

Positivism and the plight of the planet

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Introduction

There are no words to describe the mega-catastrophes unfolding around us. One cannot be human without feeling deep sorrow for the tragic and meaningless deaths of humans, other living creatures, and the destruction of our common habitat – the seas, the continents, and the atmosphere. But, without accurate analysis and diagnosis, it is impossible to take effective countermeasures. In this essay, I would like to argue that the root cause of these crises is a defective theory of knowledge which was born in the European Enlightenment, and came to fruition in the early 20th Century in the form of Logical Positivism .

Positivism appears an unlikely candidate for the role of arch-villain. It was born in the Vienna Circle in the 1920's and spread like wildfire across Western academia. But, it died an equally spectacular death in the 1960's and many came forward to take the credit for killing logical positivism. For example, Suppe (2000) writes that:

“The Received View on Theories was the epistemic heart of Logical Positivism. Twelve hundred persons were in the audience the night it died. It was March 26, 1969-opening night of the Illinois Symposium on the Structure of Scientific Theories.”

How can an obscure philosophical theory, which died fifty years ago, be responsible for endless wars, breakdown of human society, and the ongoing climate crisis? To answer this, we sketch the historical forces which shaped developments in epistemology in Europe.

Epistemology: The Long and Winding Road

Centuries of warfare between Christian factions devastated Europe and personally affected the lives of leading intellectuals. This historical experience seemed to provide ample proof that Christianity could not be used to build a peaceful society. The Biblical approach of the scholastics was rejected. Hobbes was the first to develop a political theory based purely on rational and secular foundations. Rejection of Christian epistemology, which takes the Bible as unquestionable truth, led to the search for new foundations for knowledge. The trauma of loss of faith in the certainties provided by religion is reflected in the passion of David Hume:

“If we take in our hand any volume; of divinity or school metaphysics, for instance; let us ask, Does it contain any abstract reasoning concerning quantity or number? No. Does it contain any experimental reasoning concerning matter of fact and

existence? No. Commit it then to the flames: for it can contain nothing but sophistry and illusion.”

The enormity of this statement is mind-boggling. All human wisdom, accumulated patiently by hundreds of thousands of thinkers, laboring over millennia, is reduced to nought. Only a tiny fraction of the millions of books extant would survive this purge. All the greatest literature of all cultural traditions would be lost in the flames. However, to the Enlightenment thinkers, this sacrifice appeared to be necessary, since the received wisdom had led to massive death, destruction, and unimaginable atrocities – the real-life version of *Game of Thrones*. Traditional wisdom seemed to be corrupt beyond possibility of repair, so it had to be discarded. New knowledge, starting from scratch, had to be built up on solid foundations of facts and logic, beyond the possibility of doubt.

Epistemological rejection of unobservables – God, Angels, Afterlife, Judgement Day – led to increased focus on the life of this world. The Biblical “Love of wealth is the root of all evil” was replaced by the Shavian “Lack of wealth is the root of all evil” in the Great Transformation of Europe from traditional to secular modern society. Increased focus on this world led to dramatic increases in knowledge about external reality – the natural sciences. At the same time, there was a parallel growth in the philosophy of science: the attempt to understand how these tremendous advances in human knowledge were generated. Surprisingly, this second effort has been a disastrous failure. As a popular textbook by Chalmers (2013) entitled “What is This Thing Called Science?” tells us, there is a wide variety of differing opinions, and no consensus has emerged.

Critical to this failure to understand science has been the effort to prove that science leads to certain knowledge. Loss of faith in the certainties of religion led to a vacuum which needed to be filled by the certainties of science. For centuries, it was axiomatic among European intellectuals that science produces TRUTH – facts about external reality about which we can be 100% certain. One of the goals of Kant’s philosophy was to prove that we could be certain that Newton’s Laws of Universal Gravitation were true. Just as philosophers of religion spent centuries creating arguments for the existence of God, so the philosophers of science have spent centuries trying to prove the certainty of scientific knowledge. Unfortunately, this goal has proven elusive. Even the simpler goal of “Demarcation” – how to differentiate between scientific knowledge and other kinds of human knowledge – has not been resolved satisfactorily.

For a fleeting moment, Logical Positivism seemed to provide conclusive evidence for a goal pursued by European philosophers over centuries. Statements involving unobservables were mere “sophistry and illusion”, validating Hume’s centuries-old sentiment. Although science itself grapples with unobservables, positivists contended that these were nonessential—replaceable by observable equivalents without compromising scientific truths. Intellectuals eagerly embraced positivism, and its influence quickly permeated academia. At first glance, obscure mistakes in narrowly specialized philosophy of science may appear inconsequential. Scientists, historically indifferent to philosophy of science, have continued their remarkable progress across natural sciences seemingly unaffected. However, the true impact of significant errors in the philosophy of science becomes apparent when one turns to the social sciences, where they had far-reaching consequences.

Impact of Positivism on Social Science

Manicas (1987) presents a book length argument that modern social sciences took shape in the early 20th century. Further, these were based on a misconception about the nature of physical science. For the sake of clarity and focus, I will restrict the scope of my discussion to economics, even though similar arguments apply to all of the social sciences. To paraphrase Manicas, foundations of modern economics are based on a double mistake:

1. The first mistake is a misconception about the nature of science crystallized in the form of logical positivism.
2. The second mistake is the misconception that methods of science can or should be applied to the study of human societies.

We will now discuss both of these mistakes in greater detail.

The central claim of logical positivism (LP) is that “all knowledge comes from observations and logic”. This is self-contradictory: the claim itself is not based on observations and logic. There is a long list of flaws in LP which would take too long to present in this brief article. For our purposes, the most important mistake is ruling out the possibility of knowledge about unobservables. An example will clarify the issue. Consider an unobservable entity like a subatomic particle, or a gravitational force. Based on strong indirect experimental evidence, can we conclude that “electrons exist”? Positivists argue that theories about unobservables are convenient fictions. They are not to be judged as being true or false, but only in terms of their ability to explain the observables. If the best available theories hypothesize the existence of electrons and gravity, this does not provide us with warrant to believe in the existence of these unobservable entities. Tomorrow, we might find a theory which provides a better fit to the observations, and dispenses with the entities central to our current theories. Neutrality about existence of unobservables does not cause damage in the natural sciences. However, we cannot avoid discussion of unobservable human motivations in any serious approach to social science. Application of positivist methodology to the study of human societies creates blindness to essential aspects of human behavior, as we will discuss in greater detail later.

The second error lies in the application of scientific methodology to the study of societies. It might seem intuitively apparent that scientific methods are ill-suited for this endeavor due to the dynamic and ever-changing nature of human societies. The existence of universal mathematical laws capable of encapsulating these continuous changes appears impossible, especially given the extraordinary diversity of societies across time and space. Nevertheless, influenced by the increasing prestige of the physical sciences, some economists endeavored to employ a mathematical and quantitative approach in the late 19th century. This sparked vehement opposition from proponents of the traditional historical and qualitative approach, resulting in a fiercely contested battle known as the "*Methodenstreit*" or the battle of methodologies. As documented by Hodgson (2001) in his book titled "How Economists Forgot History," this methodological conflict did not yield a conclusive victor on either side.

However, World War 1 had a dramatic impact on this ongoing methodological battle. Just like religious wars had discredited scholasticism, the World War dealt a severe blow to the ideals of the Enlightenment. As hopes of achieving a harmonious society through the substitution of religion with reason were shattered, the prestige of the social sciences plummeted. While the notion of employing scientific methods for the study of society had been a minority perspective, the

aftermath of World War I saw a paradigmatic shift. The belief that scientific methodologies could catalyze remarkable progress and revitalize the fortunes of social science gained ascendancy. In the realm of Economics, the historical and qualitative tradition was almost completely obliterated, with profound consequences that will be examined in the next section.

Positivism: A Poor Foundation for Social Science

Deficiencies of Positivism as a basis for social science were obvious to many participants in these debates in the early 20th century. In response to these attacks, positivists developed many variants, some of which were much more capable of handling these criticisms; for example, see O'Neill (2004). However, social scientists in general, and economists in particular, continue to believe in crude forms of positivism, abandoned by philosophers long ago. In particular, Friedman's defense of a positivist methodology for economics, discussed in detail by Maki (2009), is the only essay on methodology most economists ever read. The point we wish to make in the essay is very simple: it is impossible to understand the sources of human well-being on the basis of the positivist methodology, as it is understood by economists. Putnam (2002) has made essentially the same point with much greater attention to the complexities of the philosophical tradition.

In a nutshell, Logical Positivism asserts that science is the only valid source of knowledge. That is, we can only have knowledge about external reality, and it is impossible to have knowledge about our internal lives. This follows from the idea that knowledge must be based on observables. Internal states of other human beings are unobservable. I can guess, but I can never be certain, about the feelings inside your heart. But an epistemology which denies the validity of knowledge of internal states of others is untenable. Infants can recognize and differentiate between happiness, sadness, anger, and love in their mothers, and in others. This is also an inconsistent epistemology; there is nothing about which I can be more certain than my own internal states: I have direct access to my own experience. In fact, my life-experiences are the basis of all knowledge that I have. So, while I can deny the internal states of others as unobservable, I cannot do the same for my own. One of the foremost champions of logical positivism, A. J. Ayer (1964), eventually rejected the philosophy, saying that it was like "feigning anesthesia".

For natural sciences – physics, biology, chemistry, etc. – logical positivism creates no essential difficulties. Ignoring the subjectivity of the observer makes no practical difference to the external reality. But social science is the study of societies, composed of individuals and created by social interactions. Denying the possibility of knowledge of internal states of human beings makes it impossible to understand human behavior, human interactions, and hence human societies. Positivist methodology says that, since we can never have certain knowledge of internal motivations of human beings, we are free to make any assumption we like about them. To make an analogy, suppose we apply positivism to our daily lives. Then we would conclude that since emotions of others are not observable, our theories of behavior should make no reference to them. Thus, treating all others as psychopaths is methodologically acceptable. Even though it seems absurd, the influence of positivism was so strong that Skinner took precisely this approach in founding Behavioral Psychology. He reduced human beings to robots that can be programmed by stimulus and response. He argued that we need to move "Beyond Freedom and Dignity", since robots have neither.

To enable writing mathematical equations for human behavior, we must strip human beings of their identities based on their emotions, memories, histories, affiliations, and social relationships. This is precisely the “scientific” methodology of modern economics, as explained by Lucas:

“Unlike anthropologists, however, economists simply invent the primitive societies we study ... The point of studying wholly fictional, rather than actual societies, is that it is relatively inexpensive to subject them to external forces of various types and observe the way they react.” - quoted in De Vroey (2016, p 179)

Our objection is not to the creation of artificial societies; this is an essential ingredient of modelling. The problem is that economists study societies populated by psychopaths, and use these studies to try to understand human societies. It is no wonder that they fail miserably. There is overwhelming evidence for the failure of economists to provide solutions to economic problems we face. Worse than that, modern economic theories are actually the cause of many of the most serious problems currently facing humanity. These theories blind us to emerging problems, and they prevent us from finding solutions. A Congressional Committee was formed to investigate the failure of economists to predict the Global Financial Crisis, and to prevent the Great Recession which followed. Some quotes from the opening remarks of their report entitled “Building A Science of Economics for the Real World” are given below as evidence for our thesis:

The Subcommittee has previously looked at how the global financial meltdown of 2008 may have been caused ... by financial risk models, ... rooted in the same assumptions upon which today’s mainstream macroeconomic models are based. ... Economic analysis is used to inform virtually every aspect of domestic policy. If the generally accepted economic models inclined the Nation’s policy makers to dismiss the notion that a crisis was possible, ... it seems appropriate to ask why the economics profession cannot provide better policy guidance?

In our next section, we explore why the positivist methodology upon which modern economics is founded is inherently incapable of providing better policy guidance.

Positivism: Poisonous to Human Welfare

Cooter and Rapaport (1984) document a critical transition in Economics in the early 20th Century. Pre-modern economists were concerned with “material welfare” – how we can use economic means to improve human welfare. Thus, they were clear that welfare created by listening to music is not on par with the welfare created by food on an empty stomach. They used the law of diminishing marginal utility to argue that transfers of money from the rich to the poor would increase welfare because the poor would derive far greater benefits in comparison with the loss of pleasure to the rich. However, these commonsense ideas were abandoned under the influence of positivism.

Lionel Robbin’s replaced welfare by scarcity as the foundation of economics because scarcity is observable, while welfare is not. Our central thesis is that positivist methodology led to the abandonment of the search for causes of human well-being. This makes it impossible for economists to make policies which serve to increase human welfare. Economics textbooks state clearly that the job of the economist is not to explore the psychological makeup of human beings. For example, Samuelson and Nordhaus (1989, p. 2) write that economists “must reckon with

consumer wants and needs whether they are genuine or contrived. Shakespeare's King Lear said, "Reason not the need" – and economists do not; rather they analyze how limited goods get rationed among whatever wants a society generates." Hausman and MacPherson (2006) describe the transition to these modern views as follows: "In modern economic theory as developed in the 1930s, economists put aside substantive conceptions of well-being ... (instead)... most economists took well-being to be the satisfaction of preferences."

It is worth pausing to clarify how positivism forces us to take satisfaction of preferences as well-being. Well-being is a deep unobservable – we ourselves are not always fully aware of the sources of our happiness and miseries. But we usually do have clear preferences among alternatives. But positivism requires us to eschew even these preferences (of our hearts) and replace them by the observable choices they lead to. An example can clarify the distinction between welfare, preference, and choice. My long run welfare may lie in not smoking. I may have a preference for cigars, but I may choose a reduced-nicotine cigarette over a cigar. However, the positivist strategy of replacing unobservables by observables forces economists to equate all three, and makes it impossible to think about the real sources of human welfare.

The Pursuit of Illusion

Given this blindness to human welfare, the findings of Easterlin in the 1970's came as a great shock to the profession. Easterlin (1973) showed that tremendous increases in wealth over time had not led to corresponding increases in human welfare. Similarly, he showed the general levels of happiness in different contemporaneous societies had no correlation with their GNP per capita. The idea that wealth is the basis of welfare has been an unquestioned axiom of economic thought for over a century. The transition from the 16th Century Biblical maxim "Love of wealth is the root of all evil" to the 18th Century Shavian precept "Lack of wealth is the root of all evil" has been studied in detail by Tawney (1960). In the early 20th Century, Keynes (1931) was well-aware of the harms of pursuit of wealth, but thought that infecting the society with this disease would lead to accumulation of wealth, which would have long-run benefits:

The love of money as a possession — as distinguished from the love of money as a means to the enjoyments and realities of life — will be recognized for what it is, a somewhat disgusting morbidity ... But beware! The time for all this is not yet. For at least another hundred years we must pretend to ourselves and to everyone that fair is foul and foul is fair; for foul is useful and fair is not. Avarice and usury and precaution must be our gods for a little longer still. For only they can lead us out of the tunnel of economic necessity into daylight.

Easterlin (1973) proved that Keynes was wrong; accumulation of vast amounts of wealth has not led to corresponding increases in human well-being. After Easterlin's pathbreaking work, researchers began to explore the reasons for his findings. They found that human beings can become habituated to an enormously large range of living conditions, and learn to take that as normal. Increased wealth leads to a short-term boost in happiness, which disappears when the higher standard of living becomes the new normal. But now, maintaining the new normal higher standard requires more income, and more labor, causing loss of long-term welfare.

In fact, this rat race for ever increasing standards of living is essential to maintaining capitalism. This is because massive overproduction, far above and beyond what is required for a comfortable life, is a central characteristic of capitalism. As Galbraith (1998) noted:

If the individual's wants are to be urgent they must originate with himself. They cannot be urgent if they must be contrived for him. And above all they must not be contrived by the process of production by which they are satisfied. For this means that the whole case for the urgency of production, based on the urgency of wants, falls to the ground. One cannot defend production as satisfying wants if that production creates the wants.

This cycle of ever-increasing production, consumption, and labor, which generates artificial wealth and increasing misery, is now threatening to destroy the planet. The urgent but difficult task facing humanity is to stop this cycle.

Reversing the Great Transformation

Polanyi (1944) describes the Great Transformation as the process by which society became embedded within markets, reversing the natural relationship in traditional societies. To articulate this more clearly, the institutional structures of a capitalist society became central to our identities, while our social relationships became peripheral. My professional career became more important than my role as a husband, parent, or friend. This led to breakdown of communities, families, and increasing loneliness. Lane (2000) has described the "Loss of Happiness in Market Democracies". Critical to this transformation was the commodification of human lives and land. Demands of the labor market lead to an educational system which produces human resources, not human beings. When human lives are for sale on the marketplace, it is natural for money to become the most prized possession, the goal of our lives. The market also destroys the symbiotic relationship between ourselves and our habitat, and reduces planetary resources to their monetary values. This is the root cause of the environmental crisis. Effective solutions cannot be found without arresting the inexorable mechanisms for growth built into the capitalist machine. And this cannot be done without dismantling capitalism. That is a tall order.

I have argued that the central problem stems from defective epistemology. Positivism teaches us that the central questions we face in our lives are meaningless. There is no point in searching for meaning, because meaning cannot be found by scientific methods. Reuben (1996) tells us that this is a recent development. In the early 20th Century, the purpose of a university education was to build character, and to teach civic and social responsibilities. But, when positivist epistemology ruled these areas to be outside the boundaries of knowledge, they were gradually excluded from the universities. Since the roots of the problem lie in a corrupt epistemology, solutions must begin by correcting our theories of knowledge. But this should not be surprising to those of us persuaded by Foucault's equation of power and knowledge. Details of how one might launch a knowledge revolution, especially when what is taught in the universities is strongly influenced by wealthy donors, cannot be considered here. However, I will discuss some guiding principles which may be helpful in this struggle.

The central question which faces us all is: how can I make the best use of this infinitely precious gift of a few moments of life? This question is rarely discussed explicitly in universities anymore,

even though it has occupied our deepest thinkers for millennia. Nonetheless, it is too important to be bypassed. A modern university education offers three main types of answers to students:

1. Capitalism: The purpose of life is to acquire wealth and pursue pleasure.
2. Positivism: The question itself is meaningless, since it cannot be answered by data and logic.
3. Existentialism: No meaning is available in advance; you must create your own.

We will not pause to discuss why the first two answers are absurd, even though they are widely believed. The third answer deserves deeper discussion. Aligned with Enlightenment principles, it suggests that we should discard the entire intellectual heritage of mankind, and start to search for meaning on our own. Imagine if this counsel was given to a student of engineering, medicine, or mathematics! Even the greatest genius would not be able to progress beyond kindergarten level of thought. Our best hope is to search among the established philosophical traditions which have accumulated knowledge for centuries. It is worth noting that because of the immense importance of this question to our lives, good answers can quickly spread, especially in this age of instant communication. There are many instances of powerful ideas overcoming all adversaries, and changing the course of history. So, we do not need to be discouraged by the immense amount of power in the hands of the opposition.

Finally, a major defect of positivism is a solipsist approach to knowledge. Knowledge is a set of propositions about the world which I know to be true. In fact, knowledge is a social construct, and also experiential. There is no proposition which can capture my knowledge of how to drive a car. Launching a knowledge revolution involves building communities, ways of living, and social relationships. Since the Great Transformation involves prioritizing our market relationships over our social relationships, we can choose to reverse these priorities on a personal level. The first step is to reduce our standards of living – our roles as consumers, laborers, and producers. This is the degrowth strategy, but from a bottom-up perspective. This will create time for us to invest in strengthening our social relationships, which are the real sources of long-term happiness. In view of the increasing threats created by climate change, we could try to build self-sufficient communities in rural areas. I have provided somewhat more discussion along these lines in Zaman (2023).

In conclusion, the pursuit of meaning in our lives holds intrinsic value, irrespective of our ability to spark a knowledge revolution. Far from being the only valid source of knowledge, science is completely unable to provide us with guidance regarding the conduct of our personal lives. In fact, scientific methodology is confined to extrapolation of patterns from our past, and blind to the uniqueness of every moment of our lives. This shift in perspective is akin to a Zen practice, urging us to recognize the precious and unique nature of every moment—unlike any before and never to be repeated. Embracing this mindfulness unveils extraordinary opportunities, necessarily overlooked by a scientific approach fixated on past patterns, and offers us new and uncharted paths for the future.

References

- Ayer, A.J. (1964) 'The concept of a person', in *The Concept of a Persons and Other Essays*, MacMillan, pp.82–108; Note: Ayer credits the concept of 'feigning anesthesia' to C.K. Ogden and I.A. Richards
- Chalmers, A. F. (2013). *What is this thing called science?* Hackett Publishing.
- Cooter, R. and Rappoport, P (1984). 'Were the Ordinalists Wrong About Welfare Economics?' *Journal of Economic Literature*, 22 (2) June, 1984, pp. 507-530.
- De Vroey, M. (2016). *A history of macroeconomics from Keynes to Lucas and beyond*. Cambridge University Press.
- Easterlin, R. A. (1973). Does money buy happiness?. *The public interest*, v. 30 #3.
- Galbraith, J. K. (1998). *The affluent society*. Houghton Mifflin Harcourt.
- Hodgson, G. M. (2001). *How economics forgot history: The problem of historical specificity in social science*. Routledge.
- Keynes, J. M. (1931) "Economic Possibilities for our Grandchildren" *Essays in Persuasion* Ch. 5, CW, IX, 329–331.
- Lane, R. E. (2000) *The Loss of Happiness in Market Democracies*. New Haven, CT: Yale University Press
- Mäki, Uskali (Ed.) (2009) *The methodology of positive economics: Reflections on the Milton Friedman legacy*. Cambridge University Press.
- Manicas, P. (1987) *A history and philosophy of the social sciences*. Oxford, England: Basil Blackwell
- O'Neill, J. (2004) "Ecological economics and the politics of knowledge: the debate between Hayek and Neurath." *Cambridge Journal of Economics*, 28(3): 431-447.
- Polanyi, K. (1944) *The great transformation: The political and economic origins of our time*. Beacon Press
- Putnam, Hilary (2002) *The collapse of the fact/value dichotomy and other essays*. Harvard University Press.
- Reuben, J. A. (1996) *The making of the modern university: Intellectual transformation and the marginalization of morality*. University of Chicago Press.
- Suppe, F. (2000) "Understanding scientific theories: An assessment of developments, 1969-1998." *Philosophy of science* 67, S102-S115.
- Tawney, R. H. (1960). *Religion and the Rise of Capitalism*. Transaction publishers.
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