Ideas

Report of Meeting and Program of Inquiry

XIIth World Congress of Sociology

Sociocybernatics and Social Systems Theory Working Group
Madrid, Spain, July 9–13, 1990

At the XIIth World Congress of Sociology that took place in Madrid, Spain, July 9–13, 1990, the Sociocybernetics and Social Systems Theory Working Group met to discuss the present status of System Science as an accepted scientific discipline.

Working Group Coordinator: Francisco Parra Luna, Director, University Human Resources Institute, Campus of Somosaguas, 28023, Madrid, Spain.

Main Discussants: Mario Bunge, Department of Philosophy, McGill University, 3479 Peel Street, Montreal, Canada, H3A 1WT; and John P. van Gigch, School of Business Administration, California State University, Sacramento, CA, 95819-6088, USA.

Those attenting the meeting realized only too well the present shortcomings of the discipline and resolved to make a start to remedy this situation. We felt that, as a discipline, System Science has not yet gained the recognition it deserves among all scientific disciplines.

At the moment, System Science is a loose collection of ideas. Each researcher pursues his/her own theory/model without resorting to a central theme or purpose. We noted that:

1. The discipline lacks a distinct paradigm.
2. The discipline has no distinct epistemology.
3. The discipline has no predictive or creative capability.
4. The discipline cannot claim any real accomplishment(s), either of theoretical or of an applied nature.
5. The methodology or methodologies of System Science lack rigor and proofs of validity.

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Program of Inquiry

The undersigned presents a list of questions which constitutes a Program of Inquiry into the problems confronting the System Science discipline. It should be made clear that only the undersigned is to be held responsible for the indictment leveled against System Science. Whereas these views were debated during a session of the XIIth World Congress of Sociology held in Madrid, Spain, July 1990, other members attending do not necessarily agree with them or subscribe to their publication. Only the undersigned is responsible for their content.

Question 1: At present, the discipline of System Science is not represented by a single paradigm. Should or is it possible for System Science to develop its distinct paradigm?

Question 2: Given the plurality of approaches which are subsumed under the various names of GST, System Theory, Applied Systems Analysis, and the like, is it not timely for the discipline to concentrate its efforts on a single paradigm and to reject claims that any and all projects carrying the word 'system(s)' in them, can be called Systems Theory, Systems Science, or Systems Methodology?

Question 3: To be distinct from other disciplines, System Science should stop borrowing its methodology from the Physical Sciences and develop its own methodology and laws. Is this program of inquiry feasible? Should it be encouraged?

Question 4: What should each system scientist do to help System Science gain in strength a a distinct discipline? (HINT: At the moment System Science is a loose collection of ideas, it lacks a distinct paradigm, has no distinct epistemology, no predictive or creative capability, no rigor, and lacks any

proof of any accomplishment in any field of science, philosophy, etc. (see above). What can we do individually and collectively to improve this situation?

Question 5: Given the shortcomings outlined in Question 4 and earlier, can a program of research or inquiry be outlined that may overcome some of these shortcomings?

Question 6: System Science may be conceived as a discipline which operates at two levels of abstraction.

1. At the highest level of abstraction, System Science may be conceived as a *metascience* which deals with epistemological questions, i.e., an inquiry into questions which deal with the design of the discipline itself.
2. At the second level of abstraction, the discipline may be conceived as a science which aims to improve our understanding and performance of complex organizational systems.

To achieve this vast research program, the members of the System Community need to redirect their research efforts and to present their own research in light of the questions raised herein. Particular attention needs to be paid to cast one's program of research with regard to the appropriate level of abstraction of the questions posed. Members of the systems community are encouraged to reformulate their own research taking this challenge into account. We must ask ourselves how to modify our own research and program of inquiry to, ultimately, make System Science more influential and better known.

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P.S. The above declaration stating a Program of Inquiry was promoted by the below-normal quality of the papers presented at the Congress and an utterly lack of elementary knowledge of basic System Science or System Theory. It is time we became more critical of the papers presented at the systems meetings or papers submitted for possible publication in systems journals. This report is sent to as many journals, periodicals, and news bulletins as will accept it. It needs to be published and discussed as widely as possible. The undersigned hopes that it can be adopted as a work platform by the entire system community.

John P. van GIGCH