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# HISTORY AND NATURE :
## Some Reflections on the Ecological Perspectives of the Marxian Theory of History

### I

**History and Nature : A two-fold understanding**

It is a common place that Marxism looks upon history as the unfolding of successive modes of production culminating in industrial capitalism. But these modes of production are not to be isolated from the influence of the natural environment. As we shall presently see, there are certain serious conceptual issues which emerge when we proceed to specify the relationship between social modes of production and their natural environment; further, as we shall also see, there seem to be two distinct modes of conceptualizing this relationship from within Marxian theory; there seem to be two distinct paradigms for Marxian ecology. But for the present, it is sufficient if we note that for Marx, environmental factors are not merely necessary conditions of the history of social production; sometimes such factors, Marx held, play a crucial role in determining forms of production and corresponding social organization.

In this ecological foundation of the theory of history, we may discern the influence of two different traditions of social theory—those of Montesquieu and of Hegel. The influence of Montesquieu, on Marx, which is discernible in *The Capital* Vol. I pp. 512-515, seems to be present mainly in the form of the theory i.e. Montesquieu suggests an analytical framework for linking up environmental and socio-political factors; also the aspect of a comparative

study of those relationships—the differing relationships between natural environment and social history, is part of the problematic of Montesquieu. But the Hegelian tradition provides a historical and dialectical mode of conceptualizing the changing forms of the relationship between nature and society. One may simplify somewhat and say that in Montesquieu, we have the synchronic *analytical* paradigm of different environmental systems and correlated forms of social and political organization, whereas in Hegel, we have a *diachronic historical* paradigm of the changing patterns of these inter-relationships. In Montesquieu, we have the ecology of history while in Hegel, we have the history of these ecological relationships. In this historical framework, different types of environment became influential at different stages of development; modes of adaptation to nature themselves have a history which is consequential for other historical relationships. Furthermore, in terms of such an ecologically sensitive theory of history, we have the possibility of a multi-linear conception of development, for different types of environment would lead to the formation of different modes of production; the historical process would have a plurality of starting points. To this, the Hegelian perspective of a historical ecology would add the possibility of a plurality of patterns and paths of development; these different social formations would have a complex process of change and transformation. Such a theory of history would be *multi-linear* in the strong sense of both *plural origins* and *plural processess*.

We may initially bring out the differences between the conventional unilinear and the more complex multy–linear conceptions of development in the Marxian view of history. The common paradigm of historical materialism is, of course, too well-known to require any formal discussion or exposition; it is enough if we merely present the paradigm.

*The Unilinear Schema*
(emphasis placed on the social factor)
Primitive Agricultural Community
↓
Asiatic Mode of Production
(AMP)
↓
Slavery
↓
Feudalism
↓
Capitalism
↓
Socialism

(The Asiatic Mode of Production has sometimes been omitted altogether as it causes serious difficulty for the unilinear schema.)

The two distinct features of this schematization are that each one of the stages of the model represents a universal stage of development and secondly, the transition from one mode to another is brought about by an immanent logic of development within the modes of production. Both these features of the model converge on a de-emphasis of environmental factors for if each stage is a universal stage in a process of development common to all socio-economic formations, the specificity of environmental milieu could be ignored as accidental and irrelevant to the sequence of development. The uni-linear representation of history is therefore fundamentally non-ecological. The only kind of importance which specific environmental factors could have in this schema is in connection with the earlier stages. In this way of understanding history, environmental necessities have an importance in pre-capitalistic social formations. The importance of such ecological considerations and restraints are progressively overcome, such that both capitalism and socialism are seen in terms of a tendency towards universalization. Industrial

capitalism wipes out the specific local peculiarities of the environment and the coming of socialism will only strengthen and deepen the tendency towards universalization. In this model the basic pattern of development could be seen in terms of a progressive emancipation from environmental necessities and constraints; it is a movement from nature to society. As Marx puts it in *A Contribution to the Critique of Political Economy*, "Progress consists in the movement from naturally determined human relationships to historically evolved social relationships."[1] It is often said that the unilinear schema is Euro-centric; while this is so, on the obvious level, in another sense, it could be argued that the model, in so far as it emphasizes the universalizing tendencies of capitalism and much more so of socialism, annuls the differences between the East and the West; in this respect the schema holds out a common history for all nations, a common struggle and a common emancipation. To the extent that it does so, it could no doubt be argued that the model has a genuine universality about it. But perhaps this universality itself only masks a subtler Western bias, for the model assumes the European path and the European destination to be normative for all peoples; it assumes the European form of emancipation and the European understanding of the realm of freedom to be the very essence of history. The historical schema therefore has a shifting quality about it; it reveals itself to be a shifting series of mirrors and masks. We may also put this point in another way, for at first, the stressing of regional and local environmental differences seems to be a parochial narrowness of vision against which the presumed universality of the unilinear schema appears to be truly liberating. But on second thoughts, we could begin to suspect precisely this unilinear schema of a narrowness of vision regarding the possibilities of forms of human emancipation open to the non-European peoples. A poly-centric schema preserves the manifold possibilities of history and its open texture more than the conventional representation.

Such a poly-centric schema of alternative lines of development is presented in the *Grundrisse* where Marx writes " the extent to which this original community (the earliest form of landed property, that based on kinship) is modified will depend on various external, climatic, geographical, physical, etc., conditions as well as on their particular natural pre-disposition—their clean character."[2] This more complex schema of development suggested by the *Grundrisse* uses geographical factors as much more crucial and explanatory than the unilinear schema. The stress on the importance of environmental conditions is particularly emphatic in Marx's representation of the Asiatic Mode of Production; here he stresses the need for extensive irrigation and its institutional implications. It was this factor which was responsible for the development of a special mode of production characterised by extensive state intervention. The economic role of the Asiatic state gave it a monopoly position over the surplus product. It is in this respect that the developmental history of Europe differs from that of the East, for in Europe, in the absence of this ecologically imposed necessity of state intervention, stronger forms of private property could develop, carrying with it all the possibilities of change. This gave Western Europe a socio-historical dynamic compared with which the East appears to be characterized by stasis. But there is a lingering Hegelian perspectival influence here in this confrontation on the dynamic West with the static East, for it was Hegel who represented the East as history-less. This way of looking blinds us to the forms of historical change and development which may be characteristic of the non-western world; here again history seems to be a specifically Western European achievement.

While stressing the primary importance of the need for extensive irrigation, Marx also notes other environmental factors, such as the propinquity of different natural environments to each other and the extensiveness of a given territorial unit. According to

Marx, the first explains forms of exchange and division of labour while the second explains the rise of despotic systems. What is distinctive about Marx's discussion of the influence of environmental factors upon the formation of social modes of production is not so much the linkage of ecological and socio-economic variables for already in Montesquieu we have a direct connection between geographical types and socio-political organizations. What is special about Marxian approach is the thesis of the *variable nature* of this relationship. At one level of his reflections, Marx claimed that the importance of geographical factors diminishes with the advance of man's technological mastery of nature. In this way of looking at the matter, it would appear that man's productive activity has an immanent logic of its own and that environmental considerations assume an importance only in the early stages of the development of productive activity. In the latter more developed forms, the immanent logic of social formations asserts itself over environmental necessities and the historical development of productive forces leads to a universalization and to the emergence of industrial capitalism which annuls local particularities. From this perspective, we can therefore formulate the thesis of the receeding importance of geographical factors. It is this thesis which seems to have been enshrined as a fundamental principle of Soviet thinking about ecological matters in the Stalinist period, for example, both Pokrovsky and M. A. Korostovetsev give strong expression to this principle. "..... the influence of the geographical environment upon a given society is inversely proportional to the degree to which the society is equipped with technology. In other words, the lower the technological level of the society's development, the more strongly it is influenced by the geographical environment and vice versa. The obviousness of this position can hardly be challenged."[3]

An important corrollary of this principle of the universalizing drive as follows : "Thus capital creates the bourgeois society

and the universal appropriation of nature as well of the social bond itself by the members of the society. Hence the great civilizing influence of capital; its production of a stage of society in comparison with which all earlier ones appear as more *local developments of humanity* and as *nature-idolatery*. For the first time, nature becomes purely an object of human kind, purely a matter of utility, it ceases to be recognized as a power for itself."[4] (italics added). In this perspective, history may be described as the progressive "Subjection of Nature's forces to man," as the *Communist Manifesto*, in fact puts it.

While this is one of the paradigms implicit in Marx's ecological reflections, there is also another, submerged and latent but nevertheless controlling his reflections on the basic form of history. This other mode is connected with his philosophical conception of nature and the natural environment as the product of industry. If the first paradigm takes nature as the given context of human praxis, this second perspective looks upon the relationship between nature and praxis as an internal, dialectical relationship. This finds expression in *The German Ideology* where he writes "the sensuous world is not a thing given direct from all eternity remaining ever the same but is the product of industry and the state of society."[5] It is this theme of a human constitution of the historically significant environment that Marx critically counter poses to the naturalism of Feuerbach and it is also this idea which finds philosophical expression in the "*Economic Philosophic Manuscripts*" as "humanized nature." If the environment is, in part, constituted by man's activity, then the form of history must be seen as an essential dialectical relationship between nature and man's historical praxis. It is true that the idea of a humanly constituted environment could be abused in certain Utopian ways; one may be tempted to erect fantasies of a fully tamed and benign nature. But the concept itself may be made to serve as the basis of a more realistic ecological

discussion, as I shall suggest in the second part. For example, the humanly constituted environment may pose certain ecological hazards and problems. Marx himself notes such eventualities of the exploitation of the environment when he writes " climate and the vegetable world throughout the Ages — A History of Both " by Fraes is very interesting as proving that climate and flora have changed in historic times. He maintains that as a result of cultivation and in proportion to its degree, the moisture so much beloved by the peasant is lost — ( hence the plants migrate from the south to the north ) and eventually the formation of steppe begins. The first effects of cultivation are useful but in the end, it turns land into wastes owing to deforestation etc. The conclusion is that cultivation when it progresses spontaneously and is not consciously controlled leaves deserts behind it."[6] In a similar vein Engels also talks of each conquest over nature bringing retribution in some form or other to the conquerors. It looks as if there are two ways in which the second paradigm of Marxian ecology may be developed. On the one hand, one may speak of the universal appropriation of nature under socialism; this way of thinking surprisingly converges with the major implication of the first paradigm, namely the decreasing importance of nature. Under the rational planning of socialism, man would plan his environment in such a way that it would no longer assume hostile forms as an unintended consequence of his activities. This is the image of the pacification of nature, but in the *Capital* there is a less euphoric picture of man's relationship with nature. Here there is no longer any talk of the overcoming of the difference between subject and object. Although humanly mediated, nature still retains its own independence and objective existence. It therefore has still the capacity to impose forms of necessity upon human action. This nature imposed necessity cannot be totally overcome or transcended even under socialism. " Just as the savage must wrestle with Nature to satisfy his wants, to maintain and reproduce life,

so must civilized man and he must do so in all social formations and under all possible modes of production."[7] As he further puts it in the *Capital* Vol. III, this interchange with nature remains "a realm of necessity" even under socialism.[8]

The dependence on nature, therefore, continues right through history; only the *forms* of such dependence change. In the early stages, for instance, it is dependence on natural wealth in the form of things and products of nature, while in the present stage the dependence is on natural sources of energy.

There seem to be two alternative paradigms in terms of which we may conceptualize the inter-relationship between history and nature, two different conceptualizations of the dialectics of nature. On the one hand, we may speak of the dialectics of nature as a process *between* man and nature, or on the other hand, one may speak of the dialectics of nature as an assimilation of man under the general laws of nature, as a subsumption of history under the laws of natural processes. These two models may be called the constitutive and the adaptive models respectively. While there may be implicit and latent ecological thinking by way of the adaptive model in Marx, it is in Engels that this mode of thinking becomes prominent and controlling. Engels also thinks in terms of the unity of man with nature, but this is because "man himself is a product of nature which has been developed in and along with the environment." There is an unmistakable Darwinian style in Engels' reflections which led him sometimes to think of human history *sub specie nature*. It is precisely because of this strongly Darwinian mould of thought that when Engels comes to talk of socialism, he thinks of its emergence as a qualitative break of socialism as humanity's leap from the realm of necessity into the realm of freedom. The dialectics between freedom and necessity, of history and nature persisting even under conditions of socialist mode of production which we found in Marx, is overcome violently in terms of a leap or breakthrough

out of the forms of necessity altogether. Thereby, there is a leap beyond history and the future is presented in radical discontinuity with the past and the present. This transcendence of history is due to the extreme naturalization of the past. The leap into freedom is the Utopian price to be paid for the naturalization of history. In the *Dialectics of Nature*, for example, Engels sees man as part of the eternal movement of matter.[9]

The two paradigms, at bottom arise from two different ways of understanding the concept of "natural environment." According to one way of seeing the relationship, nature is a historical product, changing under the impact of man and reacting back on him. But according to the other way, nature is something given and absolute, not a term in the historical process, but its context and boundary condition.

It appears that unless the foundational concept of nature as understood in Marx is first philosophically clarified, the specific form of Marxian ecological reflections are likely to be misunderstood and certain confusions and tensions are bound to result. But it is obviously not possible to provide a full-scale philosophical discussion of the concept of nature in Marx at this stage. However, we also fortunately have precisely such a foundational discussion in Alfred Schmidt's "*The Concept of Nature in Marx*." I would therefore merely emphasize a few points concerning the Marxian understanding of nature. First, as Schmidt points out, although nature is socially mediated yet it retains its independence and objective existence such that we have to think of the independence of the mediated. Secondly, we must think of this mediation or appropriation of nature by man in social terms; it is not the appropriation of nature by isolated individuals but insofar as human production is itself social, this mediation of nature by man must also be taken as a social mediation. Also, since this social mediation of nature takes place basically through man's labor, we must think of this interaction itself as

a natural process, for man who acts upon nature and transforms nature is himself a part of nature, is himself a natural being. " Man himself viewed as a mere item of labour power is a natural object, a thing, although a living conscious thing, and labour itself is the material manifestation of this power residing in him."[10] It is important to note this point for it naturalizes the relationship between man and nature and here Marx's biological metaphor of the *metabolism* of man and nature is a very useful and timely reminder of the naturalness of this mediation. Lastly, the consequences of this metabolism are two-fold. On the one hand, the socially mediated nature is transformed into man's significant environment, "the second nature" of "man's inorganic body" as Marx sometimes calls it; on the other, man himself finds satisfaction and fulfilment of his impulses and needs, his actuality as an objective natural being. It is in some such terms, it seems to me, that one should think of the *dialectics of nature* and I further suggest that it is such a conception of dialectics of nature which can serve as the philosophical base for a Marxian ecology.

But before we proceed in the next section with the formation of the Marxian ecological paradigm for a theory of history, it may be useful to consider briefly some aspects of the important Soviet debate on the significance of nature in relation to social history. The origin of these reflections on nature and history, of course, goes back to Plekhanov for it was he who laid the foundations for what may be called Marxian ecological theory, when he firmly welded together historical materialism and philosophical materialism and asserted that "the history of mankind is a case of development in general."[11] But there is an even more important theme which may be referred to here, namely, his belief that geographical necessity diminishes in importance with the development of man's productive powers. It is this idea of a continuing but qualitatively changing relationship that becomes the target of criticism. The contrary assumption of the critics was

that while geographical factors may very well serve as retarding or accelerating factors of social development, they are not *determinants* of that develpoment. The implicit assumption behind this criticism is that social development has an immanent logic of its own and hence external factors have only a retarding or accelerating effect upon it. But the implication of the continuity of ecological dependence was that at any given time a number of alternative possibilities of development, a number of forms of material production and corresponding social organization exist, and that these alternative possibilities depend on ecological, historical and other variables and that the development of these forms of production and social organization takes place in the form of a continuing dialectics with the environment. Like Plekhanov, Labriola also postulated a continuing dependence on geographical factors; only the *form* of this dependence changes, insofar as in mere advanced stages, there is a dependence not so much on natural products as on sources of energy. The most important implication of Plekhanov's model of continued dependance is that it suggests a multi-linear rather than a unilinear interpretation of history, for this view holds that given the same level of productive forces, alternative forms of social organization of modes of production emerge in accordance with differing local geographical and historical circumstances. However, the unilinear schema became official dogma with Stalin's endorsement of it. Stalin wrote, "geographical enviroment is unquestionably one of the constant and indispensable conditions of development of society and of course influences the development of society, accelerates or retards its development. But its influence is not the determining influence, inasmuch as the changes and develpoment of society proceed at an incomparably faster rate than changes and development of geographical environment. Changes in geographical environment of any importance require millions of years, whereas a few hundred or a couple of thousand

years are enough for every very important changes in the system of human society."[12] This line of thinking leads to the complete abandonment of any dynamic conception of the interaction between man and nature. Environment is taken to be a static given whose changes require millions of years. Against this static background. the social systems are held to evolve out of their own logic of material production. The path of development is therefore unilinear and takes the form of thefamiliar five stage scheme from primitive communal society to the classless socialistic society of the future. With Stalin's endorsement, the possibilities of a more flexible and divergent schema of historical develpoment was all but forgotten and the dogma of the five stage developmental schema became a basic article of Marxist faith.[13]

But after Stalin's demise. the revolt against the unilinear dogma began early. Thus in 1940, M. N. Baransky[14] of Moscow University read an important paper on "Marx and Engels on the Geographical Enviroment" contradicting Stalin's positions which he subsequently called "geographical nihilism." By isolating society from its natural environment, the official position, Baransky claimed, led to idealism. He further argued against the thesis of the lessening importance of environmental factors, pointing out against it, the rising historical salience of natural sources of energy like oil. The de-Stalinization of Soviet geography was taken after Baransky's death[15] by V. A. Anunchin, who attacked the idea of the unchanging environment. He wrote against the Stalinist ecology that it led to idealism and blamed the anti-environmental dogma for the harm done to Soviet land-resoureces through a stereotyped approach to cropping etc. Anunchin was severely critical of the dichotomy between nature and society, on the one hand, and laws of nature and society, and social laws on the other and went back to the idea of nature as a historical product. This idea was the basis of his conception of a "unified geography;" Anunchin was sensitive to the possibi-

lities of unintended ecological consequences of technological interventions in nature, for he wrote "the likelihood of undesirable consequences will increase with the level of technological progress. An especially serious threat has now arisen as a result of man's assuming control over atomic energy." Another Soviet scholar[16] Saushkin, also goes back to the concept of a humanized nature as opposed to the concept of the environment as a purely natural category. The official position of Soviet geography changed in 1963 in Glichev's address before the presidium of the Academy of Sciences.[17] In this speech a completely new ecological philosophy was formulated; Glichev denied the rigid seperation between natural and social sciences and also the concept of environment as something external to society; instead he stressed the dynamic and dialectial interaction between society and nature. The idea of a unified geography had begun to take roots in the work of Doskach.[18]

The school of unified geography began to influence Soviet historiography since the 1960's as for example in the work of L. N. Gumilev who linked the rise and decline of Central Asian nomadic civilizations with cyclonic patterns. On a more theoretical level, he emphasized the need to take into account the changing geographical background to human history. It is in this view that the current text book of geography says "the geographical environment today is not some sort of 'pure nature' nor the result of the operation of natural laws alone. The present geographical environment is also a result of preceeding human activity. Consequently, it is the result of the *interaction of natural and social laws*" (italics added). This newly recognized ecological dimension to history has also suggested a revival of the multi-linear conception of historical development suggested by the *Grundrisse*. This schema, is presented by Melotti in *Marx and the Third world*.[19]

## II

**The Ecological Paradigm :**

The fundamental point in the previous part of the discussion was the suggestion that the dialectics of nature may be regarded as the dialectics of the interaction of man with nature, as the process of the increasing social mediation and appropriation of nature by humans and the consequences of this process both for man and nature. In the present part, I shall attempt expanding this point in the form of a certain conceptual framework or paradigm for ecological reflection. Basic to this paradigm is the idea of the basic historical trend as the increasing incorporation of nature into the social framework, what J. Bennet has termed "the ecological transition."[20] Indeed, I shall be presenting here the theory of Bennet, regarding ecological adjustment, for I believe that his conceptual framework fits in most naturally within the lines of reflection suggested in the previous part. Accordingly in the present section, I shall present and comment on some of the aspects of the model of Bennets adaptive dynamics, which is his version and formulation of the ecological paradigm. I have chosen to discuss Bannet's theoretical views in some detail, because firstly, it is a systematic presentation of ecological theory and secondly, because it raises some far reaching issues in philosophy, as Bennet himself points out. Furthermore the presentation of Bennet's paradigm prepares the ground for a consideration of some of the implicit philosophical issues and assumptions, in the next part. It seems to me Bennet's paradigm is grounded on a certain basic image of man in his dynamic inter-relationship with nature and the consequences and implications of this mode of relationship from the substance of his theory. But the image itself is only discernible latently in the sub-structure of his theory. I shall in the third part focus on this issue of the philosophical image of man and nature in the form of a systematic reflection on a very interesting and fertile line of investigation opened by

Barlingay's study on *Distinguishables and Seperables*.[21] I hope to show that Barlingay's presentations holds within itself both the principles of philosophical articulation of the ecological paradigm as well as suggesting new forms of social philosophy which follow from that articulation. It is therefore something like a water shed in our discussions, summing up the basic philosophical principles implicit in the discussion as so far developed and also serving as the source and spring of their social and cultural implications. It is an articulation and transformation which at once brings out the structure of the new ecological paradigm and also transforms a mode of theoretical analysis into a source of social understanding and action. In Barlingay, philosophy intervenes in the midst of a social science discussion and transforms that discussion into a mode of awareness and action. The power of the philosophical principles at work in Barlingay's study is to be seen precisely here in its capacity to transform a social theory into a mode of self-conscious awareness from which forms of meaningful action may follow. Hence the last section shall be concerned with this intervention of philosophy, this transforming awareness which is the final gift of philosophical understanding.

Bennet begins his systematic investigation of the possibility of an ecological theory in cultural anthropology by emphasizing that the basic task before such a theory is the comprehension of the progressive incorporation of nature into human frames of purpose and action. It is this which he calls the ecological transition and it is this which gives a dynamism to man's mode of relationship to nature. From this point of view, three questions emerge as defining the problematics of the new ecology.[22]

1. how and why humans use nature;
2. how they incorporate nature into society and culture (the theme of humanization of nature), and

3. what they do to themselves, to Nature and to society in this process.

Central to this perspective of the new ecology is a re-understanding of the meaning and implications of human adaptive behaviour with regard to nature. Adaptation here stands for the rational and purposive use of nature by human beings, but such adaptive behaviour, as Bennett points out, is multy-dimensional; what is adaptive for one individual may be mal-adaptive for another and also what is adaptive for humans may be mal-adaptive for nature.

According to this perspective, the fundamental trend of human history abstracting from local variations and singularities, and concentrating upon the essential thrust and drive of the historical process, is the growing absorption of the physical environment into social frameworks; history now appears as the progressive emancipation and independence of culture from nature. This theme of the progressive " humanization of nature " has been celebrated in terms of man's power and growing autonomy vis-a-vis the natural world; men have seen their distinctive identity in terms of this theme of the conquest of nature or its 'humanization' which is perhaps a milder version of the same drive. But the consequences of this anthropocentric view point in ecological reflection have seldom been faced at the philosophical theoretical levels. True enough, there has been increasing concern with empirical problems; such as pollution, but such anxieties seldom build up into a basic questioning of the fundamental images of nature, history and culture, which are presupposed in the articulation of man's relationship to the natural world. The underlying anthropocentrism has not been seriously questioned, with the result that this orientation which emerged with the Renaissance has shaped the structure and substance of our understanding of history at almost all levels, from the technological to the ideological and philosophical level of images of man. At

the philosophical level, what is at issue is, as Miss Arendt has pointed out, the question of the replacement of images of man— the new image is that of man the maker, Homo Faber.[23] This image has an inbuilt tendency towards the *instrumentalization of the world;* objects are now seen as something to be manipulated and controlled, a new category of *resources*, the idea of something lying there to be dominated and shaped in order to fulfil socially generated wants — this perspective of instrumentalization shapes a similar understanding of the form and functions of reason itself, with the instrumentalization of the world, there goes a parallel *instrumentalization of reason*. Technical control, means-end rationality is taken as the paradigm of reason and as a result, the categorial distinction between *praxis* and *techne*, between practical problems and technical problems is lost sight of. This blurring of the distinction between technical and practical questions, Habermas tells us, is at the root of our theoretical and practical ills, leading at once to *a technification of our practice* and a misunderstanding of the role of theory with regard to that of practice.[24] This categorical mis-identification of practical and technical questions shapes the very meaning of 'culture' available in our social science reflections. "The purpose and function of culture is to make life secure and enduring for the human species" (Leslie White).[25] "The adaptation of man is accomplished through cultural means by harnessing new sources of energy for productive ends." (Yehudi Cohen).[26]

These and a host of other similar formulations do state a partial truth, but the other half of the truth is an equally emphatic and clear awareness of the consequences to men and to nature, of this asymmetry. In order to have such an explicit awareness, we must go back to the basic assumption, Bennet argues, namely, that the basic issues of ecology are *cultural* i. e., human values and attitudes concerning want satisfaction, and *social* i.e., particular institutional arrangements which have incorporated those values and attitudes. In these terms, human ecology

becomes equivalent to cultural ecology. The specificity of human behaviour, namely that it is purposive and rational, leads to a tilt or asymmetry in the man–nature nexus. "Human beings act purposefully towards nature, whereas nature does not initiate such purposeful action towards human beings." Almost all the specific capacities of men are implicated in the exponential use of environmental resources. But we must be sensitive in not narrowing the focus of our concern merely in terms of abuse. The problem of abuse of natural environment has two sides : (1) lack of foresight; short-sighted planning, mistakes about means and ends, persistence of destructive patterns of resource—use supported by vested interests. Certainly these are causes of the ecological crisis, but too often we have seen our alarming situation purely in such "symptomatic" terms. (2) But we must also come to see that superior skills for planning ahead, fitting means to ends, want satisfaction strategies — these positive and rational capacities also may cause critical problems for us when such rational behaviour is not guided by an adequate understanding of nature. We must see, in other words, the implication of our rationality itself in our present crisis. Both modes of behaviour raise questions of control and modification of behaviour: both are expressions of certain fundamental characteristics of human action. The question of control of purposive human behaviour depends upon a cognitive ability to reflect upon the meaning of action; control therefore is contingent upon reflection. But this cognitive capacity has to be actualized by certain values. These value commitments define whether or not action is to be controlled, i.e., cognition plays a dual role in the context of human action. It is a trigger for purposeful energetic action, at the same time, it must also supply the means of control of that action. This operation of control becomes effective only when there is a *sense of danger*. But in their dealings with nature men do not have a reliable, built-in-sense of danger. A sense for ecological crisis must be conceived. Because of this, there is a lag or gap between

action and control of action. In this period of delay, instrumentally rational action may be effective in realizing the intended goals. Because of this very effectiveness, cognitive and emotional investments are put into it. There are also secondary but nonetheless powerful economic and institutional investments which shore up and stabilize the patterns of instrumental rationality. These secondary complications and outgrowths create further obstacles for control. But at the cultural level itself, since human memory is selective, a tradition or cultural style is formed around effective patterns, thereby sublimating instrumental efficacy into a value or norm and leading to a perception of human identity vis-a-vis the natural world in terms of the asymmetries of power and domination. Thereby the circle closes upon itself and the image of man, the maker, confirms itself. It is the circle of these impenetrabilities that have so far shaped history for us; these have to be mastered in theory first, if there is to be a viable and worthwhile mastery in practice.

## III

### Towards New Foundations And New Tasks

I have been arguing in the previous section that the demands of the ecology are, in the final analysis, philosophical demands. We have to re-order our basic philosophical assumptions about man and the mode of his relationship to nature. We must see nature not merely as an external and given order of facts which human thought and action have to shape and fashion in its struggle for gratification and want satisfaction, but as something which is constituted by reason. But merely to stress this human constitution of nature without a fundamental re-conception of the nature and forms of rationality itself would lead precisely to the situation of crisis I have been trying to describe, for, as we saw, the instrumentalization of the world is, as it were, a corrollary or consequence of the instrumentalization of reason itself. Hence,

if we are to preserve the thesis of humanization of nature, we must set it within the context of a radically new theory of rationality. But the new theory of reason and its proper form and functions must be the expression and articulation of a new image of man, of a re-ordering of our philosophical anthropology. The demands of the new ecology are, therefore, three-fold — ontological, epistemological and anthropological. Although all these three tasks are mutually inter-connected and reciprocally united, yet as a point of entry into the new problematic, we may begin with the epistemological concern.

Here the task defines itself as developing an argument which would move us away from the conception of instrumental rationality towards what I wish to call as a conception of constitutive rationality; or, if we may use personified symbols, from Weber to Kant.

In the previous section we had seen that the present crisis in man's relationship to nature is attributable not merely to failures, errors, mis-calculations and such other aberrations of rationality, but more profoundly and disturbingly, to the very success and efficacy of instrumental reason itself. But the point now to see is the philosophical presupposition of this conception of rationality. The positivistic and instrumentalist conception of reason has a suppressed connection or affinity with the classical conception of reason and theory, a connection which Habermas has brilliantly exposed for our view.[27]

The classical conception of theory looked upon it, as in itself essentially free of all involvement with the life of impulse, desire and human sensuous need; theory and theoretical contemplation was a pure envisagement of the objective order and structure of the world. In itself, theory and rational knowledge was interest-free. Hebermas shows that, paradoxically enough, this conception of an interest-free knowledge and rational theory is preserved as a background assumption in the positivist and instrumentalist

view. What this conception newly stresses is, that in application, reason must, therefore, be supplied with ends and purposes for its exercise from without. The goals of rational activity must be extrinsic; the interests come from outside, from desire and impulse. The connection between reason and interests is, therefore, an extrinsic connection imposed by the exigencies of want satisfaction and gratification of desire. The ends of action are regulative of reason in its employment—they impose an external teleology upon it. In Hume's emphatic words, reason is and must be the slave of passions.

But it is not enough merely to see the classical root of the instrumental conception. We must also come to see the basic presupposition which compels it, namely the idea that reason or theory is an attempt at an envisagement of an independent, objectively existing structure of the world. It is this 'objectivism' of classical theory which necessitates the disengagement of reason from interest, for it was claimed that if there is such an objective and independently existing world-order, which is not in any way constituted by man, then human rationality can hope to have an understanding and comprehension of this objective order only insofar as it purifies itself from all involvement and implication with interests. Interest, desire and impulse — these introduce a subjectivity, an anthropomorphism into the life of reason. Hence in order to comprehend the objective world-order, reason must undergo a catharsis of interest and passion. The non-involvement of knowledge with human interest is, therefore, a consequence of the objectivism of classical theory. If this is so, then merely to change our conception of reason will not do. We must also address ourselves to the ontological task of displacing the objectivism of traditional theory. We must come to see nature, not in classical terms, as a *transcendent* order of things as they are in themselves, but as a *transcendental* constitution of reason itself. Such constitutive interests, therefore, cannot be the interests of

individual or specific human subjects; they are not the purposes and aims of this particular knower or that. Rather, they must be generic or species interests or to put it in proper Kantian terms, they are not psychological interests of individual subjects, but transcendental interests or grounds of the possibility of objective knowledge of men as human rational knowers. These constitutive interests therefore must be seen as essentially involved in the species being or essence of human nature, such that without them man cannot be human, they must be the *purusarthas* which constitute man's distinctive humanity. This means that the new theory of rationality must be provided a basis in a theory of human nature. This is what I called the philosophical anthropological task. To anticipate, the Kantian idea of transcendental constitutive interests of reason must be seen as *purusarthas* while conversely, the *purusarthas* must be seen as forms of reason or rationality. At this point, it may perhaps be remarked that the three Habermasian interests of control, communication and emancipation may perhaps be alligned with *artha*, *dharma* and *moksa*, but this leaves out *Kama*. The role and significance of happiness in the life of reason is the delicate and transformin-point in our concern with Kant. We shall come back to this later but it can be well appreciated that the integration of happiness or Kama into the new theory of rationality will infact have immeasurable implications for social and moral philosophy.

We have already had an occasion in a previous section to deal with the epistemological assumptions of Habermas's critical theory with regard to the connection between knowledge and human interests. It may be recalled that for him, there are three transcendental knowledge– constitutive interests that shape and structure three forms of rational inquiry, namely, the interest in technical control, the practical interest of the historical-hermeneutic sciences and the emancipatory interest of critical theory. It may also be recalled that these interests are grounded in the

medium of work, labour and power. It is to these fundamental tnterests that knowledge owes not only its content but the conditions of possible objectivity itself. As he writes "orientation toward technical control, toward mutual understanding in the conduct of life and toward emancipation from seemingly 'natural' constraints establish the specific view points from which we can apprehend reality as such in any way whatsoever." [28] Such interests or orientations are said to be knowledge constitutive because (1) they shape and determine what counts as the objects of knowledge, (2) they determine the categories relevant to the various types of knowledge and (3) they also identify relevant procedures for discovering and warranting the specific forms of knowledge. Insofar as they function as the grounds of the possible objectivity of the relevant forms of knowledge, they could be said to be transcendental. But such interests, because of their very nature as being rooted in the material-sensuous contexts of labour, communication and the exercise of power are based in the natural history of the human species. They are the orientations or cognitive view points of a species which forms itself in the material-sensuous dialectics of work, interaction and power. It is this rootedness in the natural history of a species which make them distinctively human interests. Their transcendental constitutive function is therefore to be taken along with their anchorage in the nature of the human species. This indeed is the first thesis of Habermas which he formulates thus : " the achievements of the transcendental subject have their basis in the natural history of the human species."[29]

This naturalization of cognitive orientations may, if left alone, lead to a pragmatist or instrumentalist interpretation according to which rational operations are merely human modes of adjustment and adaptation to the environment. And indeed the first interest in control, based as it is in man's interaction with the world of objects and resources by itself would seem to suggest precisely such an adaptive interpretation of the functions of

reason. If we consider this orientation in itself, it may appear that knowledge achieved within this perspective of control and mastery of the environment is precisely man's unique form of biological survival. But we must, Habermas tells us, take the play of all the transcendental interests together; we must be alive to their synchronic determination and not think of various forms of knowledge as being uniquely determined by the cognitive orientations taken separately. While for analytical purposes we may and indeed must distinguish the different cognitive interests, yet in the total gestalt of human awareness and knowledge, all of them are together at play. When we thus proceed to keep this togetherness and simultaneous presence, we shall observe that the second interest, the practical interest rooted in the moral communicative order and the emancipatory interest rooted in the demand for liberation from 'natural' constraint and repression, modify the natural species character of knowledge, for now not only should we be sensitive to the natural history of the species, but also to the break, the discontinuity involved in the cultural and moral character of human life and experience. In so far as the order of communication which itself is based in the cultural and symbolic capacities of the human species, is not merely an aspect among other aspects, but is a medium in which even the natural drive and impulses are expressed and articulated, i.e., insofar man's animality is itself shaped and transfigured by his culture, there can be nothing which is purely or merely natural in human experience. Man's capacity for cultural, his communicative competence, is an environing and pervading power and presence and to the extent that it does so, there is also a break with nature. Man's adjustment is not merely vital and biological, it is also cultural and moral. This self-transcendence from the category of survival and adjustment is more clearly seen when we focus on the emancipatory interest of reason. This taken together, the theory of transcendental knowledge-constitutive interests suggest *the second thesis* of Habermas; "Knowledge

equally serves as an instrument and transcends mere self-preservation."[30]

While the two other forms of knowledge are also equally transcendentally determined by interests, yet it is in self-reflection that we can see with particular clarity and distinctiness, the intimate connection of knowledge and self-reflection. In self-reflection either in the individual psychological mode of psycho-analytic cognition or in the social and collective Marxian mode of critique of ideology, we have a form of knowledge where the constitutive role of emancipatory interest is lucidly evident. Habermas writes "In self reflection, knowledge for the sake of knowledge attains congruence with the interest in autonomy and responsibility."[31] Hence *the third thesis* of Harbermas holds : "In the power of self-reflection, knowledge and interest are one."[32]

However the concern with autonomy and responsibility which is the inner driving telos of self-reflection can be attained only when the order of repression in real life has been done away with. True dialogue which is the vehicle and medium of self reflection is possible only under conditions of freedom in social and institutional life. Dialogue under conditions of repression and exploitative violence can only hope to legitimate itself only when it takes account of the forces which suppress it in its present form; to forget these conditions of restraint and constraint and to hope that men could inwardly achieve autonomy and responsibility by means of a socratic dialogue any where and at any time is to barter away a real possibility of emancipation by way of critique for an illusory temptation of speculative philosophy, hence *the fourth thesis* reads : "The Unity of Knowledge and Interest proves itself in a dialectic that takes the historical traces of suppressed dialogue and reconstructs what has been suppressed."[33]

Habermas holds that these cognitive orientations are knowledge-constitutive in the transcendental sense that being the grounds of the possibility of human knowledge, we cannot

significantly conceive of human knowledge as apart from their orienting and constituting role; in philosophical reflection, we may become aware self-reflectively of their place and determining role but we cannot transcend or undo the connection between knowledge and interests. At the same time, we are also told that these interests are not individual motivations of particular cognitive subjects but human interests in the generic sense of being grounded in the species character of man. But is the connection between these interests and human nature merely an empirical association such that we have to say that the thesis is a factual anthropological or psychological hypothesis or is the connection a stronger one of analytical entailment ? In other words, when it is said that these interests are *human*, what sort of connection is being asserted between these cognitive orientations and human nature or man's essence ? Can we conceive of a being who would be recognizable human but who would be without the particular constellation of interests and view points when we deal reflectively with his experience and awareness ? Can we conceive of a form of life which would be a human form and yet be free of these orientations ?

It is clear that the relationship between these cognitive interests and human nature cannot be an empirical hypothesis of anthropology or psychology, for any and every such hypothesis itself being an item or instance of human knowledge, would presuppose these interests. A transcendental doctrine such as the one we are here considering cannot be regarded as an empirical or a posteriori claim. At the same time, it does not appear to be merely an analytical claim in the sense of ordinary or trivial tautologies. If the doctrine is at all analytical, it is in the sense in which Kant's doctrine of the synthetic unity of apperception is claimed to be an analytical proposition. We prove or establish its necessity not by a mere analysis of the meanings of terms, but by showing how it is the necessary condition of the possibility of something which we take as given; some such or similar argument

may also be needed here, and I shall try to sketch out one such possible transcendental argument for the connection between knowledge and human interests.

Human beings, unlike animals, it is said, are species-beings. Now, two things are involved in the notion of a species-being. Individual men belong to the class or species of man, but more importantly individual men know themselves or experience themselves as *men* : they have not merely a membership in a certain species, but an awareness of such membership. But this awareness is not merely something that they have or know in addition to the awareness of their own identity; rather it is because that they have this awareness of their species-character that they have an awareness of themselves, for they are aware of themselves as *persons*. The sense of identity or being a person is grounded in their species-character. Another way of putting this is to say that human beings achieve a sense of personal identity only in terms of awareness, recognition, acceptance and life with others.

This identity, therefore, is an achievement and not an innate or instinctive possession. Also, this achievement, which it is experienced in cognitive terms as the self-awareness of an individual, is yet something which is materially grounded in their actions and interactions with nature, with others and with themselves. The sense of identity or awareness of self-reflective personhood, is something which is shaped and formed by the structures of life. Men have to shape themselves as human in their interaction with the external world, in their social and communicational interactions with others, and in their experience of power, domination and subjugation; work, interaction and power are the contexts which shape and structure the identity and self-awareness of human beings. But these contexts are not to be taken as seperate and forming the identity of human subjects seriatim; rather they are to be taken as a simultaneous gestalt of formative forces. Indeed it is this compresence which defines a form of

life as human. Animals too are under the nature imposed necessity of having to come to terms with the exigencies of their environment; similarly, they also have a sort of togetherness or herd-life and they too are subject to the ravages of predation. But what constitutes the human form of life as human is the interpenetration, the simultaneity of these formative influences. Men's dealings with nature is not merely a biological or natural metabolism with objects, but is *work* precisely insofaras this exchange with nature is mediated by way of social relationships and social understandings. The order of communication, the moral order enters into the order of material exchange and transforms it into work or labor. Similarly the moral or cultural order too is not experienced as an "angelic" or free and unfettered process of mutual recognition and respect; it also is mediated by the inequalities and divisiveness imposed by the production relations, thereby shaping the peculiarly human experience of exploitation, deprivation, and social injustice. Each context, as it were, forms and is formed by the others and thus by their simultaneous copresence gives a distinctive categorial specificity to human experience. Similarly the sheer elan of being alive, the exaltation and exuberance of being alive, is also transformed into a specifically human mode of experience when mere life gets conceptualized and acknowledged in moral-cultural terms as a value, when men seek not merely life, but *good life*. The distinctiveness, the peculiar *humanity* of our experience is therefore the result of the formative influence of these contexts.

These are *purusarthas* in the sense of being transcendental a priori constitutive grounds of a form of life that can be regarded as human. They are not merely empirical motivations of men, but rather they constitute our distinctive humanity. We are men only insofar as our experience and life are grounded in these formative contexts. Hence to recognize any being as human is to consider him under the form of these orientations, as a being

who sees himself in terms of a striving after these, as one who recognises in himself the authority of these. They are the grounds of the possibility of our humanity and it is they, in their simultaneity, which distinguishes us as men, as human. I said in their 'simultaneity', because in every one of our actions and experiences, they are all constitutively involved; to sunder one from the other is precisely to negate it as a *purusartha*, as a human constitutive orientation. *Kama* without *artha*, *dharma* and *moksa*, for instance, would not be human happiness or pleasure but would define merely the life of animal impulse. What makes *Kama* a human aspiration is precisely the mediation by the rest. The forms of mediation may differ from one *purusartha* to the rest, for instance the way in which *Kama* enters *dharma* would be different from the sense in which it enters into *moksa;* similarly there would be different forms of meditaion and one can indeed begin to sketch out a fascinating phenomenology of these mediations. Such a phenomenology may provide the ground work for a new philosophical anthropology, but for the present moment, I merely wish to emphasize the necessity of mediation with respect to each one of the *purusarthas*.

The doctrine of the *purusarthas*, in this understanding, is to be taken as the conclusion of a transcendental mode of argument; given the distinctively human form of life, we look regressively to the grounds of its possibility. An experience and form of life could be recognizably human only insofar as it is understood as determined by the structure of these four-fold aspirations; only insofar we recognize the authority and pull of these aspirations, can any effort or desire or want or wish could be regarded as human. In this sense, the *purusarthas* are the grounds of the possibility of human life. This means to say that they are constitutive of us, that they are the *arthas* which are recognizable as peculiarly human. But understood in this way, what they define is the transcendental a priori framework

of human life and to this extent, considered purely in their a-priori or "formal" element, they have a universality and necessity about them. All forms of experience and effort insofar as they claim to be human must be seen as formed by them; it would be a transcendental impossibility, (not of course a logical impossibility or a contradiction) to conceive of human beings to whom they would have no application. In this sense, they have a strict universality and necessity about them, like the Kantian categories. But this does not mean that the particular content or significance which goes into them, the specific "material" interpretation of this framework also must be necessary and invariant. Indeed, the content is variable and relative, contingent upon a host of other historically determined factors, social, cultural and temperamental. To be more specific, all men, merely by being human, experience terror, repression, violence and coercion and all men also have the dream and pursuit of emancipation. The experience of bondage and the idea and aspiration of emancipation are indeed one of the framework principles of our common humanity, such that if we were to meet with a man who has never felt the burden of the one and the longing for the other, who has known to terror and no hope, I think, it would be an extremely uncanny encounter. Such a one would fill us with an unnameable anxiety and unease. But this does not at all prevent different men and different groups of men having different ideas and images about bondage and emancipation; the content which goes into the form may have a wide range of variability; some may see bondage as being in thrall by cosmic forces, others in terms of social oppression and tyranny by other members and yet others may see it in terms of dark inner compulsions within the self. Similarly, the content of emancipatory passion also would show a very rich diversity and variability. But for all that, the forms are unvariably constitutive of humanity. Similarly with the other *purusarthas;* they are the framework

principles which constitute or define the specifically human mode of being in the world.

If this is so, then they must also be the grounds of our cognitive powers and capacities; they must be human structural contexts which give the orientation to knowledge — they are the matrix for the knowledge–constitutive interests. *Artha*, *Dharma* and *Moksa* ground the technical, the moral-communicational, and emancipatory interests of reason. But here we must be careful to avoid a misleading linearity which may tempt us to think of the *purusarthas* as determining or conditioning the forms of reason as a cause determines or conditions an effect. Reason is not a mere faculty or instrumental capacity of men; being their essence, there is nothing in human beings which is untouched by it. There is no mere brute impulse or animal drive or instinct in man, for reason being the form or essence of a living human individual, it is present even in the life of impulse and desire. Even human sensibility is a formed sensibility which has been shaped by the pure forms and categories of the understanding. Sense experience is not a mere raw a-rational encounter with objects, but is a product of the constitutive role of the subject. Hence impulse and desire also show the stamp of the constituive productivity of reason. We can never understand man as an animal with rationality added. He is a quite different kind of totality in which the fact of reflective consciousness leaves nothing else unaltered; the feeling, desires, even the instinct for self-preservation of a reflective being must be different from those of other animals. This is what we must accept if we take seriously the view that reason is man's essence. But then we can not see the *purusarthas* as some how separate or apart from rationality. If it is true to say that the *purusarthas* ground the interests of reason, it is equally true to say that the *purusarthas* are forms of reason also. But this reason is of course not the instrumental rationality of means–end calculations, but it is reason as constitu-

tive. The *purusarthas* are not apart from reason but they exemplify the four-fold way in which reason constitutes our humanity. I suggest that the doctrine of the *purusarthas* may be looked upon as the phenomenology of constitutive reason.

Of course, such a theory of reason has to face a variety of unfinished tasks before it can be presented in a coherent and more or less complete form. For our present purposes, I would like to mention only two such major areas calling for continued reflection and analysis. The first has to do with the possibility of developing a theory of happiness on the basis of a theory of constitutive rationality. The opposition between Reason and Happiness or pleasure has been one of the major oppositions in philosophy and it comes to a head particularly in the philosophy of Kant. Basically, the opposition takes two forms, as between the universality of reason and the particularity of pleasure and happiness; also the contrast has been seen in terms of the opposition between the intellect and the senses. Pleasure or happiness is seen purely in terms of sensuous appetite and need and given this perspective on pleasure, the only role that reason can play in the sphere of pleasure can be merely the role of a calculation of intensity, durability, consequences, etc. of the various appetitive pleasures. This view of the passions inevitably allots only an instrumental role to reason. If this opposition or tension between Reason and Pleasure is to be overcome or resolved at the level of philosophical theory, then it seems to me that we must work out the foundations of a new theory of desire and impulse. Insofar as we take seriously the constitutive role of reason in human experience, even sense experience must be seen as the product of such a constitutive activity. This means that impulse and desire connected as they are with the life of the senses cannot be seen merely as antithetical to reason; on the contrary, insofar as reason is the constitutive essence of man, the passions and emotions, desires and impulses — all must be interpreted in terms of this

human essentiality. This is not to deny a place for appetite and desire, but rather to emphasize the need for a genuinely humanistic theory of impulse and desire, it is to make room for a psychology of emotions which would be adequate to the demands of epistemology and moral and social theory. This, of course, is a complex task, requiring analysis at various levels, but in some of my previous discussions of psycho-analysis, I have made an attempt to move in this direction.

The other major task which a critical theory of reason has to face up to is the development of an alternative philosophical position to the 'objectivism' of classical theory. As we have seen it is this ontological assumption of an objective and independent world order lying there in itself and merely to be comprehended by reason that is the root of the instrumentalist conception. But the working out of the theory of constitution remains to be done. But in so doing we must take care to see that the constitutive reason is not seen in terms of a non-empirical or non-natural subject or self. The idea that the achievements of the transcendental subject are yet based in the natural history of the species is the guiding principle that we must keep in mind when we attempt this "naturalization" of transcendental philosophy.

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# DIOGENES

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