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HUMANISTIC AND REDUCTIONISTIC MODELS OF UNDERSTANDING IN SOCIAL SCIENCE

I. INTRODUCTION

Ever since the origin of modern science the Western intelligentsia had debated for a long time whether or not one could scientifically understand human behaviour. The traditional understanding of man as a moral agent with his free-will was considered to be the major obstacle to a scientific understanding of human behaviour. However, with the increasing success and prestige of the natural science, the conviction in favour of a scientific study of man became increasingly acceptable. Thus by the early part of the 19th century, the modern social science has had its humble birth.

Among the social scientists, then, the question of what model of understanding was to be used in studying man became a crucial one. The social scientists, for the most part were and still are excited about the applicability of the natural science model in social science. They hold the view that social science contents and methodology can be reduced to the level of their counterparts in natural science; hence they are called "reductionists." Their opponents hold that human social problems can not be reduced to any non-human level and they require unique methodology; thus they are called "humanists." No value judgment of approval or disapproval is implied in choosing the terms. The choice of the model would depend upon the problem under investigation. For a general discussion of these two models in social science, refer to the author's recent article on it.¹

¹ P. M. George, *Humanistic and Reductionistic Approaches in Social Science*, "Organon" 15 (1979), pp. 121-140.

In this article, the author deals specifically with the epistemological problem of understanding. More specifically the problem of collecting, organizing and interpreting social science data are the central concerns here. Since the reductionistic models dominate the modern Western social science, the author is emphasizing the need for a greater use of humanistic models in social science to have a balanced and deeper understanding of human behaviour.

II. THE PROBLEM OF COLLECTING AND ORGANIZING SOCIAL SCIENCE DATA

According to the reductionists, we collect data in social science in the same way as we do in natural science. The uniqueness of the observer or of the observed is either ignored or minimized. Empirical observation is considered to be the royal road to scientific knowledge. Thus highly quantitative methods such as survey methods and statistical analysis are regarded as the true scientific tools for collecting, organizing and interpreting data.

The humanists oppose the naive empiricism of the reductionists. The assumption of a self or depth to human life is the key to any humanistic model of understanding; therefore collection and analysis of data in social science are unlike their counterparts in natural science. We can not, for the most part, observe and collect data from and about people the way we do in the case of Nature. Our subjects do not give out, like a computer, the information we request. We need to relate to people properly before we can get information, particularly personal information. Our subjects are human beings with fears, anxiety, hopes, perceptions, biases, values, memory, faith, ideals, and history. They open themselves up in a warm, personal, informal climate where there are mutual respect, concern and trust. Where such human dimensions are lacking, our subjects withhold information. It is a common sense observation that human beings disclose themselves to close friends, a disclosing which is often surprising to themselves. The above-noted common sense observation has profound methodological implications to social science. The social scientists must develop the art of relating to people. Relating to people is an art because there are no set of rules or steps to follow to be friendly or to be trust-worthy, though there can be valid guidelines rooted in experience for such goals. The conception of social science as an art as much as it is a science is essential for any humanistic model of understanding.

The collection of data from our subjects is not a simple matter of earning their respect. Some would not want to disclose; some may not

be able to disclose without considerable help from the social scientists; some would like to give the impression that they are nice or humanitarian, for instance, when they are not so. The social scientists must be able to discern the authentic interest from the artificial one on the part of the subjects. While some have to be motivated to give the information, some others have to be tactfully discouraged from giving the wrong information. The whole art of relating to people is very important in social science, though we seldom hear about it among the modern social scientists.

The humanistic approach is based on the assumption that man has a depth which can not easily be discovered. For instance, a man drinking heavily or a child asking for water when he or she is not thirsty might be a way of asking for attention. Man's actions and words are often symbols (external manifestations) of an inner depth such as affection, commitment, hatred, etc., a great deal of which is rooted in the unconscious. The inner depth is not open to empirical observation. We can only infer the depth from empirical observation. A simple observation does not force us to make the inference. The problem of coming up with the right inference among the competing ones is not an easy job. For instance, a man who is drinking heavily may be asking for love or looking for an excuse. We need to go deep into his life before we can make the tentative conclusion that his behaviour is a way of asking for affection for example. Such a conclusion is rooted in a humanistic conception of man as a communal animal in need of affection. To complicate the matter further, any inner depth can be manifested in ever so many, different ways. For instance, love or justice are expressed in different cultures, not to mention the difference in different situations in the same culture, in different ways. The recognition of something as authentic affection (rather than pseudo-affection) in spite of the different manifestations of both pseudo- and authentic affection is an intuitive comprehension and not an empirical observation. Here too the comprehension is an art since there is no set of rules the following of which would guarantee us the comprehension. We keep ourselves alert to intuition. Intuitive comprehension "happens" as we relate a particular information or data to other pertinent data, as well as to one's own life experiences. For instance, a salesman's so-called interest in his customer may not look so genuine as we relate it to his other behaviours as well as to our own experience of genuine interest in someone.

Intuition is a suspicion of the mind calling for a deeper and closer look at what is before one as "empirical findings." It is a way of "seeing" something (clues) at a deeper level. For instance, when some people

preach about humility, we sense arrogance on their part, in spite of the elegant words they use to describe their humility. We sense it because we are alert and we relate their words to their actions. We look at them as a unified whole. We refuse to judge their words by themselves and at their face value. Intuition is not one-sided. At times we find that some people are not so unfriendly as they sound or friendly as they claim. Intuition is a happening where life is viewed as a whole with an artistic alertness.

Intuition is not anti-empirical, but something which calls for careful empirical observations to check the original initial observations; yet intuition can not be reduced to empirical observations. As Michael Polanyi points out, scientific discoveries involve not only logic but also intuitions and hunches on the part of the scientists which can not be completely explained.² There is no intuitive clue apart from empirical data and no good data apart from empirically checking the intuitive clues. For instance, a wife's smile to her husband at his success can not be taken as an authentic appreciation apart from her total relationship with him. It could easily be a cover-up for lack of interest or an insult for the success being a small one. Good social-science data rich in human-social meanings emerge where observations and intuitions meet.

To recognize the depth of the observed has profound methodological implications to the collection of data in social science. The reductionistic social science which makes the social scientists empirical observers and the observed the object of observation, can not teach its scientists the art of listening. It is too much for the experts to listen to the ordinary people. The subjects' ability to remember, to explain, to clarify, to relate, etc. are methodological assets in the humanistic tradition. This does not mean that one simply takes the explanations given by the subject on face value. As noted earlier in this article, we have to go beyond the words and deeds of our subjects. Our subjects could easily wear masks for us to cover their real self. We need to know when our subjects are likely to wear masks of what kind for what reasons before we can cope with the problem of wearing masks. We need to know the areas about which our subjects are defensive and also a great deal about our subjects before we can collect *good* data from them.

The assumption of human depth or self is a methodological device to delve deep into the human-social phenomena. The reductionists often give the impression of a homogenized situation out in the society given their plastic model of man. Concepts such as "feudal society" or "traditional society" or "mass society", give the impression that the society

² M. Polanyi, *Personal Knowledge*, London: Rutledge, Kegan and Paul, 1958.

or culture they refer to are monolithic in nature. Humanists can not deny the general nature of any society; but they go beyond such generalizations to point out the reactions of the human self to the external environment. Take, for instance, a totalitarian society, like the recent Nicaraguan society under Somoza. Not only no humanists can deny the general totalitarian nature of that society, but a humanist would bring the true totalitarian nature of that society by describing the struggle of the human self (spirit) for freedom there. Different people reacted differently to the totalitarian system under Somoza. Some opposed it and paid a very high price for their opposition; some exploited it; some escaped it; some feared it; moreover a good deal of the opposition or exploitation was not done openly. So they had to be inferred. When we look at any social system from the point of view of the internal dimensions of the people involved, rather than from the external structural point of view, it is not as monolithic as it appears. Only a humanistic model is capable of bringing the deeper human reactions to the forefront.

The internal dynamic of the society is not limited to explosive situations. Even where things look smooth, it is not likely to be the case when we look at it from a deeper human perspective. Humanists assume that given the dynamic, reflective, creative human self it is not reasonable to expect that man can be easily socialized to be a docile animal. Where a system is oppressive and seemingly successful one could expect and detect signs of resentment, opposition, exploitation, fear, anxiety, etc., at a deeper human level. Harvey Cox points out how a festival called "feast of fools" in the Middle Ages served as a vent for the human spirit within that monolithic social structure.³ Jokes, poems, music, cartoons, etc. can be viewed as the expression of a human spirit (self) struggling itself to be free or to develop an identity. It is important to realize the dynamic human struggle in any oppressive system before we can appreciate the people living under it. If we look at the history of the Negroes living under white oppression in the Southern part of the U.S. we see that they developed good music, dance, jokes, etc. Isn't it remarkable that the Negroes kept their spirit alive in slavery? It is true that they could not overthrow the system; but neither did they accept the system as the reductionists imply from the concept of a plastic man. Same thing is true of other oppressed peoples in the world. When we look at the history of oppressed peoples all over the world from a humanistic point of view, what we find is not adjustment but struggle on the part of the oppressed; and what we develop is not

³ H. Cox, *Feast of Fools*, N.Y.: Harper and Row, 1969.

simple facts, but appreciative understanding of the struggle of the oppressed for freedom and dignity. This is not to deny the sense of tragedy we develop when we look at the costs the oppressed had to pay for their freedom.

The exposure of the subjects to the process of scientific collection of data has its own impact on the subjects as the famous Hawthorne studies on scientific management demonstrated during the early part of this century. The mere fact that the person who collects data is an upper- or middle-class person, may have negative impact on the lower-class subjects, not to mention the impact when the observer is arrogant. Same thing is true when men trying to collect data from women or whites from Negroes. The "observer-bias" is not limited to collection of data as such. It begins long before that. The conception of a problem, the kind of questions being raised, etc. are all influenced by the socio-historical position of the observers in relation to the position of the observed. The role of a humanistic model is to alert us to such biases and to help us overcome such biases. The impact of scientific work on the subjects is not limited to short-term impact either. There is a long-term impact. In some over-researched areas of the world, some subjects become sophisticated or "research-wise." As scientists become increasingly a class of high status and our subjects more sophisticated, we need to look into the quality of data with a deeper analysis.

The reductionists' emphasis in observing and collecting data is on the observers' ability to observe empirically (sense data) and to analyze the data (technical, rational ability). The humanists place a great deal of emphasis on the observers' human qualities such as intuition, empathy, sense of community, friendliness, sense of justice, sense of beauty, sense of wonder, etc., in addition to the qualities which the reductionists consider as important. In dealing with the materials on art, a social scientist needs his or her sense of aesthetics to be well developed, without which a piece of material can not be judged on its artistic quality. Similarly, in dealing with the materials on oppression one has to use his sense of justice. Only a well-developed sense of justice can discern the subtle forms of injustices.. Only a social scientist with a deep sense of wonder can appreciate the struggle of the human spirit against oppression of gigantic magnitude. Empathy is another quality we use in social science. We understand the agony and frustration of a person living under unjust conditions *partly* because we have had similar or comparable experiences in our lives. When we talk about the impact of friendship or punishment, we can draw from our experiences too. This is not to imply that empathy is an internal method of verification not open to others or to empirical observations. The

subjective experience is only an added source of data, not a superior or final source of verification. Empathy can give only clues and suggestions which have to be critically examined by systematic empirical observations. For the role of empathy in social science, see the author's article on it.⁴

It is clear by now that in the humanistic tradition a social scientist is expected to be a fully developed human being before he or she is expected to be a social scientist; in other words, one does not become a good social scientist by developing *only* his or her quantitative skills. This is why the role of technology in social science is limited; but one can not deny the role of technology in social science even in the humanistic tradition. But the humanists want to make sure that the observer with all his or her human qualities must ever be above the tools. Only then is the observer in a position to use his or her tools critically. As scientific tools of technology increase immensely, the danger of becoming a slave to technology is a real one. Technology might determine the problems rather than vice versa in an age of technology; and science is no exception to it.

A word of caution is necessary at this point. As we delve deep into the territory of the self with all the human qualities of the observer, there is a danger that we may read too much in our depth approach just as we may read too little in our empirical approach. We may think there is injustice where there is none because we are overly sensitive; for instance, a person who has had experienced discrimination might "see" discrimination where there is none. It is important to realize that both qualitative-intuitive and the empirical-quantitative approaches have their inherent limitations. In social science one approach can serve as a check on the other; but such a check is not possible where there is mutual antagonism among those hold these positions or one approach is regarded as inferior to the other.

To recognize the humanness of the observer in observing also means to realize that he or she is influenced by his or her values, feelings, vested interest, class position, history, culture, etc., as sociology and psychology of knowledge have clearly demonstrated. Yet we need to be constantly reminded that we are influenced by the above-noted factors. For instance, often our customs and mores look rational whereas foreign customs and mores look "strange" to us. It is relatively easy for human beings to see others' faults, especially in the case of their "enemies." The Canadian students can see, for instance, the injustices the Ameri-

⁴ P. M. George, "Verstehen" Approach and the Philosophy of Social Science, "Organon" 12/13 (1976/1977), pp. 39-50.

can whites are doing to the non-whites, particularly to the Negroes, whereas they do not find it that easy to see the injustices the Canadian whites are doing to the non-whites in Canada, such as the Canadian Indians. This is no Canadian peculiarity. It is a human problem of selective perception, and the scientists are no exception. Such selective perceptions are related to one's own socio-economic position. When there is something wrong with the world, what the comfortable ones would like to hear more than anything else, is that nothing can be done to improve the condition of the world or that the troubled people have no one to blame but themselves, a point noted by Roger Shinn.⁵ The general conservatism of the scientists is likely to be related to their upper-class status. This is why scientists coming from different backgrounds must have a deep sense of community so that every scientist would feel free to criticize the others' works. Even when we all belong to one culture, we can still learn to transcend the culture. How? All of us are not equally influenced by the culture. So some of us are more free than others. Even the same person is not equally influenced by his or her culture in all areas of life. One can find areas where he or she is relatively free from his or her culture. The areas of relative freedom can provide great insight to the reflective, empathetic human being. However, we must be sensitive to the issues and problems about which we are likely to be defensive as individuals and as members of a culture. Moreover, we must learn to look critically at the basic assumptions of our science which are products of an era. The assumptions we use in science are not *scientific* assumptions. A humanistic model provides us with a framework to examine them as products of history.

Humanistic model in social science is a unified approach. It treats sociology, psychology, history, philosophy, etc., as related fields, an approach which discourages unhealthy specialization. Specialization becomes unhealthy when people in different, but related fields, do not interact as members of a community. What does it mean to be part of scientific community? That means we are open to others in different fields. For instance, we must examine ourselves in the light of the findings in sociology and psychology of knowledge to see if we are influenced by similar factors we claim our subjects are in their process of knowing. Freud demonstrated that man is influenced by strong unconscious desires. But what about us? We give the impression that scientists are not influenced by the factors the ordinary people are influenced by. We know the impact of rewards, group pressure, etc., on

⁵ R. Shinn, *Lifeboat Ethics: A Response*, in: I. G. Barbour, *Finite Resources and the Human Future*, Minneapolis: Augsburg Publishing House, 1976, pp. 48-54.

one's behaviour. Yet we imply that the work we do in science is scientific in nature. A humanistic model puts the works of the scientists on the same level as any other human activity. We can not take our religion or culture or class position for granted. This is not to say that we can not be members of a "culture" to be true to our work as scientists. But we must learn to look at our own culture as critically as we would look at any culture, if possible more critically at our own culture. This is the objective attitude of the scientists.⁶ Moreover, the scientists must criticize their fellow scientists. This is the communal side of scientific work. The objectivity of science in the final analysis is not a matter of individual scientist's attitude or work, but rather the social product of their mutual criticism and encouragement and of the friendly-hostile division of labour among them.⁷

In this day and age when most scientists work for multinational corporations or nation-states which have vested interest in secrecy, the significance of openness and mutual criticism among the scientists is obvious. The implication is not that independent scientists are objective or more objective than those who work for others. But we must be alert to the possible impact of our position in the social structure on work. We must develop the moral courage to oppose the employer when the latter interferes in our work as scientists. As long as we swallow the text-book myth that science is objective, rational, impersonal, empirical, supra-cultural, etc., without realizing the distinction between what science ought to be and what actually is, we can not even begin to cope with the problem of objectivity in science.

The experience of scientific activity in social science has a dynamic impact on the observers too. We do not understand even our own culture unless we are exposed to other cultures. Those who are exposed only to their own culture tend to be ethnocentric in general. As we are exposed to more and more cultures, we find that our own cultural tools are inadequate to understand any culture including our own, and we look for intercultural criteria to evaluate cultures in general. It is no accident that the time of social crisis is also a time of awakening and that most of the great social thinkers were (are) marginal people. The exposure of social scientists to social-science data has a dynamic moral impact too. For instance, when male social scientists look at the data on women or white social scientists at data on Negroes, they are likely to experience an internal moral dynamism. They could see themselves as part of the

⁶ H. Fallding, *The Sociology of Religion*, N.Y.: McGraw-Hill, 1974, p. x.

⁷ K. R. Popper, *The Logic of Social Sciences* in: T. W. Adorno, *The Positivist Dispute in German Sociology*, London: Heinemann Educational Books Ltd., 1969, p. 95.

oppression, a perception which has moral repercussions. The humanists do not ignore the internal dynamism. They allow themselves to be imploded by social-science data, and expect to be more sensitive to the injustices in the world as a result of their internal moral implosions. Within the humanistic tradition a mature social scientist is a "liberated" person who loses increasingly his or her defensiveness. The impact of internal implosions the social scientists experience, does not have to be a positive one. We could easily become more defensive or manipulative or technocratic. The role of the humanistic model is to make the scientists more aware of the possible implosions, to promote sensitizing implosions and to diffuse the defenses against humanizing and sensitizing experiences. This is why a humanist considers social science as part of the liberal arts tradition. A healthy understanding of one's own experience as a human being is essential in social science in collecting good data.

Collection of data, regardless of how scientific they might be, apart from an understanding of the power structure is misleading. For instance, what is the meaning of data on the general attitude of the people towards women if mass media control the opinions of the people? To give another example, if we take a *random* sample of the old people and ask whether they would like to live with their children or in oldage homes, the answers can be misleading if the data are not put into perspective. If the children show genuine interest in having their parents, then the parents might prefer to stay with the children; but if the children think that it is a botheration to have the parents, then they (parents) might prefer to live in oldage homes. But to talk about the preference of the older generations to live in oldage homes is misleading unless the information is put into the proper perspective. In other words, the quality of social-science data can not be determined exclusively on the basis of how quantitative they are or how rigorous are the methods used, but we need to know the *social conditions* in which they were collected. The data collected about women by men who have a vested interest in keeping the women down, are to be regarded as questionable materials in social science.

The humanistic models are less quantitative not because they have a bias against quantitative approach, but because they do not give a premium to data just because they are quantitative. Moreover, the humanistic models dare to attack the issues and problems in social science which are not easily quantifiable. It is easy, for instance, to handle quantitatively analytical concepts such as weight, height, income, education, etc., of our subjects, but it is not that easy to handle concepts such as "emotional climate," "respect for people," ect., in a home. A child is

not only influenced by the income or education of the parents, but also by the quality of life in the home. We intuitively grasp the socio-emotional quality of a home while observing the home, a perception of a clue which in turn has to be tested empirically before it can be accepted as good and valid data as I have noted earlier in this article.

The humanists can not claim that a quantitative methodology is inferior to a qualitative one. Only a quantitative approach is capable of verifying empirical statements. For instance, no amount of intuition can prove or disprove that air-pollution or cancer are increasing with industrialization. We need hard data. If data can decide the truth-validity of a statement, then data and only data must determine it. The role of the humanistic models is to determine the humanistic quality of data where such a quality of the data is a pertinent issue. We need to go not only behind our initial empirical observations, but also behind some of our concepts which are misleading. For instance, the so-called multinational corporations are not so *multinational* as the term implies, but mostly American, as Barnett and Miller empirically demonstrate.⁸ Qualitative insights (clues) are no substitutes for quantitative data and vice versa. A healthy science needs both.

The humanistic models are value-oriented in approach. Humanists make no claim of a value-free science. Human dignity is the central value position of a humanist. This value position is a guiding framework (principle) in collecting data. Thus when a humanist looks at a phenomenon such as industrialization or bureaucratization, he or she looks for the human costs (e.g. alienation) and benefits, in addition to other costs and benefits such as economic costs and benefits. The question of human costs is not limited to areas of social problems. Building a hospital or school can have tremendous human costs. The questions such as "who controls," "who benefits more than others?" and "what happens to the culture or social life around it?" are humanistic questions. When we look at our so-called humanitarian institutions or programmes, we can see that many of them are tools of oppression as Susan George makes it clear.⁹ Humanistic models pay particular attention to human costs and benefits.

The reductionistic social scientists claim to be value-free. A value position is considered as a hindrance to objective analysis. Humanistic social science is not only value-oriented, but requires the humanists to clarify the value positions they hold for others to examine and to be

⁸ R. J. Barnett and R. E. Miller, *Global Reach: The Power of the Multinational Corporations*, N. Y.: Simon and Schuster, 1974.

⁹ S. George, *How the Other Half Dies: The Real Reasons for World Hunger*, N. Y.: Penguin Books Ltd., 1976.

alert to the influences of values on their work. Just because a social scientist claims to be value-free that is no reason to believe that he or she is value-free. In many cases it can be shown that the scholars who sincerely claim to be value-free in their scientific scholarly work have actually identified with the dominant values of the society as Baum points out.¹⁰ It is equally true that just because a social scientist opposes a particular system or ideology (e.g. elitism), that is no reason to believe that he or she is actually free from the influences he or she opposes. We notice, for instance, that many of those who oppose the elitism or imperialism of colonialism in the underdeveloped countries are guilty of the same vices. It is particularly hard for us to see in ourselves the vices we oppose in others. It is equally difficult for us to realize that our concepts, models, and assumptions are not simple tools. This is particularly true when we use mathematical symbols and notations. The language we use often reflects our value positions and as such they influence the questions we raise, the data we collect, and the answers we provide. There has been a tendency on the part of reductionist social scientists to hide behind innocent-sounding terminology, a system of concept formation which Myrdal calls terminological escapism.¹¹ On the other hand, there is a tendency on the part of humanistic social scientists to sound more humanitarian than they are with their radical, revolutionary models.

III. THE PROBLEM OF EXPLAINING (UNDERSTANDING)

The situation we deal in social science is qualitatively different from the one we face in natural science. Poverty in society is not comparable to a poor soil for the plants. No doubt the physical impact of poverty on people is undeniable. Those who suffer malnutrition or poverty for a considerable length of time tend to be physically, emotionally and intellectually underdeveloped. However, there is a human social side to poverty. A good deal of poverty in the world is man-made, a fact which is being increasingly known to the poverty-stricken peoples of the world. Moreover, there are various evaluations of poverty in any culture. Poverty is bad enough; but to experience man-made poverty in a culture where poverty is considered to be a degradation is a horrible experience as Susan George notes.¹²

It is a common-sense observation that if we treat others as decent individuals, they tend to be so and if we ill-treat them, they tend for instance to behave violently. Such common-sense observations are con-

¹⁰ G. Baum, *Religion and Alienation*, N. Y.: Paulist Press, 1975, p. 259.

¹¹ G. Myrdal, *Objectivity in Social Research*, N. Y.: Parthenon Books, 1969, p. 58.

¹² S. George, *op. cit.*

sidered as justifications for a thorough-going environmentalism by the reductionists. However, something more than the impact of the environment is involved here. There is a truly *human* element here. We develop our sense of dignity as a result of being treated with dignity; but when we are not treated so, we resent such ill-treatments and get irritated or frustrated and our actions tend to end up as "criminal" or antisocial behaviour. We are not simply reflecting the environment, but an inner self. It is important to keep in mind the role of the human dimension in proper perspective. We do not develop a truly human dimension such as trust, faith, sense of dignity, sense of creativity, apart from a human environment of care, patience, concern, respect, etc. Moreover, a lack of human environment would destroy a great deal of human qualities in man. This is not an easy lesson for the autocrats to learn. Thus there is an affinity between reductionism and authoritarianism.

The reductionists assume that the human depth can be "explained" by the environment. Let us say, for instance, women tend to respond favourably to their husbands or lovers when the environment contains flowers, candlelight, etc. Does that mean that the responses in the women were produced by the environment of flowers and candlelight as the reductionists imply? If so, women could get themselves out of their depression or unhappiness by having a lot of flowers or candlelight. But that would not work, we know. The women are not moved by the flowers or candles, but by the human qualities represented by the flowers and candles. The author is not denying the fact that a flower might represent a manipulation on the part of the one who gives it. Neither is the author denying the direct impact of factors such as poverty on people. However, we need to know which variables have direct impact and which ones act indirectly through the level of human meanings.

Unlike the reductionistic tradition, in the humanistic models understanding means more than causally relating a variable to another. We have to delve deep into the socio-historical situations to grasp the meaning of facts and to avoid unwarranted conclusions. Suppose we note that the Negroes score lower on the IQ tests. What does that mean? Does that mean that the Negroes are intellectually inferior? It appears so. But when we look into the socio-historical context of the IQ test, we get a different picture and arrive at a different conclusion. When we note that the tests are a product of the white culture and the Negroes were denied much of the opportunity to develop intellectually, our understanding of the whole situation changes. Moreover, when we realize that low test scores can be a way of protesting against an oppressive system represented by the test, we gain a deeper understanding of the

problem. Our understanding of a phenomenon becomes deeper as we delve into deep into the socio-historical dynamic of all the people involved.

The reductionistic models concentrate on prediction, control, and explanation, as the three main goals of science. The humanists, in general, are not in disagreement with regard to the above-noted goals. However, there is disagreement as to what these goals mean in science. We can "control" our frustrations or anxiety in many ways. We can destroy our sensitivity to the frustrating environment or create an illusion of comfort by drugs or we could destroy the frustrating environment, the real cause of frustration. The humanists approve only the third meaning of controlling human behaviour. Only that choice is consistent with the central concept of human dignity in the humanistic models. In social science, the desensitizing is not limited to drugs or similar treatments. Some of our concepts, assumptions, models, etc, can be desensitizing, as religion or philosophy in some parts of the world were (still are) an opiate to some extent. Our wide use of the terms such as "democratic society" or "modern society" for our society might desensitize us to the undemocratic and "primitive" element in it.

We do not understand the great human struggles apart from a human spirit struggling for expression. The recent popular victories in Iran or Nicaragua do not make any sense apart from a human spirit which is struggling for expression. Neither the human costs nor the joy of their victory mean anything apart from a humanistic conception of man. Our understanding is appreciative and/or critical in social science, as noted earlier.

We do not predict human activity in the same way we predict non-human phenomena. For instance, we can predict in detail the shape and performance of the cars we build; but we can not predict the exact lines of a poem or shape of a piece of art before it is created. This does not mean that a poet's or an artist's behaviour takes place in a vacuum. Given the dynamic human environment, we can predict that something creative is likely to take place. Moreover, we can predict the influences of the environment on the products. But we do not predict the exact lines of a poem. Humanistic understanding is not against prediction, but it is against the kind of prediction which negates human depth (spontaneity, creativity, etc.) where such a depth is involved. Science is by definition deterministic in orientation, but the orientation in social science should not be over-deterministic to deny man's sense of self and creativity. Human depth and causal determinism do not have to be antithetical to each other. They can find a creative dialogue in social science, because social science is an art as well as a science.

To view our scientific work from a totally deterministic point of

view is to lose its meaning. If our findings are totally determined by the environment, then the questions of logic or evidence do not mean anything; any theory is as good as any other one. However, one should not get the impression that only the so-called creative works of art, poetry or scientific work involve the human self. Such a view contains a class bias against those who work with their hands. When the environment is dehumanizing and frustrating, we can predict that in general, a great deal of aggression or violence or apathy is likely to be shown; but here too, we can not predict the exact nature of the violence any more than we can predict the exact lines of a poem. Moreover, there is no guarantee that everyone in a creative environment will show some sort of creativity, just as there is no guarantee that everyone in the dehumanizing environment will act "negatively."

Some reductionists feel that we human beings can be totally controlled and made to feel happy. B. F. Skinner is a classical example of such extreme reductionism. But the humanists take the position that total control of human behaviour is possible only when total humanness is eliminated from the people. As long as there is some humanness left, any attempt to impose total control over the human beings will be very costly from a point of view of human costs. In fact a great deal of modern human agony and frustration can be explained as an opposition to the modern dehumanizing conditions. To the humanists, the development of humanness is a product of both the human and non-human environment and the self. This is why they talk about the environment as "facilitating" or "conducive" whereas the reductionists (behaviourists) as "controlling" or "conditioning."

Humanistic understanding is rooted in a humanistic conception of man, according to which man needs a *decent* humanizing environment for his full development as a human being. To assume a self for man is to assume that man is an animal who reflects, evaluates, relates, and above all struggles for self-expression, security, and a community. In other words, man needs an environment which is consistent with the concept of human dignity to actualize himself. It is the quality of the environment which promotes (not produces) the humanness. Without freedom, for instance, the self is not only suffocated, but there is no creativity. When a culture becomes increasingly monolithic or loses its touch with humanness, or does not treat people with dignity, the humanists hypothesize (predict) that it is bound for destruction, chaos, apathy, violence, etc. This is a deductive, intuitive understanding of the human mind from a humanistic conception of man. Yet such predictions have to be tested empirically.

The mechanistic approach of the reductionists is based on the assumption that we can reproduce the world of our experience given

enough knowledge about the situation. The humanists object to such mechanistic view of human life. We can reproduce a car or a cake; but can we reproduce love or creativity by following a set of rules? It is the conviction of the humanists that the evolution of friendship or gratitude is unlike the reproduction of things. A genuine gratitude by definition is not something I can reproduce in others by controlling their environment; it involves an authentic self. Many people in the developed countries (moved by modern hedonistic theories of motivation) can not understand why millions in the developing countries are not grateful to the former for former's generous help to the latter called "foreign aid." We do not buy or produce gratitude. This does not mean that gratitude emerges in a vacuum. In a genuine atmosphere of care, concern, and respect for the other, rather than in an atmosphere of manipulation or arrogance, gratitude is likely to emerge. Humanistic approach is based on the assumption that life at its depth is an "open" phenomenon. As Baum points out, tomorrow is not totally determined by today; "new" can be created.¹³

Humanistic understanding is deeply rooted in historical approach. The meaning or significance of a behaviour is not understandable apart from the history of the people involved. For instance, the typical reactions of the peoples in the underdeveloped countries towards "foreign aids" from developed countries, does not make any sense apart from their history as colonized peoples. Peoples in the developed countries often forget that they too were once colonized peoples some time in their history. Humanistic models attempt to connect historical frameworks to other human qualities such as empathy, intuition, etc., whereas the reductionists follow a non-historical approach.

Humanistic, historical approach has its direct implications to our work and findings too. Humanistic understanding involves the idea of placing our theories, assumptions, and findings in a historical framework as part of our understanding of them. In other words, science is not just a matter of verifying empirical statements or of prediction, control, and explanation. The dominant ideas of an era are often the dominating ideas of the ruling class as Marx pointed out. Unless we place a theory in its historical context, we can not evaluate its strength or weakness. A social thought becomes "great" only in relation to the thought of others in that era or before it. When we compare the thoughts of Plato or Aristotle with ours, we find it hard to appreciate them. But a contextual analysis would make us appreciate them for their creativity. Moreover, their emphasis (Plato's emphasis for order) on

¹³ Baum, *op. cit.*

certain aspects does not make any sense apart from the context. We need to know the historical context and their audience if we are to comprehend fully or appreciate their theories. Moreover, we can not criticize them either without a contextual analysis. Contextual analysis helps us to see the impact of their culture or time on their thinking. In other words, a historical contextual analysis helps us to see to what extent a thinker is great in relation to the thinkers around him and to see whether or not the thinker is simply reflecting the environment of that time.

A historical analysis involves more than contextual analysis. It is important to realize that social processes such as industrialization or bureaucratization may not have any negative impact up to a certain point, but the long-term impact of continued industrialization or bureaucratization is likely to be different from their short-term impact. The reductionistic models with their short-term laboratory approach are not capable of handling historical issues and problems. It is one thing to talk about the short-term effect of using chemical fertilizer for plants or pills for contraception; but what happens when they are used for generations? The positive effect of industrialization could easily be negated in the long run. A large-scale historical approach is rooted in a humanistic conception of man. It is easy to manipulate or "buy" people for a short time. But wouldn't the reflective man come to know sooner or later that he is being manipulated by others?

The reductionists aim to come up with neat, formal law-like statements. For instance, George Homans came up with the proposition that the greater the interaction between two or more individuals, the greater their liking for each other.¹⁴ This statement shows his mechanistic view of social life. Increased liking among the individuals would depend upon what, how, and why they communicate. In other words, it depends upon the human dimensions involved. The role of the humanistic model in social science is to explicate the complex social-human dimensions of life; yet to come up with statements or theories of human behaviour which would show a deep and profound insight about life in the true tradition of science.

SUMMARY AND CONCLUSIONS

The various models of understanding in social science can be subsumed under two models, the "reductionistic" and the "humanistic." The reductionists hold the view that social science must follow epistemolog-

¹⁴ G. Homans, *Social Behavior: Its Elementary Forms*, N. Y.: Harcourt Brace World Inc., 1961.

ically the general line taken by the natural scientists whereas the humanists argue that the study of human behaviour has to have unique models of understanding since man is a unique animal. The reductionists with their emphasis on analytical, quantitative, empirical, and ahistorical approach narrow the scope and depth of our understanding; but they produce valid, empirical findings and theories for us. Moreover, they emphasize our unity with the natural science. The humanists with their emphasis on the uniqueness of man bring to the forefront the depth and complexity of human social dynamic, including the socio-historical dynamic of our scientific works. Both regard social science as a science, but the humanists want to consider social science as a science without its losing its affinity with arts and humanities. According to the humanists, collection and analysis of data are an art as much as it is a science. An observer must be a fully developed human being as far as his basic sensitivities such as intuition, empathy, sense of justice, sense of aesthetics, are concerned.

Understanding is more than a matter of developing and using quantitative and analytical skills. The humanistic models emphasize the insights (qualitative aspects) whereas the reductionists—the empirical-analytical (quantitative) aspects of our work. We need both models in social science. Only a creative dialogue between them in social science, rather than a domination of one model over the other, can bring social science to its unique position as an art and as a science at the same time.