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## Humanistic and Reductionistic Approaches in Social Science

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P. M. George (Canada)

## HUMANISTIC AND REDUCTIONISTIC APPROACHES IN SOCIAL SCIENCE

### I. INTRODUCTION

Various theories in social science may be placed on a continuum from a humanistic pole at one end to a reductionistic one at the other end. Humanistic and reductionistic theories are ideal types in the Weberian sense. In reality, there is no such thing as a purely humanistic or reductionistic theory. The classification is a matter of relative emphasis of the theories. However, as a construct of the mind, the typology can be used as a conceptual tool to describe, clarify and analyze the various theories in social science. It is important to realize that reductionism has taken several forms; so has humanism in the history of social science. In other words, humanism and reductionism are highly generic terms.

Humanism and scientism (a form of reductionism)—the two main streams of Western thought—summerize the alternate ways by which Western man has tried to solve the problems of his social and cultural world as Martindale<sup>1</sup> points out. Humanism, as a general philosophy of life emerged as an optimistic, open, dynamic view in contrast to the pessimistic and static medieval view of life. Moreover, humanism saw life as a matter of self-actualization in terms of man's secular achievements unlike the medieval religious view.<sup>2</sup> Science, though it shared the humanistic optimism and secularism, was essentially a deterministic world-view. In this article, the author is not dealing with humanism as

<sup>1</sup> Don Martindale, *Roles of Humanism and Scientism in the Evolution of Sociology*, in: G. K. Zollschen and W. Hirsch (eds.) *Social Change*, New York 1976, p. 615.

<sup>2</sup> Don Martindale, *Humanism, Scientism, and the Types of Sociological Theory*, *Sociological Theory and the Problems of Values*, Chapter VI, Columbus, Ohio, 1974, pp. 195-241.

a general philosophy as such, but interested only in the humanistic elements in social science.

Ever since social science was born, the tension between reductionistic and humanistic forces was apparent. In fact, social science became the major battle ground between these two forces. Reductionists strongly believe that social science should use the epistemological model of understanding provided by the natural science whereas the humanists oppose such reduction of social science to a natural science model.

Following the natural science model, Comte called his new field "social physics" and his students "social engineers"; Durkheim developed a set of rigorous rules for the new science.<sup>3</sup> Dilthey, Max Weber and others argued for a social science model for the social scientists to follow. During the short history of the controversy, various schools of thought emphasizing different aspects of social science have emerged on both sides of the conflict. Positivism, behaviorism, environmentalism, etc., tend to follow the natural science model and thus represent reductionism as the author uses the term. On the other hand, phenomenological, dialectical, critical, hermeneutical and *verstehen* approaches, to mention a few, oppose the above-noted reductionism based on a belief that human life should not be reduced to any non-human level. Thus they are called the humanistic. Epistemologically, the history of social science can be viewed as a struggle by various social scientists to place social science on a continuum from extreme reductionism to extreme humanism.

The historical conflict between the humanistic and reductionistic forces in social science is not dead by any means.<sup>4</sup> The conflict has clouded many issues, and created false impressions about both sides. The author intends to clarify some of the issues. More specifically, in his article the author intends:

1. to put the reductionistic-humanistic controversy in its socio-historical perspective;
2. to clarify the similarities and dissimilarities between the two approaches; and
3. to point out the implications and significance of both approaches to social science and society.

## II. SOCIO-HISTORICAL CONTEXT OF REDUCTIONISM

Modern science is a product of Renaissance, an intellectual rebirth based on a renewed interest in ancient Greek learning. With the de-

<sup>3</sup> E. Durkheim, *The Rules of Sociological Methods*, New York 1966.

<sup>4</sup> L. H. Warshay, *New Humanist and Neo-positivist Sociologies. The Current State of Sociological Theory*, Chapter IV, New York 1975, pp. 79-95.

velopment of modern science, there was a revival of interest in the classical Greek concept of man as a rational animal. However, under the influence of the new born science, concepts of man and of rationality changed considerably. Forces of reductionism were apparent everywhere. Descartes reduced man to a thinking machine. Francis Bacon reduced philosophy to philosophy of science, knowledge to know-how and the goal of knowledge to control of Nature. Hobbes lowered mind to a central nervous system, and John Locke to a tabula rasa. Bentham and other utilitarians brought the value of everything to its practical use. Hegel identified reality with rationality. Hume reduced the so-called empirical and rational certainty to probability. The concept of rationality too changed; rationality became a technical mechanistic function. To use Husserl's terminology, a process of decomposition of reason took place in the Western world; the triumph of scientific rationality has destroyed the all-embracing concept of reason held by the Greek thinkers. For details of Husserl's analysis of modern, technical reason, see Giddens' *Introduction*.<sup>5</sup> Various concepts of man such as "economic man", and "rational man" are part and products of the above-noted forces which reduced man to a walking calculating machine.

As modern science became a major social phenomenon in the West, the Western society itself changed in line with the new forces of reductionism. The scientific models which originated as analytical tools became model for life. This new dramatic change at the societal level was greeted by the evolutionists as "progress". "Scientific" society—a society dominated by science and technology—was regarded as the apex of evolution. However, many others viewed this new development with alarm. For example, Toennies regarded the new change from *Gemeinschaft* to *Gesellschaft* as a reduction of culture to a market as noted by Baum;<sup>6</sup> Simmel called it the objectification of modern culture; Weber thought of it as a movement towards an "iron cage";<sup>7</sup> Marx portrayed the same change as the increasing alienation of modern man. Not only rationality was reduced to technical, mechanistic, scientific rationality (devoid of depth)<sup>8</sup>, but this new rationality became a major ideological force.

The predominance of technical rationality in science and technology went hand in hand with the quantitative and competitive approach towards life emerged in the Western world with capitalism. Under ca-

<sup>5</sup> A. Giddens, *Introduction*, in: A. Giddens (ed.), *Positivism and Sociology*, London 1974, pp. 21-22.

<sup>6</sup> G. Baum, *Religion and Alienation*, New York 1975, pp. 49-50.

<sup>7</sup> *Ibid.*, p. 55.

<sup>8</sup> J. Habermas, *A. Positivistically Bisected Rationalism*, in: T. W. Adorno et al. (eds.) *The Positivist Dispute in German Sociology*, London 1976, pp. 198-225.

pitalism, man was reduced to a consumer.<sup>9</sup> It is important in a competitive world to promote quantification, "empiricism", and authoritarianism since the winners must be „rewarded" and the losers "punished" with fine gradations of punishments and rewards. This is why the strongly individualistic capitalism supported strong central governments. Human success of happiness was reduced to quantities of goods a person could purchase. In other words, quantification is part of the great forces of reductionism; and reductionism was a widespread social phenomenon with ideological momentum. Those who did not possess the technical rationality were considered unintelligent. This is why the non-Western world was regarded as "primitive" or "underdeveloped" in comparison with the scientific, industrialized, modern West.

The emphasis on technical rationality, quantification, and other forms of reductionism has had its internal dynamism too. Reductionism as an approach helped the natural science to experience growth at geometric proportions. And as scientific knowledge was translated into technology which, in turn, revolutionized the West, success of reductionism served as a new fuel for further reductionism. Man began to look up to science and technology to establish a new utopia on earth. An air of optimism was dominating the Western intellectual climate for the most part when social science was born. Thus it was no accident that the new born social science looked up to the mature, successful natural science as the "model of science" with great expectations.

### III. COMPARISON OF HUMANISTIC AND REDUCTIONISTIC APPROACHES

**Reduction of the Observed:** Quite often in social science man is reduced to a machine or animal or even to the level of plastic. The thrust of humanistic approach is a refusal to reduce man to the above-noted levels; man is to be treated as a complex being with a depth of his own. Historically, the plastic, mechanistic, and animalistic models of man adopted by social science were designed to overcome the basic limitations of the classical, moralistic, metaphysical concept of human nature. Such a concept of human nature had been used as an all-embracing principle to explain human behavior. In fact, the new concepts of man, particularly the plastic and the mechanistic ones did a remarkable job in making us more aware of the basic limitations of the above-noted pre-scientific concept of human nature as an explanatory principle. However, in our excitement for the new concepts we fail to realize that they too have their limitations.

<sup>9</sup> G. Baum, *Man Becoming*, New York 1970, pp. 235-241.

Humanistic approach to social science is an attempt to point out the limitations of the new reductionistic concepts. Weberian concept of man as a meaning-seeking animal is an example of a refusal to reduce man to the level of a machine or animal. So is W. I. Thomas' postulation of a human need called the need for new experience (creativity).

In the humanistic tradition, human complexity is not treated as a quantitative extension of a machine or an animal. Man is not just the most complex machine or animal we know. There is a qualitative difference between man and animal or machine. Man is a creative animal. To view life as a creative phenomenon is to treat it as an "open", dynamic process. Human-social life is not totally programmed by Nature. From a humanistic point of view, the question is not so much what man is (ontologically), but what man can be as a creative animal. There can not be a genuine faith in man apart from a concept of a creative man.

It is a central assumption in humanistic social science that man is "more than" what his behavior or our models of man indicate. Man is more than the sum of his parts (his roles, pasts, etc.). Man ever remains too big to be subsumed under any or all the abstract models and concepts of man we have or even can have. That does not mean that we can not have models or concepts of man to study human behavior. In fact, we have no choice but to make them, and all our models and concepts of man are reductions made out of behavioral and conceptual materials.

However, while we make and use them, we should be acutely aware of the more central assumption in social science that man is more than what the models portray. The notion of "more than" is given consciously and deliberately a central place in humanistic tradition to combat the tendency to reduce man to something less than what he is or what he can be.

Let us look at reductionism from a historical perspective. It was somewhat inevitable that our earlier models had to be reductionistic in nature. But as we develop more models and accumulate findings, we should learn to develop more complex models which would do justice to human depth and dignity. However, in the past, for the most part, our glorification of reductionistic models has prevented us from developing more humanistic models. And the existing reductionistic models have been responsible to some extent for some of the misconceptions we have about man. Our analytical models have become to a great extent ontological description of man, partly because of the lack of interest in humanistic approaches. We are tempted to believe that man or society behaves as smoothly as our reductionistic models

imply. As Adorno notes society is full of contradictions and as a result of a failure to recognize this fact in our puristic zeal to avoid contradictions we tend to fall into the most fatal contradictions of all namely the one between our models and objects of study.<sup>10</sup>

The fact that human beings tend to manifest different behaviors under different environments is indicative of a plastic nature of man according to the behaviorists. But to a humanist, the same observation has a totally different meaning. For the humanists the different behaviors are indicative of an active, creative self (subject) who is capable of near-infinite adjustments.

It is true that man has certain common properties with objects, machines and animals; but to reduce man to them is to miss what it means to be human. Such a reduction is comparable to reducing the aesthetic value of a painting to the value of the materials used.<sup>11</sup> Similarly, to reduce the process of communication to the level of stimulus and response is to miss the human elements and to perpetuate a mechanistic bias, as Westley noted.<sup>12</sup>

In a true sense, social science is based on the complexity and depths of man. A seemingly, simple, natural act of eating is not as simple and natural as we are led to believe at first glance. There are not only the mechanics and physiology of eating, but also the psychology, sociology, politics, religion, ideology, art, and economics of eating at the human-social level. We need to look at man both as a product and as a producer to do justice to the human complexity. In general, in the humanistic tradition man is viewed as a producer whereas in the behavioristic one as a product of the environment.

**Reductionism of the Observer:** Many social scientists in the West under the influence of the reductionistic models feel that they can understand the human-social world without understanding themselves as observers. This is a mechanistic orientation of the observer to himself, according to which it is assumed that our observations and interpretations accurately reflect the external world of reality as it is, without being contaminated or influenced by the internal world of values, attitudes, and prejudices. Problems of selective perception, biased interpretation, impact of cultural values, etc., are not issues to be tackled according to this model. We are supposed to be observing like machines. Thus the mechanistic-behavioristic models tend to reduce

<sup>10</sup> T. W. Adorno, *On the Logic of Social Sciences*, in: Adorno et al. (eds.), *op. cit.*, p. 106.

<sup>11</sup> F. Streng, Jr., *Understanding Religious Life*, Belmont, California, 1976, p. 59.

<sup>12</sup> B. H. Westley, *Communication and Social Change* in: G. Zaltman, *Processes and Phenomena of Social Change*, New York 1973, p. 217.

our humanity as observers too. Discovery of truth as a profound, creative, dynamic work of inspiration full of dangers and challenges is neither understood nor appreciated in the reductionistic tradition. Humanists are trying to bring a new self-awareness on the part of social scientists as human beings. The observers are as human as others with their normal share of prejudices, fears, hopes, and vested interests, the presence of which influences their findings and interpretations. On the other hand, our human abilities such as intuition and empathy can and should play a positive role in our scientific work as observers.

There are irony and contradiction in our reductionism in social science. To think of ourselves completely as machines or animals will be to commit intellectual suicide, since, then, any theory is as good or bad as any other one, as Watts notes.<sup>13</sup> In general, we tend to think of our subjects as objects, as products of their environment; we are only too eager to explain their behaviors away. But when it comes to our own behaviors, particularly our intellectual works, we tend to keep a great deal of humanness for ourselves. We consider our behaviors as rational and logical. We do not explain them away as products of our environment. Here, the mechanistic concept of the observer serves self-interest for the reductionists according to whom we observe and interpret correctly and systematically as a computer would do. In other words, we do not make human mistakes; yet our observations and interpretations have truth-validity.

**Reductionism of Data: Qualitative vs Quantitative Approach:** It is true that we can control one's sleep or hunger by modern chemicals. But can we really manipulate one's love or friendship? Humanists assume that there is a qualitative difference between various human experiences. What makes the difference is the involvement of the self. In other words, phenomena such as love, trust, care, and commitment are truly human activities which involve an authentic self whereas activities such as sleep, and hunger for are different. Even in the case of seemingly biochemical activities, we can discern a qualitative difference. It is true that we can chemically "arouse" or "depress" a person. But the fact remains that it is one thing to arouse or excite a person chemically and it is entirely another thing to excite him by being warm, gentle, affectionate and respectful towards him. The former state of excitement is artificial whereas the latter authentic.

Behaviorism tends to ignore the qualitative differences between various positive and between negative stimuli. For example, a mother's

<sup>13</sup> A. Watts, *Behold the Spirit*, New York 1971, p. 120.



smile following her child's learning of a new word is behavioristically considered as similar to the smile of a salesman to a potential customer.<sup>14</sup>

One is political, manipulative while the other authentic and expressive. Being appreciative or forgiving or trusting is to respect the individual; to present positive and negative stimuli (rewards and punishments) is to be manipulative. To give another example, a "gift" can be a genuine expression of love or it can be a manipulative attempt to buy the other. Given the complexity and depth of human life, we can not reduce human behaviors to two simple categories—positive and negative stimuli.

Question of quantity is an easy one to decide; but when it comes to the question of quality, it is not very easy to decide. In general, man tends to follow the line of least resistance. This general observation holds true in the case of social scientists too. Their interest in quantification is partly a matter of following the line of least resistance.

The question of quality keeps us ever humble and open because there are no easy mechanical solutions to the question of quality. To view human life as having a profound depth is to humbly recognize the difficulty in comprehending it. A profound human experience, by definition, can not be easily described or explained. The implication is not that we should abstain from describing or explaining certain human experiences; but we should be careful not to reduce the qualitative dimensions to quantitative ones. Neither do we have to make human life a "mysterious" phenomenon. The realization that even our qualitative, humanistic terminology ever remains inadequate to describe or explain our profound, human experiences, is the basis of our constant attempt to improve our language and explanatory skills. Thus we need to treat our conceptual tools and products with flexibility and humility. Thus humanism, in line with the above-noted spirit, tends to use terms such as "facilitate", "promote", and "help" whereas behaviorism the terms such as "cause" and "determine". Not only the spirit of humility is expressed in the humanistic terminology, but such terms are consistent with the humanistic view of a self at the core of its epistemology. This is why the humanists in general distrust the rigorous, reductionistic methodology as sterile for social science.<sup>15</sup> The quantitative approach is consistent with and promoted by a production-oriented, conveyer-belt mentality of modern business culture.

**Static vs Dynamic Approach:** The terms "static" and "dynamic" are used evaluatively these days. The former implies dis-

<sup>14</sup> J. H. Kunkel, *Society and Economic Growth: A Behavioral Perspective of Social Change*, New York 1970, p. 38.

<sup>15</sup> Warshay, *op. cit.*, p. 86.

approval and the latter approval. However, these two terms are used here to mean the degree of "openness" implied in these terms.

Mechanistic model is basically static in orientation. For example, the test scores are treated as if they are eternal revelations. Classical example is the modern treatment of IQ scores. In fact, they have taken the place of the traditional concept of race as a variable to explain human behavior. The modern dependence on the so-called "scientific" tests has taken a magical meaning. Sorokin calls it "testomania".<sup>16</sup> The modern elevation of test scores to the level of eternal truths was partly due to the modern build-up of bureaucracy. Bureaucratic social system has come to mean to many that we have finally created a social system based on "scientific" rationality. To put it in another way, bureaucracy is the social-organizational expression of the domination of technical, scientific rationality.

The static view of the mechanistic-behavioristic thinking is not true to its own basic emphasis that man is a product of his environment. The humanistic mentality is to treat man as a dynamic being who is capable of changing himself given the facilitating environment. In the humanistic approach, there is faith not only in the environment to facilitate or promote change but also in man to change from within. Thus man is treated not on the basis of his scores, however objective and quantitatively refined they might be, but on the basis of his subjectivity, the self, which is in dynamic, creative flux. Man is treated not only for what he is, but also for what he can be and should be.

In the humanistic tradition we not only refuse to treat the test scores as final and absolute but there is a genuine realization that the test scores reflect not so much the individuals' ability or performance as they do the quantitative ability and performance of the observers. Scientism not only takes a quantitative approach, but also considers that which is quantified as important. Here again in the humanistic approach the goal is not to deny the significance of a quantitative approach, but not to let the quantitative approach take on a static meaning. Man who is capable of changing himself should be treated with the dignity he deserves (*i.e.* with faith, trust, hope, patience, care, etc.).

In the mechanistic-behavioristic tradition, methodology too takes on a static meaning. To approach the human world as dynamic is to have an experimental, open attitude towards methodology. We need a flexible approach towards the human-social world which is in dynamic flux. Durkheim treated "social facts" as things in his mechanistic, static

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<sup>16</sup> P. Sorokin, *Testomania, Fads and Foibles in Modern Sociology*, Chapter IV, Chicago 1956, pp. 51-67.

approach. This is not to deny the contributions Durkheim made to social science, particularly to quantitative methodology. In the humanistic approach rules of methodology are not sacred rules to be followed exactly but general guidelines which are expected to be useful in practice in varying degrees depending upon the nature of the situation. A qualitative approach follows techniques such as participant observation for example in which the dynamic nature of the social-human world is recognized.<sup>17</sup> A qualitative methodology is based on human qualities such as intuition, empathy, sensitivity, and rationality; there is no exclusive reliance on rationality and quantification. Neither is there any domination of one method over the others. In scientism, methodological rules are treated as "scientific" rules, rather than as part of our tradition in science.

**Value-oriented vs Value-neutral Approach:** Humanistic social science is by definition value-oriented. Its central value position is the dignity of man. The assumption that man is a product of his social environment (or that he is a social animal) means, in the humanistic tradition, not only that he is influenced by the social environment, but also the value position that man needs a certain quality to his social life if he is to emerge as truly human, and conversely that without certain degree of quality to his social environment, life can easily be dehumanized and dehumanizing. It is the care and concern we have for man which helps us to treat him from a dynamic point of view. Our faith in the redeemability of man is rooted in our concern for him. Without a strong ethical foundation on human dignity, science can easily become a modern monster however rational, technical, and quantitative it might be. Reductionism in science is too confined in its approach. Its values are confined to the values in science such as quantification, rationality, and empiricism. We can not judge science by itself. We need a value basis from where we could critically examine these so-called "scientific" values. Science needs a foundation which transcends itself. The basic position of humanism on human dignity provides such a foundation for social science.

Behaviorists are correct in saying that one man's food is another man's poison. The humanistic position is not an unconditional commitment to a particular value position as such, but a deep commitment to a general, philosophical position of human dignity. It is easier to come to an understanding of human dignity at the abstract level. But at the operational level, differences and difficulties arise, no doubt. It is here that we find cultural definitions and prejudices emerging. And we need

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<sup>17</sup> W. J. Filstead, *Qualitative Methodology*, Chicago 1970.

to keep our eyes open to such influences. Humanistic openness is most applicable to value positions.

Human dignity is the framework within which several concrete operationalized views of human dignity can be developed. All our values should be treated within the central value of human dignity, rather than treating everything in terms of its cash value for example. The high level of abstraction of the concept of human dignity provides us with the room we need to modify and grow in our understanding of life from a moral perspective. Human dignity is not a rational, scientific value but an a priori value position. Scientism tried to reduce ethical values to scientific values (Positivism, for example) or treated science as value-free. Humanistic social science is value-oriented in approach without trying to reduce philosophical ethical questions to rational technicality and empirical facts. Even if we know what is good for others, we have no right to impose our knowledge on them because such an approach violates our position on human dignity.

The plastic model of man is in harmony with the position of ethical neutrality of science. Ethically neutral science has reduced the role of scientist to that of a "technician". Once we believe that scientific work can be divorced from the fundamental human questions of ethics, then it becomes easy for a politician, for example, to order us to produce the kind of nerve gas or bio-chemical weapons of mass destruction he wants. A scientist can not place himself outside or above morality in the name of value-free science. A major role of a humanistic approach is a critical, philosophical one rather than a technical one in the development of social science. The notion of value-free science gave the false impression that scientists are politics-free. Until we come to grip with the politics of science, we can not develop an ethics for science.

It is our responsibility as social scientists to look at the dehumanizing impact of our modern social environment as C. Wright Mills warned us.<sup>18</sup> It is even more important to realize the moral impact and entanglement of science itself with the modern culture. Science itself has become a causal component, if not the causal component, of modern conditions. For example, psychology<sup>19</sup> or psychoanalysis<sup>20</sup> is no longer a neutral tool in the hands of scientists. These fields are part of modern elitism by becoming tools of those who are in power to control the "ills" of modern man without suggesting any radical change in the environment.

<sup>18</sup> C. Wright Mills, *The Sociological Imagination*, New York 1959, p. 13.

<sup>19</sup> L. Paul, *The Effect of Technology on Man*, in: J. E. Nordskog (ed.) *Social Change*, New York 1960, p. 105.

<sup>20</sup> D. P. Warwick and H. C. Kelman, *Ethical Issues in Social Intervention*, in: Zaltman, *op. cit.*, p. 378.

Behaviorism which is preoccupied with environmentalism is least willing to look at itself as an environment responsible for modern ills. The so-called value-free approach (technical role) became a justification to close our eyes against the faults of science itself. In fact, as science becomes larger and larger, the need to look at ourselves more critically becomes more crucial as Leslie Paul discloses.<sup>21</sup> Radicalism in social science is basically an attempt to promote a more critical look at ourselves as social scientists. It is the author's conviction that modern science, including social science, with its emphasis on quantitative, value-free approach has contributed considerably to the modern dehumanization of man.

A value-oriented position of scientists is not to be a basis for moralistic and judgemental attitudes towards others who do not hold the same values as we do. The complexity of life is such that different cultures can have different expressions for the same abstract values as I have already made clear. Thus complexity of life is a moral basis for tolerance. The assumption that man is a product of his environment also means to a humanist that given similar environment we would all act fairly similarly. Thus the assumption serves as a basis for an appreciative understanding towards others. Now others' behaviours do not seem as irrational or funny as we once thought. In other words, the above-noted assumption is not a basis for authoritarian behavioral modification nor for a moralistic, judgemental attitude towards others, but a new basis for understanding and brotherhood. We are all equal before the environment.

A word of caution is necessary here. Humanistic approach is often misunderstood as a glorification of man without recognizing his faults. There is some basis for such a misunderstanding. However, the humanistic tradition contains a strong warning that unless man is treated with dignity man can be worse than an animal.

**Short Term vs Long Term Perspective:** It was believed by many industrial capitalists and social engineers that man, their plastic man, will adjust to the new environment of speed, rhythm, and conveyer-belt technology. In fact, for a while it looked as if he did make the adjustment. But in the long run trouble started. The dehumanizing aspects of modern culture became clear at a mass level only when we have had long contacts with the modern environment. In fact, 20th century is an age of social awakening. For example, the women, Negroes, Americans, Indians, Third World Peoples, etc., are becoming increasingly aware of their plights.

<sup>21</sup> Paul, *op. cit.*, p. 101.

The behavioristic-mechanistic tradition has taken the classical experimental laboratory as its model with its emphasis on short term perspective. It is true that positive stimuli will have considerable impact on the subjects in the direction of the goal of the experiment. But, after having had positive and negative stimuli aimed at behavioral modification from the experiments for a long time, the subject, the reflective man, is likely to wonder what life is all about. Man can not be treated as an object indefinitely. It is easy to produce short term effects in the laboratory where complexity of life is reduced considerably. But only a few social scientists seem to be bothered about the long term moral impact of experimenting with people.

In this day and age of instant things (for example instant coffee), we are tempted to look at life from a very short term perspective. Modern capitalism based on profit, conveyer-belt mentality, mass consumption, and ever newer models is based on a short term approach. It is rare that we hear voices against the impact of modern technology, industrial pollution, etc. Such problems by nature have to touch on moral issues as well as on a long term perspective. Moreover, the long term problems can not be treated as quantitatively and rigorously as the modern behaviorists would like to do. And long term perspective has to tackle problems at the macro-level rather than at the micro-level. To deal with problems at the macro-level is to come to grip with social planning, something which is very distasteful to the value-free, elementaristic social science and to the profit-oriented, individualistic capitalism. Thus it is clear that modern reductionistic social science goes hand in hand with the modern business culture promoted by industrialism.

**Elementaristic, Analytic, Micro vs Holistic, Synthetic, Macro Approach:** Holistic approach assumes that primary human social reality is more or less a comprehensive, organically unified whole whereas the elementaristic approach takes the view that complex patterns of social life to be secondary and derivative.<sup>22</sup> Behavioristic outlook explains life itself in terms of predetermined responses to various stimuli and ignores the unity of life.

Weber's concept of Protestant Ethic, Sorokin's "culture mentality", etc., are holistic, synthetic whereas concepts such as age, sex and income are elementaristic and analytic in nature. Modern social science is, in general, elementaristic in its orientation. What the humanists are saying is that we need to look at human-social life from a macro-level too. Extreme division of labor, individualism, high degree of specialization, etc.,

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<sup>22</sup> Don Martindale, *Introduction*, in: Zollschan and Hirsch, *op. cit.*, p. 11.

are the social counter-parts of an analytical, elementaristic approach in science modelled after the laboratory experiment.<sup>23</sup> Value-free science has promoted an elementaristic approach. Moral issues, by nature, can not be treated from an elementaristic perspective. It is much easier to ignore moral questions when everyone is dealing in technical, specialized terms as Merton makes it explicit in his analysis of modern bureaucracy as a technical negation of personal, moral responsibility.<sup>24</sup> Here again it is easy to see how bureaucracy, technical rationality, quantification, value-free science, short term perspective, and elementaristic approach all go together as a fairly discernable whole.

**Human vs Non-human Causal Factors:** It is true that man is influenced by his non-human environment. The impact of money or poverty is undeniable, for example. The impact of money in a materialistic culture where those who do not have much money are ill-treated, is even greater. It is easy to see and analyze the impact of money, but it takes a deeper intuition to discern the impact of human factors such as hatred, love, and commitment on people. Humanistic social science tends to concentrate on human factors as costs and causes. It is part of the humanistic tradition to assume that one can be part of a creative, human environment of others. Thus the assumption that man is a product of his environment becomes a corner-stone rather than a negation of human-social responsibility.

The behaviorists for the most part ignore the place of human factors in social change. For example, Kunkel, a behaviorist, considers a commitment to a cause (a human factor) as worthless in bringing behavioral change in people.<sup>25</sup> This is part of the dehumanization of man which has been taking place in the West under the influence of modern science.

Here too a word of clarification is necessary. Humanists are not trying to deny the role of non-human factors in social change. Humanists are opposing only the dehumanization implied in the increasing reliance of modern science on non-human factors for behavioral modifications. The actual weight of human factors vs non-human factors in a particular situation can not be decided theoretically. Only empirical data can solve such problems. The view that human factors should be considered as causal and cost factors is an orientation to keep us ever open (not closed) to empirical verification.

<sup>23</sup> R. M. MacIver and Ch. H. Page, *Changing Techniques and Changing Society*, in: Nordskog, *op. cit.*, p. 26.

<sup>24</sup> R. K. Merton, *Bureaucratic Structure and Personality, Social Theory and Social Structure*, Chapter VI, New York 1957, pp. 195-206.

<sup>25</sup> Kunkel, *op. cit.*, p. 317.

**Intuition vs Technical Rationality:** Intuition is an insightfulness towards life based on the observer's sensitivity rather than on his rational ability. Intuition is personal, informal, unstructured and spontaneous. It is a cognitive testimony to human creativity, a kind of life's own refusal to accept static reductionism imposed upon it by modern man, for example.

Classical sociology was deeply rooted in intuition. Without the sophisticated quantitative techniques, the classical sociologists had a profound understanding of modern life. In fact, often intuition tends to run counter to the general perception. For example, Weber saw modern rational world rapidly moving towards an "iron cage"; Le Play saw signs of decay in the midst of glorious industrial accomplishments; Marx saw alienation at the top of modernization. Similarly an intuitive mind sees signs of dangers for modern man behind all the so-called impressive statistics on progress such as increase in per capita income, Gross National Product, and in the level of formal schooling of the masses.

Man is an intuitive animal and we need to take that fact into account in social science. Though the great majority of people in the world do not understand the technical rational language of modern science, they remain somewhat skeptical of the so-called glorious modern science. Behind the so-called value-free science, they feel (intuitively) a spirit of manipulation. This is most obvious in the case of the so-called foreign aid programs.

Humanistically speaking though there is no formula to follow in developing intuition, there can be conducive and non-conducive environments for the development of intuition. In fact, the modern environment, both within and without the scientific world is not very conducive for the development of intuition. In scientism, with the glorification of technical rationality, intuition is treated as something inferior and unreliable. Intuition does not go with an analytical, quantitative, mechanistic approach. Intuition is a natural product of sensitivity. In social science the choice should not be between intuition and technical rationality. What we need is intuition open to rationality or rationality rooted in intuition.

#### IV. SOCIAL IMPLICATIONS OF HUMANISTIC AND REDUCTIONISTIC APPROACHES

The central focal point of a humanistic approach is the emphasis on the dignity, depth and complexity of man. Man should not be reduced to a machine or an animal. In this age of technocracy, we are often tempted to turn the human functions to machines. Machines are increasingly tak-



ing over more and more human functions. Technology has invaded fields such as teaching, music, medicine, and art at an unprecedented rate. The role of a humanist is not to deny the place of technology in human-social life; in fact, technology can be very humanizing. But the humanist is to warn us against our indiscriminate use of technology without a humanistic philosophy behind it. It is a humanistic philosophy behind technology which helps us to keep the latter in proper perspective. Without a humanistic philosophy, technology becomes technocracy. We can not look at the human costs of technology without a humanistic framework. What a tragedy would it be if we turn our kitchens into small computerized vending machines with special push buttons for everything? Our kitchen will be dehumanized and dehumanizing. Cooking, serving, eating and sharing are more than mechanical events; they contain human, symbolic meanings of affection, care, concern, status and identity. What makes human life interesting, exciting, and inspiring as well as frustrating are the truly human elements without which life will be as dull and dry as the one described in *Nineteen Eighty Four* and *The Brave New World* by their authors. To be thoroughly mechanistic-deterministic in orientation is to leave no room for spontaneity, creativity, inspiration and moral responsibility.

A mechanistic-behavioristic model of man has authoritarian implications to social life. The behaviorists tend to believe that they can mold the individual anyway they desire given the proper control over his environment. B. F. Skinner in his *Walden Two* shows how such a molding is within the reach of modern social science. The behavioristic approach with the emphasis on "rewards" and "punishments" is authoritarian in orientation. The question is how to control the individual's environment (rewards and punishments). In fact, their choice of terms such as "reward", "punishment", "control", "determine", and "mould" are highly authoritarian in tone. There is ample evidence to support the authoritarianism of modern behaviorists who use treatments such as electric shock and starving in connection with their attempts to control behavior.<sup>26</sup> Once the self is negated and the subject is reduced to an object, the way is paved for authoritarianism.

Authoritarianism is rooted in the insensitivity of the authoritarian towards others. And the insensitivity is partly related to reductionism of life to a technical, rational level. Most of the so-called foreign aid programs are technological in nature. Those who do not have high level of technology are treated as primitive people. Technological advancement is treated as "progress". Modern technology is often imposed upon

<sup>26</sup> Ibid., p. 330.

others by the powerful nations in the name of science and progress without being sensitive to the human costs of such interventions.

It is a tragedy that modern man feels more at home with things than with people; to feel at home with people man needs to treat others with dignity.<sup>27</sup> The manipulative orientation towards others is partly responsible for modern man's inability to get along with others as well as with himself. Our tragic increase in all sorts of mental disorders is indicative of our basic inability to relate to others. We can not develop a deep sense of community among men without learning to treat man with dignity.

This is an age of technocracy. We tend to try people and trust the techniques rather than vice versa. Modern mechanistic-behavioristic thinking is partly responsible for our craze for techniques. Everything is looked at from the point of view of techniques. The phenomenal growth of sex clinics is a classical example of modern man's interest in techniques. Sex is reduced to a matter of certain techniques of excitement. The deeper human meaning of sex is almost eliminated.

Modern man's unprecedented dependence on chemicals is rooted in his mechanistic thinking and belief which ignore man's inner strength. Science does not simply supply people with new information but it provides them with a world-view and life style in line with its methods and imagery to use Streng's words.<sup>28</sup>

The conception of others as environment in behaviorism, has an ethical implication of dehumanization. If my wife or parents are environment in my life, then I do not have to be grateful towards them any more than I have to be grateful to my climate. Thus mechanistic, behavioristic modern science has destroyed a great deal of humanness of modern life. It is quite likely that the modern enthusiasm for Eastern religions, cults, and sensitivity clinics is a revolt against the dehumanization of man under scientism and a search for some humanness.

Modern social science has ignored for the most part the question of human nature. However, the question reappears in social science in the form of the models of man we use. The plastic model of man has given the impression that man can be moulded or shaped anyway we want without much resistance from man. In sociology, for example, man is treated as a role playing animal. If man is simply playing various roles, it has profound implications to the nature of man. What is the real man behind the role-playing? Few social scientists, if any, seem to be interested in raising such metaphysical questions. It is the author's conviction that the modern predominance of "public relations

<sup>27</sup> R. Horten, *African and Traditional Thought and Western Science*, in: B. R. Wilson, *Rationality*, Oxford 1974, p. 147.

<sup>28</sup> Streng, *op. cit.*, p. 183.

approach" is a result of the dehumanization of man. Once man's self or depth is denied, then outward appearance becomes the sole interest. With the negation of the inner self, we can negate questions of integrity and authenticity.

The elevation of technical rationality to a supreme position has had highly dangerous social impacts. We have created new elites on the basis of technical rationality. Moreover we have managed to ignore other aspects of life such as intuition, empathy and sensitivity. Thus we tend to ignore the role of artists, poets, etc. in building a community. For example Kunkel states that building a community is like building a bridge!<sup>29</sup> Comte, Le Play and Saint-Simon were highly aware of the role non-rational dimensions of life played in building a community. To recognize the importance of non-rational human dimensions in building a community will have radical implications to most centers which train social scientists. At present most of them train their students in technical rationality (statistics, mathematics, logic, etc.) Most universities, for example, would not even know where to begin if they are to train people in developing non-rational dimensions!

The dehumanization of the observers gave the false impression that the scientists are acting rationally, logically, and scientifically; thus the politics of science was hidden from the public as I have already noted. We need to be painfully aware of the fact that we are products of our environment and as such we tend to reflect some of the values and prejudices (if not all of them) of the environment even in our most creative works (theory, for example). We also need to realize that we are producers of some of the values and prejudices, a realization without which these is no scientific humility or objectivity.

Humanistic reconstruction of society is not an attempt to destroy the modern civilization and to go back to a primitive communal way of life. What humanistic reconstruction would involve is a rearrangement of priorities. Before we can aim at a reconstruction, we need to realize that modern science is based on a mechanistic view of man and the world. Machine is most effective when it can deal with uniform units and as science eats up more and more capital, it is likely to exert greater pressure for uniformity.<sup>30</sup> Modern attitude towards life is a by-product of modern science. The desire for speed and superficial excitation is a modern phenomenon. Moreover, we even have to revive our faith in man. We need the conviction that man can make a difference, however small it might be, to his life. We have to believe that man can

<sup>29</sup> Kunkel, *op. cit.*, p. 318.

<sup>30</sup> Paul, *op. cit.*, p. 101.

transcend the environment, even when there seems to be no reason to do so, an a priori faith in man which keeps us looking for ways to make life increasingly meaningful and human.

The humanistic emphasis on human causal factors (as opposed to non-human causal factors) is consistent with a strong faith in man and has profound socio-political implications. An exclusive emphasis on non-human factors as causes would tend to be dehumanizing in the long run. What is equally crucial as technology in building a community are the human elements such as faith, concern and commitment. In this day and age when man is almost exclusively depending upon weapons for national security, for example, we have almost forgotten the role of human elements in promoting national and international security. Peoples of the world have not come any closer to each other in spite of the advances we made in linking people technologically and making them similar in life-styles, because we have failed to see the importance of human elements. We desperately need the men and women with a humanistic vision and faith whose actions would represent a new spirit of trust and cooperation, if we are to open up a new era in our socio-political relations.

#### IV. SUMMARY AND CONCLUSIONS

In social science, we have had two major traditions, the humanistic and the reductionistic. Humanism has taken many forms; so has reductionism in the history of social science. Though there is no such thing as a purely humanistic or reductionistic theory, these two traditions may be treated on a multidimensional continuum from the point of view of ideal types for the purpose of clarification and comparison.

In general, the humanistic tradition, following the orientation of the humanities, emphasized the social aspects whereas the reductionistic tradition, following the orientation of natural science the scientific aspects of social science. Humanism tends to view man as a producer while reductionism as a product of his environment. Moreover, the former's emphasis is on a holistic, dynamic, value-oriented, intuitive, long-term and qualitative approach; the latter's on the opposite one. The various components of each tradition form a unified whole in the sense that they support one another.

It is no accident that social science in the West originally took its models from natural science, since when social science was born, natural

<sup>31</sup> MacIver and Page, *op. cit.*, p. 26.

science was already a well-developed, prestigious phenomenon. Moreover, by that time the basic values of Western society changed to the extent that science was no longer an analytical approach of the scientists. Science was a powerful, ideological societal phenomenon.

Historically humanistic models emerged as a protest against the tendency on the part of early social scientists to reduce social science to the level of natural science models, and to warn the scientists and the society against the dehumanizing impact of such a reductionism on human-social life. The focal point of humanism can be summed up in the concept known as human dignity. Because of the central place given to the concepts of human dignity and self in the humanistic approach the common assumptions of social science have added or even different meanings for the humanists. For example, the assumption that man is a product of his environment means not only predictability of human behavior, but also human quality of adaptability and creativity. Thus humanism concentrates on the self, reductionism on the environment. In line with the above-noted emphasis, humanism views the environment as facilitating or promoting whereas reductionism views the same as determining or causing. Hence the two approaches express not only different methodologies but also different spirits. According to the humanistic theories, we can not ignore the subjectivity of man in the name of the objectivity of science without having grave consequences for our life as well as for our understanding of human behavior.

We can not escape reduction in science, since every theory or model involves conceptual reduction of complex materials; but we can avoid reductionism. Humanistic approach is not anti-technology, but anti-technocracy; not anti-empirical, but against the imperialism of empiricism; not against science, but against scientism. In fact, historically we needed relatively reductionistic models at the beginning of social science; but when we fail to move to more complex models as social science matures, we are not doing justice to the complexity and depth of human-social life. Humanistic models provide an anti-thesis to the present domination of reductionism in social science. The solution to the present scientific reductionism, is not a humanistic reductionism. In social science what we need is not a competitive, domineering relationship between the two traditions but a creative, cooperative, and dialectical one between them, a relationship for the establishment of which we need to develop and appreciate the true spirit of science, the spirit of community, tolerance, and experimentation. Such a new relationship is bound to humanize, democratize, and communalize the scientists as well as the society. Moreover, then, we will have less scientism, and better and deeper understanding of man than we have now.