

# Scientific Explorations in the Fields of Humanities and Social Sciences: Research orientations, trends and approaches

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## **Abstract**

Research orientations in the applied fields of humanities and social sciences have focused in the last decade on three main themes: establishing scientific foundations for research frames and methodologies, prescribing operation rules for conducting academic research and channeling research in humanities and social science to solve national real world problems (Franklin, 2009; Maxwell, 2003; Godfrey-Smith, 2003).

The debate about hard versus soft science is a debate about our confidence in soft science disciplines and in the applied research paradigms. The dichotomies of soft and hard sciences associated human and natural phenomena with different distinctions and perceptions, in favour of natural sciences, on the grounds of quantification, experimentation, replicability and the discovery of new operational rules (Ziman, 2000; Shimony, 1993; Holton, 1988). “Soft sciences” are accused of being unstructured, lacking in precision, experimentation and quantification, and prone to the subjective interpretation of the researcher (Salmon, 1990; Kuhn, 1977).

While the developed world has moved on to establish structured foundations for research in the humanities and social sciences with clear and defined frameworks, methodologies and goals, the developing countries remain suspicious and uncertain as to frameworks and methodologies that empower scientific research in the humanities and social sciences with validity and accountability (Bauer, 1992; Earman, 1991). This uncertainty has affected effort

and interest in research in the fields of humanities and social sciences in the developing world (Bynum and Porter, 2005; Bernstein, 1983).

The present discussion seeks to establish the foundations of scientific research in the fields of humanities and social sciences and lay a structured frame and methodology, to orient researchers in the field and ascertain validity for scientific enquiry in social and human sciences.

التوجهات العلمية في مجالات العلوم الإنسانية والاجتماعية : البحوث والاتجاهات والأساليب

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### ملخص المناقشة

ركزت التوجهات البحثية في المجالات التطبيقية للعلوم الإنسانية والاجتماعية في العقد الماضي على ثلاثة مواضيع رئيسية هي : وضع أسس علمية لبحث اطر ومنهجيات البحث العلمي، إرساء القواعد العملية لإجراء البحوث الأكاديمية العلمية، وتوجيه العلوم الاجتماعية والإنسانية لمعالجة مشاكل حقيقية في المحيط المحلي للباحث لإيجاد حلول عملية تفيد مجتمع البحث .

أن الجدل القائم حول جدوى الأبحاث التطبيقية للعلوم الإنسانية والاجتماعية هو في الواقع نقاش حول قدرتنا على ضبط منهجية البحث العلمي في العلوم الإنسانية والاجتماعية و توجهات البحوث التطبيقية. ففي حين أن العالم المتقدم قد انتقل إلى إرساء أسس منظمة للأبحاث في العلوم الإنسانية والاجتماعية مع منهجيات واضحة ومحددة ، وأطر وأهداف ، لا تزال الشكوك في البلدان النامية تحيط بالأطر والمنهجيات المتلازمة مع البحث العلمي في العلوم الإنسانية والاجتماعية، حيث يتمحور النقاش حول دقة منهجية البحث وصحة المساءلة. وقد أثرت هذه المشاكل على الجهد والاهتمام البحثي في مجالات العلوم الإنسانية والاجتماعية في العالم النامي.

تسعى المناقشة الحالية إلى إرساء أسس البحث العلمي في مجالات العلوم الإنسانية والاجتماعية ، ووضع إطار منظم للبحث العلمي لمساعدة الباحثين في هذا المجال وتوجيه الأبحاث إلى المنهجية المرتكزة على الدقة والمساءلة للتأكد من صلاحيتها والإرتقاء بالبحث العلمي في العلوم الاجتماعية والإنسانية.

## Introduction

The fields of humanities embrace the disciplines that focus on understanding human agency and fall outside the natural sciences (Bynum and Porter, 2005). Humanities includes social sciences, anthropology, linguistics, education, political science, government, business and other themes that explore the interactivity of influences in the pursuit of understanding and advancing human experience (Salmon, 1990).

From the mid-1990s, scientific research encompassed nearly all of social, behavioral and human sciences (Franklin, 2009). The growing multidisciplinary components of research brought new field-study themes, concepts, techniques, and applications from anthropology, ethnomethodology, and applied sciences in an integrated manner to find solutions to real world situations.

In addition, the increasing internationalization of human and social disciplines, facilitated by several conferences held in the developed countries, contributed to establishing scientific foundation, more rich and more diverse than the starting points of the early 1980s (Shimony, 1993).

The debate about hard versus soft science is a debate about our confidence in our soft science discipline and in our own research paradigms. The tension between the formal, quantitative and statistics oriented science and the relatively discursive, qualitative, and conceptual social science is inherent but can be overcome through the adoption of a structured framework for research.

Hard sciences target physical phenomena and industrial and mechanical enterprise. Human and social sciences, on the other hand, focus on human patterns and network with attention to causality and interactivity.

Despite the different characteristics associated with each discipline, in focus, orientation and methodology, the distinction does not necessarily underline competition and contradiction. A better understanding of human agency in the social, cultural and political contexts can bring about more relevant technological innovation, medical discovery, economic growth and conflict resolution.

In ancient history, scientific inquiry treated the disciplines of humanities and natural sciences alike. The Greco-Roman traditions perceived philosophy, the

classics, rhetoric and poetry as axioms of the same scientific framework that included mathematics and physics (Holton, 1988).

The change in perspective started in the eighteenth century when the age of enlightenment brought a distinction aimed at structuring classification for the natural and the human based scientific enquiry (Maxwell, 2003):

- Phenomena that were perceived as naturally occurring, detached and independent of human agency where a defined, pre-determined and fixed set of operational rules were identified, were categorized as natural and scientific (hard sciences).
- Phenomena that were interlinked with interactive social patterns and that were based on perceptions of human agency and systematic prototypes of application were branded as human or social sciences (soft sciences).

Some pioneers, however, like Rousseau and Comte used the term *social physics* to refer to social sciences as they perceived research explorations in them to result in identifying sets of operational rules, same as in natural sciences (Earman, 1992).

## Scientific Research

The definition of scientific research is interlinked to the production of new knowledge and the identification of systematic rules of operation (Bynum and Roy, 2005). Research is then the serious enquiry, investigation or experimentation aimed at the discovery of new facts, new applications or new interpretation. It can also encompass the revision of existing theories in the light of emerging new evidence or practical application, to arrive at new theories, interpretations or applications (Godfrey-Smith, 2003).

In the humanities and social sciences, there is a difference in conviction on research status and validity, in relation to the position advocated for research in the natural sciences. “Soft sciences” are accused of being unstructured, lacking in precision, experimentation and quantification, and prone to the subjective interpretation of the researcher (Salman, 1990; Kuhn, 1977). However, recently, in a survey by the European Commission, a list of the 22 universities in the EU

was compiled and included, on equal footing, the highest scientific research projects in the fields of natural as well as human sciences (Franklin, 2009).

While the developed world has moved on to establish structured foundations for research in the humanities and social sciences with clear and defined frameworks, methodologies and goals; the developing countries remain suspicious and uncertain as to acknowledging the validity and scientific status to fields of enquiry in the humanities and social sciences (Bauer, 1992; Earman, 1992). This uncertainty has negatively affected effort and interest in research in the fields of humanities and social sciences in the developing world (Bynum and Porter, 2005; Berstein, 1983).

### Research Problems in the Developing World

There has been a surge to advance research in the last three and half scores. By the end of World War Two the developed world sought to invest in training and research, under national, bi-lateral and United Nations agency (Maxwell, 2003), The commitment resulted in a noticeable increase in the numbers of trained scientists in the last twenty-five years (Bynum and Porter, 2005). However, problems of expenditure and funding have impacted the developing and developed countries alike. In order to tackle problems of expenditure and funding, the European Union Frameworks targeted financing *joint* projects in collaborating countries.

Research facilities pose another obstacle. Research facilities and centres are limited, and even scarce, in the developing countries. Nominal funding for research in general and soft science in particular, pose a serious impediment. According to a recent survey (Franklin, 2009) the total funding allocated to scientific research does not exceed 2 billion dollars worldwide, where the lion's share goes to the developed countries.

In the developing world the unattractive status and facilities offered to researchers, constitute a major impediment. The phenomenon of national graduates, on scholarship programme, trying to secure employability in the

country of training, is depriving the developing home countries from much needed human resources.

Moreover, in the developing countries, the fear that research associated with soft science is messy and ambiguous, and does not follow an established research frame or methodology, negatively affects research interest in the discipline. The concern that soft science is not consistent with, or useful as, hard science poses a major threat, as well.

The overall stereotype that soft science cannot compete in a hard science-dominated research sphere that looks for validity in terms of replicability, documentation and further investigation of findings, discourage willing researchers. The general belief that dominates research orientations in the developing world relates to a perceived inability of soft sciences to produce hard science facts, pinpoint problems and recommend solutions (Maxwell, 2003; Godfrey-Smith, 2003).

Researchers prefer to carry out investigations with the simplicity and elegance of an experiment, and be able to report fundamental properties of natural replicable phenomena with precision and accuracy. Concerns about the validity of scientific inquiry led to methodological paradigms that sought numerical evidence and relied heavily on quantification, correlation and experimental replication, but that sacrificed indepth probing into the case study and the qualification of the established correlation, through deeper understanding and interpretation (Shimony, 1993).

## Research and methodologies

Research can be categorized according to research approach and methodology as:

- Exploratory research, which explores new identified problems
- Constructive research, which develops solutions to a problem
- Empirical research, which tests the feasibility of a solution using empirical evidence.

In relation to focus, research is mainly of two types:

1. Primary research, which involves new explorations, new themes, new hypothesis and new data.
2. Secondary research, which involves the synthesis of existing research finding from a new perspective.

Both types need to conclude with establishing new states of knowledge in any of the approaches identified above.

In the fields of hard core sciences, research orientations target confirming or disconfirming a research hypothesis through experimentation and quantification. In humanities and social studies, research does not stop at establishing correlations and presenting statistics. It probes further to provide qualification for the results, to support interpretation for the quantified correlation.

In advocating scientific explorations in the fields of humanities and social research there is a need to define a structured approach to scientific research that can integrate scientific methods of enquiry, sets clear data collection procedures, establish clear methods for documentation of evidence, and provide a defined interpretive frameworks that is both; relevant to the subject of enquiry, and scientific in producing valid findings.

The range of empirical methods and scientific concepts available to research can enable researchers to address new problems and issues and identify new ideologies, theories and applications.

Scientific research entails the following precepts in establishing a valid research proposal:

- ❖ The observation of a phenomenon leading to the identification of a research theme/topic
- ❖ The formation of a research hypothesis that incorporates valid research questions
- ❖ Establishing the research framework by reviewing and listing the conceptual definitions in contemporary studies, relevant to the research theme/topic; identifying gaps that merit current interest and research and positioning current research study

- ❖ Reformulating conceptual definitions into operational themes that can be applied in data analysis

In selecting an appropriate methodology for data collection and categorization, modern academic practice in the applied fields of humanities and social science, currently focus on incorporating eclectic and multiple methodologies that combine quantitative and qualitative techniques in pursuit of scientific probing, accountability and validity. The general framework for conducting research is outlined as follows:

1. Identifying a research focus/theme (with an eye on competition in attracting funding and therefore ideally geared towards solving a national concern within the specified discipline)
2. Explaining the importance of the selected theme in advancing the current state of knowledge in the specified discipline, and /or reviewing a specific theory from a new perspective (that may bring new findings/interpretations/operational rules), etc.
3. Critically overviewing relevant literature on the selected theme (particularly the latest within the previous decade), identifying current overarching trends and positioning your research
4. Selecting the appropriate research methodology and justifying your choice by establishing the relevance of the selected method to research focus and interest, i.e. case study, cross sectional, correlational, interpretive, ethnographic, experimental, questionnaires, interviews, participant observation, quantitative; qualitative, etc.
5. Identifying research context, participants, data collection procedures, data organization, framework of analysis, etc
6. Considering the ethical code of practice in applied research, the observer's paradox, issues of advocacy, incurred debt and empowerment, etc.
7. Discussing findings and relating the emerging patterns to the earlier overviewed research theories and identified trends
8. Reforming the analysis of operational findings to establish new conceptual



verdicts/rules of operation
9. Concluding with a summary of research focus and finding
10. Evaluation (assessing generalizability, replicability, limitation, and applicability)
11. Proposing future themes that can be built on current findings
12. Using appropriate in-text and end references

## The Way Forward

In the light of the above discussion, there are several recommendations that bring forth a forward plan to advance research at the national level:

1. Prominent establishments need to be involved in campaigns to raise awareness on the importance of conducting research to advance current state of knowledge in a given discipline and arrive at a novice application.
2. There is a need to identify national themes that can serve specific areas of investigation for the developing country. This can help attract resources and support, and at the same time study a needed aspect at the national level. In developing mission oriented themes that serve national interests and advance the state of knowledge in a relevant area within national or global context, governments would take necessary measures to increase research support and funding. To this end, it is important to operationalize a conceptual frame towards national and defined practical objectives that can be efficiently utilized.
3. Advancing national and regional cooperation in research endeavours, especially in developing countries. Collaboration and contact provision with established scientific centres are also essential to observe academic and scientific enterprise elsewhere, to measure the relevance and standard of own work with some of the best work in other countries, and to gain new ideas for further research as well as models of organization of provisions and facilities. Establishing contact through attending international discipline based events can provide the basis for

- acquaintance with new themes and expand knowledge basis at the national level.
4. The provision of adequate training and research programmes is another area that is in need of long term planning and cooperation at the national and regional level. Research centres need to target the limited basis of human resources that have specific expertise. Updating and expanding learning resources and academic and subject specific library resources need to be made available for intellectual stimulation.
  5. Establishing a national network of excellence amongst interested collaborating academic institutions, supported by appropriate data base records on research programmes, training provisions, researchers profiles and interests and preferably with links to international academic and professional bodies.

There are some serious national efforts in Lebanon in this direction. Prominent universities are taking up the responsibility to satisfy one or more of the propositions outlined above. The Lebanese State University, through this international conference is attempting to channel available human resources to form the core of experienced valuable contact basis. The American University of Beirut has hosted a number of conferences on multiple contemporary themes. The Lebanese American University has invested much in its library resources. At the Arab Open University-Lebanon, we have now an established Centre for Applied Linguistic Research (CALR) with international links and affiliations: the British Association of Applied Linguistics (BAAL), the University of London Research Support Group (RSG), an international board of editors from prominent American, British and Australian universities and a refereed and ISSN referenced Linguistic Journal. The Research Centre has been active in the publication of contemporary research in the fields of Applied Linguistics and English language teaching. It has provided training workshops for academics and researchers in the field. The Centre has hosted a number of international conferences in collaboration with BAAL and prominent research centres at British universities, the last of which was March 2011 Conference on Multiple Perceptual Frames on

English Language Teaching and Research (in collaboration with the centre for Applied Linguistics Research at Warwick University in Britain).

CALR is now working on compiling data on research expertise, interests and affiliation, that serve the long term goal of establishing a network of excellence at the national level. Annual planning meetings and reviews will be circulated to interested colleagues and collaborating universities for suggested training programmes and themes for research collaboration, and updating research affiliation and interests for existing data base.

### Conclusion and recommendation

The Lebanese University international conference is a welcomed initiative on the part of the public sector in recognizing the need to work on advancing research in the fields of humanities and social sciences in Lebanon. It is the responsibility of established academic research centres that have been working on similar enterprise to collaborate to create an increased pool of trained researchers and provide more human or library resources to strengthen the national research infrastructure.

Long term collaboration can lead to the forming of subject oriented research panels that can support and promote national and useful research projects, provide necessary training and orientation and improve the state of scientific research at the national level. The encouragement of existing and effective research groups and the investment in collaboration are necessary steps that need to be wisely planned through detailed short and long term agendas.

The road is long, and it will require the effort and commitment of all. The reward will serve long term academic fulfillment and the advancement of a nation that will be based on collective and responsible effort.

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