

THE GENESIS OF A HUMAN SCIENCE RESEARCH METHODOLOGY: A SYSTEMIC RESPONSE TO THE COMPLEXIFICATION OF HUMAN INQUIRY

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Summary

In response to global trends and globalization of human activity, research methodology is being forced to move to more meta-level inquiry, which is an illustration of the process of complexification at work. Complexification drives researchers to consider a methodology in lieu of one method only, and even a meta-methodology, when for example in ecological and social systems inquiry more macro-level and programmatic research interests seem to take highest priority. The paper considers some of the most salient decisions by researchers that tend to complexify human inquiry. Their set of decisions provide their point of convergence and genesis of their methodology.

Keywords

Complexification, human systems inquiry, globalization, decision making.

1. Introduction

The interests and expectations of researchers in a wide range of disciplines and fields of study that bear on the human condition and the state of the planet must be ambitious today. To organize and conduct successfully forms of inquiry that advance our knowledge and understanding as well as better the prospects of sustaining life as we know it, researchers confront ever more difficult challenges in the face of humanity that continues relentlessly to propagate and colonize the biosphere.

Human globalization is an emergent planetary phenomenon that evidently is becoming a more prominent factor driving many current global changes, such as urbanization, pollution, deforestation, and tourism. The consequent problem contexts in which research is to be done necessarily becomes more macro and complex than previously imagined. Further, the considerations and extent of inquiry to produce research results that can inform and guide human activity will likely extraordinarily tax researcher decision making and resources.

There is a range of established research methods and methodologies that purport to enable inquiry into problematic human contexts, from the more micro levels, perhaps best exemplified by genetic engineering and nanotechnology, to the more macro levels, exemplified by global satellite surveillance and astronomical radiometry. However practically speaking, human oriented research methods have been designed to concentrate and apply somewhere in between at the local levels. These methods find application to one person on the one hand to a small group of persons on the other hand. Typically, a person participates to complete an experiment, interview, questionnaire, observed performance, or other means to obtain information about the person. Collective forms of these individual-based data collection procedures are wide-spread, such as conversation groups, focus groups, and task oriented teams. But over the course of this century, rapid advances of communication and analytic data processing technologies have combined to enable researchers to extend more validly and reliably their research reach to the more macro levels of human activity. The potentiality to document worldwide the suburbanization of city areas, the flows of different forms of human transportation, the movement of financial transactions and markets, the distribution

and consumption of goods and services, the spread and treatment of disease, access to knowledge, and tracking consumer behavior are outstanding illustrations. They are current methodological streams. In other words, investigations on the effects of human collectivities at the more macro levels is emerging as a new transdisciplinary research frontier.

The reality of human globalization leads to an imagined and perhaps until now only superficially experienced slew of emergent phenomena. Globalization will inevitably demand more complex and sophisticated approaches to human inquiry itself that center more firmly upon collaborative and cooperative transdisciplinarity among the arts, business, humanities, professions, sciences, and body politics, than is now the case.

The thesis of this paper stems from a recognition of this predicament, namely that human oriented research methodology has been developed to study, understand, explain, and better human beings, but the proliferation of humanity has brought additional levels of concern that impact on human beings, and unfortunately our present methodology appears ill-suited to address them. Forms of methodology are clearly needed to work at these more macro levels. The present predicament is not to suggest an advocacy to replace more micro level methodology with macro level methodology. Its logic and argumentation follow that, for as both causal agents and stewards, human beings could favor an emergent approach to research methodology in accompaniment of globalization. Such an approach compels a more human orientation and global ethic, and forms of human-centered inquiry that are characteristically more convergent, integrative, pragmatic, and systemic.

I realize that my introductory remarks bring a host of assertions, which would require a book-length explication to justify. But allow me to illustrate on this occasion by means of a small bite, that is to examine the subject in terms of some major decisions researchers must make to do a research project. The reformulation of human inquiry in meta and generic terms in the next section provides the backdrop to present subsequently a sampling of key decisions researchers make to conduct human inquiry. Further, several shifts, trends if you will, in methodology currently taking place in the conduct of human inquiry shall be described. The last sections consider some of the issues and consequences for human inquiry from these developments.

2. Complexification and Human Inquiry

HUMAN GLOBALIZATION



COMPLEXIFICATION OF HUMAN INQUIRY



HUMAN RESEARCH METHODOLOGY

Figure 1. Complexification of human inquiry as an intermediary process.

3. Methodology in Generic Terms

At the core is the issue of relevance. Expressed in various forms, it becomes the problem of external validity, generalization, delimitation, representation, and applicability.

4. Researchers as Decision Makers

Shift	From	To
SAMPLING	UNIVERSE	MULTI-VERSE
VARIABLE	UNIVARIATE	MULTIVARIATE
FACTOR	SINGLE FACTOR	MULTI-FACTOR
PERSON	SINGLE	MANY
RESEARCHER	SOLO	TEAM
DISCIPLINARITY	MONO	MULTI-/CROSS-
METHODOLOGY	UNI-METHOD	MULTI-METHOD
PARADIGM	MONO-	CROSS-
CONTEXT	WITHIN	BETWEEN
RESEARCH DESIGN	WITHIN/BETWEEN	MIXED
ANALYSIS	WITHIN/BETWEEN	MIXED
PROJECT	SINGULAR	PROGRAMMATIC
LEVEL OF SYSTEMS	HETERARCHICAL/HIERARCHICAL	MIXED
IRB	ONE	TWO
FUNDING SOURCE	ONE	FEW

Complexification ←—————→ Simplification

Table 1. Bifurcations in decision making that complexify human inquiry.

PARADIGM	MONO-	CROSS-
CONTEXT	WITHIN	BETWEEN
RESEARCH DESIGN	WITHIN/BETWEEN	MIXED
ANALYSIS	WITHIN/BETWEEN	MIXED
PROJECT	SINGULAR	PROGRAMMATIC
LEVEL OF SYSTEMS	HETERARCHICAL/HIERARCHICAL	MIXED
IRB	ONE	TWO
FUNDING SOURCE	ONE	FEW

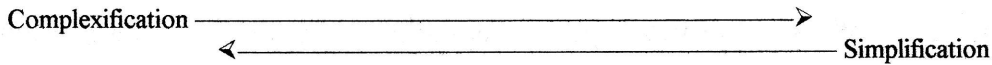


Table 1. Bifurcations in decision making that complexify human inquiry.

5. Trends in Human Inquiry

5.4. Conceptualization and operationalization of variables

from univariate to bivariate to multivariate

5.5. Research methods and designs

5.6. Data processing and analysis

from qual or quant to mixed

5.5. X. Disciplinarity

Mono-, multi-, cross-, trans-
from solo to team collaborative forms of inquiry

6. Issues and Consequences

6.1. human inquiry as a system

6.2. methodolatry

6.3. miscibility of research methods

6.5. systemic methodology

6.6. the praxiology of human inquiry

6.7. the transdisciplinary research team.

The inception of meta level inquiry also opens the way toward transdisciplinarity.

6. Conclusion

The core of the paper has ~~rested~~ ^{converged} on a sample of the most prominent decisions decision making in the present context of human globalization inherently tends to complexify human inquiry. It is my endeavor to show that

this bite shall illustrate convincingly and fairly both the process of complexification and *de facto* the present reality of researchers trying to study the myriad of human phenomena. Thereby, this paper begins to look at the process of re-envisioning human inquiry as one of complexification. The genesis of a human science research methodology is an adaptive and systemic response to human globalization. It is an application of a meta-methodology, in that the meta-methodology provides the generics and conceptual formulation to approach the construction of a methodology appropriate to the complexity of the problem, as construed of course by those engaged in the inquiry. In other words, the problem contexts drive to a significant degree the advancement of methodology. Human inquiry is becoming more meta-methodological, and must become so if systemic approaches to inquiry, for example, are to fulfill their claim to be appropriate to the study of complexity and amelioration of the human condition at the collective levels of human organization.

7. References