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BEGINNING ISSUES for Methods

I. Why bother to do research? Why bother to be scientific? What is scientific anyway? How do values fit in?

A. Why do we do research? Learn how to do it? We want to answer questions. Singleton Ch 1 gives examples of a variety of research projects all about helping.

B. List topics that interest us. Problem is to make them research able by way of finding the empirical questions within the topics. The factual issues as distinguished from values, judgments, policies. Scientific questions can be answered by observation. Stern "question of fact" = "empirical question." A statement you can try to confirm or disconfirm by looking at the evidence of the senses (or sensing technology). Rules

1. it must be possible for it to be true or false. NOT definitions (e.g. bachelor is unmarried man) NOT assumptions treated as tautologies (e.g. "human behavior is self-interested" if "interest is defined to include anything you want, including wanting to be self-sacrificial. Assumption of self-interest in economics and much of sociology has this tautological character, you assume self-interest and infer interests from behavior.)

2. But you could make self-interest empirical statement something like this: ask people to say what goals are important to them and what actions they believe will help them obtain these goals, then give them choices among actions they have the capacity to perform and see if they take the actions that would be predicted from their statements.

C. Examples

1. The grading system is bad. [value statement] How turn into empirical? [Possibilities: Grading process lowers students' self esteem. Grading process hinders learning.] For each of these, would further refine to exactly what you mean. So that you could find out whether the statement is true or false.

2. "Racism is a problem at UW." What does this mean? What are empirical statements relevant to it? [Statement about subjective feelings of whites and blacks? Statement about incidence rates? [Marwell argues that incidents have always been there, that there are changes in whether people just suffer them silently, or get together and protest.] Statement about objective levels of discrimination? Statement about general ignorance of history, economics of race relations?

3. "Sexism is a problem at UW." Again, issue must be turned into empirical statements. Rates of aggressive sexuality, Frequency of professors' comments, students' subjective feelings, frequency of tensions and arguments among women and men.

D. Role of values. Values, what ought to be. "White students should be less prejudiced toward minorities." "Lecture sections in methods should be limited to 25 students." vs "Most white students have prejudiced attitudes about blacks," or "Instructors teaching methods would prefer their sections to be limited to 25."

E. Evidence. (Stern). Relates to Singleton, knowledge as precise description, concepts need agreed-upon meanings. (1) unsupported assertion. (2) appeal to authority. (Note: sometimes this is acceptable, e.g. if professor is giving lecture, or if the source is somebody you have reason to trust. But you are doing no thinking or checking for yourself. If it really matters, you would ask the authority what evidence she/he has, either verbally or by looking up the article. (3) casual observation, unconcretized abstractions. not just list examples, but state rules we can apply to new cases, give an operational definition. "Men are usually more aggressive in class than women." What did you actually see? Men punching other men on the nose? Men talking more than women? Voice intonations of men and women being different? Women using more self-deprecating or apologetic speech? Were there a few men who were much more "aggressive" than any woman, or were all the men more aggressive than all the women? In fact,

you have reason to worry that the person telling you this hasn't thought the matter through, and might be lumping together a wide variety of unsystematic and even selective observations.

F. Singleton's characteristics of science: a) empiricism, look at senses, not just reflected. b) objectivity, people can agree on what they say, truth does not depend on who is doing the observing. (When 6, my daughter believed in ghosts, and said that only those with ghost detecting ability could see ghosts. Her statement put ghosts outside the realm of science.] c) control: procedures to eliminate major sources of bias and error, e.g. eliminate selective observation, overgeneralizing, inaccurate observation.

1. Inaccurate observation. Most of us are not good observers unless we are careful. Jane Piliavin reports using a social psych text that, in fact, alternates pronouns so that exactly half of all references are to "he" and half are to "she." But one student complained that the book was biased and always talked about "she." Low status people (e.g. women, blacks) report having the things they say in business meetings attributed to others. People often report observing things that just are not true. The scientific remedy is careful, conscious observation according to well-defined rules.

2. Overgeneralization. You are correct about what you saw, but assume incorrectly that what you saw in a few applies to many. Newspaper reporters talk to six people at a demonstration and characterized everybody that way. You talk to your two teenage kids about "youth today" and assume you know all there is to know. For that matter, you assume that what you know to be true of your own friends is true of everybody. Similarly, there is a tendency to overgeneralize from the negative behavior of one person to a whole group; this is what we mean by stereotyping, and it always makes us angry when we hear it done about our own group.

3. Selective Observation. You notice the things that prove your belief, and ignore the others. If you're a woman who objects to what you think of as aggressive men, you might get angry at all men, failing to notice that most of the noise is actually being made by very few men, and that most men don't' act that way. You confine your research about teenage sex to those who come up to a booth labeled "tell me your experiences with teenage sex." Statements like "You're not like other X's" or "exception that proves the rule" are signs of selective observation.

G. Reliability = different observers use abstraction in same way, agree about what they see. Validity = the operational measure is "really" what you think it is, link between concept and measure. We will come back to these.

H. Theory. Gives definitions of concepts, assumptions describing circumstances undre which they apply, set of interconnected abstract principles and propositions. How and why the empirical generalizations are true. General principles that explain many empirical generalizations. Provide either understanding of causal processes, or subjective understanding of people's motives.

I. Science involves BOTH research and theory, in constant interaction with each other. RM. Old idea: discontent causes SM. e.g. rises and falls in movements due to shifts in discontent. But data shows measures of discontent don't correlate with action, unless you use the action to measure the discontent, which is a tautology (and not scientific). Next RM says external resources are the factor, specifically claim that civil rights movement was started by the resources of white liberals. Data, McAdam time line. year by year on protests and white foundation money, show money followed the protests, clearly refuted the hypothesis. new understanding is internal resource, political openings. theory of cycles about how protest draws in external money, leads to professionalization.

II. Scientific Attitude. (I see this as scholarly attitude, not a matter of qualitative vs quantitative or humanities vs hard sciences)

A. Knowing is better than not knowing; knowledge is worth seeking for its own sake.

B. Not introspection. Youth looks out into a mriror and can see only him or herself. Maturity looks through a window and sees the world and other people as they are. In this sense, science is mature. It is not about knowing yourslef better, and not about deciding what you think others ought to do, it is about knowing more about something outside yourself, about understanding what other people think ought to be.

C. A scientist respects the facts, respects the evidence. May sometimes be very resistant to a troublesome fact, especially if it is methodologically possible to discoutn it, but is generally interested in knowing what all the facts are, and what the broad range of evidence is like. Would rather know an unpleasant truth than not.

D. A scientist tells the truth about his or her own research insofar as he or she is able. Doesn't hide the facts, doesn't make things up. Humans are humans, and nearly everyone tries to put the best possible construction on his or her work, and everyone knows this, so you learn to read between the lines. In particular, if something is not clear, you can probably assume the worst rather than the best. But a scientist never lies about the resarch, no matter what. You don't lie about the sample size, you don't lie about the measures, you don't lie abouat the statistical results. That is one of the few things that can get you fired from being a tenured professor. [Discuss cheating briefly in this light.]

E. A scientist knows what she knows, and knows what she does not know. The scientist knows where the evidence is, and where there is no evidence. The scientist knows what his or her range of expertise is, and doesn't try to cast an aura of authority around everything he or she says. (Of course, the scientist may know that he or she has studied something well enough to know about it even when it is outside his or her official expertise.)

NOT SUMMER 1. Go over Stern Ch 2. pp. 56-60, #s 1, 6, 7. variables, relation, results, IV, DV.