

Research Opportunities Created by the Collapse of Logical Postivism

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Prof. Asad Zaman, Vice Chancellor, PIDE



LP: Biggest Blunder of 20th Century

- Mistake made by top ranked academics, brightest people of the 20th century.
- Extremely Consequential Mistake. Has influenced minds of all. (including mine)
- Took me a long time to unlearn positivist ways of thinking. Need to start a group: "Positivists Anonymous"

Battle Between Church & Science

- Galileo, Bruno
- Bitter memories: Cal Tech rejects Jesuit affiliation
- Effort to prove that SCIENCE is superior to RELIGION
- The DEMARCATION problem → Philosophy of Science

Obvious Approach Fails

- Science deals with observables in here & now,
- Religion deals with unobservables & after-life.
- BUT: Science also has lots of unobservables: gravity, quantum jumps, black holes, electrons, waves, etc.
- Do we have FAITH in electrons, like we have FAITH in God?
- There is no EASY way to distinguish between the two types of belief.

Bertrand Russell finds a way

- Theory of Descriptions: We can talk about UNICORNS, without assuming that they exist
- DESCRIPTIONS can be meaningful and accurate WITHOUT committing us to existence of things being described.
- Thus, when we say “electrons” & “gravity” we do not assume existence of unobservables.
- NOMINALIST philosophy as opposed to REALIST.

Verifiability Criterion of Meaning

- Meaning = set of confirming observations.
- No observations which prove/disprove = Meaningless
- Scientific theories are meaningful – one can confirm or disprove them.
- Religious statements – like life after death – are **MEANINGLESS** – no possible way to confirm or disprove.
- Morality is just noise – like a “cry of pain”
- Very **SATISFYING** conclusion – just the thing we were looking for.

Five Major Errors

- Realism is ESSENTIAL – cannot be avoided
- Unobservables MATTER, and MUST be considered
- Some phenomena intrinsically QUALITATIVE
- Normative & positive: “inextricably entangled” – Putnam
- Free Will is essential to study human behavior.

Nominalist Versus Realist

- NOMINALIST: Gravity “means” ELLIPTICAL ORBITS.
- Patterns in observations: Covering Law as explanation.
- REALIST VIEWS: Gravity is a invisible force which CAUSES elliptical orbits.
- KANT: No point in discussing “reality” which is forever inaccessible to humans.

Unobservables → Observables

- “Beyond Freedom and Dignity” B F Skinner.
- Behavioral Psychology: Look at observable behavior, instead of internal mental states.
- Freudian vs Behavioral: claustrophobia.
- Stimulus → Cannot model box → Response
- COGNITIVE Psychology: Must model BOX.

Qualitative → Quantitative

- Kelvin: We can understand only what we can measure.
- Efforts to measure EVERYTHING – intelligence, trust, corruption, etc.
- Such efforts can be POSITIVELY harmful -- my “corruption” paper explains why in detail.

Normative Versus Positive

- Normative has no role in Science. Normative judgments cannot be observationally confirmed or disproven.
- Economists describe the facts; the laws which govern economy. Policy makers make normative decisions as to which state of affairs is preferable.
- Inextricable entanglement: How fast should we drive?
- Most economic questions mix the two aspects completely
 - how much should physicians earn?
 - how much should we pass on to future generations?

Free Will Versus Determinism



- Free Will is UNOBSERVABLE – I chose X, but I could have chosen Y instead.
- Science deals with laws. Scientific approach to humanities requires studying deterministic patterns in human behavior.
- Contrast with ZEN – Every moment is unique, reality is ephemeral. No moments like this in the past, and none like it in the future. Needs a different mindset.

Samuelson's Mistake

- NOBEL Citation: SCIENTIFIC BASIS for Economics.
- Unobserved "Preference" → CHOICES.
- Strong Axiom of Revealed Preference.
- No need to refer to internal states of satisfaction??
- Wong: CANNOT eliminate unobservable inner state.

Buddhist, Variety Lover, Other

- Different Internal States lead to different patterns of choice.
- Choices CANNOT be understood without reference to internal states.
- Same problem arose in behavioral psychology. COGNITIVE psychology posits internal cognitive capabilities to explain behavior.

Fundamental Flaws in Social Sciences

- Behavioral Psychology
- Positive Economics
- Growth Theory – one dimensional, quantified.
- Econometrics – can prove anything with patterns.
- Probability – Frequency Theory versus natural definition
- Political Science – Arrow Impossibility, Democracy, Descriptive, Objective.

FANTASTIC OPPORTUNITY

- Dominant approach is drastically wrong in five or more dimensions.
- Approaching truth requires a HUGE Paradigm shift --
- Change mindset; think out of the box
- Create a revolution in humanities.
- Each error provides a direction for research.

Exploring REAL mechanisms



- Econometrics: Forecast Competitions M1, M2, M3 – mere pattern matching, WITHOUT matching models to reality.
- Quantity Theory of Money versus numerous others.
- Let us explore relation between X and Y. Not possible on purely statistical grounds. Must look at underlying reality.

Unobservables Matter

- TRUST has recently acquired importance.
- Compassion, Equity, Social Responsibility: Tremendously important invisibles in shaping society.
- Cooperation and Generosity VERSUS Competition and Greed.

Emphasize the Qualitative

- Many concepts intrinsically qualitative. Learn to deal with it instead of trying to MEASURE trust, corruption etc.
- Qualitative Research Methods.
- Inflation, Well-Being, Growth, Poverty are all qualitative.
- Multidimensional phenomena CANNOT be reduced to one dimension without serious loss of information.

Normative: Central to Humanities

- Makes no sense for particles subject to laws.
- What is the purpose of life?
- Experience as knowledge.
- Spiritual, Emotional, Moral Growth
- Social norms build the society we live in.

Free Will

- What is UNIQUE, never before and after?
- The historical versus Black Swans
- The ZEN exercise of experiencing the moment.

