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Social sciences and natural sciences: together or apart?

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ISA Research Committee 42: Social Psychology

“Sociology on the move” means that our discipline contributes to an understanding of our world by defining new objects of research, devising new approaches and reevaluating its rich heritage. It implies a new *openness with regard to other disciplines* and to normative questions.

(Congress priorities, see: www.isa-sociology.org/congress2010/ – italics mine)

When RC42 was founded in ISA (1988) and sociologically oriented social psychologists began to organize *separate* conferences accompanying Annual Meetings of the American Sociological Association, the postulate of methodological unity of natural and social sciences did not yet appear so problematic to so many sociologists as it does today. For example, Part I (Theoretical and Methodological Issues) of the *Handbook of Sociology* (edited by Neil Smelser), which appeared in 1988, begins from Chapter 1 (“Toward a Disciplinary Matrix in Sociology”), where sociology is counted by the author, Walter Wallace, among natural sciences. However, Chapter 2 (“The New Theoretical Movement”), written by Jeffrey Alexander, already reflects the turn of the tide which took place in the 1980s. The *mainstream* theorizing in sociology has since then been moving farther and farther away from the natural sciences. In Poland, sociology students may learn today from the handbook (*Sociology*, 2002) written by Piotr Sztompka, the country's top authority on social theory, that the tradition represented by Homans, Blau and Coleman has been finally marginalized.

Social psychologists are still doing experiments, however. The predictions they are testing against experimental evidence are often derived from theories stated in mathematical language. Meanwhile, a remarkable change has been going on in related disciplines. Most economists, to be sure, have never denied the need for mathematical modeling, but economics has long been believed to be a nonexperimental science. “The reason – Vernon Smith wrote in 1999 (“Reflections on *Human Action* after 50 years.” *Cato Journal* 19, 1999: 197) – was simply that almost no one tried or cared.” When Anthony Giddens proposed a new interpretation (*The Constitution of Society*, 1984: 377) of “structures” as “rule-resource sets implicated in the institutional articulation of social systems”, social theorists got a new topic (agency vs. structure) good for philosophical debates. By contrast, Smith, who thought of some structures in simple markets in a roughly similar way, did experiments to examine how the distribution of valued resources depends on institutional negotiation rules which can be experimentally manipulated, provided that – against Giddens' dialectical “theorem of the duality of structure” (1984: 25) – *rules* are conceptually separated from *practices*. The Nobel prize awarded to Smith in 2002 gave also moral support to several sociologists who were doing similar research, however unlike Smith they were more interested in the effect of *network* structure.

The sociologists who are acquainted with Toulmin's (*The Philosophy of Science*, 1953) distinction between understanding scientific explanation in physics and “natural history” (“‘Chi-chi is black because Chi-chi is a raven and all ravens are black’ is hardly the kind of thing a scientist calls an explanation.” 1953: 49) still form a small minority that is hardly ever distinguished by the antipositivist majority from other brands of naturalism. David Willer's book (*Theory and Experimental Investigation*

of *Social Structure*, 1987), which inspired the students of exchange networks won just one (my own) vote in ISA survey preceding the 1998 World Congress of Sociology (Books of the Century, see ISA homepage).

A new phenomenon pro-science sociologists should not ignore are the activities of a group of physicists (*Econophysics and Sociophysics. Trends and Perspectives*, edited by Chakrabarti et al., 2006), who under the banner of “sociophysics” have been applying models of mathematical physics to some social processes, such as opinion formation in a population whose members are given certain network-determined opportunities to influence one another's views. The aim of the proposed session is to bridge the communication gap between structural social psychologists and their potential allies from outside the walls of the discipline. Both “native” social psychologists and “invaders” into the field are invited to discuss the prospects for bringing together these paradigms which have their roots in the social sciences and those imported from the natural sciences. In accordance with the motto “Study nature, not books” with which Smith preceded one of his papers (“Microeconomic Systems as an Experimental Science.” *American Economic Review* 72, 1982) most welcome are contributions anchored in one's own research experience. Strictly *methodological* issues (such as: Can observation in the social sciences meet the same standards as in the natural sciences?) are not excluded from the scope of topics, but the focus should be on evaluating research programs in their *substantive* dimension.

To prompt some issues to be considered, let me bring to your attention the difference between two varieties of heuristic naturalism (*heuristic* and *methodological* naturalism are related to each other roughly as “context of discovery” to “context of justification”). The first, *reductionist* variety postulates that any elementary form of social interaction which involves communication of two *minds* by means of a common semiotic code be represented as the interplay of two coupled biophysical processes that are going on in the *brains* of the two actors, say, when *A* gives a command to *B*, and *B* hears, understands, and executes it.

Sociophysics should neither be confused with Quételet's *social physics* nor Neurath's *physicalism*. Together with Lewin's field theory and early products of the impact of physics on social sciences, it falls under the second variety of heuristic naturalism. Instead of reducing the social world to physical phenomena, this research program recommends imitating natural sciences in the ways of conceptual and formal representing their subject matter. Imitation may consist in defining social *analog*s for physical variables like mass or energy. A “physicalization” of the language of the social sciences seems to be promising insofar as one is able to discover some laws analogous to those governing the physical world.



Does the reductionist research program for the study of interpersonal power and influence make sense today? Do some thermodynamic concepts and laws help better understand social order and disorder?

If you find questions of the kind worth discussing and have something interesting to share with fellow social scientists, don't miss the opportunity to do it on this session included in the program of World Congress activities of ISA RC 42: Social Psychology. Take pains to make your paper intelligible for as large audience as possible. The selection of papers for presentation will be based on abstracts that should be emailed to the session organizer before November 15, 2009. Extended abstracts (250–500 words) are welcome.

