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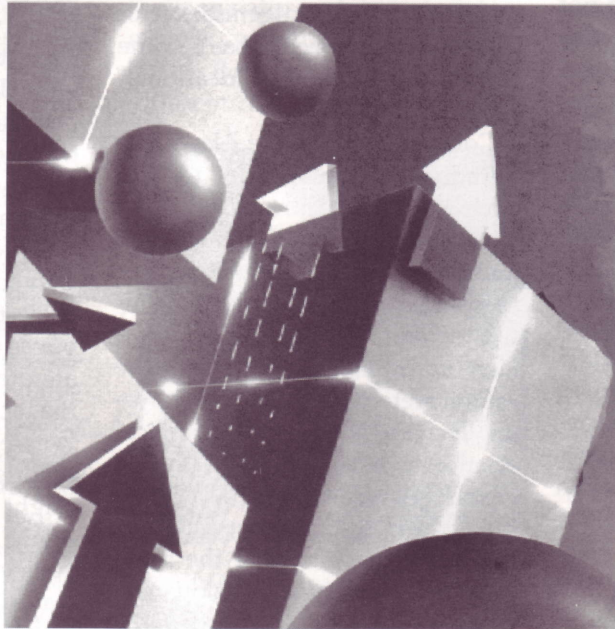
RETHINKING SCIENCE

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RETHINKING SCIENCE:

P.R. Sarkar's Reconstruction of Science and Society

by Sohail Inayatullah



The ubiquitous dominance of the scientific discourse has traditionally been critiqued by humanists, contextualised within a structure of paradigms by Thomas Kuhn, and more recently placed within a theory of epistemes—the boundaries of the construction of knowledge—by post-structuralists such as Foucault and interpreters like Michael Shapiro. In addition, Ashis Nandy has attempted to synthesize the many critiques of science, focusing on Third World politics, particularly the epistemological implications of the works of Gandhi. What follows is a short note that continues this project but attempts to inject an alternative perspective, that of P.R. Sarkar, into the “what is science?~ or the science/culture de-

bate. Sarkar, we argue, develops a new science of society that is neither solely cyclical (past-oriented) nor linear (present-oriented) and a new science of nature that does not fall into the various modern (pro or anti) science/technology positions. He does not reinscribe the Western model of science nor does he merely develop a local science.

Science inside and outside of politics

Traditional science or positivistic science has attempted to place science and thereby knowledge outside of history, culture and language. In this view, the goal of good research is to remove the subjectivities situated in the per-

son. The goal is disinterestedness in and distance from the results of investigation.

This type of research has led critics to argue that science (and its brain-child—legitimate or bastard—technology) is amoral, without conscience. In his brilliant *Traditions, Tyranny and Utopias*, Ashis Nandy critiques those who wish to place themselves outside of history (the modern liberal scientists and the modern scientific socialists.) Both seek to end history not through individual liberation—as the yogi—but through the search for the perfect society either through the magic of the marketplace (greed leading to growth) or the magic of the communist state or non-state (power leading to jus-

tice.) Central to both of these projects has been the science and technology revolution. In Nandy's words "the image of the scientist as a slightly seedy natural philosopher and practitioner of an esoteric discipline, and that of the technologist as a humble craftsman or artisan, gradually underwent change. Both became partners in a new, high paying, heady enterprise called modern science." (Nandy 1987, p78)

But the modern scientist did not stop there. "He was to sell the idea that while each technological achievement marked the success of modern science, each technological perversion was the responsibility of either the technologist or his political and economic mentors, not that of the scientist." (ib.)

In addition, science and technology constructed the world in which those with access to this worldview created the Other as primitive, as historical forms that need to be developed, to be modernised. This is also linear evolutionary theory with its social analog of developmentalism: Marx and Rostow. Both Edward Said in *Orientalism* and Frantz Fanon in *Black Skins, White Masks* have also developed this discourse.

In contrast, Gandhi sought to develop a local Indian science. Recently, a great deal of literature has argued for a local knowledge perspective; one in which science is not dominated by Western "universalising" knowledge practices but one where science is relevant to the local culture. For example, Pakistan has attempted to develop Islamic economics and science. However, while this indigenisation of knowledge is enabling in that it does not attempt to merely mimic the Western model of knowledge, it does lead to situations in which old power structures—the landlords and mullahs/ brahmins—are renewed. Instead of an alternative science of society or

a science committed to the empirical, what results are conferences where "inshallah" is repeated after every scientific formula (H₂O, God willing) or the Vedas are uttered continuously in the hopes of alchemically transforming the physical into the spiritual. Here, while science has been placed in an alternative cultural site it has lost its openness to critique and debate, an openness necessary for any creative development. While freed from modernity, this indigenisation of knowledge perspective has become frozen in the historical ideational-religious traditions.

Compare this to the New Age paradigm articulated by writers such as Willis Harman, Marilyn Ferguson and Fritjof Capra. This alternative science claims to have reconciled religion, science and values through the rediscovery of ancient spirituality and through the reinterpretation of modern physics. The aim is not towards a local science but a new universal science that is not reductionist, but holistic, with truth simultaneously having many levels and at the same time grounded in a consciousness that exists ontologically prior to the intellectual mind. Central to this reconciliation is the creation of a planetary, spiritual civilisation that exists outside of the present industrial nation-state Cartesian paradigm. From this New Age view, the indigenisation of knowledge, while creative in its anti-Western stance, is but a continuation of a knowledge regime controlled by those who ruled in premodernity eras, that is, the priests, mullahs and others whose robes kept them free from moral impurity (and interestingly this is isomorphic to the robe or frock of the scientist who also must be as free of values as from the contamination of the organisms released in his experiments).

From the view of modernity, the indigenisation of knowledge is the return of superstition, of the power of local tales, local priests and back-

ward institutions. Similarly, the New Age paradigm from the view of the traditional modern scientific discourse is merely bad science or at best mediocre metaphysics.

But for Nandy, superstition is not the danger. Local knowledge or New Age knowledge is not the problem. Rather, "modern science has built a structure of near total isolation where human beings—including all their suffering and moral experience—have been objectified as things and processes, to be vivisected, manipulated or corrected." Although modern science claims to be pluralistic, it has become authoritarian. At least in traditional cultures there were a variety of gurus, or perceptions of the real, vying for allegiance.

Gandhi, then (and others involved in the local knowledge project), in Nandy's reading comes out as one who attempted to create an alternative science; he rejected the technism of modernity and the Western categories exported through Orientalism. But how might Gandhi react to the new world of genetic engineering, global telecommunications, and space travel? Are these modern developments merely continuing the tradition of bureaucracy and control or are we on the verge of a new world? How should local and Western science deal with the dramatic restructuring potential of the new technologies (genetic, computer, space) that make our local and universal perspectives problematic by destroying both worlds and eras?

Sarkar's science of society

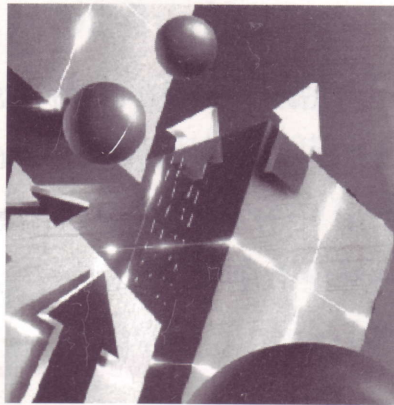
Contemporary Indian philosopher and radical guru P.R. Sarkar tries an alternative, unconventional approach. Neither does he attempt to support "universal" positive science nor the various forms of local science and technology. Rather Sarkar's interest is to create a new cosmology which is essentially spiritual but inclusive of the physical and mental. He does not locate

action in mere reflection; rather to him life is a struggle with the environment and with ideas (history develops through this struggle, thus social change is material and ideational) and progress comes through the attraction of the Great (thus it is spiritual).

Sarkar begins with a science of society, a science in which there are four basic structures that create our subjectivities: the worker, the warrior, the intellectual, and the accumulator (here radically reinterpreting the classic Indian caste construction). The structures are associated with personality types, classes and historical eras. He locates this discussion in a science of society instead of an art in that these structures are evolutionary and thus law-like. They developed from interactions with the environment, that is, the worker is dominated by the environment, the warrior dominates the environment, the intellectual reconceptualises the environment, and the accumulator transforms the environment into a commodity using all the four types of persons as resources for wealth accumulation. Society revolves through the various eras: worker, warrior, intellectual and then accumulator. From the era of the accumulators either through revolution or evolution there emerges the brief era of the workers. This revolutionary time is chaotic and power quickly centralises back to the heroic, the warriors, after the revolution. But the warriors in the form of the military also later abuse their power and eventually power passes on to the next stage, to the intellectuals (historically, the priests and recently the technocrats and finance ministers.) There are also reversals of this cycle but given the "law" of the social cycle, these are short lived. Thus these stages are historical. For Sarkar they are not metaphysically deduced. They are part of the science of society, but not science merely in the modern sense of empirically derived. For Sarkar science is defined not by the site the material, but by causality, systematicity and the ra-

tional. That is, what is important in science is not authority or devotion (two ways of knowing the real) but reason and sense-inference. Superstition occurs when the self is located in the ego, one's geography, ideology or in speciesism; the goal is to move toward a placement of self that is outside of conventional boundaries—a type of spiritual universalism.

In this definition, the spiritual can become the scientific. Spirituality becomes intuitional science, synthetic in nature while material science is analytical and inference-based. Both are necessary. This is different from the Western place-



ment where epistemology was divided into authority (religion), inference (science), and logic (philosophy). Sarkar's goal is to begin a rational intuitional science. The classic Indian episteme from which Sarkar emerges exists in a unity of discourse, the division of Vico (understanding) and Weber (explanation) does not occur here. For Sarkar there are five ways of knowing the real: reason, sense inference, intuition, authority and devotion/love. Each way of knowing the real has its price, so to say; it is only with devotion/love that contradiction-free progress is possible. Sarkar can thus arrive at his theories intuitionally and claim that they are scientific in that they are systematic, rational and have causal links. In addition, his theory of society can be scientific in that, from the Indian episteme, the social is in harmony and in parallel with the physical and the cosmic. It would be surprising if there were

no social laws! However, at the same time (and this is the paradox), the universe is not closed, nor clock-like since Consciousness emanates new forms of energy and reality. However, the openness of the universe only affects the social structure in the long run (following Rupert Sheldrake and his morphogenetic memory fields.) In the short run it provides inspiration to individuals to transform themselves and then the world around them.

Sarkar's claim to the science discourse again differs from the socialist scientific law or the scientific laws based on modern developmental theory (a la Spencer.) For Sarkar it is not that he is correct and they are wrong, that discoveries of the social were based on false consciousness prior to him, but rather that there are different levels of the real and different philosophers are in touch with different levels of reality. The only absolute truth is pure Consciousness. However, that truth cannot be expressed, for when expressed it falls under local influences, that is, culture, technology and history-power.

Finally, insofar as the scientific enterprise exists to improve the conditions of the material and mental worlds, Sarkar's theory gives new political assets to the worker (and the other classes, the oppressor and the oppressed, must liberate themselves from the particular social formation they find themselves in) as well as more fully explaining human history. His social theory reinterprets history, allowing previously silenced voices to be heard and allowing hidden structures to emerge (his four-fold structure of power). His science is not apolitical, rather it is expressedly political (in terms of creating new meanings) in rethinking history and in creating an alternative politics of the future of the possibilities of change, of governance.

However, what emerges from Sarkar's attempt to reenchant the

material with the spiritual besides a new social theory is a range of new ideas about evolution (evolution is desire-based, not Darwinian mutation-based). One central concept is the postulation of new entities called microvita that have both mental and physical qualities. Microvita can spread information throughout the universe, transmit viral diseases and solve the traditional mind/body dichotomy. These new entities, for Sarkar, exist in between perception and conception. They are the emanations of Consciousness. Thus there is structure but there is change—the spiritual does not close the universe, as mentioned above, it guides it.

Theory, data, values and consciousness

Our point here is not the veracity of Sarkar's assertion but the knowledge space which allows him to make it intelligible. What Sarkar adds to the traditional triangle of theory (ideas), data (matter) and values (human beings) is Consciousness, not merely as rational self-reflective thought but as presence. While the traditional model centred on data and theory, it is only recently that humanists such as Nandy have attempted to include values (and projects such as the new world information order) and argue for values sited in culture, history and language. Thus, there are theory, data, values, and the specific Consciousness of the observer in terms of attitude and of spiritual evolution (level of awareness). For example, an experiment might yield different results with different types of scientists as the mind influences the results of the experiment.

At the same time, we get interesting forecasts of the future that are not possible in the anti-science polemic (although there it is asserted that it is not science but the hegemonic Western science that is under criticism) we tend to see from efforts to develop local forms of

science. Sarkar can speak in terms of both spirituality and high technology. In the context of global governance and spiritual cooperative socialism both can lead to transformation.

Rethinking and resituating the natural

Take the issue of genetic engineering. It is already being used to increase the baby "safety rate" (to use technocratic language). This opens up the door for eventually using genetic engineering not for medical reasons, but for individual characteristic enhancement. If one doesn't enhance one's child's char-

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acteristics, he or she will be at a disadvantage. Other parents will certainly make use of these new technologies as they develop and are globally diffused. They will ask for enhancements in their child's physical characteristics and mental ones if possible. In the long run, beauty will become homogenized leading to an increased value on moral values (intelligence too will move towards the mean). At the same time, the metaphor of birth itself will transform (from "creation" and "nurturance" to perhaps "production" and "perfection"). This, however, is not clear yet.

In his recent article titled *Laboratory Babies*, Sarkar asserts, "a day is sure to come when human beings will make babies in laboratories." (Sarkar, 1991, forthcoming, quote from unnumbered draft.) Eventually, just as we evolved from australopithecus, a new species will develop from us. But these

future humans will be more creative, not caught up in the physical world. Rather they will use their energy for new discoveries, for new inventions and for spiritual pursuits. Indeed, these new human beings may become averse to the material world, particularly of family ties.

This type of discourse, the laboratory creation of human beings, normally is considered obscene from the traditional humanistic and religious viewpoints. But for Sarkar it is evolutionary. Eventually human beings will co-create the real, the physical with Prakrti (the creative power of Consciousness.) (In Sarkar's cosmology Consciousness and Prakrti are unified but it is the latter that performs the activity of the universe. Prakrti's style of action is called nature.) But the children will still have Samskaras or Karmic reactions in potentiality, as their minds will not be laboratory creations but will incarnate in the physical bodies through reincarnation as with present children. In the future, children may be created in laboratories, but the mind is still independent of the physical. Mind chooses brain, not the other way round.

Now suddenly, we have a totally different type of science. Sarkar is not only a critic of technicism (the view that science must be depoliticised and placed outside the control of capitalists and that science is one way of knowing the world) nor does he come out like Jeremy Rifkin and other anti-science and anti-technology people (who argue that the social creates the technological, that technology is not an independent, acultural variable, and that the public must shape scientific policy.) While these critiques of power and science are to the point, there is more to him than that. Rather these positions are placed in a spiritual political vortex, where humanity moves ahead by conquering challenges, physical, mental and spiritual. For Sarkar there is creation and then through struggle and desire there

is evolution from less developed life forms to human life forms. There is no reason why this evolution should not continue to produce new life forms (however created.)

Moreover, for Sarkar, since embedded in his theory is divinity, structure and agency, it is natural that human beings, the most highly evolved living beings, will come to participate consciously in the creation of the "natural". In his theory of social change the divine exists as an attracting force, as a place of individual perfection. But there is also the social (the stages of history) and there is individual agency (human beings can and must change the world, they must make the world where the standard of living is high enough that the spiritual can be easily accessible.) However, since the inexpressible (absolute Consciousness) cannot be expressed in language and since the natural is ultimately a social construct, humans can change and evolve with nature, but they must do so with social responsibility (as opposed to market mechanisms.) For Sarkar, without this needed social responsibility (here siding with Rifkin), the technician will continue to solve challenges without concern for those who are influenced by them. Without the placement of science in a politics of structure and knowledge it will continue to be managed by the dominating class.

For Sarkar the natural while deeply historically patterned nonetheless is ever changing. Technology can change who we are; it can allow humans to co-create with Consciousness. Genetic engineering does not have to be placed in the "it will destroy human nature" discourse or in the apolitical modernity discourse of "it will solve all our problems".

Indeed, for Sarkar, as babies are created in laboratories, human beings will locate themselves less in the sexual discourse and will become more creative in science, art and music. The creative urge in

humans will be relocated from child bearing to the creation of new ideas and amenities for the betterment of the collective good. The relocation will change the natural and lead to increasing levels of ideational and spiritual culture.

Science then is situated in an alternative politics of the future. Sarkar creates a new rationality that rethinks science and spirituality. While critical post-structural theory sees science as merely one way of knowing the world and Kuhn sees science as having its own cycles of knowledge, and Nandy historicises science and technology arguing for

Spirituality can become scientific. It becomes intuitional science, synthetic in nature while material science is analytical.

a view in which there is a plurality of ideas, Sarkar, speaking from the Indian episteme can divide science into intuitional and material, thus allowing more ways of knowing the real. In addition, arguing from his view, science and technology become important but are now placed in an evolutionary, social model, one where the "natural" and the "spiritual" do not necessarily follow the model of the religious era or the modern, rather he uses the past to reconstruct the future. The material, mental and spiritual worlds are real (resources and challenges) and exist within an ecology of Consciousness wherein science and the mystical co-exist.

Rationality and reenchantment

Sarkar's view, then, does not argue for an anti-science, anti-technology position nor does it fall into a science that exists outside of the

social and the political. Rather science and technology are contextualised, allowing for a new science and a new science of society. Is this a return of Vico (and his new science) and Marx (and his scientific stages of society) or is it Buddha (and his radical epistemology) and Gandhi (and his recovery of pre-modern culture)? Which direction will the social sciences next move: towards empathy and interpretation or towards disinterest and distance? Are we about to lose universals as knowledge and power is localised and relativised? Or is a new model of the real about to become dominant that recasts these categories of "science", "local" and "universal"?

Sarkar's works are unique. Influenced by the classical Indian episteme (although he moves beyond it borrowing from Islamic, Chinese and Western cosmologies), he does not fall into an anti-linear, anti-progress trap, rather he allows for progress in the context of the ancient cycle (there is a season for everything), of structure (episteme, class and gender), and of the divine. Yet at the same time individual agency is paramount, for it is we who create the world and recreate it even as the divine and the structural give it to us. The critical too remains. In Sarkar's reconstruction of science and society, in his quest for reenchantment, for a new rationality, he does not lose sight of the political.

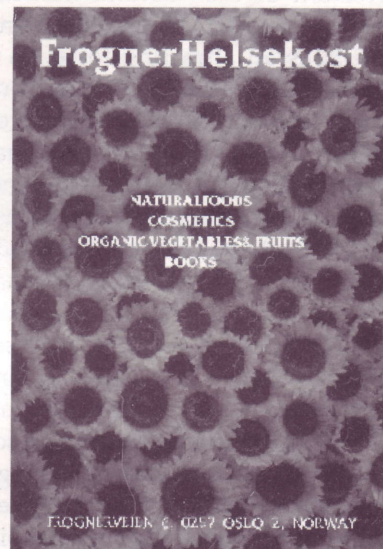
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* Dr Sohail Inayatullah is a political scientist/futurist. This article is based on a speech given at the Annual Spring Symposium of the Centre for South Asian Studies, University of Hawaii at Manoa, 15 March 1990.



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