

Science Too!
The Science 2 Team:
A Report from the
2012 IFSR Conversation
Sankt Magdalena, Linz, Austria

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We began by raising issues such as: social science practitioners express frustrations/limitations with Science 1, general needs of a philosophy/epistemology of science, specific needs for a hypothetical science II, and what would that science II include? We defined frustrations and limitations regarding Science I (as expressed by individual members of the team): methodological misfits, reliable prediction is not always possible, our ability to “see” and “express” certain phenomena is restricted by science I, the experience of “x” is not the same as the label “x”, and *ceteris paribus* is nonsense.

Our discussion then turned to the philosophy of science as used. We discussed that examples in the philosophy of science are most commonly physics based. Despite the claims by physicists, other sciences cannot be reduced to physics or its equivalents without raising issues of both epistemology and ontology. Other sciences have unique requirements, demanding exact articulations. And systems composed of thinking elements should not be described using methods developed for systems with non-thinking elements. This led to the idea that deficiencies in the philosophy of physics generate frustrations with the role of observers, the role of emergence, the role of habitus (i.e. the social, cultural, cognitive, historical, contextual milieu) and ambiguity of number symbols (whole versus continuous). We then observed that we saw no place for reflexivity in science I and that “physics envy” was not appropriate for many other fields (e.g. chemistry, biology, social sciences.....).

This beginning allowed us to discuss some more general needs:

- (1) Basis for social sciences and design (pragmatic assumptions)
- (2) Need to deal with ideas and communication in social systems
- (3) Philosophy of Science needs expansion
- (4) Paths to potential logics of social sciences
- (5) What is the basic unit (individual, group, set, dynamic, environment, etc.)?
- (6) Separate biomedical concepts from social science concepts (e.g. the patient-physician relationship)

That discussion in turn led to some preliminary conclusions:

- Science II will require different languages than are commonly used in Science I
- Science II will require different frameworks of thinking
- Meta-level thinking is an opportunity
- Need for new strategies of simplification so as to meet requisite variety
- Science needs to change as the world changes
- New ontology and epistemology
- More transparency (to open the action and option space)
- Trans-disciplinarity as a shared basis for cross disciplinary conversations

- Formulate knowledge as consisting of methods as well as theories (include the observer)

We concluded that Science II needs to enrich the systems approach and reconcile the eastern and western approaches. Science II demands narratives (as shown by example of medical heuristics, e.g. narratives told by physicians to patients). Science II includes reflexive anticipation, and it demands more variety in describing homeostats and balance relationships and in ways to express circular causality. For managers, Science II demands that the very notion of “best practices” needs to be re-examined.

Our full report is on-line at <http://isce.edu/ifsr.pdf>