UMPLEBY STUART ACTION RESEARCH

Much of social science is aimed at creating reliable, valid knowledge. The presumption is that it will be beneficial to somebody other than to other researchers, but that is rarely a priority. There is other research conducted in order to help people achieve their goals. The first type of research emphasizes the use of statistics, often imitating the methods of the natural sciences. The second type of research includes what is usually called action research. It has a more practical orientation and involves researchers working directly with clients. Often, it amounts to a participant-observer case study.

Action research is under-appreciated within the social science community. The social scientists who aim to develop generalizations often denigrate case findings as "noise". But findings that seem like noise to some social scientists may be important to someone attempting to identify future problems or opportunities. If there were more action research being done around the world, we would perhaps be more aware of, and have more academic engagement with, the aspirations of groups and their conceptions of causality and narratives. (Constructivists point out that such conceptions can be self-validating, to the extent they are believed.) These data are of great interest to the security community. Social scientists bent on generalization may be throwing away the very data that the security community needs as a basis for consequential decisions. See Bent Flyvbjerg (2006) on misunderstandings about case-study research.

Action research as a science of how knowledge is used

In most scientific research scientists are viewed as observers outside the phenomena observed. In action research scientists are viewed as observers and participants inside the phenomena observed. In action research social scientists study purposeful systems, meaning individuals or organizations able to set and pursue their own goals. But social science to date has tended to assume that patterns of behavior once observed will continue in the future. In this way they reduce purpose to behavior and ignore changes in goals and aspirations. Changes in purpose cannot be predicted by only looking at data on past behavior.

In recent years behavioral economists have modified some of their assumptions about human behavior (e.g., that humans are constrained to the rational actor model, that they seek to

maximize personal profit, that they have complete information and that everyone has the same information). Changing those assumptions has opened up new lines of inquiry. Some scientists have gone a step further and are now questioning the assumptions underlying our conception of science. They assert that the effects of observers cannot be excluded from all scientific experiments, and they note that in social systems theories, once adopted, can change the phenomena being studied (Umpleby, 2014).

A science of purposeful systems

Social scientists have usually assumed that the methods developed for the physical sciences, and only those methods, must be used to study social systems. An alternative view is that, because individuals and organizations are largely autonomous and can choose and change their goals, thus changing their behavior, they differ fundamentally as an object of study and require different methods. Furthermore, inquirers are elements of the social systems being studied. If we take these differences in the elements of systems into account, rather than aiming for objectivity and lack of bias, we would aim instead for participation and shared goals for inquiry. Research subjects today are usually indifferent to research on their behavior. Would social scientists learn more if they sought to work in concert with subjects to solve problems of mutual interest?

If we were to include subjects in the class of experimenters and experimenters in the class of subjects (Mitroff & Blankenship 1972), we would change the purpose of science, the direction of science, and the goals of science. Presently scientists do research *on* human subjects. As an alternative scientists could work *with* subjects and try to solve problems or answer questions *the subjects* have. Scientists would then find out what those questions are, and they would learn whether science has theories or methods that are helpful. A similar reorientation in education has been proposed by Paulo Freire (1973, 1993).

In discussions of reproducibility, the focus is on reproducing *results*, where results are a description of a situation in a social system that does not change between the first study and its replication. In action research, the situation in the social system is intended to change. The purpose of the "experiment" is to produce movement toward an improved situation for the subjects of the experiment. An experiment might be a planning exercise and the implementation

of the plan. The experiment might be an exercise in process improvement. Instead of replication of results, an assessment would investigate whether the social system in fact changed as desired and as anticipated. If so, the method would be used again in another situation. If not, changes in the method would be needed. For examples of planning exercises see www.gwu.edu/~umpleby/ptp.html. The goal of this kind of research is not only to produce descriptions of what is happening in a social system, but also to develop plans for improving the social system and to test methods for facilitating conversations that result in desired changes (Umpleby, 1994). Action research is based on a philosophy of science that describes not how human beings can come to understand the non-symbolic, natural world but rather how human beings can work together to improve their organizations and life within the symbolic, socially constructed human world.

Implications for national security

What if social science included cooperative research where subjects and experimenters discussed and agreed on goals and methods? Would the results of research be different? Would more be learned? Normally scientists assume that research does not and should not change the phenomenon being studied. Indeed, objective research requires that the experiment and the experimenter not affect what is being observed. On the other hand, cooperative research *would* affect the social system being studied and would be regarded as an effort to affect the social system being studied in a way that the people in that society desire.

Of course this kind of research would require trust and shared goals. Efforts to do this kind of research would require methods of interaction that would generate trust and mutual understanding. The purpose of action research is different from the purpose of much of standard social science – not the accumulation of knowledge for publication in articles and books but rather methods for working together that lead to successful problem solving. A great deal of work on action research and group facilitation methods has been done (Umpleby, et al., 2004; Umpleby & Oyler, 2007). Such methods are useful in aiding the development of societies. Planning sessions provide an opportunity for citizens to discuss goals and strategies.

When we think about action research, we should remember Project Camelot, a project sponsored by the US Army in the early 1960s that sent social scientists to Latin America to do research

intended to find countries in danger of going communist (Horowitz, 1967). When it was revealed that the research results would be classified, the project was said to be cancelled but was secretly continued. Remembering this history reminds us of the non-collaborative bias in standard social science research and the difficulties that may accompany efforts to do action research. See the comparison of the two kinds of research in the table below.

SOCIAL SCIENCE RESEARCH	ACTION RESEARCH
The scientist is outside the system studied.	The scientist is inside the system studied. (Umpleby, 2015)
The goal is to create knowledge by testing falsifiable propositions.	A goal is to ensure participation by all stakeholders or their representatives.
Knowledge is usually expressed in the form of linear causal relations that have a high level of statistical significance.	One form of knowledge is to know when a system is stable or unstable and what would change it (Umpleby, 2010).
The usual outcome of research is new knowledge presented in academic journals and books.	The near term outcome is an improvement in the living conditions of the subjects.
New knowledge is invented and tested using conjectures and refutations.	New knowledge can be methods to guide actions by subjects and/or scientists.
Doing an experiment is of interest to the scientist.	Doing an experiment is of interest to the subjects and the scientist.
Relationships among variables are usually assumed to be linear causal relations.	Relationships among variables are assumed to be circular causal relations.

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