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TOWARDS A NEW PARADIGM FOR SOCIAL SCIENCE RESEARCH

Ibrahim A. Ragab, Ph.D.

Professor, Department of Sociology and Anthropology
International Islamic University Malaysia

I. INTRODUCTION

When I first came across a statement to the effect that it normally takes the social sciences fifty years to digest and assimilate any new development in the physical sciences, I took that for some kind of exaggeration. With the modern explosion in communications, the statement seemed too pessimistic to be applicable to the world of today. Not until I came to consider the fate -in the social sciences- of the magnificent developments which have been taking place in the natural sciences since the early decades of this century. These great scientific discoveries, the impact of which is forcing a deep rethinking of science itself, thus leading to the emergence of the “new philosophy of science”, have hardly made a dent on the social sciences . What is especially deplorable about this is that these particular developments in the natural sciences should have been of great interest because of their special relevance for the social sciences. They indeed seem to be ushering in a brave new understanding of the nature of matter, human being, and mind. But most social scientists hold a too deep-seated belief in the positivist/ empiricist tradition’s conception of what should constitute “true” science to allow them to harbor any serious doubts about its validity.

For them, it is “the only” perspective from which to see and to understand the world. For them, it looks so unscientific, or almost heretical to think otherwise. This recalcitrance, understandably incensed the critics of positivism, who became more defiant and more virulent in their criticism. Since extreme positions - by definition - tend to distort the truth, the critics’ suggestions to remedy the situation turned out to be the less palatable - even to those who may basically accept the arguments against positivism. Which, in turn, seems to have resulted in an impasse.

Some of those critics, who came to be known as the postpositivists or post-empiricists, seem to have to resort to extremes to be able to shake the faith-like convictions of the hard-core empiricists. Moreover, to be convincing, the critics were less interested in coming up with what could look like viable alternatives as much as to live up to their extreme criticism of positivism - at the cost of becoming even less convincing. Many scholars considered to be themselves among the post-positivists could hardly accept such extreme alternatives. The whole situation, then, seems to call for a more balanced approach to both aspects of the issue: the critique of the dominant paradigm on the one hand, and the proposed alternatives on the other.

The position adopted throughout this paper is that the crucial, wellfounded objections leveled against the positivist/ empiricist tradition should never blind us not to see

what is still valid and valuable in that tradition, specifically when it comes to the study of the empirical aspects of reality. It would only be self-defeating to deny that even human and social phenomena have their empirical aspects that lend themselves readily to observation through sense experience. But sense experiences and observation from outside definitely do not tell the whole story of human behavior. The basic problem with positivism (in its purist forms), it seems, does not lie as much with its inherent invalidity as it is in its exclusivity, that is, its uncompromising insistence that sense experience is “exclusively” the one and only legitimate source for all “scientific” knowledge (while grudgingly accepting a limited role for reason in its logical-positivist variety).

What is regrettable in this connection, is that such assumption (amounting to a “belief”) is not based on any particularly “scientific”, empirically validated, or even logical considerations, but it is - strangely enough - based on historical/ political contingencies, as will be shown below. It is then only reasonable to suggest that any successful re-vision of the current epistemological scene should first tackle and then transcend the effects of these historical/ political factors.

The crisis - as some insist when characterizing the situation - in social science scholarship in general, and at the methodological front in particular, is reflected in the following tripartite problematic situation:

(1) The Critique: where we have those waging dire attacks on the positivist/ empiricist tradition, attacks that at times deny any claims to truth for that perspective, which renders those claims ineffective.

(2) The Alternatives: where we encounter unconvincing extreme alternatives to positivism, suggested by the same critics, which result in more renitence on the part of the positivists.

(3) The Context: where we note inability of both parties to appreciate, and then to effectively transcend the historical/ political roots of the debate.

It could be added at once that Immoderation and immodesty complicate the whole situation, for these are indeed the nemeses of effective exchange among otherwise very thoughtful scholars. The purpose of this paper is to elaborate, in a systematic fashion, on the issues alluded to above, with the intention to hopefully providing some perspective on their problematics - as far as is possible at this point in time. To do justice to all three aspects of the debate, it might be appropriate to start our discussion with a clear statement of the positivist/ empiricist position before embarking on an analysis of its historical and intellectual roots. This should set the stage for a rigorous critique of empiricism, especially in its rugged forms. On the basis of that analysis a new synthesis is suggested here, which it is hoped, would be adequate to addressing the valid criticisms made against empiricism, while attempting to rectify the blatant omissions of the old paradigm. But it should be asserted from the start that this task could never be achieved except after exorcising ourselves first of those historical demons that we alluded to earlier... which may mean as Pitrim Sorokin (1941) would suggest, nothing less than a major transformation in our current value configuration. The suggested alternative may sound a bit radical for those who are still caught into

the “orthodox consensus”, to use Giddens’ phraseology (1982). However, this seems to be exactly what is needed for us to be able to free ourselves from the bondage of the familiar, and to help us respond to the situation in fresh, vigorous and unhesitant ways.

II. THE SCIENTIFIC METHOD AND THE POSITIVIST/EMPIRICIST LEGACY

Although it may be very hard to believe by many, contemporary reevaluations of the history of science have shown that the "idea of science... [as we know it today] is only one of many, and that it is a product of temporary circumstances" [emphasis added] (Ravetz, 1975: 366). Historians of science, according to Ravetz, are also coming to view present conceptions of science as "one phase in a continuing evolution, and that modern science as we know it is an integral part of European civilization (and Western way of life), reflecting "its faults as well as its virtues" (p.375). In the same vein, Johan Galtung (1977) writes that any discussion of scientific methodology "without reference to the underlying social structure is misleading. That kind of discussion will only lead to pretenses of universalism and absolutism..." (p.13). Tudor (1982) completes the demystification process by stating that "science is a social activity like any other and thus subject to similar ‘irrational’ constraints and virtues". (p.31). So, far from being the safe, unbiased, and immutable process we think it is, the scientific method has been shaped through its development by such mundane things as culture, ideology, politics, self interest, and even long-standing hatreds and animosities. These and similar eye-opening insights should prove to us how fallible we all are, and that we cannot grant, even to science, the kind of blind respect and trust that only religion did one day muster, and which science, incidentally, has valiantly fought to dispossess religion of! Bergin (1980) sums up the situation beautifully when he states that: "Science has lost its authority as the dominating source of truth it once was. This change is both reflected in and stimulated by analyses that reveal science to be an intuitive and value-laden cultural form.. Although a belief in the value of the scientific method appropriately persists, there is a widespread disillusionment with the way it has been used and a loss of faith in it as the cure for human ills" (p.95). Thus we do indeed have, not only a moral, but in fact a "scientific" obligation and responsibility to closely examine our conceptions of the scientific method to see where did we err, particularly in our efforts at the “scientific” study of human beings. This takes us directly to the positivist/ empiricist legacy. The Modern Dictionary of Sociology defines positivism as "the philosophical position holding that knowledge can be derived only from sensory experience" (Theodorson and Theodorson 1969:306). A variant of positivism, "logical positivism", only concedes that "logical analysis is needed to clarify meanings that have been verified or falsified through sense experience, but such analyses should be closely associated with empirical observation..." (p.307). Logical positivists at the same time condemn "...as nonsense ...all moral, aesthetic, and metaphysical assertions". (Feigl, 1975: 879). "Logical empiricism", a modified version of the above, developed in the mid third of this century, relinquished the designation "positivism" altogether because of the negative attitude it carries toward the existence of any "theoretical" entities. "Empiricism" is, however, retained as it insists on "the requirement that hypotheses and theories be empirically testable" (p.881). Logical empiricism, which is the dominant philosophy guiding scientific inquiry today, also insists that "all statements about moral ...or religious values are scientifically unverifiable and meaningless"

(Levi, 1975: 273).

But how can we explain the messianic zeal with which the empiricists defend the use of the senses as the only source of acceptable "scientific" knowledge? And why that vehement insistence on the summary exclusion of all other sources of knowledge such as religious concepts assumed to be 'revealed' knowledge? It would have been interesting to try here to trace the historical development of science and the scientific method to be in a position to give detailed answers to these two questions. That, however, goes beyond the scope of this paper. Fortunately, there exists a vast literature on the subject, to which the reader may be referred (see e.g. Sarton, 1975; Levi, 1975; Ravetz, 1975).

Suffice it at this point to conclude with Polkinghorne (1984) that:

"In Western philosophy, there has been an ongoing search for a foundation or ground upon which to secure true knowledge. After scriptural authority and Descartes' clear and undoubtable ideas...were found wanting, there was a general acceptance of sense experience as the base for certainty". (p.418) [emphasis added].

It is widely acknowledged today that the emergence of that warped positivist/empiricist tradition, with its single-minded emphasis on sense experiences was only the bitter harvest of the unfortunate conflict between the church and the nascent scientific community during the Renaissance. As a consequence, scientists resolutely determined to break loose from church authority at any price, went so far - it seems - as to throw the baby with the bath water. But this calls for elaboration.

We are told by historians of science that "Western philosophy in the Middle Ages was primarily a Christian philosophy, clarifying the divine revelation...[but] the Renaissance mounted its revolt against the reign of religion and therefore reacted against the church, against authority, against Scholasticism, and against Aristotle." (Levi, 1975: 261). Toulmin (1975) adds that "Francis Bacon, author of the method of exhaustive induction ...reacted against the Scholastic reliance on Aristotle's authority by calling for a return to firsthand experience ...was preoccupied with empirically observed facts as the starting point for all science..." [emphasis added] (p.378)

To clear away from Aristotle, whose ideas were adopted as official doctrine by the church, an independent source for gaining true knowledge had to be found and to be consecrated! Sense experience, the capacity for which is owned by everybody and not monopolized by the clergy was the most fitting answer. This was indeed a reasonable foundation on which to base our search for the truth. However, to free science - forever- from the grip of the church or from any other arbitrary authority for that matter, sense experiences were to be regarded as the "sole source" of scientific knowledge.

This was meant to completely and irrevocably exclude revelation - true or false - from playing any role whatsoever anywhere in the whole brave new scientific enterprise. This ideology served its purposes very well as it guided physical scientists engaged in the study of natural, material phenomena. The subject matter under study, by its nature, was amenable to objective observation from outside through the use of the senses and through equipment designed to extend their reach. The validity of

verification of the findings was guaranteed through replication of experiments, done on inanimate matter or non-human organisms. Certainty seemed to be easily within our reach, or so it appeared - up to a point.

This of course, explains the exemplary success of the "traditional" scientific method in the study of natural phenomena. Hoping to achieve a comparable degree of success in the study of humans, scientists (or rather philosophers at that point in time) enthusiastically called for the application of the same methods used in the natural sciences to the realm of the social sciences. But this was not the only motive behind the call for emulating the physical sciences - as should be clear from the historical account above. Scientists were also keen to seal out any influence the church may still claim on the "scientific" study of human being in particular, because understanding and guiding human affairs was exactly the bone of contention between scientists and religious authorities. This is where Auguste Comte's call for positivism could be understood, with its insistence that "The methods of physical sciences are regarded as the only accurate means of obtaining knowledge, and therefore the social sciences should be limited to the use of these methods and modeled after the physical sciences". (Theodorson & Theodorson, 1969: 306). This should also explain the wide acceptance of positivist ideas among social scientists and beyond. Feigl (1975) points out the anti-church motive behind this call when he stated that "In its basic ideological posture, positivism is thus worldly, secular, anti-theological, and anti-metaphysical" (p.877). But what did all that mean for the social sciences and their research methods? How did nineteenth century views of the world and of the methods of knowing about the world held by the physical scientists affect the study of human being, then and until the dawn of the twenty-first century?

III. THE POSITIVIST/ EMPIRICIST IMPACT ON THE SOCIAL SCIENCES

IN 1843 John Stuart Mill wrote that "The backward state of the moral [human] sciences can be remedied by applying to them the methods of physical science, duly extended and generalized." (Polkinghorne, 1984: 416). The first part of this advice was religiously followed by social scientists since then. The consequences of emulating the physical sciences were dire indeed. To appreciate the extent of the damage done as a result of the indiscriminate use of these same methods in the study of humans, let us examine the characteristics of the version of science and the scientific method which were applied in the physical sciences at that time and which still drag on up to this day. Authorities on the subject would tell us that nineteenth century science could generally be described as materialistic, mechanistic, and reductionist, reflecting conceptions of reality prevalent in that era (Sorokin, 1941; Augros and Stanciu, 1984).

In physics, Newton's formulations have since the seventeenth century been successfully applied to explain much of the physical world on the basis of the existence of "matter" alone. As a result, scientists came to view "materialism" as part and parcel of the scientific method itself (Augros & Stanciu, 1984). This was, according to Capra (1982), coupled with a "mechanical" view of the cosmos. He states that "For two and a half centuries physicists have used a mechanistic view of the world to develop and refine classical physics ..Matter was thought to be the basis of all existence, and the material world was seen as a multitude of objects assembled into a huge machine ...[that] consist of elementary parts... complex phenomena could

be always understood by reducing them to their building blocks and by looking for the mechanisms through which these interacted. This attitude, known as reductionism, ... has often been identified with the scientific method." (31-32).

Unfortunately, human beings came to be understood and to be studied within the same mechanical, reductionist, and materialist mentality. Research methods and research designs reflecting these same ontological and epistemological assumptions were used (Ford, 1984). All this was done without serious reflection on how the subject matter of the social sciences differed in very significant ways from that of the physical sciences. This type of confusing two very different phenomena and treating them alike is sometimes called a "category error" or a "category mistake" (Weick, 1987:222). The effects were debilitating indeed. We do not need to go to great lengths documenting the failure of the behavioral and social sciences in their efforts to understand human beings and to account for their behavior.

This is well documented and all too familiar. And many critics are even coming to see the connection between these failures on the one hand and the that outdated mode of viewing the world and conceptualizing science which still dominate the social sciences even today.

Critics of psychological research and practice for example, are coming to say in different words something like the following. "Psychology has an identity problem. After more than a century of official existence...there is even debate of our subject matter. Staats and Kosh agree that psychology's splintered condition results, at least in part, and probably most importantly, from the existence of sharply polarized opinion about the epistemological underpinnings of psychology". (Kimble, 1984:833 [*Italics added*]). Similar assessments of the situation in psychology abound.

(Howard, 1985; Augros & Stanciu, 1984; Bergin, 1980; Polkinghorne, 1984).

The same applies to sociology (e.g. Dixon, 1973; Gouldner, 1970). Walter Wallace had to complain that "The appalling fact.. is that even now, after decades of research and teaching, virtually none of the key substantive terms in sociology has acquired an explicitly standard meaning to any large majority of sociologists scientifically speaking, we sociologists simply do not know (and may not care) what we are talking about" [*Italics his*].(1988: 23-24). He goes on to quote other prominent sociologists such as Wiley, Collins, Alexander, and Gans, who lament what they see as a "theoretical lull" in sociology, or a "rather widespread feeling that sociology in recent years has been in a depression ... [and] the feeling that our work is going nowhere" (: 59). But Wallace, the self-admitted naturalist, had to find some way to explain out the malaise so that naturalism could come out unscathed. The explanation has to come still from within the parameters of the normal paradigm. He thus concludes that this disciplinary condition is only temporary, implying that more of the same would do the trick - but all it takes (for him) is to follow the theoretical mapping he provides!. Echoes of the above could be also heard in the other social sciences. (Moten, 1990). In social work, a heated debate has been going on for a decade to the same effect. (see references to such works in, Peile, 1988).

Many critics are increasingly coming to see that the major problem with the social sciences find their roots in the fact that human beings are different in many ways from

things, machines or other living organisms. This fact should, by necessity, require corresponding modifications in the theoretical models and research methods used to study human beings. Howard (1985) puts it this way: "...if humans possess characteristics that are unlike the characteristics of subject matter studied by other sciences, then an appropriate science of human behavior might need to be somewhat different from other extant sciences". (p.p.259-260). Polkinghorne (1984) goes one step further, identifying five areas in which the "human realm" is different, and suggesting the appropriate research stance corresponding to each. The human realm is different in terms of:

a) its systemic character; hence, contextual relations are more important than those among parts.

b) its unclear boundaries is the rule not the exception; hence, the inappropriate-ness of deductive-numeric operations.

c) unfinished quality; the human realm is in flux, and has a history; hence, correlations between elements may hold at one time but not at another.

d) composition, knowing humans is a "human" activity; hence, there is no absolute point outside ourselves from which to investigate.

e) difficulty of access, the human realm is not directly observable from the outside, is saturated with meaning, hence, we have to accept evidence which is different nature than observation.

Another theme that runs through criticisms of a social science bent on following on the footsteps of the natural sciences is that of the total exclusion of the "spiritual" or religious dimensions of the human being. Bergin (1980) for example reports that "an examination of 30 introductory psychology texts turned up no references to the possible reality of spiritual factors. Most did not have the words God or religion in their indexes". He further quotes the psychologist Robert Hogan as saying "Religion is the most important social force in the history of man...But in psychology, anyone who...tries to talk in an analytic, careful way about religion is immediately branded a meathead; a mystic; an intuitive...sort of moron" (p.99).

Roger Sperry, on the basis of his vast research on split-brain (for which he was awarded the Nobel Prize in 1982) talks about a "theoretical turnabout" in psychology. He describes the emerging "new view of reality" as one that "...accepts mental and spiritual qualities as causal realities...Instead of excluding mind and spirit, the new outlook puts subjective mental forces near the top of the brain's causal control hierarchy and gives them primacy in determining what a person does" (1988: 608-609). But how did this turnabout come through? Was it the result of some literal "soul" searching on the part of behavioral and social scientists who should be experiencing a theoretical near-breakdown? Far from it! The emerging new paradigm, to a large extent, was a direct result, instead, of the revolutionary discoveries in - again - the physical sciences! Classical physics had first to crumble under the weight of new discoveries in the first three decades of this century; then to be replaced by the new paradigm in physics; then social science waits for fifty more years till the new developments sink in, before it sheepishly reconsiders its position in the light of the

new paradigm in the physical sciences, again! We are only recently starting to act.

IV. NEW DEVELOPMENTS IN SCIENCE, AND THE NEW PHILOSOPHY OF SCIENCE

According to Augros & Stanciu (1984), respectively a philosopher of science and a physicist, science has since the beginning of this century, undergone a series of exciting revolutions in physics, in neuroscience, in cosmology, and in psychology. Capra, also a physicist, in his 1982 monumental work documented these developments in detail, and followed through with a description of their societal ramifications and consequences. He states that the “dramatic changes of concepts and ideas that has occurred in physics ...in our current theories of matter...[have] brought about a profound change in our worldview; from the mechanistic...to a holistic and ecological view...[with] deep insights into the nature of matter and its relation to the human mind...” (p.p. XVII-XVIII). Space would not allow a fuller appreciation of his account of the fascinating developments which shaped modern physics as a result of Albert Einstein's pioneering work on relativity, and of Niels Bohr and Werner Heisenberg's work on quantum theory. Capra's work contains a wealth of detail in that respect. However, because of the centrality of the subject to our argument, some extensive quoting here may be in order. Capra tells us that these developments "shattered all the principal concepts of the Cartesian world view and Newtonian mechanics. The notion of absolute space and time, the elementary solid particles, the fundamental material substance, the strictly causal nature of physical phenomena, and the objective description of nature- none of these concepts could be extended to the new domains into which physics was now penetrating"(p.62). One of the most important consequences of the theory of relativity for example was "the realization that mass is nothing but a form of energy ...Physicists...measure the masses of particles in the corresponding energy units...Atoms consist of particles, and these particles are not made of any material stuff. When we observe them we never see any substance;...[only] dynamic patterns continually changing into one another..."(p.p. 81-82).

The new discoveries in atomic and subatomic physics came as a "great shock" to scientists. Even Einstein reportedly felt as though "the ground had been pulled out from under [him]". Far from the hard, solid particles they were supposed to be, “atoms were found to consist of vast regions of space in which electrons moved around the nucleus, which in turn is comprised of protons and neutrons. Even those subatomic particles "were nothing like the solid objects of classical physics...[they] are very abstract entities which have a dual aspect. Depending on how we look at them, they appear sometimes as particles, sometimes as waves...The situation seemed hopelessly paradoxical until it was realized that the 'particle' and 'wave' refer to classical concepts which are not fully adequate to describe atomic phenomena. An electron is neither a particle nor a wave, but it may show particle-like aspects in some situations and some wave-like aspects in others". (Capra: 67). Capra comments on these insights by saying that theories of contemporary science reveal a conception of the world which can be "in perfect harmony with [the working scientists'] spiritual aims and religious beliefs". John Polkinghorne (1986; 1994), yet another physicist, heartily agrees.

New developments in neuroscience and in psychology in the last twenty years proved

to be no less revolutionary than those described above in physics. Sperry (1988) contrasts these with the old paradigm. He describes the traditional model in neuroscience and psychology as proclaiming "a full account of brain function and behavior to be possible in strictly objective physiochemical and physiological terms, with no reference to conscious experience... Things such as moral values, the human spirit, purpose, dignity, and freedom to choose, if they existed at all, were supposed to be only epiphenomena..[that] supposedly, in no way changed the course of events in the real world ..." (p.p. 607-608). He then reports that the early nineteen seventies brought about, with a remarkable suddenness, a revolution in the scientific treatment of the relation of mind and brain. In his words, "The new mentalist thinking brings basic revisions of causal explanation that provide scientists with a new philosophy, a new outlook, a new way of understanding and explaining ourselves and the world. The full range of the contents and qualities of inner experience...are not only given a new legitimacy in science but are also given primacy over the more physiochemical forces". (p.608) He further elaborates on the causality model on which this "cognitive", "mentalist", or "humanist" revolution is based. He explains that "The traditional assumption in neuroscience...implicit in...all the natural sciences, supposes everything to be determined from below upward, following the course of evolution. In this materialist 'microdeterministic' view of nature, all mental and brain functions are determined by, and can be explained...[in the last analysis] in terms of subatomic physics and quantum mechanics...[In contrast] the new mentalist-cognitive tenets...take into account new, previously nonexistent, emergent properties, including the mental, that interact causally at their own higher level, and also exert causal control from above downward...over their constituent neuronal events - at the same time that they are determined by them. Microdeterminism is integrated with emergent determinism". (p.609).

The new paradigm has now been reflected in a "new philosophy of science", which also seems to be gaining some momentum in the social sciences. And the movement is manifesting itself in many different ways. Declarations, for example, are repeatedly made that the basic assumptions which informed the traditional model of science are "no longer considered viable". In 1974, Suppe wrote that "the vast majority of working philosophers of science seem to fall on that portion of the spectrum which hold the [traditional view of science] fundamentally inadequate and untenable"(Polkinghorne:420). A minority of practicing social scientists have for a long time felt the same way. They have been voicing dissatisfaction with the experimental model, operationalism, and with the perennial preoccupation with statistics and numbers. Pitrim Sorokin (1956) rightfully attacked these tendencies, calling them Quantophrenia and Testophrenia and had even stronger and more colorful words in his arsenal.

Another significant manifestation of the dissatisfaction with positivism in the social sciences is the revolt against the oncepopularized "myth" of value-free sociology. Alvin Gouldner (1973) strongly attacked the dogma that 'thou shalt not commit a value judgment', which many sociologists have propagated for long. And he exposed this myth for what it really is. He puts it this way: "... the doctrine of a value-free sociology is a modern extension of the medieval conflict between faith and reason. It grows out of, and still dwells in, the tendency prevalent since the thirteenth century to erect compartments between the two as a way of keeping the peace between them".(p.20). The advocates of value-free social science may still argue that the

doctrine is subscribed to as a guarantee of the objectivity of the scientist. It saves us from falling victim to our own biases. But how can we reconcile this with the now very influential position that "External reality, as existing apart from the perceiver, simply cannot be objectively known. Shared realities are intersubjectively valid, but their objective validity cannot be known"(Strong,1984: 471). So, the exclusion of values would never really seem to solve the problem. We would be in a better position to serve the cause of scientific inquiry if the specific values on which our theories are founded were explicitly laid out. This renders them open to criticism by others, instead of allowing them to operate sub rosa.

V- THE SEARCH FOR ALTERNATIVES

With the narrowness of the positivist/ empiricist perspective in the social sciences thus effectively exposed, search was diligently on by many for viable alternatives, by way of reform or of revolution. The suggestions made however did unfortunately suffer from the selfinflicted limitations necessitated by the pitch of each author's initial critique. So, the most vehement critics of empiricism had to produce a clearly revolutionary alternative which should have nothing in common with the culprit in any way! Consequently, their proposals came out squarely off the mark. The reformists, on the other hand tended to espouse positions that at least appear to have a balanced gloss to them . They lost in creativity to the extent that their critique of the prevailing paradigm was timid and less original. However, we have to say, that most of the proponents of the new alternatives were still caught within the historicity of the Nineteenth Century ontology and epistemology. All of this does not promise to be adequately dealing with the situation or leading anywhere. Some alternatives apparently address some neglected gap or another. Some suggest different approaches to the same aspects. This does not seem to add up to much.

Giddens tells us that the "orthodox consensus" rooted in "positivistic or naturalistic philosophies of natural science .. is no more. The dissolution of the orthodox consensus has been substantially brought about by the critical attacks which have been mounted against positivism in philosophy and the social sciences..". He goes on to say that "An interest in hermeneutics is one - among various other - responses to the toppling of the orthodox consensus.. I do want to claim that, in social theory, a turn to hermeneutics cannot in and of itself resolve the logical and methodological problems left by the disappearance of orthodox consensus" (p.p. 1-5). Nazrul Islam reaches something like the same conclusion with regards to another possible alternative, that is, phenomenology. He tells us that "Husserl's phenomenology is in no way a clear cut method or an unquestioned philosophy. The questions he raised regarding the positivist stance are definitely important and need to be answered, but a simple 'reversal of the traditional way of proving the existence of the others via the existence of their material bodies' as he did is not enough" (1983: 137-139,145). A parallel to these same statements is echoed with regard to participatory research by Latapi (1988) who, although dismissing "...the claim that PR [Participatory Research] constitutes a new research paradigm for the social sciences.." comes to conclude that "...some useful lessons should be drawn from [it] for improving present social research practice" (: 310).

In psychology and in counseling, we also encounter some clear parallels to the above evaluations of the situation. In a flurry of exchanges in the mid-eighties, in the

American Psychologist and in the Journal of Counseling Psychology, a number of distinguished scholars such as Howard, Patton, and Polkinghorne have taken positions which were described by some as calling for "a revolutionary change"(Strong, 1984: 470). Borgen (1984), however, appears to be only inclined to a reformist stance when he says that "it is possible to study humans as active agents", a basic dictum of the new paradigm, "within the traditional view of science". Dawis (1984) seems to concur with that view. On the other hand, however, after considering those same contributions more carefully, Borgen (1984) concludes that even these seemingly revolutionaries may be rather looking for integration, and that the perspectives of phenomenology and hermeneutics may help towards achieving that end. The trouble with most of these types of discussions is that they, as was mentioned before, are incapable of rising above the historical/ intellectual baggage of the Western (or rather the European) science, that resulted from the church-science troubled relations. Pitrim Sorokin's towering figure, however, stands alone in a class by himself in his account of how cultural and historical factors highly impact, or even create, a science and scientific research in their own image. On the basis of his vast, meticulous historical/ quantitative analyses, he has demonstrated that the "value-system" adopted by any particular culture at any point in its history defines all the fundamental "compartments" of that culture. One such compartment is its "systems of truth and knowledge", which includes science and scientific research (1985: 226-283). To use Kuhn's terminology, we may say that a culture's value system defines the character and boundaries of the "paradigm" within which normal science is practiced.

Sorokin provided us with a highly coherent description, diagnosis and prognosis of the "Crisis of Our Age", which should indeed inform the current post-positivist debate as it applies to social science research. It also provides us with the long haul historical context for understanding the developments alluded to earlier on the origins of the positivist glorification of sense experience as source of all valid knowledge. But this calls for some more elaboration.

Based on his elaborate historical analysis of social and cultural dynamics over the last 2500 years, Sorokin concluded that a culture's character is determined by its mentality, its value-system rather than by the social system or the personality system. He isolated three major types of culture, each with its own value system. These are

- a) the Ideational,
- b) the Sensate, and
- c) the Idealistic "supersystems of culture".

To these three supersystems of culture there are three corresponding "Systems of Truth and Knowledge". The Ideational periods are spiritually oriented, where "an infinite, super-sensory, and super-rational God...is the supreme principle of true reality and value". The existence of everything is transient and ultimately inconsequential except His. "Ideational truth is the truth revealed by the grace of God, through his mouthpieces (the prophets,, mystics, and founders of religion), disclosed in a supersensory way through mystic experience, direct revelation, divine intuition and inspiration. Such a truth may be called the truth of faith." The Sensate periods are materially oriented, where "true reality and values are sensory. Only what we see, hear, smell, touch, and otherwise perceive through our sense organs is real and have

value. Beyond such a sensory reality either there is nothing, or, if there is something, we cannot sense it; therefore it is equivalent to the non-real and the non-existent. As such it may be neglected". The Idealistic periods integrate aspects of the other two. "It is a synthesis of both, made by our reason. In regard to sensory phenomena, it recognizes the role of the sense organs as the source and criterion of the validity or invalidity of a proposition. In regard to supersensory phenomena, it claims that any knowledge of these is impossible through sensory experience and is obtained only through the direct revelation of God. Finally, our reason, through logic and dialectic can derive many valid propositions - for instance, in all syllogistic and mathematical reasoning."(1941: 18,67-68)

Where do we stand today in terms of the above mapping?

According to Sorokin, we are "at the end of a brilliant six-hundredyear-long Sensate day", with all its magnificent scientific and technological achievements . Sensate culture, sees "true reality" to be sensory. "Another name for this truth of the senses is empiricism" (1941: 13,71). "Sensate truth, or empiricism... rejects any revealed super-sensory truth. It discredits also, to a certain extent, reason and logic as sources of truth until their deductions are corroborated by the testimony of the sense organs." (:72). But the Sensate culture has exhausted its creativity. We are drifting into a phase of a "dying sensate culture", which is characterized by a combination of Passive Sensate and Cynical Sensate Mentalities. "And the night of the transitory period begins with its nightmares...and heart rending horrors. Beyond it however, the dawn of a new great idealistic culture is probably waiting to greet men of the future"(:13). Although some of the above statements are couched in rich metaphor (vantage Sorokin!) it should be remembered that his analyses nevertheless are steeped in hard-nosed empirical evidence.

The way out, according to Sorokin on the basis of vast historical/statistical evidence, is the "correction of the fatal mistakes of the sensate phase ...with a shift from the agonizing sensate to the ideational or idealistic or integral." (:255-6). So, according to Johnston (1990), "Sorokin's solution to this endless cycle [from one supersystem to another] was the pursuit of Integral truth. This form of knowing is not identical with any of the three forms of truth, but embraces all of them. It combines the empirical truth of the senses; the rational truth of reason; and the super-rational truths of faith"(:101).

It is my contention that Sorokin's "Integral theory of truth and reality" do provide us with the most promising epistemological grounding for an effective answer to the questions posed by the critique of the positivist/ empiricist tradition. It not only adequately helps effectively free us from the straitjacket of the positivist/ empiricist tradition, but also allows us to transcend the historical / political blinders of the church/ science conflict. The Integral Theory of Truth is favorably compared with the reductionist versions of the truth as follows: "In this three dimensional aspect of the truth of faith, of reason, and of the senses, the integral truth is nearer to absolute truth than any one-sided truth ... The empirico-sensory aspect of it is given by the truth of the senses; the rational aspect by the truth of reason; the super-rational aspect by the truth of faith...Each of these systems of truth separated from the rest becomes less valid or more fallacious, even within the specific field of its own competence."(1957: 691).

We have seen earlier how the new discoveries in neuroscience are supportive of the basic notion of the legitimacy of the scientific study of inner experiences - including the spiritual aspects – as causal factors in determining human behavior. Abraham Maslow in his work on the “Theory of Metamotivation” asserts that “ The spiritual life is part of the human essence. It is a defining characteristic without which human nature is not full human nature... The ‘highest’ values, the spiritual life .. are.. proper subjects for scientific study and research..”. However, he goes to great lengths in attempting to prove- without proof - that the “value life (spiritual, religious, philosophical, axiological ..etc.) is an aspect of human biology.. It is a kind of ‘higher’ animality”.(1977: 36-40). But that is beside the point. For purposes of research - its subject matter and its methods - the fact that Maslow, after decades of diligent work, comes to identify the spiritual “phenomena” or the empirical manifestations from which it could be detected is what counts here. Even more significant in this respect is his denunciation of the “ ubiquity of stupidly limited theories of motivation all over the world.”, something which, ironically, he himself has more than anyone else contributed to. In any case, this clearly shows that we seem to be forced to move in the directions suggested by Sorokin’s work - if we like it or not.

But of course, nobody can read this as a call for scientists to go mystical! Nothing is farther from the truth. What is implied here is basically and unequivocally a call for the reinstatement of the spiritual, non-empirical aspects of the human being as active causal factors, among the other factors which causally shape human behavior. This relates to that aspect of reform concerned with the boundaries of the “subject matter” to be studied by the social sciences. And because the spiritual factors are supersensory, that is by definition not accessible to observation through the senses, religious insights derived from super-rational revealed knowledge had also to be reinstated as a “source” for plausible hypotheses.

But to translate Sorokin’s formulations into a viable research paradigm for the social sciences requires a clear delineation of the way in which the three celebrated sources of knowledge, i.e., revelation, reason, and senses, can be integrated into a unified paradigm for scientific investigation, which should uncompromisingly live up to the best of the scientific ethos. The traditional model of science emanating from “the orthodox consensus” had no real problems when the subject matter of study is strictly empirical/material. The validity of observations could be vouched for through the truth of the senses. In the theory building phase, the application of reason guarantees coherence, but the logical consequences of whatever was arrived at through reason should once again be validated through sense experience. But that is as far as the empiricist, old paradigm goes. The most significant questions that should be raised now with regards to the new paradigm are the following:

- 1) How do we integrate the truth of faith (intuition or revelation) into this integral, unified “scientific method”?
- 2) Whose faith or religious tradition?
- 3) What criteria for assessing the validity of whatever results we may arrive at? Or is it -once again- a matter of accepting religious dogma and superimposing it on the facts?!

These are indeed serious questions which have to be addressed in a very serious manner. Sorokin recognized the difficulties involved in this regard when he said that

“The validity of sensory experience and, in a less degree, of logical reasoning is pretty well established nowadays. More doubtful appears intuitional truth.”(1941: 87). But to him, of course, if the task of integration has been adequately achieved in the real world, once or rather many times during some of the more luminous, albeit short-lived, epochs of human history, it could definitely be done again and again. Which sounds reasonable, and within our reach if only we are convinced of the validity of that position and if we were not hampered by the shackles of our own past professional socialization in “normal science”. The next section will be devoted to a presentation of the proposed scheme for a translation of Sorokin’s vision into, hopefully, an integral approach for social science research. This is, by necessity a very tentative attempt (at a very ambitious undertaking), which should be seen as such. However, it is, hopefully, not a simple-minded attempt at a solution that just glosses over thorny issues. The situation is more serious than that. What is at stake here is nothing less than a decision as to whether the social sciences will ever be able to overcome their current malaise and to be able to really contribute to human well being – or whether we will prefer to continue with business as usual, satisfied with our positions, benefits and prestige .. even while Rome burns to ashes.

VI- AN INTEGRAL APPROACH TO THEORY BUILDING AND RESEARCH

The human being, according to the emerging paradigm, is not only his material being. He combines both the material, observable, empirical aspects with the spiritual, non-empirical aspects, in an integrated, indivisible unity which lasts as long as he lives. Human behavior is the resultant of the dynamic interplay between these two types of forces. The human being cannot be correctly understood when reduced to either one of these constituent parts, to the exclusion of the other; or when “interaction” between the two components is ignored. Let’s, however, set the “interaction” issue aside for a moment to focus on the workings of the basic two elements of the amalgam. We do not expect to face difficulties when the focus of our study is on the observable, or empirical aspects of the human being, like studying visual and auditory perception or effects of certain drugs on behavior in psychology or the study of spatial distributions of people across regions in demography. After all, most of our research methods and techniques in the past have been geared to the investigation of such empirically observable aspects. Our “senses” do provide the raw material for knowledge, and “reason” is supposed to enmesh these findings “logically” together in a coherent fashion to render them “understandable” as a basis for further potentially fertile exploration.

The big question is, how are we ever to study the other component, the spiritual, non-empirical aspects of our being.

The difficulty here stems from the fact that soul, or the spiritual aspects are by definition not amenable to study by reference to sensory experience. This aspect of human existence is not space- or time- bound. The vehicle for understanding such phenomena cannot be the sense organs. Nor could it be studied through reason alone, for reason can only process what inputs of data - sensory or otherwise - that come its way in accordance with its innate logical rules. Its speculation beyond that is mostly groping in the darkness, since it lacks an anchor either in empirical data or any other source of credible information.

With all of our human faculties thus exhausted, we are left with the only other source of viable knowledge which can help us understand those elusive aspects of our own existence. It is here that we come face to face with the need to consult "revelation", which is supposed - in the celestial religions at least - to emanate from God and to be transmitted through his chosen and trustworthy messengers to humankind. The Supreme Being who created us did withhold from us any direct means to gain knowledge regarding this innermost, most valuable component of our being, our soul. But He sent Messengers to provide human beings with valid insights into this aspect of their being. The "validity" issue of any specific claims of divine revelation could be decided upon through scrutiny of evidence as to whether the alleged Messenger historically existed or not, and whether the "subject matter" of revelation, i.e. scripture, has managed to reach us intact or not. But that is a realm for exploration by solemn religious scholars. Social scientists are more interested in theory-building and verification or falsification of specific ideas or hypotheses as they go on the business of attempting to understand the dynamics of individual and social behavior of the human being. But that is not meant to detract in any way from the important contribution of religious scholars to the cause of the ongoing search for the ultimate truth. Their efforts - if sincere - could indeed help tortured souls find their way in a troubled world through the guidance of a holistic and wholesome true belief. But in the social sciences, our interest is limited to the goals of understanding, explanation, and prediction. And we are coming to realize that most probably religious insights could be instrumental in helping us attain these scientific goals. We do not need, then, to worry about the thorny issues of historical and substantive scrutiny of evidence to establish the validity of any particular version of alleged revelation. Theory-building since Popper gives us a clue as to how can we utilize such insights into the scientific enterprise. But for this we need to dwell for a moment on the issue of the pivotal role played by "theory" in science.

There is general agreement that "the goal of science is to develop theory" (Turner, 1978:24). As Dawis puts it.. "theory is the end product of scientific activity, but an end product that is never final because it is subject to revision and eventual rejection if a better theory is found (1984:468). Kerlinger (1979) also explains the "high esteem" held by scientists for theory. He tells us that such esteem "springs from the basic purpose of science, a

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