

V. EPISTEMOLOGICAL SHIFTS IN WESTERN THOUGHT

The West has gone through an epistemological paradigm shifts due to its encounters with Others, and therefore with Otherness, from mono-culturalism to multi-culturalism, and from truth to relativism. This shift was a necessary corrective, but it leaves us with no clear answers with regard to truth or to ways to deal with the human dilemma.

1. Period One: Positivism or Naive Realism

"A photographic view of knowledge."

1.1 Nature of Positivism

- There is a one-to-one correspondence between knowledge and reality.
 - knowledge = reality = truth
 - strong sense of absolutes
- the scientist as a passive observer not affecting the data.
 - free from values and feelings
 - reports unbiased by scientist's history and culture.
 - totally objective knowledge.
- Knowledge is additive.
 - it is logically consistent.
 - our goal is to create one grand unified theory (GUT).
 - knowledge is potentially exhaustive.
 - it is stated in propositional terms.
- Disagreements lead to conflict and attack.
- Science and theology are in opposition:
 - secular scientists used reductionism and theology is left for the God-of-the-gaps to explain what science cannot explain right now.
 - Christians used a stratigraphic approach leaving theology to cover other-worldly matters, feelings [Schliermacher], morality [Kant]].
- Science rejects tradition as superstition.
 - science seen as a new kind of knowledge. Tradition was rejected as false.
 - the 'other' is seen as 'primitive' and 'prelogical.'

1.2 Attacks against Positivism

- physical sciences. Showed that the scientist is a part of the picture.
- Godel showed that it is impossible to have a theory that is 1) strong, 2) autonomous, and 3) logically consistent. We can only have two of these.
- psychology of science. found we are studying people, not objects. Therefore we must deal with: 1) reflexivity: our theories must apply to ourselves because we too are humans. 2) the people are studying us as we study them. 3) our presence modified the scene of observation. We as scientists are humans influenced by our personalities and histories. Subjectivity is an essential part of knowing--knowledge is known by someone.

- sociology of science. Showed that scientists are part of social communities that influence their theories deeply.
- anthropology of science showed scientists live in particular cultures and histories and are shaped by these.
- philosophy of science showed science is rooted in western philosophy. Knowledge is not positivist, but shaped by the personality, community and culture of the scientist. Knowledge is paradigmatic in nature (Kuhn).

These attacks are leading to the collapse of naive realism. Naive realist scientists still are found, but the leading edge of science has now moved away from this position to instrumentalism.

2. Period Two: Instrumentalism.

"A Rorschach view of knowledge."

2.1 Nature of Instrumentalism

- knowledge is created in the mind. We cannot not know if it corresponds with 'reality' or not. Knowledge is subjective - shaped by the culture and history of the scientist.
- knowledge is useful, not true. All knowledge is relative to the beholder, there are no absolutes. The only test then is pragmatism - is it useful.
- knowledge is paradigmatic. It cannot be exhaustive. Changes take place by addition of information, and by paradigm shifts.
- disagreements create no conflict. There are many ways to look at the same thing, all of which may be right. So no one can claim a privileged position of being right and others wrong.

2.2 Attacks on Instrumentalism

The attacks on instrumentalism have only begun.

- narcissism. Instrumentalism leads to narcissi in which every culture, and eventually every person is left on an island alone.
- it has no positive agenda to solve the world's problems. Instrumentalism is basically anti-positivist, and anti-colonial. It offers little by way of clear solutions to the world's growing problems.
- relativism eventually undermines all concepts of truth and morality.

3. Period Three: Critical Realism

"Knowledge is a map or blueprint or models of reality."

3.1 Nature of Critical Realism

- there is a real world outside.
- knowledge is a map of reality. It has pattern correspondence. It is configurational or paradigmatic in nature. It is open ended
- knowledge connects objective reality with mental maps by means of symbols.
- knowledge is approximate. It sees clearly, but not in full detail.

- knowledge is complimentary. Different maps or blueprints are needed to present a full picture of reality. There is complementarity between diachronic and synchronic models, between emic and etic views, between levels of scale, between scientific disciplines, between mechanical and organic analogies, and between theology and science.
 - knowledge is embedded in worldviews.
 - disagreements lead us to test our maps against reality. They also cause us to reevaluate our theories and worldviews.
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Some other epistemological positions:

1. Idealism

"Knowledge is the picture we paint."

- the mind creates reality.
- the road to knowledge is reason and/or insight.
- we can affirm the absolute of our vision, but different mental worlds are incommensurable.
- disagreements lead us to talk past each other. There are no external reference points to compare views.

2. Determinism.

- knowledge is determined totally by external factors. Reality produces the mind.
- there is no rational observer. People are mechanical robots.
- there are no claims to truth
- disagreements are not real conflicts over truth, but reflections of external forces.