Overview

Practitioners in the scientific disciplines use research methodology to attempt to explain what is happening in the world. These disciplines originally were subcategories within the broader discipline of philosophy. In fact, science was at one time referred to as “natural philosophy.”

A core notion of this course is that the conduct of research is a process of inquiry and that inquiry is fundamentally a philosophical endeavor. It involves certain philosophical positions and assumptions. Thus, we begin this course with a discussion of philosophy and will continue to refer back to it.

The Philosophy of Inquiry unit will be concerned with the field of epistemology (theory of knowledge).

Three Questions

You have probably heard references to “The Good, The True, and The Beautiful.” Questions about these concepts form the starting point for the three major branches of philosophic inquiry --

- “What is the Good?” is the object of inquiry for Ethics.
- “What is the True?” is the object of inquiry for Epistemology.
- “What is the Beautiful?” is the object of inquiry for Aesthetics.

As social workers, we tend to have more of a professional concern with the first and second questions than with the third. Still we do not ignore aesthetics in the practice of social work.

A pleasant worker-client relationship is usually more desirable than an unpleasant one for a myriad of reasons. An aesthetically pleasing environment may enhance the quality of relationships that occur within it. Information presented in an aesthetically pleasing manner is more likely to be attended to than information that it is offensively presented. Things and processes that are aesthetically pleasing are more enjoyable to be around and participate in than are things that are bothersome.
Finally, social workers should recognize that there is a strong individual and cultural component to aesthetics. Culturally sensitive social work practice involves, among many other things, understanding other viewpoints on what is beautiful, tasteful, harmonious, and pleasant.

**A Fourth Question**

For over two thousand years, a central tenet of philosophical discussion has been to “define your terms.” This may be posed as a question that is the focus for another discipline --

- “What do you Mean?” is the question posed in **Semantics**.

This question is the first question that must be answered in any systematic inquiry..

**Types of Knowledge**

The principal purpose of any systematic inquiry is to obtain knowledge. The study of how we develop knowledge is the matter of **epistemology**.

It is sometimes convenient to conceive of knowledge in terms of three categories:

- **Intentional** (or Deontic) Knowledge -- consisting of "shoulds," "oughts," values, needs, and desires.
- **Analytic** Knowledge -- consists of understanding via analysis or deductions involving symbols.
- **Contingent** Knowledge -- consists of understanding via observations concerning relationships among events in space-time.

Of the three types of knowledge, contingent knowledge is the least stable. It changes with the evidence.

**Methods of Fixing Belief (Knowing)**

Doubt is an uneasy and dissatisfied state from which we struggle to free ourselves and pass into the state of belief; while the latter is a calm and satisfactory state which we do not wish to avoid, or to change to a belief in anything else.

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--Charles S. Peirce. (1877). *The Fixation of Belief*.

The American Pragmatic philosopher Charles Sanders Peirce referred to the ways that we acquire knowledge as Methods of Fixing Belief. These methods may be organized into four categories:

- Authority
- Intuition
- Rationality
- Science
Each of these methods comprises a set of procedures by which human beings attempt to understand themselves and their circumstances.

The Method of Authority

The Method of Authority involves deriving beliefs based upon the opinions of a respected source. Under this method, knowledge is sought from people who are socially or politically defined as qualified knowledge producers.

Depending upon the type of society, different classes of individuals may be the designated knowledge producers.

- In a religious society, a knowledge producer would probably be a member of the clergy.
- In a dictatorship, the source of knowledge would be the dictator.
- In a technocracy, it would be a scientist.

Belief derived via the method of authority is durable. Individuals tend to place a great deal of confidence in the pronouncements of an authority. It generally requires strong, well supported, and repeated refutation of designated knowledge producers to deprive them of their authority status.

Authority can be a useful way of fixing belief. For example, if a health professional such as a nurse or a physician advises us to follow a particular regimen, we rarely go to a medical library and study the entire empirical literature on the regimen. There simply is not time to thoroughly investigate the claim of every authority. Rather, we usually “sample” the truth value for a few of an authority’s pronouncements. If they are found to be reliably correct, we tend to accept the rest. (This “testing” is a form of inductive inference that we shall discuss subsequently.)

The Method of Intuition

The Method of Intuition (or Tenacity or Perseverance) involves adherence to beliefs because one simply feels that they must be so. It involves knowing because it has always been known. Mystical knowledge obtained from transcendental sources falls in this category.

To some extent the method of intuition overlaps the method of authority. However, where authority is generally derived from some institutional sanction, the method of intuition tends to rely upon the perception that discomfort might ensue if the particular belief were abandoned.

Because doubt is uncomfortable, intuitively derived belief is also rather durable. As with authority-derived beliefs, repeated refutation is necessary to disconfirm it. Individuals in situations of stress are receptive to information derived from the intuitive or mystical mode. Confidence in intuitive methods tends to be less prevalent among more educated segments of society.
Sometimes, what individuals call intuition is something else entirely. Eileen Gambrill has noted that social workers not infrequently “sell themselves short” by attributing wise judgments to intuition. However, when these “intuitive” workers are pressed with requests for further explanation, they will frequently give reasons that are based upon good observations and suitable inferences from them. These types of judgment are based in empirical information, not intuition.

**The Method of Rationality**

The Method of Rationality involves adherence to beliefs because they are derived according to the rules and forms of logic.

In its more extreme form, the method of rationality holds that the chaos of experience is essentially a distraction. Matter is not basically real, but simply a manifestation of some underlying principle. All that is needed to apprehend the principle are the tools of logic.

Beliefs arrived at by the method of rationality are also resistant to change. Their logical consistency provides a stable framework to resist refutation. Often, the framework may be used to reinterpret disconfirming events in such a way as to make them appear either nonthreatening or false.

The method of rationality is occasionally a useful way of fixing belief. As with the method of authority, it may not be feasible to test every last bit of information we are given. By using logical processes, we may determine whether a belief is consistent with and/or deducible from observations.

However, a logically consistent belief is not necessarily consistent with the space-time event it purports to describe. If logical processes are to be effective, they must start with true premises and include all relevant premises. Otherwise, the conclusions reached may be false. As you are probably aware, it is often difficult to know what is relevant and what is not.

**The Method of Science**

The method of Science involves a process of systematically observing events in space-time to collect evidence about relationships among these events so as to develop and test beliefs; conclusions derived using the scientific method are probabilistic and contingent.

The Scientific Method is based on following assumptions:

- The Universe is consistent.
- The Universe is understandable.
- It is better to understand than not to understand.
- All natural phenomena have natural causes.
- Nothing is self-evident.
- Understanding comes from experience.
Beliefs that are arrived at via the method of science are not necessarily true (consistent with the space-time event they describe). They are probably true and contingently true.

Probably true means that there is an explicit recognition that the belief could be false. In many instances, it is possible to provide an exact probability of error.

There is strong evidence for a positive relationship between having an overdue book and receiving overdue notices. There is only a 0.00006 probability that we would have observed what we did had there been no relationship between having an overdue book and receiving a notice.

Contingently true means that the truth value of the statement is contingent upon the evidence. If new evidence is uncovered that reduces the probability that the belief is true, then the confidence in the belief is likewise reduced.

“Value-Free” Science

It is sometimes asserted that “Science is value-free.”

This is NOT true on a number of levels.

The most important one is there is an explicit positive value placed upon understanding events in their context.

This is a value that is not part of the methods of Authority, Intuition, or Rationality.

- Increased understanding may lead to the disconfirmation of an authority. Hence, it is not welcomed by the authority.
- Increased understanding may lead one to doubt a comforting belief. Hence, it is not welcomed by the intuitive individual.
- Increased understanding may disconfirm a conclusion and lead to the refutation of an “underlying principle.” Hence, it is not welcomed by the a priori rationalist.

This is not to say that all “scientists” personally value understanding. There are numerous instances of scientific investigation being held back or misdirected because some group of “scientists” were operating on another method of fixing belief - usually intuition.