

MA

IN DEFENSE OF EPISTEMOLOGICAL ECLECTICISM

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To choose epistemology is in part to choose civilization; in other words, our choice is not free - it is usually made for us. In the deeper recesses of the civilization, in its deep structure and its deep ideology (cosmology) epistemological assumptions are already hidden,⁽¹⁾ and it usually takes outside help in order to see one's own assumptions. But any civilization has to produce images of reality, let us call it "knowledge". And any civilization has to have some basic principles guiding the production of knowledge, let us call them "epistemology".⁽²⁾ Since a civilization looks "normal" to those who are part of it the knowledge produced will be evaluated relative to the epistemology of that civilization, but the epistemology will not be evaluated. It simply is. If in addition the civilization has universal and centrist inclinations like Western civilization in its expansionist mode,⁽³⁾ then the epistemology not only is, but is the only one; it is universal epistemology. The others are objects to be studied, not the basis on which these studies are undertaken. "Native theory" is what others have, not we.⁽⁴⁾

The view taken here is that we live in a potentially extremely fortunate period. Much is known, in time and in space, of how humankind has tried and tries to produce knowledge. But more than that: we live in a period of increasing self-consciousness in the non-Western part of the world, of pride in one's own civilization and implicitly in one's own epistemology. Maybe we can even talk about a period of rising epistemologies, and for that reason also a period of epistemological pluralism, at least potentially.

One can then approach this in very different ways: choosing one, not necessarily one's own; playing on the whole range of epistemologies in a spirit of peaceful coexistence, maybe with the idea that one epistemology is better for this, and another one for that field of

inquiry; one might attempt to work towards a synthesis. There is also the possibility of doing these three at the same time. Whatever one does, however, the problem will always remain: from what kind of epistemological basis does one work when such comparisons are made? But I am not so sure this is such a deep question as it sounds like. It may very well be that what looks impossible in theory, comparing epistemologies, actually works in practice!⁽⁵⁾ So, let us try.

Let us try a very superficial map of epistemologies, using some simple dimensions. Let us simply assume that there are two tasks the production of knowledge somehow has to come to grips with: the descriptive and the explanatory. In simple terms: the what versus the why, with the how as some kind of connecting link between the two. In saying that there are two such tasks one does not necessarily take the position that the tasks have to be separated like the way this is often done in the West, eg. between sociography and sociology (the former being descriptive, the latter being more explanatory). All that is said is that there has to be an image of what is, and of what may be - of empirical and potential reality and then an image of why this is or may be so.

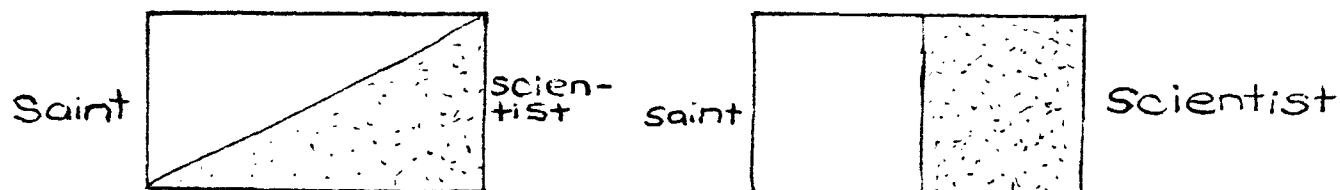
Let us then distinguish between two basic approaches when it comes to that which is: atomism vs. holism. Atomism is based on a division and sub-division of reality with efforts to come to grips with parts one at the time, or maybe in pairs and triples, linking them together.⁽⁶⁾ Holism as an approach implies efforts to come to grips with the totality, certainly leaving out details, reflecting the essence of what is. If the two are put in terms of the former seeing the trees but not the forest and the latter seeing the forest but not the trees, the case is immediately made for combining the two approaches. And the same applies to potential reality.

However, it is not necessarily as simple as the tree/forest metaphor indicates. Trees and forests are somehow of the same kind, or at least we are trying to think of them in that way. Atomistic approaches and holistic approaches may yield images couched in so

different terms that they do not relate to each other in any simple parts/whole relationship. As a simple example may serve the liberal image of society as a set of actors (individuals, institutions) endowed with certain characteristics, and the marxist image of society as a social formation, combining various modes of production.⁽⁷⁾ The units in the liberal image are not parts in the more holistic marxist image. Thus, it may be argued that if the marxist image is broken down into parts the ultimate unit is a relation (of production), not a worker per se or a capitalist per se, for instance. And such discrepancies become, of course, much more glaring if, say, holistic images such as those embedded in astrology are related to atomistic images of the type embedded in astronomy.⁽⁸⁾

Leaving this aside, however, there is another reason why the two approaches are not easily combined. The problem is that the methodology tends to be very different, and tends to invoke very different human faculties.⁽⁹⁾ The atomistic approach lends itself more easily to "observation of, measurement of, experimentation with, the exterior phenomena through exterior organs of senses, inductive logic", and the holistic approach lends itself better to "inner experience, mystic way, concentrated meditation; intuition and "revelation"; prophesy"- to (Sorokin, in his descriptions of the ascetic ideational and active sensate mentalities respectively).⁽¹⁰⁾ On purpose the expression "lends itself" is used here, for there is no assumption of any absolute correlation. There is no assumption that empirical methods are ruled out in exploring the whole, nor are intuitive methods ruled out in exploring the parts. Obviously, truth by experience and truth by faith are not mutually exclusive categories. They will always be combined but the mixture may have different compositions, so to speak.⁽¹¹⁾ The problem is only that in key social roles, at least in Western society, they are so strictly kept apart that the saint and the scientist (or the yogi and the commissar, to use a related dichotomy) become opposite poles on a social spectrum of roles, with an epistemological spectrum of approaches.

What should be seen in terms of the diagram to the left are seen in terms of the diagram to the right; one is one or the other!



The same applies to the dichotomy that will be used here in connection with the explanatory aspect of an epistemology: deductive vs. dialectic. By deductive is simply meant a framework of purely logical reasoning whereby conclusions follow from premises with "Gedankennotwendigkeit", a relation between premises and conclusion such that the conclusion will have to be true if the premises are true. In other words the third concept of truth in Sorokin's typology: truth by reason,⁽¹²⁾ truth by "will have to be true". But what does this mean, "will have to be true"? The following example is a good illustration:⁽¹³⁾

"Central Asia in 1931: The psychologists are trying out some syllogisms on Uzbek peasants. For instance:

"In the far North where there is snow, all bears are white. Novaya Zemlya is in the far North, and there is always snow there. What colour are the bears there?"

A peasant replies: "There are different sorts of bears."

The psychologist repeats the syllogism.

Peasant: "I don't know. I've seen a black bear; I've never seen any others... each locality has its own animals: If it's white, they will be white; if it's yellow, they will be yellow."

Psychologist: "But what kind of bears are there in Novaya Zemlya?"

Peasant: "We always speak only of what we see; we don't talk about what we haven't seen."

Psychologist: "But what do my words imply?" and he repeats the syllogism.

Peasant: "Well, it's like this: Our czar isn't like yours, and yours isn't like ours, your words can be answered only by someone who was there, and if a person wasn't there, he can't say anything on the basis of your words."

Psychologist: "But on the basis of my words, 'In the North, where there is always snow, the bears are white', can you gather what kind of bears there are in Novaya Zemlya?"

Peasant: "If a man was 60 or 80 and had seen a white bear and had told about it, he could be believed, but I've never seen one and hence I can't say. That's my last word. Those who saw can tell, and those who didn't see can't say anything!"

Evidently, what is "gedankennotwendig" for some may not be it for others - a point also made very clearly in the brilliant German movie about Kaspar Hauser.

The point here, however, is that there is such an approach to the problem of explanation, through deduction.⁽¹⁴⁾ That which is to be explained is shown to be deducible from that which explains and so on ad inf, or till one hits the head against the ceiling, the axioms, more or less explicit. Thus, explanation becomes a formal or at least verbal game, which means that the language in which it is couched becomes a very important aspect of the whole explanatory endeavour.⁽¹⁵⁾

Dialectics as an approach to explanation is very different from this.⁽¹⁶⁾ Like the law of causality it is a form of understanding, but it is also something more than that. Dialectics is not merely a form in which propositions about reality can be couched. It can also be seen as a set of very fundamental laws about reality. It is not merely a question of conceiving of things as if any whole has contradictions built into it, always moving towards higher level of crystallization or maturation till there is a change in the whole from "quantity" to "quality", eg. through some form of synthesis. Reality is like that. Explanation, then, becomes a question of understanding what are the entities within which the contradictions are located, what is the nature of the principal and subsidiary contradictions, in what stage are they, what are the new contradictions building up. Thus, a whole can only be understood in a temporal sequence, diachronically, historically, like - for instance - a human being. Once it has been properly related to these basic laws of everything the apparition

present to us at any given moment of time (that which is) can be understood in terms of its position in the sequence.

Whereas the deductive approach calls for high level of dexterity with formalized or non-formalized languages, a dialectic explanation probably calls for a combination of quite a lot of insight gained through praxis, and deep intuition in order to be able to identify correctly the contradictions as they evolve. So once more different faculties are being made use of. And this becomes even more clear if we now try to combine these two epistemological dimensions:

	atomistic	holistic
deductive		
dialectic		

If one now should, very broadly, try to characterize civilizations in terms of their epistemological basis the arche-typical Western epistemology with Aristoteles and Descartes as the chief exponents in the two periods of Western expansionism, antiquity and the modern period as the major spokesmen, would be in the atomistic/deductive combination. And the opposite combination would be a major component in both the sinic (Chinese) and nipponic (Japanese) epistemologies. In those two, however, and this is the reason why we use the terms "sinic" and "nipponic", there are also other factors. Thus, in contemporary nipponic civilization there is considerable Western epistemological penetration so that one could also add the atomistic/deductive combination - and the same may be said to apply to contemporary sinic civilization. But if this is the case then sinic and nipponic civilizations today already span much of the world epistemological spectrum, partly within a model of peaceful coexistence, partly and possibly within a model of working towards some type of synthesis that might have important synergistic spin-offs.

I just mention this because it is at the root of something in which I strongly believe: it is this part of the world, the Orient, much more than the Occident, that will truly benefit from the total range of human civilization including epistemology.⁽¹⁷⁾

The systematically inclined will now immediately ask two important questions:

- (1) What about the remaining two combinations, holistic/deductive and atomistic/dialectic?
- (2) What about the remaining parts of the world - eg. the Indic civilization, African, Amerindian and Pacific civilizations?

Could one simply use the two missing combinations in (1) in order to answer the question in (2)?

But it is not that simple. It may be that the combination holistic/deductive is not a bad way of trying to capture something essential about Western civilization in the contraction mode, the so-called Middle Ages. There was a deep intuition of a God-inspired order of the universe, at the same time a tremendous exercise in deductive thinking.⁽¹⁸⁾ The empirical component was lying low, the components of faith and reason dominated as ways of constituting truth. It may also well be that some of this can be found in Indic civilization, in Hindu epistemology.⁽¹⁹⁾ To the extent that this is the case Indic civilization will play some of the role in epistemology that it also plays in other fields such as religion: as link, as in-between, but also as something richer and more embracing than that which it links, something that has all the others as special cases.⁽²⁰⁾ Thus, there is little doubt that the atomistic/deductive approach has a long tradition in Indian history,⁽²¹⁾ possibly related to the famous link between Greek and Indus civilizations during antiquity, eg. as brought about by Alexander the Great. But how to locate African, Amerindian and Pacific civilizations in this map I simply would not know, nor do I know whether the map at all is

suitable, or whether these groupings are so heterogeneous that they will fill all points on the map immediately!

This then leads to a possibly important question: is there something like an atomistic/dialectic approach? A sort of mini-dialectic, dialectic at the micro-level? One is lead to think in the direction of quantum physics and perhaps also some modern personality theories⁽²²⁾ the world is divided into parts, there is little effort to catch totalities, but those parts are seen in a dialectic perspective and explanations are given according to that perspective rather than using a general deductive framework into which can be put practically speaking anything ,including the way this was done in the Middle Ages, by means of syllogisms.⁽²³⁾ Of course, one could also say that the phenomenon is explained by referring it to a more general phenomenon, that of laws of dialectics. But this differs from the deductive approach in general where any basic principles can be used. In dialectic reasoning the range of principles that can be used for explanation is considerably more limited.

Thus, the two dimensions we have tried to use to map the territory of epistemology are dimensions in historical time, geographical space and at the same time dimensions of the human mind. That all this hangs together is in need of no elaboration. More important is how one can see that entire territory as a source of inspiration rather than myopically focussing on a particular corner of it.

This can be done positively and negatively, by extolling the virtues of one approach and by making very explicit the vices. Here I shall try to do both, again in very simplistic terms, but reflecting some recent research experience.⁽²⁴⁾

The criticism of the atomistic/deductive combination in recent years (Positivismus-Streit) is certainly justified.⁽²⁵⁾ Not only does it focus on details to the exclusion, in explicit form, of

efforts to come to grips with the whole. In this type of approach verifiable and confirmed (through empirical procedures) hypotheses are tied together in rigidly deductive frameworks called theories. Thus, an image of reality with a very high level of permanence is produced. This does not mean that the image is static (Aristotelian). It can also be dynamic (Galilean), but there is no room for transcendence of the "laws" in this type of image. Or, rather, if there is a transcendence in the sense that the laws are seen as changeable then laws governing the change of laws will also be produced and one is back to the same problem at a higher level. There is too little opening for the unpredictable, the unforeseeable, the unaccountable. That this is also related to the vested interests of a dominant and domineering technocracy goes without saying.⁽²⁶⁾ What is is explained at the expense of what may be.

But from the criticism that can be levelled against such approaches does not follow that the opposite approach (in terms of the map above) necessarily will be a "correct" one. Neither holism nor dialectics are beyond criticism, and as both of them have considerable currency as catch-words and slogans today that criticism should be made very explicit.

The major danger of holism, it would seem, would be that in its effort to see the totality it may become totalitarian or lend itself easily to totalitarian practices. A holistic image will tend to see reality in a highly interrelated way, if not at the level of that which immediately is, the level of the apparition, at least at the deeper, latent level at which the explicans is located. There is a general scheme, a master plan behind it all - the holistic image aims at that master plan. But in so doing it may easily produce an image of social reality that is too cohesive and coherent. And this, in turn, may have either of two consequences: an apathetic submission to the master plan, fulfilling its commands, or a total rejection because that is the only way to obtain change.⁽²⁷⁾ In the latter case a holistic approach would

tend to substitute an other total image for the one rejected, and in implementing that image the danger of totalitarianism would be considerable. Reality becomes too cohesive.

From this angle the advantages of the atomistic approach are clearly seen. It has correctly been criticised as being piecemeal, of trying to detach a part from an interrelated whole, proceeding in an effort to change that part, only to discover after some time that "plus ça change , plus c'est la même chose" (presumably because the whole exercises master plan influences over any new part introduced). But the very idea that parts are detachable and manipulable in isolation gives rise to the type of middle-range activity - between the extremes of acceptance of the status quo and total revolution - so characteristic of Western liberal/capitalist/bourgeois society.⁽²⁸⁾ There is much to be said in its favour. Just to mention one thing: changes in parts may bring about disequilibria that in and by themselves may be contradictory enough to bring about changes in the whole. Also, changes in parts may make it possible to practise alternative schemes or master plans, thus giving experiential glimpses of new realities (liberated zones in geographical space⁽²⁹⁾ and social space⁽³⁰⁾). Above all, it gives hope and does not serve as a pretext for inactivism, whether a holistic scheme is for eternity or because the revolution ushering in a new scheme is far away.

The two major holistic approaches in Western social science of recent times, Marxism and Structuralism, can both be seen in this perspective. Marxism, of course, has a revolutionary perspective built into it because there is a totality to overthrow and a new totality to introduce - but this may also be a perspective of quietism pleading that "conditions are not yet ripe". The corresponding message of structuralism is less clear, but if any it might tend to be that we can not escape from those structures anyhow and consequently the best we can do is to try to understand them fully.⁽³¹⁾ My own perspective on cosmology⁽³²⁾ is somewhere between the two:

the cosmology is deep, very deep and will tend to reassert itself after some time even after what passes for very revolutionary changes. However, there is one way out: that the collective unconscious is lifted into the collective conscious through a collectively shared crisis, and is sufficiently rejected for something new to emerge. Needless to say, this type of thing happens rarely in human history if the underlying scheme is holistic in a sufficiently integrated manner, and does not already have contradictions built into it as would tend to be the case with master plans as seen in the Orient.⁽³³⁾

If a holistic approach can be criticised for facilitating the transition from the total to the totalitarian, a dialectic approach can be criticised almost for the same but in time: too dramatic, too absolutist, too much happens.

The most important aspect of the dialectic approach from this point of view would be its emphasis on discontinuities, or more particularly on transcendence, more than a "quantum jump" from one level to another ; a transformation of the total system. It is an excellent approach for capturing the fluid, discontinuous, and highly dramatic aspects of human history. But it is correspondingly poor when the task is to come to grips with the circumstance that most lives of individuals and societies are lived in a fairly steady flow over time with time flowing through us rather than we flowing through time, meaning breaking time barriers. It may be true that underneath contradictions are brewing, but however true as an objective truth, subjective truth may be different.

That the holistic/dialectic combination will offer itself as an epistemology producing the type of knowledge relevant for oppressed individuals, classes, peoples and countries is evident. Both the totalitarian and the dramatic, apocalyptic aspects are present at the same time in the combination. That the conflict over epistemologies

for that reason is class conflict in disguise is also true or at least partially true. But that does not mean that everything carried out according to a holistic/dialectic epistemology necessarily is good research, and not only because not everything is dramatic.

This is seen particularly clearly in big, international, cooperative studies. The typical way of carrying out that type of cooperative study in the 1950s and 60s, perhaps also into the 1970s was as a comparative study.⁽³⁴⁾ Concretely this meant that there was a problématique agreed upon by all participants, in the form of hypotheses to be tested but throughout the spectrum of conditions offered by the participating research units. If they came not only from different countries but from different regions of the world an excellent opportunity presented itself for exploring how the social context affects the validity of generally formulated hypotheses.

The difficulty with a design of this type is well known: one would get out of it at most what one puts into it, in other words what was already in the original paradigm and set of hypotheses. Of course, in the interpretation of the results new insights might be arrived at, under the heading of theory formation. But that will also be tied to the original paradigm since the whole design in terms of units of analysis, variables and hypotheses had already been established. Given the costs in terms of money, time and human energy of such major enterprises and given the process of research as a learning experience, leaving no researcher untouched, the end result inevitably would look trite and outdated since it was foreseen by researchers at the beginning of the process, not the researchers as they emerged towards the end of the research process.⁽³⁵⁾

Hence, the cry and the demand for more flexible types of international cooperative research. Problématiques are formulated, but they are not frozen into hypotheses. Each unit is left fairly free to conceptualize the problem as they see it, in other words to try to put their paradigms down on paper.⁽³⁶⁾ More importantly: they are free

to reformulate, to reconceptualize as the research process unfolds, through the internal processes inside the researchers themselves, in their confrontation with social reality, in their confrontations with each other.⁽³⁷⁾ The process itself becomes highly fluid and even dialectic in the sense of a high number of transcendences at the individual and collective levels. An epistemology that puts the internal (within the group of researchers) and the external (with non-researchers) dialogue in focus not as a means towards research but as research in its own right, and in addition gives an image of reality as dialectic as that which happens within and among the researchers themselves will seem very adequate. But there are two major dangers in this connection.

First, the researchers may mistake their own dialectic for a dialectic in the society around them, and assume that if they undergo so many changes in so many discontinuous transformations so does or will do society around them. They may forget the privilege of academic man of detaching him/herself from social reality, being less steered by it, more free to undergo such changes, particularly if they are in the privileged situation of being challenged through stimulating internal and external dialogues. A projection from the researcher to the researched may lead to an exaggerated image of the world as dynamic and an exaggerated faith in basic change as imminent.⁽³⁸⁾

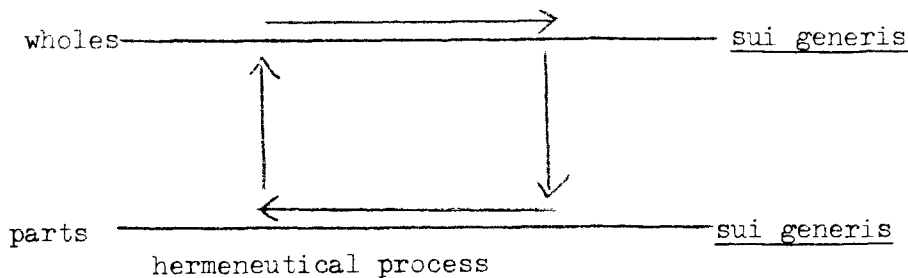
Then there is the other danger: that this may also be a way of escaping from the hard work of developing fairly precise hypotheses about reality and fairly rigorous methods of testing them. Knowledge may become too soft, not hard enough. Instead of a catalogue of meticulously compiled findings comes the intuitive grasp of reality in one glib formula. In some cases the magic word "holism" will do: when pressed for examples of what this means there is no response. And the same with the word "dialectic": the more frequent the use of the word, the more infrequent the precise illustration of what it is intended to stand for. Hence, the research process may become

jumpy and jerky. Whenever something tends to become strenuous in the sense that real hard work is called for in order to produce harder knowledge the butterfly will leave for an other and more attractive looking flower at the other end of the field. The ideal style for the commentator, for the intellectual called upon to pontificate, for the superficial unless exposed to fairly rigorous requirements not so easily defined in the holistic/dialectic approach.⁽³⁹⁾

Some such requirements will be attempted formulated below. They are in the nature of bridge building exercises, assuming that there is much methodologically to learn from the atomistic/deductive approach in spite of its philosophical flatness, as there is much philosophical richness to be gained from the holistic/dialectic approach.

Let us start with some words about holism.⁽⁴⁰⁾

One way of looking at holism would be in terms of parts and wholes, and more particularly in terms of two levels of analysis. There is an atomistic level of parts and there is a higher level of wholes, not necessarily formulated in comparable terms, as indicated above. Of course there are not only two such levels, one might add levels above and below. But the basic point is that holistic analysis should be subjected to the requirement that it sheds some light at least at one level below. Take as an example such a holistic concept as "civilization." It will have to be specified in fairly precise terms so that it is possible to know in which civilization one is located. At the level of the wholes it should be possible to develop a theory of civilizations, eg. something à la Toynbee.⁽⁴¹⁾ And from this theory of civilizations it should then be possible to deduce something inside particular civilizations, and relate that to the types of observations that might have constituted a point of departure. In other words, a hermeneutical process⁽⁴²⁾ something like in the figure;



the parts informing the whole, the whole informing the parts
in a never ending process.

Said more explicitly: a good holistic analysis should have a life of its own at the level of the type of wholes it deals with; but it should also relate to the level of the parts. The analysis should never be reductionist in the sense that what can be said about one level is already said at another level below or above, the difference only being a reformulation in an other language. The two levels are supposed to be levels sui generis. Thus, there is no assumption that everything formulated at one level should have some kind of counterpart at the other level; the only point is that there should be some points of correspondence or contact.

This aspect is important as it has to do with verification. Holistic analysis may be couched in so intuitive terms that it escapes any kind of testing. For that reason it may be considered pure wisdom simply by default, because it is not subjected to any rigorous confirmation procedure. At the level of the parts such testing might be possible. But in doing this there is already some type of deductionism at work, that cannot be denied nor is there any reason why it should be denied. And it also points to one particular, extreme form of holism: the single-peaked deductive pyramid where a holistic image is identified with the basic axiom. Everything is seen in the light of that axiom, eg. contradiction between labour and capital, contradiction between Aryans and Jews or contradictions between id and super ego.⁽⁴³⁾ It may be argued, however, that this is

not truly holistic analysis since at the level of the whole there is only one or very few axioms, not something that has an independent and even identifiable life of its own.

Similar points can now be made about dialectics. It is fascinating to read Mao Zedong because what he does is in great and painstaking detail to identify the wholes within which the contradictions are found and the contradictions themselves, as well as saying much about how they evolve through time.⁽⁴⁴⁾ The dialectical approach makes him look in certain directions; what he sees puts meat on the dialectical skeleton. The approach is certainly axiomatic: no amount of empirical evidence would have made Mao Zedong give up the dialectical approach. If the contradictions do not behave as they should it is because the correct units and the correct identification and ordering of the contradictions according to significance have not yet been arrived at - hence more research is needed! But that research is actually of a highly atomistic and empirical character; Mao Zedong, and also Gandhi⁽⁴⁵⁾ in that sense were Western, empirical scientists. And in Mao Zedong one also finds deductive points in the way he tries to relate the basic dialectical principles to what he observes and what he thinks should be done. As is well known the descriptive/normative distinction will tend to disappear as relatively unimportant under this perspective.

The conclusion from all this, thus, is in favour of epistemological eclecticism. Atomism and holism are not seen as mutually exclusive but as hermeneutically related; nor are deductive and dialectical approaches towards explanation seen as mutually exclusive. The latter two are of course even less contrary to each other than are atomism and holism - the basic point being that all of this can be drawn upon in order to provide us with richer images of social reality for social transformation.⁽⁴⁶⁾ And here I feel we are barely at the beginning of a fascinating dialogue des épistémologies, as a special case of the dialogue des civilisations for which a necessary condition has been, and still is, the liberation of non-Western peoples from Western imperialism in all its aspects, including the cultural.

NOTES

* Paper dedicated to my teacher and old friend, Professor of sociology at the University of Oslo, Sverre Holm on the occasion of his seventieth anniversary. I shall never forget my deep sense of relief and gratitude when, in spring 1952, as a student of natural science in general and mathematics/statistics in particular - but somewhat more interested in society than in nature - I mobilized some courage to ask the Professor of sociology whether there was such a thing as any use for mathematical thinking in sociology - -. The answer was not only yes but the assignment of teaching statistics to the students and some mathematics to the professor -- and above all a general encouragement to go ahead! Professor Holm's very early interest in structuralist thinking in social science, also with mathematical formalization, has certainly also become mine - although the faith in mathematics diminished after some time; mathematics certainly being complicated, but not complex enough to mirror the dialectical nature of human society.

The present paper was also prepared for discussion at the Integrative workshop of the Goals, Processes and Indicators of Development Project of the United Nations University, Alfaz del Fi; April 1980.

(1) The theme of "cosmology" as an explanatory factor in macro-history is presented in a preliminary version in Galtung, Heiestad, Rudeng, "On the last 2500 years in Western history", The New Cambridge Modern History, Companion Volume, chapter 12.

(2) Thus, there is some kind of hierarchy with increasing specificity: cosmology (the basic assumptions of a civilization); epistemology (the part of civilization dealing with knowledge, with what constitutes valid knowledge); methodology (general, explicit principles in the production of knowledge) and research techniques (specific, explicit principles in the production of knowledge). By "knowledge", then, is meant "valid knowledge".

(3) See the article referred to in footnote 1 above. Roughly speaking, the expansionist mode is seen as typical of Antiquity and the Modern period, the contraction mode was typical of the Middle Ages, and - possibly - of what is now coming up on the horizon of Western history.

(4) Anthropology tends to be about others, not about ourselves. For an effort to contribute something to the anthropology of intellectuals, including ourselves, see Johan Galtung, "Structure, Culture and Intellectual Style: An Essay on Saxon, Teutonic, Gallic and Nipponic Approaches", GPID, Geneva, 1979.

(5) Thus, who would from knowledge of liberal and marxist theory have been able to predict that social democracy actually works not too badly, at least as compared with other systems around the world? Moreover, if most people in the world seem to be capable of learning any pair of languages provided they start sufficiently early and produce translations from one into the other, without having a third reference language, why should it be impossible to communicate between cosmologies in general and epistemologies in particular - granted that something inevitably gets lost in the process (as with translations)?

- (6) As an example of atomism in social science, see my own earlier approach to methodology in Theories and Methods of Social Research Allen & Unwin, London, 1967 - with an effort to base methodology on a matrix of units and variables, the task being to fill the matrix with a value for each unit on each variable, and then to process, analyze and theorize, based on the data matrix.
- (7) These are special cases of actor-oriented and structure-oriented approaches in social science, respectively. For an exposition of that theme, see Johan Galtung The True Worlds, A Transnational Perspective MacMillan/The Ree Press, New York, 1980, chapter 2.1.
- (8) Astronomy is literally speaking atomistic or was; the various field theories may give to it a different tonality. Astrology becomes holistic by imparting a master plan, or master plans, to the universe.
- (9) One is reminded of Ornstein's effort to relate the atomistic/holistic distinction to the activities/specialities of the left hand vs. right hand sides of the brain. Incidentally, I have avoided the terms analytical/synthetic here as there is no assumption that the synthetic somehow arises from the analytical - they are seen here as two different modes of epistemological experience (compare the expression "religious experience").
- (10) See Pitirim Sorokin, Social and Cultural Dynamics, Porter & Sargent, Boston, 1957, p. 38.
- (11) For Sorokin the "idealistic" type of culture mentality was characterized by "both equally emphasized (Scholasticism)" (10c. cit.)
- (12) Sorokin dedicates an entire chapter of his work to truth systems, and "truth by reason" sounds like a better way of characterizing Scholasticism than "both equally emphasized" - the sum of experience and faith is not the same as reason.
- (13) From A.R. Luria, The Making of Mind, A Personal Account of Soviet Psychology, edited by Michael and Sheila Cole, Harvard, 1979.
- (14) For my version of deduction in social science, see Theories and Methods of Social Research, Part II, ch. 6 and Methodology and Ideology Ejlers, Copenhagen, 1978, ch. 7.
- (15) And at this point it would be interesting to have languages ordered in terms of the extent to which they lend themselves to Gedankennotwendigkeit - with mathematical languages at one end designed precisely in order to achieve this, via "logical" Western languages to other languages. Thus, conclusions hardly follow with the same ease from correctly formulated premisses in Japanese, to the real Japanese - meaning non-Westernized - mind; and similarly with Chinese. For one effort to look into this, see Johan Galtung, "Language, Structure and Cosmology: Some Comparisons Between European Languages, Japanese and Chinese", GPID, Geneva, 1979.
- (16) For a very elementary presentation of how positivism and dialectics may be compared, see Methodology and Ideology, ch. 8.

(17) See Johan Galtung, "Global Goals, Global Processes and the Prospects for Human and Social Development", GPID, Geneva, 1979, with predictions about the economic point of gravity in the world as moving from the north-west to the south-east - to the sinic-nipponic corner.

(18) In other words, using Sorokins's three types of truth: there was the combination of truth by faith and truth by reason. The combination experience/reason would be more typical of "modern" science, and the combination faith/experience of emotive/charismatic types of religious experience (not deductive/theological).

(19) The Upanishads and Bhagavad-Gita both contain tremendous appeals to reason in the sense of truth by deduction, and to faith - going beyond immediate experience as crystallized in the myths.

(20) This would be seen as fairly typical of Hindu self-presentation, self-image - as being both cradle and meeting-ground or cross-roads for the others.

(21) Even the most cursory reading of a work like Kama Sutra will bring out this point very clearly!

(22) Obviously there is some parallel between the freudian Id-Superego-Ego triangle and the Engels simplification of Hegel into the thesis-antithesis-synthesis formula. It is interesting to compare a freudian scheme with the extremely complex description of personality given in astrology. Of course, a systematization of personality theory according to astrology might bring out a low number of key dimensions that are combined in various ways so as to produce personality images according to the Zodiac. Take Scorpio, for instance, portrayed in a highly dialectic way as torn between constructive and destructive impulses.

(23) For a syllogism at work, see the text referred to in footnote 13 above.

(24) Above all from the Goals, Processes and Indicators of Development project of the United Nations University, and its Human and Social Development Programme. For a presentation of some ideas behind that programme, see Kinhide Mushakoji, "A Reflection on the HSDP and the UNU", UNU, Tokyo, 1980, 12 pp.

(25) For my own version of this critique, see Methodology and Ideology, chapters 2 and 3 on "Empiricism, Criticism, Constructivism" and "Science as Invariance-seeking and Invariance-breaking Processes".

(26) The more predictable the more administrable. Important here is the Law of large numbers: large-scale technocracies, with their state and capital components (bureaucracies and corporations) are based on the behavior of masses of people, their average behavior as clients and as consumers is what counts, not the behavior of a single individual. For that reason big technocracies can permit considerable individual "freedom" as long as it does not abruptly change population averages through, for instance, alternative ways of life.

(27) Both attitudes may be characterized as authoritarian since they are inspired, negatively or positively, as rejection or as total acceptance, by the "authority" - i.e. by the master plan and those who interpret social affairs (or something else) in the light of what they see as the master plan.

(28) For an exercise in seeing the world in terms of detachable units and variables, see Facing the Future, Mastering the Probable and Managing the Unpredictable, Paris, OECD, 1979. Here one cannot find a single example of efforts to see totalities; a genuine exercise in Western atomistic epistemology and for that very reason making it even more difficult for the West to "face the future", if and when the West is in a major crisis, not one that calls for piecemeal adjustments.

(29) Nathan Shamuyarira of the Patriotic Front of Zimbabwe made an important contribution to the GPID project on liberated zones, but his participation in the project was, most regrettably, made impossible through discriminatory behavior from the UNU Centre. (Shamuyarira is now - 1980 - the first Zimbabwe Minister of Information and Tourism).

(30) Monica Wemegah has applied the liberated zone concept to the Alternative Ways of Life movement, observing how it ekes out openings in the social structure from which it can operate.

(31) Thus, I have never been able to derive action consequences of any major significance from Lévi-Strauss' work, and I have the suspicion that this is what makes his work attractive to many: it is non-dangerous.

(32) For a full exposition, see "Social Cosmology and Western Civilization", GPID, Geneva, 1980.

(33) Thus, one difference between Western cosmology or Occidental cosmology in general and Oriental cosmology would be that the former are more pure at the level of the individual, but possibly quite mixed in a broader social context, whereas the latter may be more similar over time and space, but possibly quite mixed at the level of the individual, full of all kinds of contradictions, particularly as carried by daoism and buddhism. For that reason Western history would show tremendous upheavals and changes, like after the collapse of the Western Roman Empire, and after the collapse of the Middle Ages as a social formation; Chinese history would show minor variations compared to that.

(34) The Organization for Comparative Social Research was founded in the early 1950s for this purpose, with the late Norwegian social scientist Stein Rokkan very much as a primus motor, and the Institute for Social Research in Oslo playing a key role.

(35) As an example may serve my own (and I should believe that of most of the international team) feelings in connection with the work that went into producing Images of the World in the Year 2000, Mouton. The Hague, 1976 - under the auspices of the first major international organization to engage in real network research at an international level, the Vienna Center (for Coordination and Documentation in the Social Sciences). Afterwards we knew what should have been done! (we felt).