "objects" of development as well as the people in the institutions that implement development locally point to a much messier and often contradictory experience of development. Akhil Gupta describes this experience as the "complex border zone of hybridity and impurity." In short, we cannot assume that the logic of development discourse as produced by official reports, studies, and programmatic statements necessarily structures the way that development is used and experienced at the local level" (Van Hollen, 2003: 168).

The impulse being an avowedly a personal one – "My initial decision to carry out this research in Tamil Nadu … had more to do with my own personal history in the state than with a purely scholarly interest in filling a lacuna in academic research" (ibid: 18).

"My intent is not to criticize from afar the work of so many hardworking and dedicated health care providers and policymakers. In fact, I am keenly aware of the historical legacy of the damning depiction of maternal and child health care in India by colonial discourse to legitimise colonial rule. So I present these criticisms with a certain amount of discomfort about my role in perpetuating this discourse in the postcolonial era, despite the fact that I strive to show how international and globalizing forces are intricately implicated in women's critiques" (ibid: 9).

Cecilia Van Hollen – who is fairly representative of a body of work in anthropology (see Rozario 1998, Ram 1998, 1994, 2001, and a large number of other anthropologists working especially on reproductive health issues in India) – begins her argument at the site of a shift she identifies as useful in anthropological work, from a reading of practices as reflection of a culture, to a reading of culture as "in-the-making" through everyday practices. Using this "processural view of culture-in-the-making", she clarifies that her anthropological approach does not seek to imply "one monolithic thing that we can call "modern birth" in the contemporary world order" (5). For her, it is important "to stay within the specific ethnographic field of [her] own research and to underscore [her] point that biomedicine always takes on a unique form at the local level" (8). At the very moment of her refusal to call it monolithic or by a common name, however, she is speaking of the re-interpretations of the global project of biomedical knowledge at the "microphysical level by individual actors, collectivities, and institutions", and it is in this re-interpretation and the possibilities of hybridisation and reconfiguring along caste, class and gender axes through it that she is interested. In her case, she finds it important to "view[ing] reproduction itself as a key site for understanding the ways in which people *re*-conceptualize and *re*-organize the world in which they live" (5). She has a similar approach to gender ideologies, hierarchies, or practices, and is at pains to demonstrate the impossibility of cross-cultural assertions that do not take into account these practices and their different sedimentation of meanings.

Such a disciplinary move is accompanied, perforce, by the need to challenge the clear separation of biomedical technological systems and indigenous practices of healing that has characterized earlier analyses of Western medicine and by extension, science. It is accompanied by a challenge to the notion of development as totalizing discourse philosophically anchored in the geographical West (and hence, the separation from Escobar). It is accompanied by a challenge to the need to identify resistance in a straightforward rejection of Western medicine or technology. In doing this, then, it is also avowedly a move away from those feminist readings of the agency of Third World women as sited in the 'natural', the 'cultural',

Who, during case studies of dais in Bangladesh, finds unpardonable the luxury of "mythologizing and romanticizing the process of 'natural childbirth' and of projecting this image on to a Third World context where it is not always appropriate" (Rozario 1998: 144).

or the 'indigenous', and of Western biomedical practices as controlling of women (15). This means a re-cognition of the 'local' as itself multiply constituted and constantly in flux. And it is accompanied by the mandatory recognition, akin to Nussbaum's, of the problem of being the Western feminist and intellectual who must constantly strain towards transparency. Here, of course, the anthropologist's new requirement of self-reflexivity has manifested as an expression of near-guilt – a moral problem. The agency question gets taken up differently from Nussbaum in such an analysis that invokes the 'local' but at a more avowedly involved level. There is a pattern to this kind of scholarship that affirms the burden of a feminist re-invocation of experience while needing to disavow existing feminist modes. Van Hollen has, for example, attempted to speak of the marginalization of women's labour within modern medical systems. So "ethnographic stud[ies] of how modernity was impacting the experiences of poor women during childbirth in the South Indian state of Tamil Nadu at the end of the twentieth century" become a part of the attempt to understand "how the relationship between maternity and modernity is experienced, understood, and represented" (4).

While feminist activism and scholarship has done much to point to "medicalization" in Western medicine – "the process by which medical expertise "becomes the relevant basis of decision making in more and more settings" ... the process whereby the medical establishment ... incorporates birth in the category of disease and requires that a medical professional oversee the birth process and determine treatment" (11), anthropology has avowedly contributed to a disaggregation of biomedicine itself as it is practised in the 'Western world', through descriptions of how it is actively redefined in the 'third world'. Van Hollen states that such disaggregations challenge "those feminist studies that view all the controlling aspects of biomedicalized births as derived from a Western historical legacy of the Enlightenment and Industrial Revolution and that present a romanticized vision of holistic "indigenous" birth, or "ethno-obstetrics", as egalitarian, "woman-centered", and non-interventionist" (15). As she proceeds to unravel the "historical and cultural specificity of the transformations in the experience of childbirth" (15), it is clear that

she sees resistance as embodied in these specificities; moreover, she sites resistance in the bricoleur-like response to various biomedical allopathic procedures rather than in a soliloquous 'natural therapy' movement. And this difference between, say, the African home birth movement and the individuated responses in Tamil Nadu, signals what she calls cultural specificity.

What happens to the agency question in this exercise? Clearly, empowerment here is through frames other than the modified inclusions suggested by Nussbaum. Any use of the modern, states Van Hollen, is bound to refigure it in ways that bear back on the definition of the modern. Anthropological exercises such as Van Hollen's see themselves as different from 'postcolonial' studies that focus on rural areas and that, like feminist work, tend "to depict childbirth practices as relatively untouched by allopathic institutions" (8). By locating her own investigation in metropolitan Madras (now Chennai), for instance, Van Hollen prefers to home in on more central locations for allopathy, aiming to look at "the central role which allopathy plays in women's decisions regarding childbirth and ... how women choose from among different allopathic options as well as non-allopathic practices." In other words, the hybrid, mixed bag of tradition-and-modernity, also a bag that is being negotiated in a way that avoids "falling into the trap of representing others simply as victims" (10). With such a frame in place, Van Hollen proceeds to look at the various negotiations made by women in Tamil Nadu vis-à-vis allopathy.

c. HEGEMONY TO HYBRIDITY

Postcolonial work looking at colonial science and its institutions, moved from the reading of colonialism as triumphant and economic narrative, to chart a fascinating journey of the progress of Western science as hegemonic but carrying resistance as its constitutive core – a condition of ambivalence that it defined as hybrid. In doing so, it read hegemony as fractured rather than monolithic – a useful rendition – but also as structured and all pervasive. While this has been explored thoroughly in the

glossary, the point here is to see the manner in which this psychoanalytic concept is treated, time and again, in the gender work and other anthropological work I refer to, to give a name to an empirical reality, namely, the negotiations on the ground that women are making with knowledge apparatuses like modern western medicine, choosing what they wish, adding to their cultural processes, and thus negotiating with power. Because there is both the 'powerful' and the resistant, this is seen as evidence of a weaker hegemony than feminism, for instance, may have identified.

In the shift from a notion of strong hegemony to a description of disaggregated discourses – which is actually a different exercise from suggesting hybridity as a *model* – Van Hollen acts, then, as representative of a position that determinedly embeds itself in the local, in the category "women", in experience, to propose weak and diversely articulated structures of power rather than a singular monolith. Rather than express these as 'binaries', Van Hollen finds it a more fruitful exercise to concentrate on the processes of modernization that, for the purposes of her study, "impact childbirth in Tamil Nadu: 1) the professionalization and institutionalisation of obstetrics, 2) transformations in the relationship between consumption patterns and reproductive rituals, 3) the emergence of new technologies for managing the pain of birth, 4) the international mandate to reduce population in India, and 5) development agencies' agenda to spread biomedical conceptions of reproductive health for mothers and children. These processes she contends, "taken together, have transformed cultural constructions of reproduction and social relations of reproduction in myriad ways" (6). She is also interested in "assess[ing] how the five processes of modernity mentioned above, in relation to other factors, influence the "choices" poor women and their families make about the kind of care to seek for childbirth-related needs." In referring to choice, she clarifies that "the decision-making process is never a matter of the free will of rational, value-maximizing individuals but rather, it is always enacted in political-economic contexts and shaped by socio-cultural factors such as gender, class, caste, and age" (7).

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Levi-Strauss has used the word 'bricolage' to suggest the origin of myths from tales put together, to abandon "all reference to a *center*, to a *subject*, to a privileged *reference*" (Derrida, 1978: 286), and to separate method from truth. In French, a bricoleur is a jack-of-all-trades. Derrida, critical of the value of the distinction between the bricoleur and the engineer, sees in the ethnographic impulse the pressure to interpret, arrive at "a truth or an origin which escapes play and the order of the sign" (292).

How exactly does Van Hollen undertake this project? Her conversations with the women she meets in her two primary field-sites in Tamil Nadu produce for her a vast collection of words that are in common conversational usage in terms of negotiations (between modernity and *shakti*, for instance), are also part of the canon of Hinduism, and the subject of much critique. **For Van Hollen, the feature to be noted is the ways in which these words travel and acquire a rich concatenation of meanings – which concatenation, she will contend, is what actually constitutes culture – an act of bricolage.**

What, then, does such an anthropological exercise achieve? Is it, in also shifting from the earlier ethnographic impulse, talking about the bricolage that constitutes culture? Van Hollen is definitely building up a glossary of words – *vali, maruttavaci, shakti,* and so on, but these are words that she refers to as the *originals* in the analyses she makes. It may be that the particular word referred to in translation may travel to the reader of her text against the grain as well, as alternative interpretations of the words she has heard and put down. In the act of simply putting down vis-à-vis western concepts of pain, etc., however, there is no suggestion towards such a move, and the glossary seems to act more as evidence of fidelity to the 'object of knowledge', namely the "poor women of Tamil Nadu"; like Nussbaum, a way of "listening to what they are saying". Reflexive anthropology, in this case, makes the claim to transparency as much as the earlier ethnographic exercise, with the difference that it wants to do this through the insertion of the researcher into the frame, as against earlier forms which unapologetically museumized the cultures being studied as exotic, other, and as object of knowledge separate from the anthropologist.

What does such a position offer in terms of furthering the understanding of hegemony, or, as Van Hollen herself puts it, of "how modernity was impacting the experiences of poor women during childbirth in the South Indian state of Tamil Nadu at the end of the twentieth century" (4)? What does the shift from a notion of strong hegemony to a description of disaggregated discourses mean for

conceptual strategies to read the same? The disaggregated picture that Van Hollen describes, the hidden corners it uncovers, all mark ways in which childbirth is viewed differently, as also ways in which seeming centres of power – institutions and policies – are negotiated. In her invocation of the different relationship to labour pain or *vali* – for instance the idea that "poor women in Tamil Nadu" seem to have a relationship of attachment to, practically a summoning of, suffering as a necessary constituent of childbirth, as against standard mainstream moves and feminist calls for painless labour – she also wishes to point to different ways in which both culture and gender may be constituted as dynamic practices, rather than as an identity or reserve that is drawn upon, or as *structures* of domination and resistance. In any useful extension of her project, then, it would be necessary to say that the categories of domination and resistance are themselves difficult to define. Why? Is it because of their contradictory nature? Their ambivalence? Van Hollen, as indeed more and more anthropologists, performs the task of description with fidelity and often with ingenuity. This task of description is expected to offer a critique of macro-analyses, as also of rigid, monolithic descriptions. In what often turns out to be a misunderstanding of macro-analyses with generalization, of structural understandings with rigidity, however, the task of description does not, as Van Hollen would have us believe, offer a model of hybridity as a framework of hegemony. The engagement I set up between Mohanty and Nussbaum in 2.III.a shows us the same slippage.

There is something else happening here. While Van Hollen strains to clarify that she does not wish to refer to an authentic and fixed notion of a culture, or a cultural past, her use and interpretation of her glossary terms falls back on relating conversational usage to the canon in some form. Such a method might well, as postcolonial theorists have attempted, recall an accessing of the past as repetition rather than origin. Van Hollen's stress is on difference, however, and in articulating this difference, it is a stable notion of culture that she falls back on, still associating with cultural essentialisms while always disavowing them. **As such, the easy transposition of dichotomies like public-private that make sense in Western**

intellectual contexts, to conversations Van Hollen has with these women is in itself a simulation of the local that hardly works.

In the notion of a 'gap' or a 'failure' to understand or hegemonize the local, this kind of anthropological analysis aligns with the framework of hybridity put forward by the postcolonial school. It does not, however, do the same work in even attempting a conceptual strategy, merely ranging itself alongside instead.

D. STRUCTURE TO MICRONEGOTIATIONS

> In the influential and important 1991 World Bank report on *Gender and Poverty in India*, principal author Lynn Bennett announces:
>> ... now, researchers, women's activists, and government departments are reaching a new consensus. ... [W]omen must be seen as economic actors – actors with a particularly important role to play in efforts to reduce poverty.
>> *(John 1999: 105)*

There is another difference from other anthropological work that Van Hollen asserts, and offers as a more strident critique of globalisation than isolated cultural analyses. This she does by bringing in questions of consumer practices and globalisation, and the various changes in birth practices in the light of changes in the economic scenario; in so doing, she re-configures third world women as important economic actors.

'Third world poverty' is here a significant allegory. For Nussbaum it is a condition to be resisted along with sexual hierarchies; for Van Hollen, economic disparities and changing forms of the economy create different conditions of possibility for changing cultural practices. In both, there is a sense that economy is being brought back into the discussion, after a period of much-vaunted culture as the last instance of difference. In both, then, the 'economic' becomes a metaphor for connection

The analysis of *vácal* (translated as doorway), for instance, as metaphorically separating the private and the public. Why is it not simply a description? At the very least, what are the disciplinary methodologies by means of which anthropology, for instance, seeks to apply this semantic construction?

(Nussbaum will say that the lives of poor women are the same everywhere; Van Hollen will refer to the 'politics of globalization') as well as difference, in some sense actually regaining importance, as it were, in causal frameworks.

The World Bank report itself drew entirely on the findings of the 1988 *Shramshakti* report on the condition of women in the informal sector, compiled after extensive field surveys in different parts of the country. The *Shramshakti* report, states Mary E. John, "was intended to show women's extremely vulnerable working conditions across diverse occupations under high levels of discrimination, as well as the range of health hazards women were exposed to on an everyday basis. The recommendations of the report addressed to various ministries ... included enlarging the definition of work to encompass all women engaged in production and reproduction, recognizing women's position as major rather than supplementary wage earners, and finding strategies to enhance women's control over and ownership of resources" (John, 1999: 112). This is a finding that is set up, in the World Bank report, to actually say that these are women who are more efficient resource managers, and therefore better negotiators of poverty, *than their men*. **In that turn, in the shift from *exploitation to efficiency* (as John points out), in the shift in focus from the *formal to the informal sector*, and in the *examination* of poor third world women in this space as a given rather than as a problem (94 per cent of the informal sector is constituted by women, but this is not considered the problem, as is not the conditions of employment that prevail in this sector), a fresh image of the "third world woman" is constituted – enmeshed but not mired in her cultural practices, poor but a survivor, and an important economic actor, as a glance at the literature on social capital or new Communitarianism will also show.**

Also referred to as progressive conservatism, this proposes a political economy embedded within local communities, as a buffer to the continuing collateral damage of capitalist economies. Needless to say, this relies on community networks already in place, including patriarchal ones.

What does a moment when such a report was appearing alongside a vast literature on the micro-politics of negotiation by women of third world countries, ask to be read as? Clearly, negotiation as a strategy of power and economic resources, encouraging a re-inscription of the 'third world' as agential, sits in a not uncomfortable alignment with a concentration on the problem of development as a

'third world problem' – something mainstream development language has always done. Further, the move from ideological critique to description, finds another parallel, in an apparent move from politics to self-help.

SECTION MAP: AND AFTER FEMINISM

We have seen, in Van Hollen's text, the impulse to move away from feminist articulations. Feminism here is, of course, seen as the ideological stance that is both epistemically unreliable in its monolithic description of social conditions, and vanguardist in not taking into account women's spontaneous consciousness/ negotiations. Given such an understanding of feminism, the only alternative would be to move away from feminism to women, sometimes positioning women as ex-officio knowers, sometimes as learning through living, never as a coherent community, and never as subjects of feminism. Apart from being the new and acceptable micro-politics in the new globalised economy, this could also be read as a response to rigid ideological stances in feminism that read *both women and science* in homogenous frames. **It is also, in other words, a movement from 'difference' – both the hierarchical difference that was promoted in Marxist perspectives on gender and the feminist call to a different perspective to break free of Marxist methodologies – to differences.** We would do well, I believe, not to simply label this the backlash against feminism, for it has not merely resulted in an antagonistic positioning of feminist and other kinds of gender work vis-à-vis development; there are

I have examined, elsewhere, how legacies of Left critique worked for those 'growing up feminist in Marxist spaces' in Bengal in the '80s. My hypothesis is that this legacy actually shaped the methodologies of feminist work on science and development, including the shift from 'access' to 'terms of access', as a parallel reading of the shift in Left approaches to science and technology from the nationalist to the postcolonial moments would suggest. This is not to suggest a relationship of bonhomie or emulation between feminist and Marxist practice in Bengal,

significant overlaps, too, in the two movements. The turn to autobiographical/ ethnographic narrative as experience, for example, has driven much feminist analysis that struggled to shed rigid ideologies, as we have seen at least in part above. The most significant overlap here with non-feminist gender work would be the need to build a *narrative of experience* against that of reason, or culture, or the concomitantly named hegemonic entity. In this sense, the task in both later feminism and gender analysis has been to turn to experience, as it were, and describe it faithfully, in its diversity and heterogeneity.

but rather a fraught and largely unacknowledged relationship of antagonism. In Left spaces in Bengal, the positioning of the 'feminine' as inchoate and perspectival, as *experienced but non-knowledgeable*, shores up Marxist discourse, rather, is necessary to the articulation of a Marxist standpoint, and it is from here that I propose that, in our contexts, feminist methodologies too have at least partly been fraught with the need to retain the element of 'perspective' as a particular, sometimes limited 'way of looking', an experience addressed to and *contained within* the hegemonic – here masculinist Marxist practice – rather than an interpretative tool that could provide both a knowledge of dominant systems, as well as a better account of the world.

How does this exploration of feminist and gender work offer an understanding of technology or its critiques? We have seen the framework of negotiations with the hegemonic set up in postcolonial scholarship; we have also seen the ways in which Marxist metaphors of revolution get recuperated into this work. Both feminist and gender work, embedded as they are in these contexts, also present a critical response to science, often science as technology, and these critical responses move from the ideological to the everyday, from the structural to the microcosm, from the neutral to the situated and experiential, while continuing to look at Western science as a powerful institutional apparatus, an apparatus of which technology is a visible manifestation. I will say that the contexts of 'women's lives' provide perhaps the most powerful site for the playing out of these critiques. The point is to show how these responses continue to retain the same notions of technology, as discrete, as separate, as instrument, and I suggest that such a notion of 'powerful technology' is what shores up the possibility of politics – in the shape of 'isms' *or* as individual negotiations – as a critique of hegemonic knowledge systems, the Western scientific among them. Such an understanding of the political serves not to unpack the philosophy of these systems, concentrating only on the hierarchies and exclusions evident in their institutional manifestations. To unpack the conventional

understanding of the hegemonic, in this case the technological, requires a form of critique that might well begin from experience, as feminist and gender work has done, but inserts that experience into the hegemonic to change that picture, rather than valorizing experience per se as always already resistant to technology. Such an inversion of the dialectic might well constitute revolution – a revolution in understandings of technology, and to make a primary suggestion in this direction has been the task of this project.

The next section will examine a set of possibilities for feminist responses to science that contain such a suggestion, but before that, I will lay down the questions from context and location that have attempted to raise the stakes in the epistemological debate.

II. KNOWLEDGE PRODUCTION

A. CONTEXT

> By women as a category of analysis, I am referring to the crucial assumption that all of us of the same gender, across classes and cultures, are somehow socially constituted as a homogeneous group identified prior to the process of analysis. This is an assumption which characterizes much feminist discourse. The homogeneity of women as a group is produced not on the basis of biological essentials but rather on the basis of secondary sociological and anthropological universals. Thus, for instance, in any given piece of feminist analysis, women are characterized as a singular group on the basis of a shared oppression. What binds women together is a sociological notion of the "sameness" of their oppression. It is at this point that an elision takes place between "women" as a discursively constructed group and "women" as material subjects of their own history.
> *(Mohanty 1991: 56)*

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Nussbaum's position that I have delineated above runs immediately, as she is well aware, into charges of colonialist, imperialist and universalist attitudes, and this is where it might be useful, as a first step, to recall a critique like Chandra Mohanty's, on "third world women and the politics of feminism". **In her innumerable pointers to the "Western eye", Mohanty has pointed to the construction of the archetypal and "average" third world woman in Western feminist work, as also in other kinds of feminist discourse sited in the universalist frame.** Such an archetype, in her argument, is the constitutive difference that makes possible the image of the Western feminist herself. This archetype is constructed through a slippage between the analytic and descriptive categories "Woman" and "women" respectively. "The relationship between "Woman" – a cultural and ideological composite 'other' constructed through diverse representational discourses (scientific, literary, juridical, linguistic, cinematic, etc.) – and "women" – real, material subjects of their collective histories", states Mohanty, "is one of the central connections the practice of feminist scholarship seeks to address … [and is] not a relation of … correspondence or simple implication" (53). The feminist writings of the Zed Press that she analyses, Mohanty suggests, "discursively colonize the material and historical heterogeneities of the lives of women in the Third World, thereby producing/ re-presenting a composite, singular "third world woman" – an image which appears arbitrarily constructed, but nevertheless carries with

Although the arguments quoted here are from Mohanty's text (1991) published well before Nussbaum's, and although Mohanty's critique is specifically based on the Zed Press 'Women in the Third World' series of publications (as being "the only contemporary series … which assumes that "women in the third world" are a legitimate and separate subject of study and research" [75, endnote 5]), Nussbaum has already been expressing her position vis-à-vis the capabilities question from the 1990s itself, drawing on Aristotle as a resource for an account of human functioning. Further, Mohanty's work seems to read directly, critically, and powerfully into some of the concerns in Nussbaum's self-avowed feminist political philosophy, particularly her writing on women in the third world that largely follows the women-in-development approach. Mohanty has been one of the more vociferous and visible critiques of first world feminism, and as such, it is necessary to engage her critique at this point. There are also significant ways in which Nussbaum's text shows up shifts in thinking in first world feminisms themselves, and it is with these in mind that I juxtapose the two.

it the authorizing signature of Western humanist discourse." (53) As part of this effect, Mohanty traces "the similar effects of various textual strategies used by writers which codify 'others' as non-Western and hence themselves as (implicitly) Western. It is in this sense", she says, "that I use the term *Western feminist*" (Mohanty 1991: 52), thus clarifying both her separation from the geographical sense, and the ways in which certain articulations, positioned alongside others, acquire a particular sedimentation of meanings that constitute Eurocentrism. **Mohanty traces some of these discourses – colonial anthropological, western feminist, developmental, multinational capital – as addressed in the Zed Press publications to make her point, and following her argument, it is possible to also trace the continuities between these discourses.**

Such an archetype, Mohanty points out, rests on the presumption of sexual difference as primary to the oppression that women in the third world might suffer – "that stable, ahistorical something that apparently oppresses most if not all the women in these countries" (53-4). For one, it takes as stable and before the event 'third world women' as a sociological category, an "automatic unitary group", (7) building on this then to show up their 'victimization' under "underdevelopment, oppressive traditions, high illiteracy, rural and urban poverty, religious fanaticism, and "overpopulation" of particular Asian, African, Middle Eastern, and Latin American countries" (Mohanty 1991: 5-6). In doing so, it irons out the

With its nativization of the "third world woman" (32).

absolute heterogeneity of the lived experiences of women in the Third World.

So there is a "third world difference" too that is naturalised in and through this archetype, and thereafter, an easy connection made between "third world women" and feminism. Mohanty herself, following Dorothy Smith (1987), points to a more productive way of looking at colonialism as *processes of ruling* instead of as a fixed entity, and suggests ways in which multiple contexts for the emergence of contemporary third world feminist struggles may be traced. **These include the configurations of colonialism, class and gender, the state, citizenship and racial formation, multinational production and social agency, anthropology and the third world woman as "native", and consciousness, identity, writing.** Mohanty would therefore, ask for the delineation of a more complex *relation between struggles* rather than sexual difference as a primary origin for the category of third world women, if at all it can be deployed – and that deployment she is not entirely against. "What seems to constitute "women of colour" or "third world women" as a viable oppositional alliance", she says, "is a *common context of struggle* rather than colour or racial identifications ... it is third world women's oppositional *political* relation to sexist, racist, and imperialist structures that constitutes our potential commonality". **The Woman-women connection, then, as she sees it, needs to be adequately historicized, set in context. And the category of Third**

"First, there are the questions of definition ... Do third world women make up any kind of constituency? ... Can we assume that third world women's political struggles are necessarily "feminist"? How do we/ they define feminism? ... Which/ whose history does we draw on to chart this map of third world women's engagement with feminism? How do questions of gender, race, and nation intersect in determining feminisms in the third world?" (2-3). Needless to say, these questions are by now commonplace in any discussion of feminism, and the question of 'how' may perhaps be a more useful one to attempt to answer.

Where, for Mohanty, the writing of testimonials as public record, rather than autobiographies, becomes the space not merely for recording and recovery, but formation of subjectivities of resistance.

I have mentioned the Marxist trajectories that are one of the contexts underlying development critique, and this would include the experience of becoming feminist in Marxist spaces. This experience included, after the first enabling encounter with Western feminist texts, the recognition of that qualifier – Western – and my contention would be that it was the peculiar co-presence of postcolonial Marxist discourses rather than direct experiences of oppression or marginalization that made possible

World Woman has to be seen, in order to be useful, as a process of subject formation through these multiple conjunctures rather than as a pre-existing victim category.

In pointing to the absolute heterogeneity of the experiences of third world women, Mohanty does not, however, give up on the idea of domination or hegemony. What she suggests, instead, is that in understanding the "complex *relationality* that shapes our social and political lives ... it is possible to retain the idea of multiple, fluid structures of domination which intersect to locate women differently at particular historical conjunctures, while at the same time insisting on the dynamic oppositional agency of individuals and collectives and their engagement in "daily life" (13). The parallels with Homi Bhabha's notion of hybridity are here apparent, and indeed Mohanty herself points to the parallel (75, n. 3), both in promoting a more complex notion of hegemony than that offered by easy binaries of colonizer and colonized, and in identifying the ways in which multiple negotiations in "daily life" can constitute resistances that are intimately imbricated with the hegemonic. Mohanty's critique of such a difference as suggested by the naming of a 'third world woman' is then, in sum, a reference to the hierarchization on which it stands; in a more useful sense, it is part of an attempt to define "context" in a conceptual manner, and it is this attempt that I will take up in greater detail in the last section.

the primary recognition of this qualifier, as against others. I am, then, somewhat in disagreement with Mohanty's argument on colonialism as a straightforward condition of possibility for third world feminisms.

I would like to clarify that throughout this discussion I am referring to third world women as referenced by Mohanty.

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Let us, however, also examine Nussbaum's own account of such charges and her subsequent defence of the universal. Nussbaum considers three arguments generally offered against universalist values – "the argument from culture", the "argument from the good of diversity", and the "argument from paternalism". The argument from culture apparently presents a different set of norms as constitutive of Indian culture – norms of "female modesty, deference, obedience, and self-sacrifice that have defined women's lives for centuries" (41); norms that need not definitionally be bad, norms that work, presumably, for Indian women, and norms that may actually be preferable to Western norms that promote individualism for women. Nussbaum responds to her reading of the culture argument in several ways. For one, she talks of the cultural diversity of India, both temporal and spatial, that hardly allows for reference to such homogeneity of norms – there are women who resist tradition, for instance. Therefore, "[c]ultures are dynamic ... and [c]riticism too is profoundly indigenous ... to the culture of India, that extremely argumentative nation" (48). Further, such norms would be acceptable if women had choices about adhering to or rejecting them, which women like Vasanti or Jayamma do not, in her opinion. They do not even endorse the norms they adhere to, and this strengthens her argument against simply accepting a relativist thesis on norms. After all, "[w]hy should we follow the local ideas, rather than the best ideas we can find?" (49) And a position of moral relativism also fails when one realises that a relativist position, conceptually, is not one that is tolerant of diversity or of other cultures.

Regarding the argument from the good of diversity, Nussbaum feels that cultural values that are different from the ones we know still demand a judgement of and decision-making on which ones to endorse and which to reject. "And this requires a set of values that gives us a critical purchase on cultural particulars ... it does not undermine and even supports our search for a general universal framework of critical assessment" (51).

As for the argument from paternalism, which would object to any effort at "telling people what is good for them" (51), Nussbaum responds by saying that "a

commitment to respecting people's choices hardly seems incompatible with the endorsement of universal values ... [specially] the value of having the opportunity to think and choose for oneself" (51). Further, she says that every law or bill does this, "telling people that they cannot behave in some way that they have traditionally behaved and want to behave" (53), which is "hardly a good argument against the rule of law" (51), particularly when it is required to protect some from the behaviour of others. Also, in order to build the "material preconditions" of choice, "in whose absence there is merely a simulacrum of choice" (51), law notwithstanding, it might indeed be necessary to "tell people what to do", something that obviously requires a universal normative account – what Nussbaum will call 'political' rather than 'comprehensive liberalism'.

Does the build-up of Nussbaum's argument for intervention in "the particularly urgent problems of developing nations" then indeed, after reading her defence, seem to constitute West-centrism? Is she, as postcolonial critics of universalism and third world feminist engagements would have it, and as I have also been tempted to flag in her text, marking an archetypal third world woman who needs rescuing? **Are her 'universal values' constituted by such an archetype?** Although her conversations are with women who are typically poor, tradition-bound, victimized, yet defiant and speech-worthy, for a philosopher like Nussbaum, the archetype is marked *so as to be transcended*, shed, saving the brown woman from those of her traditions that are constricting, transforming her, through an accurate application of universal principles, into ideal human and citizen. To this end, Nussbaum also needs to demonstrate that victimhood is not the essence of 'woman', just as difference in any form is not. Indeed, essence or difference will find no place in her philosophy, and her painstaking description of cultural particularity is merely a preamble to then argue for commonality – these are features of "women's lives everywhere", where the seeming oddities are only differences in manifestation of stereotypes of women and men, rather than being signs of an "alien consciousness" (23). She also quotes 'local' scholars to endorse their views on the undeliverability of "a representative, authentic third world woman ... [e]ven in India, there is no such thing as *the* Indian

Let me clarify that rather than being a digression in the debate on possible feminist critiques of development, these questions are relevant to where the positioning of such a possible critique could be.

woman – there are only Indian women. And the individuals are far more interesting than any assumed stories of authenticity" (Indira Karamcheti, quoted in Nussbaum 2000: 47). However, "the body that gets beaten is in a sense the same all over the world, concrete though the circumstances of domestic violence are in each society" (23). In that sense, India, with its extent of poverty and difference, merely offers the model 'case study'.

Nussbaum sees herself, then, in a peculiar relationship with these women. Her primary interlocutor is not so much the feminist sited in the third world, who has attempted to offer an interpretative edge to the naming itself. The purported conversation is, instead, directly with the poor, tradition-bound, victimized, yet defiant and speech-worthy third world women, each different from the other, at the most mediated by Leela Gulati, the anthropologist in the field. There is no absence of commonality between women here and women elsewhere; there is, however, a value to the 'local' that the feminist political philosopher needs to acknowledge, a specificity to the problems that, though identifiable in "women's lives everywhere", asks for the exercise of a *non-imperialist universal* recognition of the particular *before it can be represented*. It is this impulse that produces the insistent declaration that her proposals are based on and grew out of her experience of working with poor women in India. The ghost of colonialism, once it is shaken off, can produce for Nussbaum the reality of the 'third world'. It is this "defence of universal values" that can be adequately represented by her (34), and that is enacted here.

What rests on this exercise of delineating Nussbaum's position and challenges to it? I would suggest that the problem, at least in so far as current global feminist analyses identify it, lies elsewhere than economo-centrism and the non-attention to difference. For Nussbaum, the chief interlocutor is in fact the field of development economics that does take into account various non-economic indicators. Victimhood is no longer the critical discourse, if it ever was. Nor is homogeneity of experience asserted, although commonality indeed is. In fact, both Nussbaum and Mohanty are aware of and attempting to nuance binaries here – Nussbaum to challenge the 'West

as evil' image and development as a totalizing discourse by pointing to the problem as one of bad practitioners, and Mohanty working on the other arm of the binary, to point to the impossibility of "third-worlding" in any simple sense. Mohanty's critique of universalism is accurate in as much as she points to the binariness of certain existing critiques. It fails, however, in her insistence on historical and socio-political heterogeneity as the necessary context of category formation; any category, no matter how minutely contextualized, is by definition nominalist, unintended to capture the entirety of experiences, and to that extent, presence of heterogeneity *per se* can hardly constitute a critique of category formation. Nussbaum's categories are, by her own admission, provisional, nominalist, *stable*, and hence not philosophically subject to this particular charge of rigidity.

But ... the charges of the "Western eye" are not merely charges about faulty practitioners, as Nussbaum would have it, nor, surely, can proof of resistance to norms be proof of their absence? Further, the "Third World" that Nussbaum names in the plural and as a non-essentialist category, yet needs delineation in a manner that pointing to *practices of bias* cannot begin to get close to. It is in the assumptions of the unimplicated foreigner, then, that Nussbaum's universalism lies, as in her complete indifference to the anchoring "sample populations" on which the ideal citizen, or the neutral definitions of reproductive health, for example, have been built. Herein lies the validity of Mohanty's charge of "ethnocentric universality" (53). While Nussbaum's arguments actually clarify for us that universalism in its ideal description is hardly the problem, there is a double move in the delineations of the universal *and* the particular in her writing, and in other work in this frame. Vasanti and Jayamma are clearly not, in Nussbaum's lexicon, victims of the mute kind. They have been, despite the unavailability of infrastructure and mechanisms that could reverse hardship, negotiators and survivors. They are 'lacking' apparently only in the capabilities that would allow them to access legal and economic structures. And yet, embedded as they are in their "particular caste and regional circumstances", their negotiations with those circumstances are tied to their bodies in ways that seem to embody their very specificity. A putting together of body-situation-circumstance

that makes up 'third-worldness' as a category of description for Nussbaum and her fellow-universalists, be it the embodied images of 'mothers of colour' breastfeeding their newborn, or the detailed physical descriptions of Vasanti and Jayamma and their surroundings, then, is not incidental to the narrative of their flourishing; *it is, singularly, the narrative of the particular*. In a frame of lack of capability, Vasanti or Jayamma can hardly be expected *not to have a body*; and they can hardly be expected to produce analytic statements. As a "political explanation", therefore, when Jayamma says that "[a]s a [domestic] servant, your alliance is with a class that is your enemy", her "use of the Marxist language of class struggle" must be taken with a pinch of bemusement – "whether one endorses it or not" [19]. It is after this particularity has been described in its entire nuance that Nussbaum can set out to draw her comparisons with "efforts common to women in many parts of the world".

A useful critique of universalism would mean, as Mohanty begins to suggest, an attention to context, a beginning of knowledge *and of categories* from enmeshment rather than outsideness, although it would require a movement from that enmeshment to a form of objectivity – the movement from perspective to story that Lorraine Code speaks of, in her work on feminist epistemology. It would also require, and here Mohanty's and other critiques of first world feminism fall short, a recognition that *relationality* between struggles in what I continue to provisionally call the Third World will also mean a space between them that is hardly ever *common* in the sense of a happy relation. It will, then, involve the recognition that such struggles are sited in different *worlds*, and will, in their cohesion, also mean a movement away from each other. It is only in the attempt to interpret this movement that a discursive space of negotiation with the 'first world' can perhaps be forged.

I will elaborate on the possibilities inherent in this formulation, in my suggestion towards a feminist methodological critique of development, and science, in the last section.

B. KNOWING FROM LOCATION

To universalist positions like Nussbaum's, eco-feminists have replied with a soliloquy of the local – 'I know mine, you know yours, there can be no dialogue'. The 'third world woman' as perspective *to speak from* has perhaps not been

articulated as clearly anywhere else as in Maria Mies and Vandana Shiva's writing on eco-feminism, and this work is also evidence of the ways in which development becomes a powerful organizing metaphor for 'third world feminism'. Building on the notions of organicity, wholeness, and connectedness as the primary postulates of eco-feminism, Mies and Shiva thereafter take up certain cultural characteristics associated with the Third World to offer a picture of third world women as already in convergence with nature, as upholders of the subsistence economy as against the "capitalist patriarchal" system, and as offering perspectives for resistance to such an economy of the same. Critiquing both Western science and development, they endeavour to demonstrate the reductionist and universalist paradigms that the former occupies. For these critics, the mechanicity that Western science relies on, the ways in which it dominates nature-women-third world, treating and re-producing each of these as a dead object, are symptomatic of a subject-object dualism that is carried over into development philosophies too. **Western science, says Shiva, is philosophically embedded in dualisms of subject-object, which allow for such a possibility only vis-à-vis nature or any researched object.** The neutrality that this apparently guarantees the researcher is however, a false one, since the universal position from which it emanates is itself anchored in Western paradigms. Mies traces continuities here from Francis Bacon onwards – "scientists since Bacon, Descartes and Max Weber have constantly concealed the impure relationship between knowledge and violence or force (in the form of state and military power, for example) by defining science as the sphere of a pure search for truth … [thus lifting] it out of the sphere of politics … [a separation] which we feminists attack [as] based on a lie" (46). This scientific principle, constructed through "violently disrupting the organic whole called Mother Nature" (46), became then the route to knowledge, creating the "modern scientist [as] the man who presumably creates nature as well as himself out of his brain power … [after] a disruption of the symbiosis between the human being, Mother Nature, and the human mother … [and this is] the link between the new scientific method, the new capitalist economy, and the new democratic politics" (47). Similar to this, asserts Mies, is Immanuel Kant's evolution of a concept of knowledge and rationality through an extrusion of emotion.

There are strong eco-feminist positions on duality, however, that this approach fails to take up. See Plumwood, 1993.

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The masculine character of Western science, constituted through such an extrusion of emotion, such a "subjection of nature and women", was also associated with a violence that is evident in all technologically advanced societies. Mies and Shiva cite the examples of military, new reproductive and biotechnologies that accompany new globalized economies, pointing out that such technology is never neutral but functions through the "principle of selection and elimination" that provides the "main method of conquest and control" over what will survive and what will not be allowed to (195).

Development, Shiva asserts, has in its overall philosophy followed the principles of Western science. It would follow that development has then always been about 'catching up' with a universal model that has apparently worked in Western countries to provide a good quality of life, freedom from poverty, hunger, illness, and so on. The socialist states were the first to set up the model, and despite strong evidence contradicting its effectiveness even in those states, it has remained the model in dominance today.

But Shiva has more than the ineffectivity of the model to offer as critique. The accumulation model, she asserts, is built on the premises of colonialism and capitalist patriarchy, that "interpret[s] difference as hierarchical and uniformity as a prerequisite for equality" (Mies and Shiva, 1993: 2). "This system emerged, is built upon and maintains itself through the colonization of women, of 'foreign' peoples and their lands; and of nature, which it is gradually destroying" (2). Technology is one of the tools of such colonization. Technological advancement is accompanied by externalization of costs, so that workers in colonized peripheries are treated differently and paid less than workers in the metropole. **The "colonization of women" involves the unpaid labour of women – the "free economy" of mainstream economics – that shores up the market economy.** The "hidden costs generated by destructive development ... [include] the new burdens created by ecological devastation, costs that are invariably heavier for women, in both the North and South" (75).

For more work on this, see Fraad, Resnick, and Wolff, 1994.

Although this eco-feminist approach, like the other kinds of gender work I have highlighted that negotiate science or development, speaks of the need for "a creative transcendence of ... differences" between women the world over in order to offer resistances little or large, it is also in dissonance with them in proposing a far more fixed position – a philosophy already embedded in 'the people', here the women by virtue of *being woman*. **The intensification of the local provided in Mies and Shiva's eco-feminist approach, then, separates itself somewhat from other approaches to the local as a critique of development.** Such an intensification is not in the frame of stark cultural difference that would, in Mies and Shiva's opinion, produce a cultural relativism, nor is it interested in distilled essences of the local or the "romanticization of the savage" (150) that appear in globalized market discourse, but rather in a connection between the spiritual and the material – a relation of soil-nature-subsistence that is somehow to be found in the practices, intuitions, and indeed protest movements of third world women. **In so doing, eco-feminism of course exposes itself to the standard critique of essentialism.** What is important for our purposes here is the need to recognize that eco-feminism is far closer to old ideological positions in the spectrum between these and the new dynamic local or hybrid, and as expected, discredited for the same reasons in the current climate. The understandings of colonialism and capitalism that animate Mies and Shiva's version of the eco-feminist project are, in so far as they are spelt out, inadequate as provisional arguments. Further, the manner in which the category of 'third world women' is activated through a reference to the organicity and wholeness of their practices, fails to give an adequate account of how this may happen; as such, it continues to fall into the trap of romanticization that it seeks to avoid. A philosophy that is intuitive and already in place, along with the interpretative ability to put it into practice through various movements of resistance, fails to provide any evidence of its assertions.

There are ways in which the third world as local is re-produced in this discourse, even in the "transcending of differences" among women the world over that it proposes.

This is a critique that eco-feminists counter with the view that it stems from a dualistic thinking on the historical-materialist Left that considers that nature is also socially constructed, and that any attempt to say "body" is automatically reverting to biology and some form of naturalism. On the other hand, "[f]emaleness is and was always a human relation to our organic body [and] [o]nly under capitalist patriarchy did the division between spirit and matter, the natural and the social lead to the total devaluation of the so-called natural ... a necessary integration of both [eco-feminist and social ecologist] views ... would not be possible [they say, following Mary Mellor] 'without reconstructing the whole socialist project'" (160).

The consultation

Tumi ki roj tablet khao? Do you have the pill everyday?

> Do **You** (the doctor and authority) have the pill everyday?
>
> Do you have to have the pill **everyday**?
>
> Do you **really** have to …

Aamake niye katha hocche na … Its not **me** we're talking of …

I am not objectified body; **you** are.

I am separate from you, elsewhere.

Actually, I'm the one who should be asking you the question.

The conversation

In April 2002, I attended, as a medical doctor, a training programme for 'traditional birth attendants' – *dais* – who had come from various parts of the island to attend an intensive 6-day training programme organized by a non-governmental organization. This was a group of women who had varying degrees of experience with births at which they had assisted. They had been divided into two groups, with one doctor trained in western medicine to conduct the training schedule in each of them. The group I had been assigned consisted of 46 women. The youngest member was 28, the oldest around 60. The programme had the stated objective of imparting up-to-date and accurate scientific methods (adaptable to the field) of attending to pregnant women going into labour, that should be introduced into the village so as to help women with limited access to hospital facilities in rural areas. Local traditional practices could also be taken into account and legitimately incorporated where useful. In the event, it also sought to draw the line between right and wrong practice so that the *dai* could decide when and in which case to seek the help of the local health centre.

I will come back to this vignette from the family planning clinic of a state referral hospital, for now only wishing to draw attention, through the emphases I have placed in the conversation, to the putting to work not only of institutional and knowledge hierarchies, but also constitutive elements of the propositional models of knowledge that are hosted here. For each part of the conversation, therefore, I have set down these constitutive elements in the indented paragraphs – those unspoken, seemingly bizarre, yet constitutive elements. I will also say, in continuation of this point, that the somewhat bizarre turn this conversation takes, and that I wish to point to, is not entirely attributable to the apathy or non-personalized nature of care-giving that is the feature of most large state hospitals.

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"To fill in gaps in manpower at village levels", as the National Population Policy draft (2000) says. **The *dai*, in her own words the *mukkhu sukkhu maanush*, as yet uninitiated into 'method', has the key to a vast field of experience at births, a field waiting to be tapped usefully in development.** Her know-how, which is 'practical' rather than 'propositional', means that she has no value in existing frames as epistemological agent; hers is the voice of experience that with a degree of training and modification can apparently be made useful to the task in hand.

In the time and frame within which I had inserted myself into the picture, I was able to concentrate largely on the level of the gradients of power operating, mostly at the general/macro level, between the *dai* (the "subject[s] of enunciation that subtend epistemology"), the "development expert", the NGO, the local male quack doctor. The NGO had targets to meet – so many women over so many villages covered this year. I was doing 'research', and this was one of the ways I could listen in. I was there, however, as the 'doctor', the authority. The *dais* knew there was something in this for them. **The kits that would be distributed at the end of session, the legitimation of their knowledge by the *sarkar*** – they were now trained *dais*, not just *dais* – **the meanings this would hopefully carry in trying times when the local (male) quack, armed with the 'injection'** and assorted other drugs, in short with a sometimes more than fair working knowledge of allopathic medicine under his belt, had all but edged them out of

The unlearned people.

It is a case in point that for the dai, the analytic separation between government and non-governmental organization does not exist. The space of civil society that the NGO conceptually occupies as separate from the state is unavailable to her; both represent the call of legitimate authority that have brought her here. And yet, does her turn to authority have an element of the conscious? Puti di (Puti Jana, one of the economically more disadvantaged of the group, also one of the most attentive

their already meagre income.

Oxytocin, used (under strict monitoring in hospital settings) to induce uterine contractions, and used freely by these practitioners when called in to assist at delayed labour, with effects ranging from the magical to the disastrous.

Prior to introductions, the *dais* were asked to give a written test, where, with the now standard multiple choice questionnaire, they were asked to respond to problems generally faced during the delivery of a child. Later, through lectures, models, role-playing, and video films, the 'new', scientific methods were introduced and explained.

The schedule had been planned by the non-governmental organisation and the *dais* informed accordingly. We started the programme with a short discussion on the availability and advancement of scientific knowledge in the current setting, and the consequent responsibility incumbent on those responsible for health issues to avail of this knowledge. Parallely, the dangers of succumbing to uninformed traditional practices were also touched upon. A format had been prepared by the organisation for our guidance in conducting the training; further, members of staff were available around the clock to help us communicate with the *dais*, many of whom spoke local dialects completely different from urban Bengali. Each class day started at around nine in the morning after breakfast. We generally started the day with a new topic, discussing it from both ends, that of

and eager to imbibe the new) approached me the day after the video film showing a trained *dai* at work in Rajasthan. She had watched the *dai* in the film fill up her register with the details of each birth she attended, and report to the municipal office, and had come with a request for us to arrange something similar for this group. So that, as she understood, they could make an honest (and just) living, for in such a case payment to the dai would presumably be fixed and commensurate to her efforts.

Western Science as well as the perspective of the local traditional knowledges apparently employed by the *dais*, the problems they faced therein, their interactions with local 'quack doctors' at the time of a birth, the increasing presence and authority of this group, and so on. I would generally question them as to why they employed a particular practice, explain – in logical terms – why the scientific method was better, and then go on to demonstrate the functioning of the female body, as understood in (Western) medical literature, with a ritual of endless repetitions – I even had a wooden duster to bang the table with when the humming got too loud – for the women were hardly used to the attention spans demanded of them. In the event, it did happen that practices or understandings forwarded by the *dais* afforded me glimpses of knowledges that did not conform to (or compare with, sometimes) the western episteme I was working with; but such difficulties I (had to) set aside for the purposes of my work. And following me, so did the *dais*. While planning on ways to communicate with the women, both of us (health professionals working with the two groups) had come to the conclusion that visual models, role-playing etc., would be good methods, since a large number of the participants were not only non-literate in the conventional sense, but unused to conventional methods of classroom learning. The "students" indeed took to these with enthusiasm; having overcome initial inhibitions, they enthusiastically took on the roles of woman in labour, *dai*, mother-in-law, husband, doctor at the local health

centre, to enact the scenes as they should from now on be played out, as I watched in satisfaction – the *dai* had come of age.

The first question that the *dais* asked me when I arrived in their midst was whether I was married. If so, how many children I had. As I realised that I was alone in a room full of mothers, I felt the beginnings of an unbridgeable gap; I might pick up the local tongue, I might sit down with them and attempt to erase authority, but I did not share what they shared with most other women, the kind of experience they valued (or considered necessary for authority). As the classes wore on, this became a little joke amongst us – every now and then, one of the older women would stop proceedings to ask – **Accha, tomaar to nei, tumi eto jano ki kore?** And I would counter sagely – **Aaro jaani.** Finally they settled for – **Aare eto rugi dekheche, ekta abhigyata hoy ni?** An experiential referent had been found, however clinical, and that was something!

How do you know, having none of your own?
I know that much and more.
She's seen so many patients, surely she must know something.

THE TURN TO EXPERIENCE – FROM CONSULTATIONS TO CONVERSATIONS

I have no names (of protected confidentiality or otherwise) to offer for the women in both the episodes I report above; neither was part of an ethnographic study, and both are offered more as plausible accounts of a situation, and contexts within which feminist approaches to experience have materialized, than as specific case studies. I also try to articulate a

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methodology that is not entirely anthropological through this exercise.

The consultation was with a recalcitrant mother who had been put on the contraceptive pill following abortion of an unplanned pregnancy and had returned for follow-up with a continuing carelessness regarding its use. The entire consultation, as is evident from the report, lasted two sentences, leaving the female physician irritated, and the patient engaged in a certain conversational response – the kind of response that comes the way of the physician every day, but is nevertheless the kind of response that is illegitimate, aporetic. Enough has been said about power-knowledge nexuses that promote one knowledge – in this case the Western medical – as high, as singular. This is the kind of response that, through its own aporeticity – neither appropriate, nor oppositional, nor even alternate – makes visible, and bizarre, the positioning of medical knowledge as objective, unanchored to experience, and on *that count authoritative*. It is also the kind of response that does not sit well with liberal feminist approaches that would wish to mediate authority through information, choice, or consent.

Feminist politics in India, in response to this authoritative stance, initially took a 'more women-in-science' position; it asked for *increased presence of women as professionals* in the scientific enterprise, for *increased access for women* to the fruits of science and technology, as also to information. **It was hoped that**

changes in gender composition at the professional level would both bring in women's perspectives, and in so doing transform the disciplines through such inclusion. The entire gamut of women's right to health campaigns articulated this position. **This is a route that has been taken in later state development agendas as well, where, after the World Bank clauses requiring clear commitments to gender appeared in 1987, states put in place protocols to include women's perspectives in development.** This was a position that stayed with one-knowledge theories, wanting, along with one knowledge adequate *dissemination* of the products of such knowledge.

The 90s saw a clearer shift to a politics of 'third world women's experience', a shift from authoritarianism to alternatives. This shift talked about bringing back 'low' knowledge, of re-reading marginality as a place for knowledge-making, and of making the 'third world' – geographically understood – an empirical site for the same. Eco-feminist moves like those of Vandana Shiva are a case in point. There are a couple of things that might be pointed to here. On the one hand, this shift was not so much a chronological as perhaps an ideological shift, and populated more of the rhetorical than the clear-cut theoretical articulations of the turn to experience. It was a turn that allowed a *re-making of the third world*, for post-developmentalists, from the WID (women-in-development) initiatives that exercised only inclusion rhetoric. It was also a shift that informed a politics of the time – a politics of location,

As suggested in the manifesto of The School of Women's Studies, Jadavpur University, 1988.

World Bank operations evaluation study reports on 'gender issues in World Bank lending' have divided the period from 1967 to the 1990s into the reactive years – 1967 to 1985, and the pro-active years – 1985 to the 1990s. The reactive years, says the document, displayed a consistent failure to draft clear directives (for borrower nations), to have separate chapters on gender, and generally include gender perspectives in policy formulation. No separate department had been allotted for 'Women in Development' (hereafter WID) till 1987, the existing WID advisor had few powers and fewer funds, and it was as late as 1980 that higher-ranking officials in the Bank first used the phrase 'women in development'. But voices, within the Bank and outside, had begun to speak, since the early 1970s, of the absence of the perspective of women in development projects around the world. While the single most landmarked work in development literature in this direction has been that of Ester Boserup *(Woman's Role in Economic Development)*, documents titled "Recognizing the 'Invisible' Woman in Development: The World Bank's experience" (1975) or statements extolling the "immensely beneficial impact … from educating girls" (McNamara, World Bank president, 1980) have been making their appearance since 1975.

a politics that allowed a community to speak for and in itself on account of being in a marginal relation to what was perceived as hegemonic, that is, the West. This was a politics of oppositional difference, a politics of resistance, a politics that was born out of and needed, for its continuation, hierarchical difference, a politics that said, "I know mine, you know yours, there can be no dialogue". But it was also a move that populated rhetoric more than theory or practice, at least in Indian contexts, not always enjoying full status alongside 'one knowledge' theories, so that "empowerment alongside perspective" became the more acceptable motto. Such an attempt has perhaps been best articulated philosophically in the work of Martha C. Nussbaum, who talks at the same time of a uniqueness to women's perspectives *and* of the need to raise them to the common level "human". Difference – either cultural or sexual – was not the motive force in this attempt; rather, it was something that needed to be marked in order to be transcended. Finding a commonality to women's experiences and raising them therefore to the universal level was the task. Knowledge was still one and singular, but a *democratization in modes of arrival* at such knowledge was the important goal. "We all know, together" – such would seem to be the motto.

Such a democratization did not obviously require ideological buttressing, and anthropological work that began in the 90s, calling itself gender work but spurning feminist stances, drawing upon women's practices, critiquing trends in globalization but not
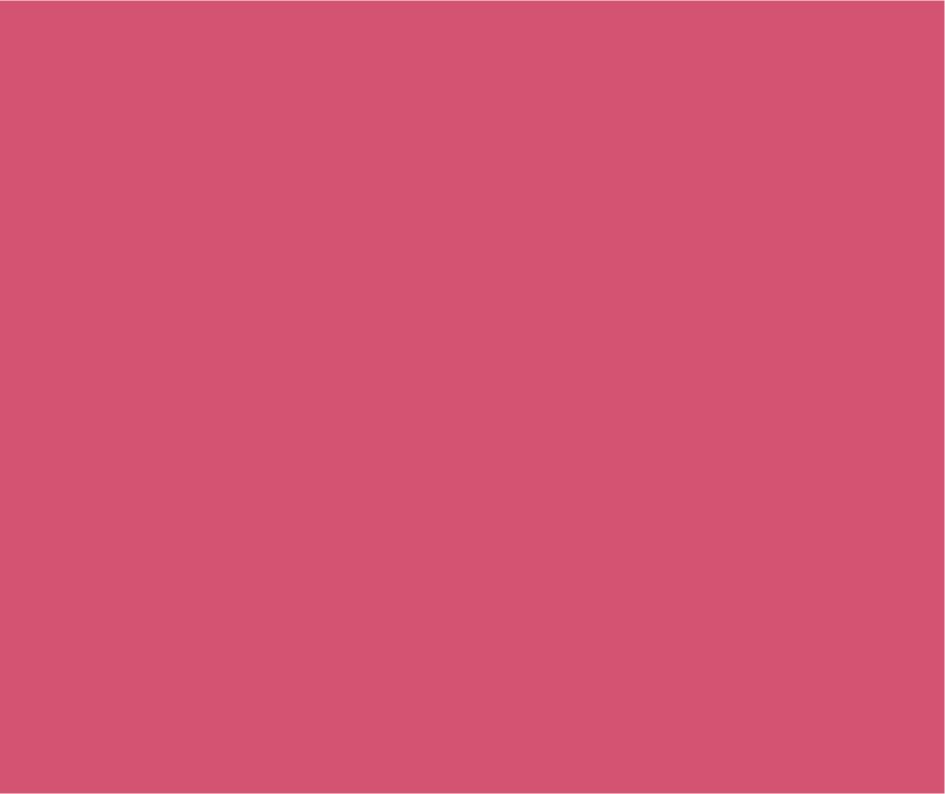
naming capitalism, marked a new shift in the turn to experience. I will go into these in greater detail in a later section, on the "disaggregated third world".

It is in the context of these shifts that I see the turn to experience in feminist and gender work. In using the allegory of the two reports I provide, I also wish to mark my own shift – a shift that I call a re-turn to experience. The particular relationship between the *dai* and the doctor could be and has been read as a case of "I know, you do", where the *dai*, in her own words the "*mukkhu sukkhu manush*" – the unlearned person – is brought in as experienced but non-knowledgeable, as probable representative of "indigenous health systems" that fit, makeshift, into the overcrowded field of reproductive health care, with the distinction alive at all times between Western medicine and such systems that are neither standardized nor adequately tested for efficacy and safety (NPP, 2000). This is the orthodox 'high knowledge' position that works well with simple policies of inclusion. In response, both feminism and gender work have attempted to chart a politics of third world women's experience, to present an alternative picture.

SECTION THREE:
WORKING TOWARDS AN ALTERNATIVE

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SECTION III: *WORKING TOWARDS AN ALTERNATIVE*

The previous section explored, in detail, responses to science and technology in feminist and gender work in India. The idea was, more than anything else, to present an 'attitude' to technology, whether manifested in dams or obstetric technologies, which sees technology as a handmaiden of development, as instrument — good or evil, and as discrete from 'man'. Feminist and gender work in India has thereafter articulated approximately four responses to technology across state and civil society positions — presence, access, inclusion, resistance. The demand for **presence** of women as agents of technological change, the demand for improved **access** for women to the fruits of technology, the demand for **inclusion** of women as a constituency that must be specially provided for by technological amendments, a need for recognition of technology's ills particularly for women and the consequent need for **resistance** to technology on the same count. Bearing in mind that women's lived experiences have served as the vantage point for all four of the responses to technology in the Indian context, I will now suggest the need to revisit the idea of such experience itself, and the ways in which it might be made critical, rather than valorizing it as an official counterpoint to scientific knowledge, and by extension to technology. This section, while not addressing the 'technology question' in a direct sense, is an effort to make that exploration.

ON CRITIQUE: RESISTANCE TO REVOLUTION

The idea of the 'outsider within' was first mooted by Dorothy Smith (1987)

In attempting to ask the question of criteria of knowledge through the allegory of what I have called women's lived experience, I adopt in somewhat mutated form the strategy of the 'outside' consciousness, something that has received much attention, in different ways, in orthodox Marxist and subaltern literature, as an empirical 'something', a socialist consciousness that can or cannot bring to revolutionary consciousness the 'mass'; also in feminist literature, at times as the empirical excluded, at others as the sign of the 'outsider within' who may

challenge dominant formations. At all points in the history of these formations, the translation of formulations of the outside has been at the level of the empirical. A link possibly exists here between this kind of translation and the apparent difficulty of attaching the political with the epistemological in any useful way. Politics, in such a translation, has either been about championing the entry of the empirical outside, or about championing the knowledge attached, ex-officio, to the situation of outsideness. I will, in the formulation I am about to offer, work with an understanding of exclusion to which inclusion in this sense is not the answer. In order to do so, I would also then, beginning with a formulation akin to that of the 'outsider within', attempt an allegorical description of the way in which such an outsider('s) perspective (I bracket the apostrophe in an attentiveness to the difference between the abstract and the empirical here) might offer a response to the act of exclusion.

I am aware as I say this that the first task is to provide a theory of the exclusion itself; in the case of science, to 'prove' that it is constituted by exclusionary acts. Further, it is important to show the operations of technology and its parallels with the operations of science. I have given exhaustive accounts of the work that has unconvincingly done this. For more convincing accounts, I rely partly, and in somewhat unrepentant fashion, on certain clues available in the work of 'western' feminist epistemological thinkers – those 'global' feminist accounts that for the first time enabled a possibility of thinking gender analytics outside Marxist frames in Bengal, while remaining hegemonic in the field of feminism; and partly on the allegory of the *dai,* whose engagements with the reproductive health system in India I explore in some detail, and partly on a different case for the 'outside' made in the work of a Marxian thinker in Bengal.

ON EXPERIENCE

First, the question of experience. This one statement subsumes several questions, on politics, on knowledge, that I have been trying to raise in this investigation.

What I have been calling the old ideological model of critique – the possibility of critique from the vantage point of a coherent set of material interests – was also tied to a model of knowledge, a model that said – *I know, you do*. This constituted the rationale for the vanguard, this constituted the knowledge of oppression. For a feminism having drawn from Marxist legacies of politics, this then was the model to be adopted, and the politics around women's lives that gave birth to this entity, feminism, and has nurtured it ever since, definitionally became that benevolent umbrella, that liberatory tool, that protects those lives and inserts itself into them (the personal must be politicized). Having identified the problems of vanguardism during the post-nationalist, subaltern turn, however, a portion of the rethinking Left *and* a global, universalist feminism may consider that what remains for us to do or think is a turn to experience. The slogan changed; it became – *we all know, together*. Both these moves were, however, hyphenated in the premise of 'one knowledge'.

There were several moves critical of 'one knowledge'. Those that took the 'Third World' route either proposed a 'different reason', a different canon, an alternative system (as postcolonial scholars sometimes did), or articulated a politics of complete heterogeneity that held knowledge as necessarily provisional and separate from a rationale for politics (as did those that took on the name 'third world feminism'). A third position here was of *I know mine, you know yours, there can be no dialogue*. For this school of knowledge, the experience of oppression was necessary, and sufficient. The consciousness of oppression, which was ex-officio, offered knowledge. The community of knowers here was a closed community. Asserting that the 'one knowledge' claim rested on the active exclusion of other knowledges, it suggested a remaking of 'low knowledge' through the *experience of oppression*. This is the impulse that starts, and ends, with the embodied insider, speaking with[in] and for itself, a complete closed community. This impulse we have seen with respect to sexual minorities, women, the subaltern – an impulse also tied to the organic or pastoral as opposed to the technological, an impulse sometimes tracing direct connections with a cultural past, and often offering a choice *between systems of knowledge*. The above mentioned third worldist positions sometimes tied up with

this third position, proposing a politics of coalition while keeping knowledge bases separate (as in third world feminisms), or realizing implicit connections between 'low knowledge' practices and a different system.

There is a wealth of theorizations on the feminine, not going for such a simplistic reading of experience or the everyday. Feminist work in India that looks at autobiographies, for example, has taken on the notion of the everyday as a fraught space, but also a liberating one, following on the re-reading of the personal as the political. Parallels with theorizing in western feminism may be found where the spectrum has, in talking of women's experience, included a valorizing, as in Adrienne Rich's description of the experience of motherhood in the Anglo-American second wave of feminism (1986), as also a speaking of the body, of corporeality, of embodiment, and of subjectivity as a foil to identity (as in the French feminist school, where notions of touch as against vision [Luce Irigaray], of 'there being no place for woman' in the patriarchal Symbolic' and women needing a different Symbolic to 'be'[Irigaray], have been suggested. The subjectivity-identity theorization also recalls the sati debates). This has proceeded to either pit experience against 'abstract reason', or to demonstrate, more interestingly, how

While I have made no attempt here to directly examine the complex of phenomena often referred to by the short-hand 'globalization', I will now refer back to my first mention of development as a practice and to the gender work that involves itself with disaggregated description as part of this phenomenon. The reaction to the ideological has meant, in this frame, a shift from politics to self-help, from the ideological to the intuitive, where the intuitive is taken as a flat description of immediate reality as experience. **While it might be tempting to read this immediate everyday reality as organic, whole, feminine, and often able to escape an over-determination by patriarchal norms, the new gender analyses do not necessarily rely on organicity.** Rather, politics, or the politics of representation, have shifted, as Haraway notes with deadly precision, to a game of simulation in what she calls the "informatics of domination" and the new gender analyses are as much part of it as any other (recall Van Hollen's terms – culture-in-the-making, "processural", etc). While none of this new critical scholarship addressing development or technology actually denies domination or power, it has contributed to making it so increasingly difficult to define or identify, as to make counter-hegemonic attempts appear very nearly anachronistic.

reasonableness is itself infected by bias, in some cases a 'male sexualization' (Grosz 1994). Other powerful analyses could be made, following on Judith Butler's concept of the 'constitutive outside', to show how Reason enacts its hegemony through a continuous production of experience as the constitutive outside to discourse. (This need not be construed as a structural model, as a detailed reading of Butler's theorization of 'politically salient exclusions' will show (Butler 1993). Parallely, 'experience' has been articulated, in the work of Joan Scott, among others, not as an 'out there' but a historical production (Scott 1992).

I have referred to the way in which I use aporia, in the introduction to the thesis. To recapitulate, aporia is referred to as a logical impasse or contradiction, that which is impassable, especially "a radical contradiction in the import of a text or theory that is seen in deconstruction as inevitable" (Merriam-Webster Dictionary Online).

A clarification here. I am not saying that experience is always aporetic to a narrative, but I am asking for an attention to a particular perspective that might be so positioned as to be aporetic.

What, then, of alternatives? After a rejection of those feminist strands that seek to build a common, sometimes homogenous *narrative of feminine experience*, and of gender analysis that thrives on the heterogeneity of *women's experiences*, but yet agreeing with the need to "speak from somewhere", as against older models of one knowledge that offered a "view from nowhere", a neutral view, what could be the nature of this critique?

I would suggest that it will have to be a *re-turn to experience,* a re-cognition, *rather than a turn.* **That we pay attention not only, or not even so much, to the fractured narrative offered by the wide variety or heterogeneity of experience, as to its possible** *aporeticity* in dominant frames, so as to **enact such a re-turn treating the perspective of the excluded, aporetic experience as momentary resource – not authentic, fixed, or originary, but appropriate.** Drawing on Haraway's suggestion of a gift of vision, of situation as a visual tool, this would mean a momentary cognizance, a momentary gift of ab-normal vision – abnormal by way of not making sense in dominant frames – that could describe the dominant in terms different than its own, as also point to other possibilities. This would mean, most importantly for a notion of the political, a shift from marginality to aporeticity as a vantage point for critique.

In what might perhaps be an unwarranted dissection of events, but one useful for our purposes nonetheless, let us go back therefore, to the *dai* training programme,

mapping onto my narrative of it the paleonymies and possible difficulties of such a narrative. I have refrained from relating to this exercise as either participant observation (in anthropological mode) or as case study (the qualitative approach in medical parlance). Both of these, positioned at the same end of the methodological spectrum, were efforts that came up to serve a need for 'qualitative' analysis – the latter from within the scientific establishment, the former from within the social sciences. In its acting out, however, there is an effort to capture the microcosm that is a stepping away from earlier structural analyses; and a meshing of 'observer' and 'observed', a moving away from complete objectivity, that all self-respecting qualitative analyses undertake. These analyses are also an attempt to either expand or critique complete objectivity. This is what I have in mind when I refer to that time as 'conversation' rather than 'consultation'. What I am attempting here is a further *bracketing of that effort*, a bringing to bear, on the conversations, the weight of my identification of the problems with existing frames of critique that I have identified in the thesis. This is so that what I have been laying down as a different contour of critique, finds its possibility. To perform such a bracketing, I use the narrative of my experience with the *dais* as a template within which I identify moments of the anthropological narrative, and from which I move towards a different possibility. This exercise will involve, therefore, as I have stated, through a re-turn to experience, a re-examination both of dominant discourse and of the category of resistance within which it has been named. Such a re-turn will mean an attention to experience – not as narrative, resistant or otherwise, nor as fractured and unpredictable, but as aporetic – as affording a fantastic perspective on the dominant that had hitherto appeared as normal. An attention to the fantastic perspective will result in a turn from within (a community) outward – a different notion of the political from that of either organizational, organic, or individual responses. It is, however, a notion that is hardly structural, a notion of the political as interpretation, but one that will have to be done each time. With these telegraphic steps in order, let us proceed. We had started the classes from the *dais'* voices – what they had written or what they had to say regarding their experiences with the births they had attended. The attendant presumption on both sides was that these voices were

constituted by experience, the only prerogative of those uninitiated into *method* – *mukkhu sukkhu manush* (the unlearned people). I then set about introducing a gentle reworking of the boundaries of this category "experience" – till its quarrels with "method" had diminished to negligible levels.

This would be stressing the empirical foundations of science, but human sciences have always been the area where the subjective is most easily detected – hence the name 'soft sciences'. Things are changing, however, with the biological sciences rooting themselves in the 'knowable' gene – their accession to hard objectivity is now a reality.

How did I rework these boundaries? What were the contexts in which this was made possible? What were the terms of reference for the exchange between "experience" and "scientific method" that placed each, firmly, on a particular side of the divide between the untrained *dai* and the development expert, the body and the mind, the sensible and the transcendental? Several notions of the feminist political are at work here, working vis-à-vis dominant and other responses to the experience question. The responses may be charted in the following way. In the turn to experience as narrative, feminism has addressed the representation of the female body. The "female body", we have seen, is the site for the understandings as well as operations of science (with its invisible qualifier Western). In its project of defining the form and delineating the workings of the female body, this body of knowledge enjoys the status of a value-neutral, objective method that purportedly bases itself on solid empirical evidence to produce impartial knowledge. **In the case of the female body, it would then appear that science has *found* it exclusively and powerfully fashioned by *nature* to bear and nourish children; in the event, all it is doing is putting the facts before us.** Feminist engagements have sought to detect several disclaimers to the purported value-neutrality

of science. For one, the standard body is that of the male, by which the female body is judged small, inferior, or deviant; and through this a subtle process of othering or exclusion of the woman is instituted *within science*. **Further, accounts of the workings of the body, its organs, its reproductive processes, are strewn with gendered metaphors that privilege the male as decisive, strong, productive, and the female, as complementarily passive, wasteful, unreasoning.** In the event, this part of the feminist project has been to make explicit the hidden cultural weight of scientific knowledge. Further, in addressing the methods of science itself, feminism has pointed to the homogenization inherent in the manner in which the scientific concept of the "female body" is derived. **It is somewhat against this authoritative, homogenising strain that women's bodily experiences are posited in feminism – as something that is not only missed in science's project of objectivity but something that is excluded from or unable to articulate itself in and through science's abstractions.** In the event, the experience of the "woman" within science is seen as that which, through the explicit introduction of an apparently inassimilable, pre-discursive subjectivity, questions the *explanatory* potential of science, while also offering possibilities for agency.

As would be evident in the models of sexual intercourse in the medical texts with the masculine/feminine metaphors for sperm/ovum – a model we used in the class as well, with a lively response, for it spoke to traditional languages of patriarchy as well. This has been discussed in some detail by Emily Martin (1991).

Where experience is separate from the empirical.

There are certain collusions in the goals of these two projects, however, that bear looking at. Both are moving toward a single truth, whether derived from scientific theory or subjective experience, which they alone can represent. To this end, both homogenize and both declare the undisputed presence of this 'reality out there'

that can be represented without mediations. And from here also flows a claim to objectivity. If science posits a naturalized universal female body, experience would posit the "woman" universalized through socialization. No experience can exist here outside narrative history, unless as aporia – the seemingly insoluble logical difficulty. One would then derive that if scientific theories are built on exclusions, so is the category "experience". If science claims value-neutrality, a simple valorization of experience ignores the "historical processes that, through discourse, position subjects and produce their experience". In the process, both science and experience in turn achieve status as categories, homogenous and uniform in themselves. Both become discourses that have the right to regulate entry, so that what counts as science or experience becomes the qualifying question.

If we then conclude that there is in this separation a certain essentializing of categories that ignores their very constitutions by the other, as also their constructions through cultural intelligibility, several questions arise. Can experience be that essential outside of science that can grant agency? Or would it be also explicable as reflective of hegemonic norms that grant the sensible body as "women's generic identity in the symbolic" while retaining a masculine topology for science? This brings us to another feminist cognition of experience as constituted by history, circumstance, and *as* circumscribed by the norm as outside it.

But, caught as I was between the conventional registers of science and feminism, I kept falling backwards into the question of results, and their reflection on validity. Experience, it would seem, was faulty by virtue of its very constitutivity, while science continued to look rigorous and unbiased. As critical courier of scientific knowledge, I thought I was trying to weave myself into the discourse of the *dais* with minimum damage to their framework, and to that end I had decided to keep the question marks alive throughout, directing them towards science as well. But as I sat down to look at the assessment sheets on the afternoon of the first day's session, 'I' was fairly stunned. Of the ten questions put to the dais, one was worded as follows – If the child does not cry soon after birth, we must –

a] say prayers over the baby
b] perform mouth-to-mouth resuscitation
c] rush the baby to the nearest health centre
d] warm the placenta in a separate vessel.

Almost all 46 of the dais had affirmed the last answer. I remembered the asphyxiated babies that used to be rushed to the nursery in medical college from the labour room that was on another floor. I remembered the bitter debates as to why the nursery was not stationed nearer the labour ward so that we could lose less time in resuscitating them. I decided this could not be allowed to pass. And I conducted the classes accordingly. When we repeated the written examination at the end, none had ticked the last answer, and I was both relieved and vindicated. Until I had come away, still thinking, and then I realised that I had succeeded only because I had adopted a more positivist, authoritarian approach – right and wrong – to get across. And why had I done that? I realized, again, that with all my criticality, I was very much a scientific subject, and not merely because of my disciplinary training. I had retained reflexivity and criticality for as long as there was non-contradiction. Beyond that, I stayed put – well within science. I too had my experiences – I could look at them as inseparably constituted by my production as scientific subject. But I had been trained to look otherwise – at experience as empirical evidence of theory. And there I was.

In current development policy, though, there is not so much the suppression of subaltern voice as its making visible in extensions of scientific discourse. It has become part of development policy to include women's voices in their own development; the 'third world woman' is no longer considered to have no voice. On the contrary, she has a *specific* voice that is apparently being heard now in development projects in the third world. In order to articulate this voice, however, she must have the capability to streamline it, make it universally understood as well as reasonable, and this is the cornerstone of the 'capabilities approach'. Here the *dai,* once named as dependable repository of traditional knowledge, can now be

Things were different before … they will have to be done differently now.

appropriated by notions of development flowing from liberal theories, for she also represents, in this frame, the rigid face of patriarchal traditions that have not given the woman voice. Development here is taken to mean empowerment – a granting, or rather restoration, of voice to the woman hitherto suffocated by tradition – and it is to this end that the efficient model of scientific method may be adopted. **The old order will indeed change, for the *dais … Aage ek rakam chhilo … ebar anya rakam korte hobe… but that is hardly an exchange of tradition for modernity, or of experience for science; it is an accommodation of one by the other.** In the pluralism of current development discourse, the *dai* is a figure who exists before context, occupies an underprivileged class position, and has a voice that may be heard or streamlined into the mainstream.

And in feminism, despite, or after, the recognition of 'women's experience' as constitutive of hegemonic norms, there is a renewed positing of experience as resistant, as the natural habitat, perhaps, of the woman …

This is of course clearly in evidence in what I have called the global feminist undertaking, which is most well argued for philosophically in Nussbaum's work, and most tellingly represented in her examination and insertion of 'Jayamma-the-brick-kiln-worker' – who *cannot not* have a body that speaks – into the lexicon of development literature. As 'third world women's practices' that contribute to culture-in-the-making, it is visible in the gender work that I have talked about.

The place of women – in patriarchy, in a language outside patriarchy, has been a recurrent theme in the thought of Luce Irigaray. Interpreting Plato's myth, she draws a picture of the analogies with the patriarchal arrangement, and proposes another topology. Plato's Idea she designates as the realm of the same – "the hom(m)osexual economy of men, in which women are simply

What of my 'conversations' with the *dai*? As medical-professional-feminist-addressing-gendered-subaltern, I recognized and tried to steer clear of the various precipitations of such a binary; I ended, however, looking for a connection *through experience* between the 'professional' and the 'unlearned'; for an essence to the feminine, perhaps, or to woman in the Symbolic. **The earlier legacy of experience, then, inheres**

objects of exchange. ... The world is described as the 'other of the same', i.e. otherness, but ... more or less adequate copy ... woman is the material substratum for men's theories, their language, and their transactions ... the 'other of the same' ... [or] women in patriarchy ... [t]he 'other of the other' ... is an as yet non-existent female homosexual economy, women-amongst-themselves ... [I]n so far as she exists already, woman as the 'other of the other' exists in the interstices of the realm of the [same]. Her accession to language, to the imaginary and symbolic processes of culture and society, is the condition for the coming-to-be of sexual difference." See 'The same, the semblance, and the other' in Whitford (1991: 104).

This is between us women – a common saying in Bengali that carries connotations both of an exclusivity – a woman's domain – as well as insignificance – this is just something between us women.

here; in asking questions of an epistemic status for experience, in the anxiety of not being able to accord it equal validity, in looking for a separation between feminist critical projects and dominant discourse through a recourse to a feminine difference which will be different from the place accorded to women in the patriarchal Symbolic. Most telling, perhaps, it inheres in the anxiety over the similarity or otherwise of perspective between the (feminist) professional and the (woman) *dai* ... one that presumed that the origins of an organic connectedness was to be found in the unspoilt *dai* who talked of *meyeder meyeder katha*. So the first attempt that the *dais* made to connect with me was through *abhigyata* – experience. And the overwhelming feeling at the end of those six days amongst the *dais*, and in me, was of a solidarity that had perhaps been established. A solidarity across boundaries of authority (though not disruptive of it in any way), across science, across different experiences. But ... where then are feminist projects going to differ from development initiatives? What do third world women want, if one may ask the blasphemous question, a question that gathers momentum, nevertheless, in the context of first world vanguardism. Can the solution be that we must give up on capability altogether as a universal? While accessing a connectedness that would not mean the place accorded to women in the patriarchal Symbolic would definitely be a move, where would this connectedness be situated? If not in family or traditional community, would it be in some other sense of being together?

Will we seek to continue its residence in women? Will we travel from an erasure of experience, the feminine, the subjective, to an essentialising of the same? Will women be the "embodied others, who are not allowed *not* to have a body, a finite point of view"? If so, are we still going to stay with the biological body as pre-discursive resource of experience? And if science is to remain the ultimate arbiter, is experiential agency then to be only the aporia, showing up as resistances through gaps in policy, that must let be, or can there be a feminist policy-framing that can work on the aporeticity of experience?

What of collaboration? Caught between the conventional registers of science and feminism, where science is about knowledge and feminism about politics, not only is the *dai's* experience waiting to be rehabilitated within science but also within feminism. While the mainstream policy dialogues with science remain at the level of "filling in gaps in manpower", the philosophies of science attempt to talk about whether "midwives' tales" might be justified – questions of validity. The politics of inclusion have operated to bring 'low knowledges' into circulation, and feminism must be the natural host to these politics in a frame where feminism is about politics and about women. Hence, the whole debate about representation – institutional science versus the *dai*, the *dai* as gendered subaltern versus the third world feminist, that populate the space of critique of knowledge by politics, of science by feminism. The questions therefore continue to be – In frames where the *dai* as "gendered subaltern" has been appropriated into governmental apparatuses, and *made to speak* that language, are conscious tools of collaboration with the master's discourse available to her? Or is this the tool lying there for the *feminist* to pick up, to create a discursive space of negotiation for 'third world feminisms'? Is this, then, yet a battle for representation, a vanguardism, a speaking for that continues to slip into a speaking of, where third world feminists freeze their

examinations of their own enmeshedness or location in their negotiations with global feminism and global development? Is such a freezing inevitable? Or is the *dai* as gendered subaltern as much outside third world-first world feminist negotiations as outside empire-nation exchanges?

But there is also a question here of the continuing separation of experience and knowledge. If these attempts to rehabilitate experience seem to be at the level of according it equivalent status to knowledge, thus actually keeping alive the binaries feminism has been straining to step out of, what of experience as condition of knowledge-making? The aporeticity of experience I speak of might be a beginning.

ON CONTEXT

Three meanings of the word 'perspective' provided by the Oxford English Dictionary include – 1. The relation or proportion in which the parts of a subject are viewed by the mind; the aspect of a matter or object of thought, as perceived from a particular mental 'point of view' ... [h]ence the point of view itself; a way of regarding (something). 2. A picture so contrived as seemingly to enlarge or extend the actual space, as in a stage scene, or to give the effect of distance. 3. A picture or figure constructed so as to produce some fantastic effect; e.g. appearing distorted or confused except from one particular point of view, or presenting totally different aspects from different points.The meaning that I activate here is of a perspective that appears fantastic, or absurd, except from a particular point of view.

"Exclusion in principle seems to function as a formidable method of forcing dependence. And

Feminist Standpoint theory talks of the possibility of a

Perspective, here, would therefore, take on the third of three meanings, as the fantastic spur within the dominant, as a moment of seeing, of 'possession', that can be lost in the looking. In this sense, it is also not possible to map perspective onto identity or individual taste. Perspective as that moment of possession not only gives a completely different picture of things, it also gives a picture not available from anywhere else – that makes visible the dominant as such, as that which had rendered invalid other possibilities. This invalidation, this exclusion, could then be understood differently from a removal from circulation of that which is disobedient – "At my heel, or outside", as Le Doueff puts it; it is better understood as a constitutive or primary exclusion with an entry later on the dominant's terms. **As Le Doueff puts it again, "Outside, or at my heel." Here I find useful, as a beginning, the model of the excluded available within feminist**

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it is indeed a choice between "being on the outside or perhaps at my heel," conveying first an exclusion in principle, and then conditions for secondary entry, rather than the reverse, "at my heel or on the outside," which would indicate first a frank authoritarianism and then punishment for insubordination."
(Le Doueff 2003: 25)

situated, perspectival form of knowing, of such a knowing as necessarily a communal project, and of this knowing as one where the community of knowers is necessarily shifting and overlapping with other communities. While Haraway would speak of 'situated knowledges' as against the 'God trick', as she calls it, of seeing from nowhere – a neutral perspective (Haraway, 1992), Sandra Harding would go on, however, to propose a version of strong objectivity – a less false rather than a more true view; this, Harding would suggest, can come only from the viewpoint of particular communities, sometimes the marginalized, sometimes women. This is where Harding's version of standpoint epistemology is still grappling with the question of whether the experience of oppression is a necessary route to knowledge. (Harding deals with this with this by treating women's lives as resource to maximise objectivity, Haraway

standpoint theory, of the woman as 'outsider within'. While this formulation evokes a degree of unease about whether this social location can be enough as a starting point (whether women then always have to be the outsiders within to be able to speak from this space), it offers, I think, valuable clues for working toward a possible model of feminist critique. To understand this, we need to understand, also, that the issue here is not only that of recognizing hierarchies, nor is it about building a stand-alone alternative system of knowledge that may be called feminist. The example I gave in 2.III.c, of the clinical consultation that turned into a conversation, tries to demonstrate this.

The very notion of a feminist standpoint would be then the act of interpretation that puts this positioning, this transient possession, to work, not a place already defined, as earlier understandings of standpoint would have; this process involves the production of an attached model of knowledge that begins from perspective, one that requires a speaking from somewhere.

Such a speaking from somewhere obviously requires a conceptualization of this 'somewhere'; in other words, a fidelity to context. Here, context, I would suggest, is not (only) about date-time-place, such that a concept of 'one knowledge' can be critiqued from a situation. It is most importantly about relationality, the space between you and me, both intra-community and inter-community. Once we take cognizance of this, we realize

by treating these women as ironic subjects and seeing from below as only a visual tool). A related question is whether the very notion of standpoint epistemology requires a version, albeit a more robust one than in place now, of systems of domination, and it is here that a productive dialogue could be begun between Haraway's more experimental version of "seeing from below" and Harding's notion of strong objectivity.

that that space does many things – it induces a porosity of boundaries (body, community), it creates attachment, it also creates separation. With this in mind, we then have to talk of building a story from perspective, where it is the *turning from within outward* (from attachment to separation) that does the work of building the story. Such a standpoint 'is' only in the *constant interrogation* of both dominant discourse – masculinist Marxist discourse, *and of the category of resistance* – feminism – within which it may be named.

What we may have to gain from an attention to either consultations or conversations, then, is not so much the shift in form that we have made in moving from one to another, but the recognition of the fantastic perspective as a visual tool. Perspectives are made fantastic by their positioning in an imbrication of power *and* meaning; and unless the position is required to be static through any counter-hegemonic exercise, they cannot be the source of a permanent identity, nor an alternative system. I present my report on the *dai* training programme, then, in a different detail and from a different perspective than as a look at indigenous systems of health or as a lesson to be learnt from women's experiences, or indeed as an essentially feminine perspective. What I call the allegory of women's lived experience serves, for me, as a test case, an example of the fantastic perspective that both helps provide a different picture of the dominant, and a glimpse of other possible worlds. I will attempt to delineate this in more detail now, but would like to put in a statutory warning prior to the attempt.

POLITICS: FROM MARGINALITY TO APORETICITY

Does this re-turn to experience that I have talked about show up in individual dai experience? Is this a concrete turn, something that can be applied in straightforward ways? We turn to the Bengali Marxist who tried to find a subaltern Lenin –

> The concept of the outside as a theoretical category is rooted in the concept of abstract labour as opposed to concrete labour. Concrete labour, located within particular industries, is within the sphere of production; abstract labour is not. ... It is situated where, as Lenin puts it, all classes meet – outside the sphere of production.
> *(Chaudhury 1987: 248)*

Chaudhury is using the concept to gently remind the Subaltern School of the difficulty of positing a 'subaltern consciousness' as a separate domain, or the equal difficulty of speaking of inversion, in other words revolution, from this vantage point. For my purposes, the turn from within outward faces the same difficulty. It is a turn that has to be mined for its possibility, not one that offers, straightforwardly or empirically, the description of a different world.

ON KNOWLEDGE AND POLITICS: TOWARDS A STANDPOINT

To travel from 'mimesis imposed' (Irigaray's term for the mimesis imposed on woman as mirror of the phallic model) to 'mimetisme' – "an act of deliberate submission to phallic-symbolic categories in order to expose them", where "[t]o play with mimesis is ... to try to recover the place of ... exploitation by discourse, without ... simply [being] reduced to it ... to resubmit ... so as to make 'visible', by an effect of playful repetition [mimicry, mimetisme] what was supposed to remain invisible ..." is the Irigarayan project (Irigaray 1991, quoted in Diamond 1997: 173).

Having identified these existing trajectories for feminist critiques of science in the Indian context, therefore, I pick up on the gaps in the quintessentially anthropological narrative, to bring back the question of aporeticity. We have spoken extensively of the fractured narrative – in anthropology, in feminism. Rather than the fractured *narrative*, however, it might be the *fracture* we need to speak of now. **And rather than look at women as being essentially capable of *mimetisme*, and therefore, as the essential content of fracture, it might be useful to access the moment of fracture, using as allegory, not narrative resource, the responses of the *dais* to the reproductive health apparatus, or the bizarre consultation between the recalcitrant mother and the female physician.** It might

not be the connectedness between me and the *dai* as women, then, that will serve as my resource, but our very asymmetry of dialogue, our seeming separation. This might be the fantastic perspective that must be worked on, in feminism, to create the discursive space required to articulate the inversion – an overturning of the dialectic of one knowledge – that Chaudhury (2000) speaks of. Such a concentration on momentary fractures, disallowing as it does a final and fixed concentration on 'woman', or a continuing separation of registers between politics and knowledge on account of the 'fantastic' perspective opening up a fresh vantage point both of knowing and critique of possible worlds, I submit, would constitute a useful feminist standpoint epistemology.

The relevance of such a re-cognition of experience for our purposes? I started this section, and this exploration, with Haraway's exploration of the 'informatics of domination', which today relies on simulation strategies rather than older representative networks. If technology, and its problems, needs to be addressed, my suggestion is that this needs to be understood as a first step. Technology needs to be understood not as a discrete and inadequate extension of 'man', but as existing in an inalienable relation with the category we are calling 'human'. Consciously or otherwise, such an understanding has already permeated all methodologies of research in the natural sciences, with fieldwork being replaced with codes, so that science is no longer an explanation of nature 'out there', but a simulator. In such a condition, women's experience of technology is a part of the technology itself, rather than being empirically outside of it. Any theory of exclusion, therefore, of such experience, will have to re-cognized if the 'problems of technology' are to be made sense of, and it is the groundwork for this that I hope to have laid in this project.

In this exercise of tracing a genealogy of responses to technology in the Indian context, digitization and its many manifestations have not been dealt with explicitly. It must be said, however, that the visible character of digital technologies has forced on the imagination of technology in general a re-visioning, as also a re-articulation of its relationships to various constituencies of users. Such a re-visioning, carried to its logical limits in this exercise, has helped strengthen the hypothesis that technology per se needs to be understood differently from its classical definitions as instrument, means of production, or product of science. Each of these understandings has been at the centre of various philosophies including classical economics and Marxism in their theories of technology's relationships. Both policies on technology and critiques have built on these theories.

What, then, might be the contours of an alternative imagination? Methodologies of research in the natural sciences have already shifted from fieldwork to simulating systems in the laboratory. Despite the philosophy of representation being adhered to, at least the form has been altered, so that the task of explaining what is 'natural' or 'out there' is no longer the simple task of science. What of technology? Have things changed, to repeat the cliché, in technology too with the arrival of digital technologies that seem to be enveloping, un-ending, and at the same time precise? An initial examination of two kinds of digital technologies, or rather two kinds of uses that digital technologies are visibly put to, might help unravel this question. Data bases, in use in medical institutions, in governance, in outreach programmes, are seen to categorize to the last digit, and in doing so, attempt to account for every natural phenomenon as it were, as statistic, as factor, as category. In doing so, they are the new dream for policy makers; and more so for critiques, who find in their attempts at categorization fodder for fresh critique. This attempt at information-retrieval, say the critiques, or this attempt at inclusion through categories, is doomed

from the start. But what of imaging technologies? Such technologies, that by their very nature need to reveal themselves in form to the end-user, seem to function not in hostility towards, or through a panopticon-like gaze on, the patient/ client/ user. While absolute surveillance can be read into the precision of their 'results', and cold metal detected in their arms-held-out-to the user, there is yet a something, an association, a lack of separation between one and the other that suggests an interdependence, where results may not be obtained without association. Is this different from earlier, other, technologies? Or is such a reading of other technologies possible, and possibly more accurate? Is the digital a different world or does it allow for a different reading of the world? These are questions this investigation has, I hope, helped pose to the critical analyses of technology.
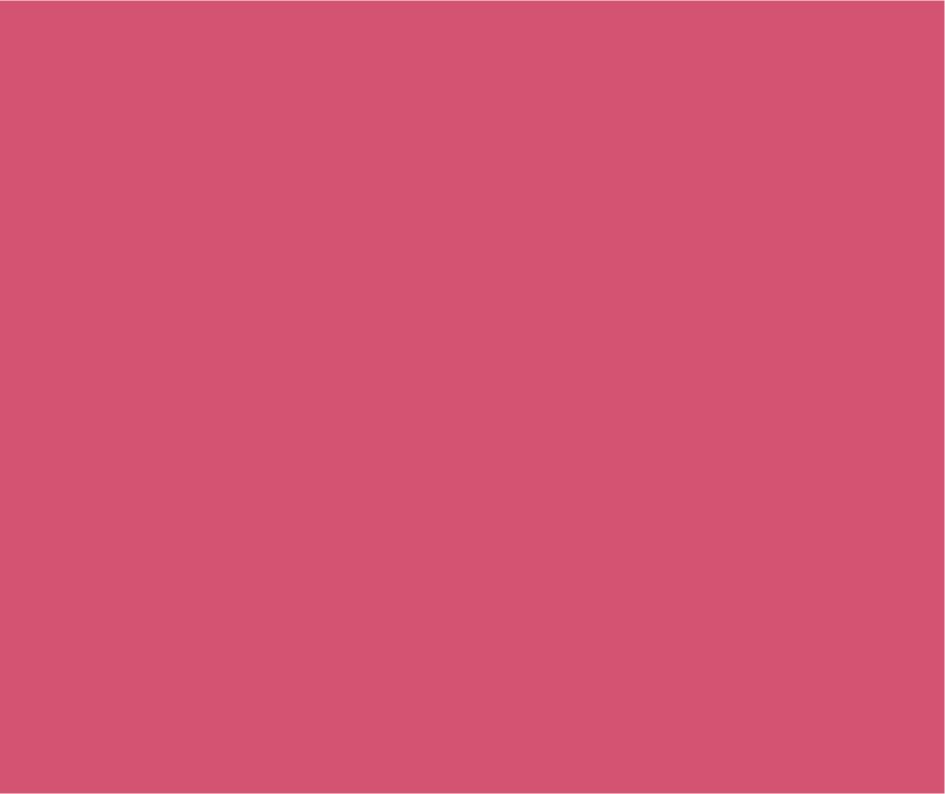
Some of the detours through feminist and gender work this investigation has undertaken have been exemplars for the different methodology of 'seeing' that helped pose these questions. Such a different methodology adopts a meaning of perspective that is not 'limited', local, or partial, in the senses in which we have understood it so far, but as bizarre, or fantastic, with respect to the given picture of the world – what I have been calling aporetic. My return to the engagements with traditional midwives, or *dais*, in the preceding section, was also an attempt to re-examine methodologies that seek to invoke excluded perspectives – like ethnography, for instance. In an attempt to find what would facilitate such a sense of perspective as aporetic (not aporetic perspectives which give a sense of empirical fixity), I also therefore attempt a reworking of classical ethnographic methods. There are a couple of clarifications that I would like to reiterate at the end of this investigation. One is the relationship between science and technology. I have clarified, at the outset, that I treat technology as part of the philosophy of modern western science, being wary of the impulse of treating technology as the problem with science, as several critiques have done. I have attempted to expand on this in the first two sections, pointing to the images of technology that the critiques themselves work with, and particularly to the connections between science and technology that avowedly justify their positions. To engage more fully with the

philosophy itself, or more precisely with the model of knowledge, however, I have had to focus particularly on the epistemic enterprise that is science. This is a partial explanation of why the last section moves from technology to the question of modern western science as a model of knowledge.

The other is the relationship between technology and bodies. I have suggested that this is the more obvious relationship upon which the formulations of human-technology relationships are built. Critiques of the objectification and homogenization of bodies by technology have, in their associated critique of value-neutrality and objectivity in science, shifted to a more phenomenological approach. Notions of touch and embodiment have tried to address questions of this relationship through porosity, lack of separation, and so on, and deserve greater attention than this investigation has been able to bring to the exercise. It is with the hope of such an approach contributing further to the different interpretation of lived experience as laid out in the last section, that I close this discussion.

Re:wiring Bodies Asha Achuthan

Lived experience

The notion of lived experience was first mooted in phenomenology by Merleau-Ponty; it has been used subsequently, in mostly a loose sense, in postcolonial, anthropological, and feminist literature, to denote something like day-to-day experience, personal experience, and so on, and often substituted for by the word 'practice' – meaning knowledge as practice. Practice, in this usage, is value-laden, in the anti-theoretical stances of early Positivism, in the determinedly empirical approach of Sociology of Scientific Knowledge, and, for our purposes, in the perspectival critiques of science that have come from anti-developmentalism, feminism, and postcolonial theory in Indian contexts – where particular meanings of the perspectival have been employed. In the field created by these discourses, various combinations of pragmatism, contingency, learning and resistance have been at work to denote and inhabit practice. Practice is therefore the keyword for critiques of normative science today. This investigation takes into account these usages, but in order to return to the phenomenological definition, primarily for the potential it offers for a different view of the world than that available either in the objectivist account or in the reversal i.e. in the turn to a complete subjectivity of experience. The phenomenological account itself defines lived experience. Following the rich reading of Simone de Beauvoir available in Toril Moi's "What is a Woman"?, the body is a situation, and part of what might be called lived experience – a situation that affords a view on the world that views the body.

Aporia

The French word *aporie* is ultimately derived from the Greek aporia, meaning difficulty, that which is impassable, especially "a radical contradiction in the import of a text or theory that is seen in deconstruction as inevitable" (Merriam-Webster Dictionary Online). I use the word aporetic here and throughout the monograph to speak of the logically insoluble theoretical difficulty, the impasse.

Perspective

Three meanings of the word 'perspective' provided by the *Oxford English Dictionary* include – 1. The relation or proportion in which the parts of a subject are viewed by the mind; the aspect of a matter or object of thought, as perceived from a particular mental 'point of view' ... [h]ence the point of view itself; a way of regarding (something). 2. A picture so contrived as seemingly to enlarge or extend the actual space, as in a stage scene, or to give the effect of distance. 3. A picture or figure constructed so as to produce some fantastic effect; e.g. appearing distorted or confused except from one particular point of view, or presenting totally different aspects from different points. I use the third of these meanings in the effort to articulate a use of lived experience that is not a faithful record, or testimony, but a place from which to produce a different picture of the world.

Hybridity and the postcolonial

One of the major pillars on which present critiques of science and technology, and by extension, development, in the Indian context rest, is the concept of hybridity and its commitment to what might be called cultural difference. The framework of hybridity has been used in postcolonial circuits to describe the object of critique – Western science – as fragmented, as hegemonic but not completely successful in its dominance, as containing within its dominant self the seeds of resistance. Externalist and 'outside' histories of science are used to vindicate such an approach. They have been focussed on the travel and reception of what is seen as Western science in a resistant space. Under the metanarrative of Marxism, historiographies of science and postcolonial historians of science in India have variously proposed notions of either the success or failure of this enterprise, resulting in the production, in an inflection through Indian forms of knowing, of a hybrid or mutated knowledge. To make this clear, someone like Gyan Prakash, for example, uses the notion of hybridity to refer to "the implosion of identities, to the dispersal of their cultural wholeness into liminality and undecidability. Such a notion of a hybrid, non-originary mode of authority is profoundly agonistic and must be distinguished from the concept and celebration of hybridity as cultural syncretism, mixture, and

pluralism. Hybridity, in the sense in which I have used it ... refers to the undoing of dominance that is entailed in dominance's very establishment. It highlights cracks and fissures as necessary features of the image of authority and identifies them as effects of the disturbance in the discourse that the "native" causes. ... Hybridization and translation addressed the relationship between languages and subjects positioned unequally" (84). This, for Prakash and others working at postcolonial reconstructions, constituted the primary critique of modernity as residing entirely in the West.

There is a disjunct between the claim to hybridity and the practice of these histories themselves. In attempting to produce an accurate rendition of the hegemonic in order to be able to move towards a counter-hegemonic position, the problem is that hybridity sees hegemony as fractured rather than monolithic – a useful rendition – but also as structured and all pervasive. In this framework logically extended, any counter-hegemonic exercise, however fraught, is problematic, because it is through contingent negotiations, rather than an ideological positioning vis-à-vis power, that the built-in response to hegemony comes. In fact, following Bhabha, hybridity is a thorough and *ongoing* description of reality that actually refrains from formulating a theory of hegemony, and this shows up in Prakash's own difficulty in understanding the process itself as more than "an unequal positioning" – a consideration of power that hybridity is bound to disallow. Prakash of course sets up a meaning-power coalition in order to insert hybridity into hegemony, talking as he does about the cultural authority of science as his primary concern, but even so, he fails to make clear how the arbitrariness that must necessarily be the character of hybridity finds closure; how the "native" becomes, each time, the discordant note of dominant discourse. In such a case, the multiple dislocations it shows up fails the implicit promise of the *postcolonial* that it sets up, of being able to offer a theory of the workings of power *that can suggest a response and an after to it*, commonly named resistance.

Let us see what would have been necessary for the hybridity framework to succeed as an enterprise in science studies in India. Put telegraphically, the hybridity framework brings in certain attitudes – ambivalence, negotiation, contingency, difference. Ambivalence is the split at the heart of domination. Negotiation is the quality, through positioning, of resistance by the "native". Contingency refers to the arbitrariness of the closures offered by this negotiation (so it is not a simple notion of 'interest'), which is why hybridity is posed as process rather than structure. Difference is, or should be, the inability to be captured within structures of sameness. The postcolonial, in robust definition, could be the epistemo-political act of resisting the hegemonic – here the concatenation of contexts and meanings created by colonial domination, imperialism, or in other words, the act of making active difference. Mine is a thin challenge to the hybridity framework in as much as the latter claims to provide a substrate for understanding hegemony that will then *produce a critique of the hegemonic.* For one, the descriptive framework of never-ending and arbitrary negotiations that each of these interlocutors sets up does not offer, or require, possibilities for critique. And the claim to difference that is made in this challenge to the dominant does not work. As Bhabha himself puts it:

> … the site of cultural difference can become the mere phantom of a dire disciplinary struggle in which it has no space or power. Montesquieu's Turkish Despot, Barthes' Japan, Kristeva's China, Derrida's Nambikwara Indians, Lyotard's Cashinahua pagans are part of this strategy of containment where the Other text is forever the exegetical horizon of difference, never the active agent of articulation. The Other is cited, quoted, framed, illuminated, encased in the shot/reverse-shot strategy of a serial Enlightenment. Narrative and the cultural politics of difference become the closed circle of interpretation. The Other loses its power to signify, to negate, to initiate its historic desire, to establish its own institutional and oppositional discourse. However, impeccably the content of an 'other' culture may be known, however anti-ethnocentrically it is represented, it is its location as the closure

of grand theories, the demand that, in analytic terms, it be always the good object of knowledge, the docile body of difference, that reproduces a relation of domination and is the most serious indictment of the institutional powers of critical theory.

(Bhabha 1994: 31)

"Current postcolonial studies ... are overtly historicist ... The 'post' of the postcolonial studies has the sense of a simple succession, a diachronic sequence of periods in which each one of them is clearly identifiable. It has a historical referent (the concrete of the colonized past) and indicates a rupture with the latter. As always a thousand schools of thought contend in postcolonial studies. But their differences count for little next to this abiding unanimity. The business of postcolonial studies is to deal with the legacy of the colonial space. From this legacy the postcolonial space breaks away as one comprised by a sovereign nation" (Chaudhury, Das and Chakrabarti 2000: 171). I have also, in Chap 4, offered a further account of why hybridity cannot explain hegemony)

But the "active agent of articulation" is not something the hybridity framework needs to support; the difference it supports is *differánce* – comprising both difference and deferral – to talk of a constant deferral of meaning, an impossibility of fixed signifieds allotted to a signifier. Nor is that "active agent" likely to appear in the contingent negotiations that hybridity promotes. In that sense, it is hardly difference but indifference. For hegemony to be countered, or for the "active agent" to appear, "current postcolonial studies" must make possible the postcolonial promise, that is, it must define better than it has done to date what it means by each of the terms 'colonial', 'postcolonial', and the overdetermined space of 'the third' which it marks as the site of contestation. **The historicist rendition currently available in postcolonial studies is hardly likely to offer closures to that contest, nor will a discovery of the "active agent" as resistant empirical entity in response to science or technology.**

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