Discourse on the Contemporary Methods of Research in Social Sciences

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Abstract: *The principle of methodological unity of sciences was challenged by several thinkers. The Erklaren School supported by such philosophers as Droysen, Dilthey and Rickert postulated that all the sciences are methodologically autonomous. Methodological Autonomy implies that each discipline traverses a different path in its research investigation which makes Research Methodology to differ from subject to subject. Approach to social science research basically depends on the objectives of i) research ii) the nature of the problems iii) method of analysis and iv) extant of data. But the objectives pursued through research are divers in nature. This falls within the purview of theoretical research. Research may be driven by one of the following objectives or combination thereof: i) Enunciation of pure theory which generally uses deductive logic-ism ii) Verification and validation of received hypothesis, which needs empirical evidence to support the theory. Thus, there is no single research approach in social sciences. In real life situation, investigators generally use of different mix or compound approaches. All these are used in social science jointly or separately. Thus, the present paper discusses about the contemporary approaches of research applied for social sciences.*

Keywords: *social, positivism, normavitism, scientific, theory*

1. Introduction

In this paper we address the approaches to the social science research. The approach makes quantitative dist inctions between texts varying in both the pattern of emphasis upon different sets of ideas and in the context or s ocial perspective from which these ideas are addressed. Approach to Research depends on objectives of i) resear ch ii) the nature of the problems iii) method of analysis and extant of data. Research may be driven by one of the following objectives or combination thereof: i) Enunciation of pure theory which generally uses deductive logic ism; ii) Verification and validation of received theory, which needs empirical evidence to support the theory; iii) Empirical theorizes, which is based on general or specific evidence and iv) Policy formulation or/and evaluation of effect of policy. Thus, it needs empirical evidence from the domain of policy implementation along with the o bjectives of policy that is sought to be achieved. Success or failure of policy is judged by a comparison of the sta te after implementation with the state that obtained before implementation. It uses inductive approach. Thus, ther e is no single research approach in social sciences. In real life situation, investigators generally use of different m ix approaches. All these are used in social science jointly or separately.

2. Basic Thrust of Scientific Research

The scientific methodology performs two functions: 1) it discovers the truth. It, however, does not invent tru th, and 2) it facilitates the study, and hence, the understanding of natural/physical world as it exists, which leads to the explanation and/or forecasting by the application of laws/theories. These laws or theories are developed on the basis of observed regularities and patterns of operations and/or changes thereof. The data associated with the operational patterns and regularities are assumed to be universal in character. If, therefore, social science researc h to physical science research, social science theory has to be developed on the basis of understanding. Then it h as to be tested on the criteria of its ability to detect patterns and regularities in social processes and socio-econo mic changes and explain and/forecast the future changes or consequences thereof. The socio-economic phenome na/facts have to be discovered, explained and/or forecasted objectively, if societal/economic studies have to be b racketed with those of natural sciences.

I. Motives for social science research
   a. Policy guidance or program management (e.g., government decisions or planning)
   b. b. Academic concerns (e.g., testing social theory)
   c. c. Personal interest

II. Goals of Social Research
   a. *Validity*: When our statements or conclusions about empirical reality are correct
      i. *Measurement validity*: exists when a measure measures what we think it measures
      ii. *Generalizability*: exists when a conclusion holds true for the population, group, setting, or event that we say it does, given the conditions that we specify
         1. *Sample generalizability*: exists when a conclusion based on a subset of a larger population holds true for the entire population
         2. *Cross-population (external) validity*: exists when findings about one group, population, or setting holds true for another group, population, or setting
      iii. *Causal (internal) validity*: exists when a conclusion that A leads to or results in B is correct
   b. *Authenticity*: When the understanding of a social process or social setting is one that reflects fairly the various perspectives of participants in that setting (i.e., a resolution of whether an objective social reality exists independent of actors' interpretations)

III. Social research as a collective endeavor
   a. Other researchers may find different results
   b. Critical evaluation of previous work should guide current research
   c. The accumulation of evidence is the goal of science d. Social phenomena is complex; one study will not necessarily capture everything. New studies should focus on weak points or controversial conclusions

3. Philosophies of Social Science Research

I. *Positivist research philosophy*: A belief that there is a reality that is external to us that we can understand through empirical research.

i. Positivists believe that there is an objective reality that exists apart from the perceptions of those who observe it; the goal of science is to better understand this reality
ii. Positivism: The believe shared by most scientists that there is a reality that exists quite apart from our own perceptions of it, although our knowledge of this reality may never be complete
iii. Post-positivism: The belief that there is an empirical reality, but that our understanding of it is limited by its complexity and by the biases and other limitations of researchers
iv. Intersubjective agreement: an agreement by different observers on what is happening in the natural or social world.

II. *Interpretivist research philosophy* : since all empirical data come through the sense and are interpreted by the mind, we can never be sure we have understood reality properly

i. Interpretivism: the belief that reality is socially constructed and that the goal of social scientists is to understand what meanings are given to that reality.
ii. Verstehen: a term coined by Max Weber to explain understanding of meaning in social circumstances
iii. Constructivist paradigm: A perspective that emphasizes how different stakeholders in social settings construct their beliefs
iv. Hermeneutic circle: constructivist research technique in which a variety of individuals are elicited, challenged, and exposed to new information and new, more sophisticated ways of interpretation until some level of consensus is reached
   1. The researcher conducts an open-ended interview with Respondent 1 to learn his/her construction and then asks him/her to name another respondent who feels differently
   2. The second respondent is then interviewed in the same way, but is also asked to comment on the themes raised by the previous respondent
   3. The process continues until all major perspectives are represented and then may be repeated again with the same respondents

4. Case report: the final product, characterized by thick description of constructed realities, underlying motives, feelings, or rationale that allow reader to vicariously experience it

4. Theories of Social Science Research

It provides instruction on how to conduct a review of the literature, with specific instructions regarding social science journals and using the Internet in searches. It also addresses the relationship between social theory and social research methods. Deductive research begins with a theory that generates a hypothesis, data is collected to test this hypothesis, and empirical generalizations are drawn from the data to connect back to the theory. In this section, the concepts of independent variables, dependent variables, and direction of association are explained. Inductive research is explained as beginning with data collection, from which empirical generalizations are induced and connected to extant social theory. Inductive logic may also be used to make sense of anomalous and serendipitous findings in deductive research.

I. The Origins of Social Science.

a. Sociology was first conceived as a distinct social science during the Industrial Revolution in Europe
b. Shift from *community*, in which people knew each other intimately, to *society*, in which people know one another through specialized social roles
    i. *Gemeinschaft* societies
        1. based on community
        2. homogenous
        3. social relations based on kinship
        4. often, based on a common religion
    ii. *Gesellschaft* societies
        1. based on association
        2. individualistic
        3. competitive
        4. have a developed division of labor

II. Theoretical perspectives in Social Science

a. Functionalism
    iii. Durkheim: Is there anything that can replace the power of traditional social bonds in a modern society?
        1. *Mechanical solidarity*: based on bonds of likeness (traditional societies)
        2. *Organic solidarity*: while the division of labor weakens bonds based on likeness, it strengthens bonds based on interdependence
        3. Organic solidarity serves the *function* of bonding people together in a society with a developed division of labor
    iv. *Functionalism*: a social theory that:
        1. explains social patterns in terms of their consequences for society as a whole
        2. emphasizes interdependence of social institutions
        3. emphasizes common institutional interest in maintaining of social order
    v. Key concepts of Durkheim
        1. division of labor
        2. solidarity
        3. strength of social bonds
        4. propensity to commit suicide (suicide rates)
        5. societal functions
    vi. Contemporary example: Does the amount of interaction between children and adults in a neighborhood differ for children of different racial groups
d. Conflict Theory
    i. Marx: Social classes were the key groupings in society and conflict between them is not only the norm, but the engine of social change

1. *materialist assumption*: social change can be explained in terms of the material conditions in society, especially technology
2. the economic system is the primary structure of society, while other structures help acclimate people to economic conditions
3. economic class is the primary source of social stratification

ii. Conflict Theory: a social theory that
1. identifies conflict between social groups as the primary force in society
2. assumes that understanding the bases and consequences of conflict is the key to understanding social processes

iii. Weber: ideas (namely, the Protestant Ethic) were the independent variable that shaped the modern economic system
1. Social status, political power, and economic class are all sources of stratification, not just class

iv. Contemporary example: Bradshaw and Wallace (1996): multinational corporations have greater power than many less developed countries, based on a comparison of corporate sales to gross domestic products

e. Rational Choice Theory
i. Adam Smith: rational individual action results in a larger social good
ii. Rational Choice Theory: explains social processes in terms of rational cost/benefit analyses that shape individual behavior
iii. Contemporary example: Gottfredson and Gottfredson (1988): the likelihood of reporting theft to police depends on whether the victim had insurance

f. Symbolic Interactionism:
i. Cooley: reflective consciousness is social consciousness
ii. Mead: the self reflects the general systematic pattern of social or group behavior in which it and the others are involved
iii. Symbolic interactionism: a theory that:
1. focuses on the symbolic nature of social interaction
2. focuses on how interaction conveys meaning and promotes socialization

iv. Contemporary example: Skoll (1992): an unstated goal of treatment programs is to domesticate female residents; male and female sexuality is treated and constructed very differently

III. The relationship between Research and Theory

g. General theoretical perspectives provide alternative frames of reference
i. Encourages different questions about the social world
ii. No single theoretical approach has rallied most social scientists

h. Social research should
i. Seek to extend, challenge, or specify a single theory
ii. Test implications of one theory against others
iii. Combine aspects of different theories

i. *Middle Range Theories*: a term coined by Merton that refers to type of theories that are the general focus of primary research concerns

j. Kuhn's The Structure of Scientific Revolutions
i. *Normal science*: gradual, incremental work that adds to the body of scientific knowledge, operating within and not challenging scientific paradigms
ii. *Scientific paradigm*: a set of beliefs that guide scientific work in an area.
1. includes unquestioned prepositions, accepted theories, and exemplary research findings
2. changes only when a large body of contradictory evidence accumulates and an alternative perspective appears

iii. *Paradigm shift*: a change in paradigms brought about by a body of contradictory evidence

iv. *Scientific revolution*: an abrupt transition from one theoretical paradigm to another that causes scientists to begin to accept new ways of thinking
v. No scientific revolution has occurred in the social sciences
    1. There is no single paradigm
    2. There is no accumulation of evidence of one paradigm over another
    3. Theoretical paradigms are alternatives

5. The Scientific Research Approach

All above approaches fall within the purview of scientific approach to research. Approach to scientific resear ch may broadly be classified into two distinct categories;

1. Positivism
2. Normatism

The classification may, however, not be water-tight. Each of these approaches may penetrate partially into th e domain of the other. It may make it difficult to find a scientific investigation, which follows exclusively purely positive or purely normative approach, especially in social science research. Social science research, like researc h in natural/physical sciences, follows scientific approaches. But the subject matter of social science research dif fers radically from physical sciences. Social sciences deal with i) society, ii) institutions/organizations that are m an-centric, and iii) human behavior. The above facets necessitate that social science research approach has to be different from the approach of physical sciences in details as well as orientation, though its essence may still be s cientific. Above mentioned two fold broad categorization of approaches to scientific research may be further sub -divided into the following categories:

1. Deductive Positivism based on Pure and Abstract Logicism;
2. Deductive Positivism based on Logicism supported by some generic/commonsense evidence and plausible premises and assumptions;
3. Inductive Positivism based on Logic and General but extensive empirical evidence;
4. Inductive Positivism based on logic and specific/ particular but extensive empirical evidence;
5. Normatism based on some objective standard/values and supported by empirical evidence and logic;
6. Normatism based on ethical values and supported by evidence and logic.

6. Positive Approach

Positivism is objective. It considers facts as they are without any imposition of values or standard external to the reality of which facts are a part. It addresses the questions what the given phenomenon is, why it is the why i t is and how it cooperates. First premises and assumptions care formulated either on the basis of experience or ge neric/commonsense for furnishing satisfactory answers to the facets of reality covered by these questions, under the positive approach. The validity of theory is tested taking its assumptions and premises to be true. It is neutral between ends. It does not fall within its domain whether the given outcome ought to be different from what it act ually is. It generally does not lead to policy formulation. Research is that each policy has a priori defined goal an d the goad operates as the guidepost for policy formulation, while the realization, partial or full, of this goal is th e yardstick to measure the degree of effectiveness and efficacy, or success and failure of policy. Such aspects fall in the domain of normativism. But the effect of factors measures, made operational under policy, may be linked to the possible outcome by positive approach. This aspect will take policy measures as cause and outcome of im plementation as consequence. This is the function of positive approach.

7. Normative Approach

Normative approach, as against positive approach, is value or norm driven. It examines reality not to discove r what its but to evaluate its departure from what is ought to be. The phrase ‘ought to be’ is value located as agai nst the sentence ‘what it is’ which is value free neutral between different norms or standards. As against positive approach to research, normative approach takes the core part of theory, that is, relation between cause and effect

as a truism. It tests the validity and relevance of assumptions on which theory has been erected. Theory is transit ed to be valid. If it does not apply to some case, it means some assumption(s) is violated. Therefore, it examines the given phenomenon in relation to what it ought to be, though the, conditions these are treated are reckoned to be remedied if not conform to norm. Therefore, it evaluates the divergence between facts and accepted norm or s tandard. Divergence maps the degree and direction of remedial measures to eliminate or at least reduce the diver gence. Remedial measures are often initiated under some policy with a given goal. Divergence from the desired s tate suggests the extent of gap to be covered. Norms/standards may be drawn from i) Religion, ii) Ethics, iii) Phil osophy, iv) Economic Thought, and v) Social Thought. All these embody ideological predilections. It is subjecti ve as norms/standards vary inter-temporally, inter spatially and even inter personally. It may have no universal r elevance.

8. Received Theory Arguments

The theoretical thrusts for explaining configuration and interrelations of various factors involved in social ph enomena may be understood and explained better by looking at the positions taken by specific thinkers. Therefor e, we shall look at some representative view points. D.P. Mukerji (1958) supports the incorporation of philosoph y without leaving empiricism out of social science research. But philosophy is logic driven; its combination with empiricism will load it with objectivity mixing of inductive positivism with the logical objectivity of philosophy . Radhakamal Mukerji advocated the adoption of even a wider view of social science research than D.P. Mukerje e. He highlighted the need for the synethesisation of physical sciences, philosophy and social sciences into an int egrated whole in order to have the fusion of the best empirical rational approach of the West into the metaphysic al and intuitive approach of the East. Thus, he supports the combined use of scientific objectivity with factualism of empirical orientation and philosophical logicism. As against this the dominant view among Western scholars is that the social sciences should follow the path traversed by physical sciences in research. This approach focuse s on objective rationality in combination with mathematical abstraction and statistical empiricism to the exclusio n of value judgments or norms derived from ethics. J. K. Mehta not only propounded the theory of Wantlessness (See Mehta, 1956, Prakash, 1968) but he also brought Indian Philosophy in the centre stage of modern economic theory (A Philosophical Interpretation of Economic Theory). But he used deductive logicism. Thus, he not only advocated a fusion of Philosophy in Social Science Research, he himself practiced it even at the cost of marginal ization as an economist in the profession dominated by Western Thought and Theory.

In juxtaposition to the above, stand most of the text books of research methodology/methods, which have be en authored by Western and Indian scholars, who follow the pattern set by western approach. Naturally, most of the scholars implicitly, at least, have rejected the approach of Mehta and Mukerjee. For example, Shah (1962a, 1 962b, 1968) not only rejected the view of contemporary social scientists, he also postulated that sociology is one of the species of metaphysics and metaphysical investigation, which has no relevant use for the techniques of em pirical sciences. This is an anti-positivist position. But this position is invalidated by the research output of nume rous sociologists.

9. Steps in Research

An appropriate approach may, however, comprise all or most of the well defined steps which are listed belo w: i) Statement and Explanation of the nature and importance of the problem of investigation; ii) Statement of ob jective(s) of research; iii) Formulation and statement of the hypothesis(es) to be evaluated and tested; i) Explanat ion of the sample design-size and method of data collection, v) Portrayal of the characteristics of sample or datab ase of the study, vi) Explanation of the method(s) or technique(s) to be used for analyzing data, and, finally, vii) Presentation of results with their interpretation(s), implications and suggestions/recommendations, if any (Praka sh, 2003, Cf. Bose, P.R., 1995). Above list of steps involved in scientific approach to research is obviously neith er comprehensive nor all the steps are mandatory in each case. In our view, first step in the initiation of research is i) identification and choice of the problem of research; ii) Then, the objectives of research have to be identifie d. It is in the light of the objectives that the explanation of nature and importance of investigation with reference to the contribution that the research may be expected to make to the current stock of knowledge has to be furnish ed and the theoretical or policy framework of analysis has to be explained. Then, the stage of hypothesization is reached (Cf. Bose, P.K., 1999). The objectives of research, theoretical framework, method(s) chosen for analyzi ng data and even data themselves provide the basis of hypothesisation, that is, formulation of hypotheses. One

may also borrow hypotheses from other investigations if these have remained tentative. The issues and problems that research methodology deals with pertain to theory and are deeply rooted in philosophy on the one hand, and problems of empiricism that relate to i) descriptive portrayal of various features of the object/subject of study; a nd ii) application of one or more of the standard methods such as 1) historical/comparative, experimental metho d, 2) mathematical methods, specially with reference to abstraction from details for modeling, 3) quantitative/sta tistical techniques, or/and 4) non-parametric statistical techniques of analyzing non-cardinal/ qualitative data. Pol icy research is an additional item of the menu. Conventional books present the above as '*The Scientific Approac h to Social Science Research'*, implying as if there is no other alternative approach to scientific research. In our o pinion, meaningful or relevant research has to be a fusion of i) theory, including its philosophical base; ii) metho dology, iii) logic, iv) empirical base and v) analysis.

Research commences with a theoretical apparatus or policy paradigm and it will end with the return to theor y or policy after completing the detour through data, analytical logic and method. At the end, one may be in a po sition to reflect upon i) the relevance of theory to empirical reality in the context of the problem of research, and ii) insights regarding the understanding and explanation of the problem that the results provide. All these have to be synthesized into an organic and integrated whole. Bose also points out several limitations of traditional appro ach. Above approaches assume that '*the logic of hypothesis testing is the primary basis of scientific enquiry'* (p.3). For hypothesis testing itself, one needs empirical evidence/data and technique/method of testing, besides theor y and logic. *Thus, logic and theory alone does not suffice for hypothesis testing*. Under purely deductive positivis m, the theory, specially its prediction/inference has to fulfill the criterion of consistence with i) assumptions used in its development; ii) logic used for deducing conclusion(s). Besides, there has to be an organic link between ca use and consequence. But for the empirical validation or verification of theory for its relevance for reality, theory has to be consistent with observed facts. It may, however, be noted that it is the responsibility theory. Alternativ ely, investigators should modify the incrust of general theory to bring it into conformity with facts. Frequently, d ata massaging may help in modifying facts to conform to the needs of theory. For example, in order to eliminate the influence of inflation on income, monetary income may be converted into real income in constant prices. An obvious limitation is that this approach implicitly considers all individual units of social system to be uniformly standardized, which could be encapsulated in such summary statistical measures as mean/median, regression/ co rrelation/ contingency coefficients, overlooking all the diversity and divergence from the average behavioral attri butes. In other words, all entities are robots, assumed to function as per pre-program, leaving no room for diverg ence dictated by time-space configuration, method and experiences. This was precisely the stand of classical eco nomic analysis which was challenged by German Historical School in late nineties. This may be alright for macr o/aggregate analysis, where individual traits get eliminated in the process of aggregating or averaging, leaving th e investigator to deal only with numbers and to abstract from human behavior, and/or the genesis and consequen ces of decision making at micro levels. But it may not suit the needs of micro studies. This may also be fine for t he beginners to initiate them into the complex knitty-gritty of social science research, hoping that as they mature as researchers, they will learn to go deeper below the surface in order to extricate real factors involved in the syst ems of socio-economic operations and micro decision making processes. The so called scientific approach is, the refore, quite insufficient by itself. It may, however, be noted.

One view of social reality is based on fatalism, whereas another view considers it to be the outcome of histor ical determinism. Between these two, lies individual participants in social processes each one of whom may have a different perception, belief and behavioral propensity. 'Social reality may emerge as 'pre conceived, predeter mined and pre-constituted' to each player in the game. Consequently, 'a researcher's prior definitions, concepts and hypotheses may impose a meaning on social relations, which fail to pay proper attention to participants' mea nings. We may add another complex element to the above. Researchers are also constituent parts of social proces ses. It makes researchers the subject of research itself. This is not the case with physical sciences. The point is no t that hypothesis testing is entirely improper, but an exclusive concentration on hypothesis testing as if it is both t he beginning and end of research may be inappropriate as a description of what most social science research doe s and what it ought to do.

10. Conclusion

The principle of methodological unity of sciences was challenged by several thinkers. The Erklaren School s upported by such philosophers as Droysen, Dilthey and Rickert postulated that all the sciences are methodologic

ally autonomous. Methodological Autonomy implies that each discipline traverses a different path in its research investigation which makes Research Methodology to differ from subject to subject. Popper (1968) goes even a s tep further to postulate that each research investigation may embody a different methodology. The Erklaren scho ol designates Social Sciences as Human Sciences which are Contextual, and hence, Historical in Orientation. Thi s is just one step short of anarchic approach which may envisage that eact investigation even within a discipline i s autonomous. Historiosity will definitely convert social science research and the knowledge emanating from it t o be time-space domain specific, denying its laws universality. Thus, the social sciences are supposed to be Idiog raphic. Nachne (1995) opines that whereas the natural sciences attempt to explain the natural/physical phenomen a, social sciences strive to understand the social or human phenomena. Thinkers of this school perceive that soci al phenomena are characterized by VERSTHEN, that is, *mysterious and undefinable attribute or quality*. Myster y makes Social Phenomena beyond explanation. It therefore, eludes objective explanation. These thinkers opined that social phenomena have generally been Verstehen. The attribute of verstehen is that it is not only mysterious but it is undefinable also. This makes social phenomena beyond explanation(s). The meaning attached to the ter m Explanation probably embodies 'ability to forecast the future', whereas 'understanding' may imply that we m ay endeavor to know ledge of what the phenomenon is and the cause that leads to the materialization of the give n phenomenon'.

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