

Phase 1 – Didactic Orientation

Week 3. Unit 1.3. THE SCIENCE OF SOCIAL PSYCHOLOGY AND VICE-VERSA II: PARADIGM 2: An alternative "Human Systems" Approach; Substantive, Ethical and Methodological Issues; What is Participatory Action Research (PAR)? Are Paradigms 1 and 2 mutually exclusive or complementary?

FACILITATION: Instructors

ASSIGNMENT OVERVIEW:

VIEW by yourself or with others then DISCUSS in your study group:

1.3-1 *Mindwalk* (video viewing time 111 mins)

READ by yourself then DISCUSS in your study group:

1.3-2 "Paradigms Lost and Regained"

1.3-3 "Homework: An Environmental Literacy Primer" (Version 1.5)

1.3-4 "Knowledge and Wonder: Beyond the Crisis of Modern Science?"

ASSIGNMENT DETAILS: THINK OVER by yourself then DISCUSS in your study group:

Last week, in readings and film, you saw something of what contemporary "scientific social psychology" looks like from the vantage point of some leading experimental social psychologists who have done a great deal of important field and laboratory research.

As we have seen, and as we will continue to see in Aronson's account of it, this approach is both very powerful and highly fraught with epistemological, ethical and methodological limitations and biases. Without meaning to disqualify or minimize the importance of the quality and amount of information thus obtained, we now turn to consider an alternative (complementary rather than contradictory) approach.

Some of the deepest roots of the latter lie in developments in physics during the first decades of the 20th century and in work done here at MIT in the 1940s and 1950s by Kurt Lewin and his colleagues in what has since become the Sloan School.

What is now called Action Research (AR) emerged out of a growing recognition that insurmountable obstacles prevented social psychologists and others from fully understanding the behavior of people (persons) and groups (organizations) under artificially contrived quasi-laboratory conditions. In a word, findings produced through conceptually and materially detached "arms length" means of observation (or formal experimentation) were found to be insufficient for the attainment of satisfactory understanding of the subject matter.

1.3 -- 1 *Mindwalk*. Directed by Bernt Capra. 1990. Distributed by Triton Pictures, USA, videorecording.

Please see the synopsis on Wikipedia at <http://en.wikipedia.org/wiki/Mindwalk>

Action Research (AR) articulates quite nicely with the systemic approach.

Participatory Action Research (PAR)

One of the main foci of AR today – emphasizes both the collaborative character of all human inquiry and the inescapable implication of the observer in what is observed. In part, PAR has emerged as a critique of "the standard modern scientific model of social research" which – patterning itself on classical mechanics-- insists on keeping "research" and "action" separate and distinct. PAR, by contrast, entails a project organization and development process in which members of the group(s) in which collaborative learning is to be facilitated participate in all phases of the work. In its methodological aspect PAR is perhaps best thought of as analogous to a design process in the sense of being a goal-oriented activity that

normally goes through several successive cycles of planning, intervention/action, observation, feedback, assessment (formative evaluation) testing, planning, and revised action – all intimately intertwined in a compositely unified cumulatively reiterative process.

1.3-2 Chorover, Stephan L. "Paradigms lost and regained: Changing beliefs, values, and practices in neuropsychology." *Theories of the evolution of knowing* (1990): 87-106.

1.3-3 Chorover, Stephan L. "HomeWork: An Environmental Literacy Primer." *Collaborative Learning Systems*, Cambridge, MA (1995). Version 1.5. Front Matter (pp.vii-xx), Chapter 1 – 3.

1.3-4 Melucci, Alberto, and Stephan L. Chorover. "Knowledge and Wonder: Beyond the Crisis of Modern Science?." *Overcoming the Language Barrier: Problems of Interdisciplinary Dialogue*. Flower, G. Robert (ed). Philadelphia: The Center for Frontier Sciences, Temple University. (1997)

"Where is Science Going?"

Read the following passage carefully. Read it aloud slowly. If necessary, repeat until some relevant social psychological implications occur to you.

"Let us get down to bedrock facts. The beginning of every act of knowing, and therefore the starting point of every science, must be our own personal experiences. I am using the word, experience, here in its technical philosophical connotation, namely, our direct sensory perception of ... things. These are the immediate data of the act of knowing. They form the first and most real hook on which we fasten the thought-chain of science; because the material that furnishes, as it were, the building stones of science is received either directly through our own perception of things or indirectly, through the information of others, that is to say from former researchers and teachers and publications and so on. There are no other sources of scientific knowledge." (Max Planck, (1933) *Where is Science Going?* Chapter 2. *Is the External World Real?* p 33.)

Most all of our ways of talking about epistemological and methodological issues rest on the use of visuospatial metaphors and allusions to commonplace concrete actions. (e.g. We talk of gaining "insight" and "seeing" solutions to problems.)

- What is science? (technical and traditional uses of *scientia*)
- What is a scientific "paradigm"?
- Science (scientific methods, findings, theories, hypotheses, conclusions, etc. as human social products);
- Is there "a" scientific method? One universally applicable and altogether creditable approach to take for all intents and purposes?
- Science and consensual domains, socioculturally defined composite unities; frameworks implying spatiotemporal extensity; what are "frames of reference"? "Perspectives"?
- Our personal mental (cognitive and affective; thoughts and feelings; etc.) and behavioral (expressive – reflexive, postural, gestural, verbal, etc.) activities have counterparts in other human systems at levels of organization and development spanning from the neurobiological level of cells and tissues to the psychological level of personal experience and beyond, unto the level of families and other human groups. This general "systems" (sometimes called "general systems") view is associated – as aforementioned – with an emerging paradigm which is itself characterized by a tendency to rely on a post-Newtonian, post-modern set of theories and practices: conceptual and material (e.g. epistemological, axiological and methodological) aspects of human inquiry;
- Modern science and social life (what is "the social psychology of science and vice versa"?)

- The arrow and the helix: Science as progress: e.g. "from speculation to experimentation", or as a cyclical process tending to recurrently lapse into sterility, a series of sequentially punctuated moments of apparently consensually agreeable conceptual and material equilibrium between/among/within competing worldviews, value systems and lifestyles;
- Scientific communities as human social systems.
- Relations between science and society, between scientific findings and (say) financial interests; on the idea of science as something socially shared (social ownership) and the notion of the private proprietary ownership of ideas;
- Relevance of social psychology to the problem of defining and dealing with human social problems;
- Critically examine the idea of "value free science".
- What are scientific truths? Compare and contrast objectivity and inter-subjectivity?
- Resolved: science is whatever passes for credible knowledge of the world and its contents in any given human social group at a particular moment of time. Argue pro or con.

A Systems Perspective

What is a "system?" What do we have when we have "an understanding" of something in 'systems' terms?"

What do you "have" when you "have an understanding of _____ as a system?"

Here is a relevant "thought experiment":

Think of something about which you can say with some confidence that you "have an understanding of it as a system". Try to identify the component parts or constituents of your understanding of it. Do this before proceeding to the next paragraph!

Here is my own (S. L. Chorover) response. Please compare and contrast it with your own.

First of all, when I say that "I understand something as a system", I am making no claims to having anything like a complete or comprehensive understanding of it, as it really is, in any moment or series of moments. Quite the opposite is the case: My whole notion of what it means to have an understanding of the world and its contents is a notion of something that is and presumably must forever remain altogether partial: incurably incomplete and inextricably perspectively embedded in networks of relationships involving observers in contexts, and things or events or objects or persons-in-contexts observed.

That being said, my conception of the term "system" is closely akin to what psychologists refer to as a "gestalt" (a whole), something discriminable as a compositely unified set of components "standing together" (*sys* = "together"; *stem* = "to stand"); a congeries of parts interacting as a conceptually/materially compound and complex and composite unity in a more or less distinctly "bounded" way, and having some more or less readily comprehensible relationship to things and events outside of and other than itself.

Beyond that, understanding a system means to be able to contemplate it from at least three separate and distinct yet complementary perspectives. Thus, when I know or understand some things about a system I am able to give a more or less concise, coherent, credible, intelligible, and comprehensible account of it in terms of its (1) internal organization, (2) external relations, and (3) the process by which it has come to be what it is.

The human brain is the particular system which I have been thinking about as I pondered the foregoing question. As a neurobiologically-oriented psychologist, much of my academic and professional activity has gone into the effort to understand how the organization and development of the brain are reflected in the organization of human mental life and behavior.

A further question is whether the form and content of what I am calling "systems understanding" is in any way similar to or different from what you yourself came up with in your own example. If so, how? If not, why not?

How might a systems or PAR view apply to an understanding of the organization and development of the 9.70 collaborative learning system – especially in light of our "internal" vantage point? What do we know (what can we reasonably say) about (1) the constituents (individually/collectively) of the 9.70 system, about their respective and collective composition, modes of organization and the sub-system level relations of parts; 2) about the nature and scope of its external relations; and 3) about its origins (growth, development, maturation ... etc.)

With respect to the two scientific perspectives we are using, here is a question to consider and reconsider from time to time as we proceed to focus on different themes and situations. **Do either, both, or neither of the two scientific perspectives that we have been exploring offer a theoretically sensible, ethically appropriate, and practically realistic scientific approach to the study of human mental activity and behavior in social contexts?**

Think about it! Be prepared to discuss with groupmates and classmates.

Define and distinguish between "**consensual validation**" and "**consensual disconfirmation**". Consider the roles of both in the organization and development of scientific communities.

The main point of these first two sessions has been to present to you two quite different scientific frameworks for defining and dealing (in this case) with social psychological reality. By now you should be able to identify, compare, and contrast the noteworthy conceptual and material similarities and differences between the two paradigms in question.

Transition to Phase 2

Until now, the instructional subsystem has been pretty much "center stage" in the proceedings-- playing its (our) normal leadership role in a fairly conventional way. We have been, without question or qualification, the major (if not sole) "mover" and you more or less serious students have been encouraged to defer to us as the main locus of power and control of the 9.70 learning system. While you can expect the influence of the instructors-in-charge to continue to be strongly felt throughout the rest of the semester, this is the point in the learning process at which we begin to shift the "locus of control" -- reducing the meaning and power disparity between instructors and students. We invite you, the student participants, to begin individually and collectively (alone and together within and between study groups) joining us in exerting leadership in 9.70 by committing yourselves to the challenge of assuming increasing freedom and responsibility to make everyone's learning experience the best it can possibly be.

Yes, the instructional subsystem is still – and will continue to be – very influential in determining, interpreting and evaluating the quality of what is going on here, but the contract between us requires this shift and encourages you to constructively influence the course and quality of your present learning experience. What is it to be? What do you think? How do you feel? How are you intending to behave in this situation? We will begin the next [Collaborative Inquiry] phase of studies by considering the applicability of Participatory Action Research and the human systems paradigm in a concrete social context. In this instance, we consider the use of a systems approach to the diagnosis and treatment in a not

uncommon clinical context. The case is that of a 15 year old girl who has been hospitalized with a life threatening eating disorder (anorexia nervosa).

Study Group #1 and the instructors conjointly engage in some thematically relevant "role-playing" and the class as a whole has an opportunity to participate in and observe an interview with "the Kaplan family".

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