

6. Positivism in Social Science

This recasting of the meaning of a "suicide rate" allocates a constitutive role to coroners' verdicts, and implies a radically different point of departure from that of Durkheim. Whereas Durkheim begins with the "rates" of suicide as established "social facts" to be explained, the constructionist begins with the dead bodies and views the verdict of "suicide" as constitutive of the mode of death in virtue of being selected by coroners (on the basis of investigable reasoning and search procedures) from five available categories for characterizing corpses: natural cause(s), accidental death, homicide, suicide and "open verdict" (undecideable). It is the task of the social-scientific investigator to describe the rules governing the work of coroners and those contributing to his work, in particular the rules governing their ultimate decision-making. Studies based upon this re-specification of the program for the study of suicide in society (or of crimes, psychiatric diagnoses, etc., etc.), whilst generating illuminating and insightful observations of the workings of social institutions (coroners' offices, police departments, criminal courts, psychiatric clinics and hospitals, etc.), is clearly not logically suited to the provision of policy-relevant information (at least not by design).

For example, if Durkheim's anomie thesis is broadly correct, then suicide-prevention efforts should target populations living in identifiably anomic conditions, but the product of a constructionist inquiry along the lines espoused by Atkinson does not (in any straightforward way) lend itself to policy-relevant discourse about suicide as a social problem.

Anomie (Normlessness)

In Emile Durkheim's analysis of variations in rates of suicide, he appeals to the idea that such rates are related to the degree of social and normative integration of people into their communities or the wider society. A lack of such social integration is called "ANOMIC" after the Greek "an" (without) and 'nomos' (law).

7. Probabilistic Reasoning

Another response to the critics of positivism was the assertion of the central role of probabilistic reasoning and its contrast to nomological explanation.

Carl Hempel's famous "covering law" conception of causal explanation in natural science, or the "deductive-nomological" model, held that when such explanations can be adduced and demonstrated to be true, there is a symmetry between explanation and predictive power. Thus, for example, since we know that the correct causal explanation for photosynthesis in plants is the interaction of sunlight with chlorophyll, we can predict when it takes place and when it does not. However, contrary to Hempel's claim that such symmetry works also with "inductive-statistical" propositions, Donagan (1966) argued that probabilistic propositions are asymmetrical with respect to prediction and explanation. Thus, if I draw a white marble from an urn filled with a hundred marbles, ninety-nine of which are white and only one is black, the probability of my having done so is equal to .99. However, knowing this probability only enables one to predict with a reasonably high expectation of success which color marble could be drawn in any draw: it does not explain why I picked a white one rather than the black one. For that, a wholly different sort of story needs to be told. (For more discussion, see Coulter, 1996).

In Donagan's words:

"With respect to explanation, chance situations where the odds are equal do not differ from those where the odds are fifty to one or a thousand to one"
(Donagan, 1966:133).

Now, one can indeed argue that for some classes of explananda, having probabilistic information about their occurrence can be useful in guiding the investigator toward the ultimate goal of causal explanation, but this will not be generally the case. As Winch argued, human actions can be distinguished from purely natural events in large measure by reason of their intentionality, purposefulness, and constitution by governing rules, so that explanation of a causal, nomological sort is logically inappropriate. Nonetheless, probabilistic information about the distribution of types of activities (e.g., criminal ones of a specific type) can indeed be useful and, within limits, predictive in scope. By itself, however, a probabilistic proposition is not an explanatory one.

8. Purposes of Social Research

At this stage, it may appear that our intellectual options are such that we must begin to distinguish between the purposes for which sociological research is conducted. Applied social research has mushroomed in recent decades, and much of its business is conducted beyond the walls of academe. Theoretically-driven studies in the social sciences are still largely the province of the Academy, although this is not to suggest that applied research never concerns itself with theoretical issues. Nonetheless, something of a division of intellectual labor has arisen, and since research objectives are always purpose-dependent, choices among paradigms of sociological work have become increasingly functions of investigators' commitments either to policy relevance or to intellectual insight "for its own sake." Those who disparage the latter pursuit should remember that one of the greatest achievements in the history of the natural sciences – the theory of the evolution of the human species – has, in itself, no practical usefulness (unless we count things like its utility for Dawkins (2006) to bash religion!). On the other hand, even the most staunchly anti-positivist cannot but admire the achievement of, for example, Peter M. Blau and Otis Dudley Duncan in the production of their ground-breaking work, *The American Occupational Structure* (1967).

Some scholars have argued that the division of labor between "applied social researchers" and academic social scientists, although far from being a hard-and-fast distinction, is akin to that between, say, theoretical physics and engineering predicated upon its achievements, but this may be too grandiose an analogy given the current state of the social sciences. Further, it does not really capture the core intellectual issues at stake. Theoretical linguists are rarely, if ever, in the business of trying to instruct native speakers to speak "more grammatically" than many of them may do, while on the other hand there are many academically-based economists whose primary interest lies in producing results of use and interest to business people, entrepreneurs and government officials. Sociologists occupy a broad territory of inquiry, and some of them straddle the worlds of pure social theory and policy application, although very few do so successfully. The public intellectual with roots in sociology is more likely to morph into a political commentator than he is into a genuinely scientifically-driven arbiter of social problems. Indeed, it is still an open question as to whether anyone could legitimately claim the latter mantle which was, in fact, one of Durkheim's leading ambitions for sociology.



Exercise 1: Social Science Concepts

There are several theories related to the concept of science in social science – match the theory with the expert.

Logical Grammar

Falsifiability Criterion

Social Causation

Rule-governed Behavior

Biostatistical Law

Theorist	Concept
Durkheim	
Winch	
Wittgenstein	
Popper	
Farr	

9. 'Science' in the Social Sciences

Geology does not look anything like astrophysics, and genetics is a far cry from particle physics. Botany may share with psychiatry a classificatory impulse, but the similarity surely ends there. Computer science does not look much like medical science, and cognitive science does not remotely resemble classical mechanics. What, then, to make of the issue of "scientificity," if one can be allowed the use of such a neologism.

We now focus upon the central theme of this discussion: the role of the concept of science in the "social sciences." The "demarcation problem" in the philosophy of science, the central problem for Karl Popper and a host of his successors, was essentially one of formulating criteria to distinguish between genuinely scientific enterprises and failed contenders (e.g., astrology, alchemy, and, according to Popper, Freudian and Marxist theory) and other "pseudo-sciences."

Popper himself relied heavily upon one criterion for distinguishing between a genuine candidate for the status of a scientific proposition and other kinds of propositions which ought not to qualify, and that was his idea of "falsifiability," but this alone could not exhaustively characterize the nature of any and all scientific claims. Among the critical philosophers of the social sciences we have mentioned, it was probably A. R. Louch who, in his *Explanation of Human Action* (1966), went as far as to disparage even economics as simply a glorified form of double-entry book-keeping, abjuring the notion that economics was possessed of any genuine laws (notwithstanding claims for "the law of supply and demand", "Say's law", and others). Today, this would seem to be a caricature of, for example, contemporary econometrics, but insofar as the criticism had bite, it raised the issue of what sort of animal comprises a "science" in the domain of studies of human-level phenomena which transcend human biology – sociology, social anthropology (contrasted to physical anthropology), economics, political "science", psychology (other than its physiological branch) and others. To the pantheon of the "social sciences" we have witnessed a proliferation of other contenders – library science, management science, nursing science, communication science, and so on. Their varieties of methodologies, substantive foci, and intellectual contents are huge, but then so are the varieties of established (even "establishment") natural sciences.

9. 'Science' in the Social Sciences

To a significant extent, even the goal of mathematical precision is hardly a unifying feature of enterprises we term "scientific" these days, although it remains true that mathematical reasoning is still enormously significant in many such fields. Even the goal of formulating universal "laws" has become restricted in its legitimate scope, especially in sub-atomic physics as well as in certain areas of biology. A good deal of classical social theory, especially many of the contributions of the European founders, saw classical Newtonian mechanics as the paradigm for a genuine science and a model to be emulated. Note the (intended) similarity between Durkheim's "anomie" proposition and the Inverse-square Law! Today, classical mechanics is no longer center-stage in the world of natural-scientific inquiry, and very few contemporary professional social scientists still aver to it as having any special status.

Leaving aside for the moment the possibly hopeless task of trying to discern "the essential features" of "science", as if it were a monolithic phenomenon, it is important to note the honorific character of the concept. In this sense,

Something which is genuinely worthy of the name of "science" is considered to have succeeded in generating knowledge of a rigorous kind, is considered to have transcended mere "common sense", is thought to be trustworthy, reliable and, above all, "objective" rather than subjective in nature.

Debates about "objectivity" in sociology and other social sciences have been conducted over many decades. There have been several threads to the issue. One has been the Weberian problematic of "value-freedom": to what extent can sociological knowledge-claims be distinguished from ideologically-committed pronouncements? Another has been the problematics of "meaning" in human affairs: how can "meaningfulness", surely a major characteristic of social and behavioral phenomena, be handled "objectively"? In concluding this overview, let us consider these concerns seriatim.

The issue of "value-neutrality" was never intended to encompass the social scientist's own personal moral and civic responsibilities as a citizen: it was designed as a regulative ideal which

insists that any social-scientific investigator bracket his or her political/ideological commitments in the service of producing claims, arguments, findings or theoretical propositions which truly reflect the character of his or her study. Of course, what such an investigator may decide to study could very well be motivated by any sort of ethical, political or ideological interest. But that is, essentially, beside the point. The Weberian insistence on "wertfrei soziologie" ("value-free sociology") was an insistence that the researcher, having for whatever reason decided upon his topic of inquiry, conduct his inquiry in such a manner that his own predilections be set aside. This is not so arduous a constraint as some have tried to make it out to be.

9. 'Science' in the Social Sciences

The harder question has been the second in our list: the problematics of "meaning" and "meaningfulness." How can a social science handle objectively social and behavioral phenomena which are constituted by the intelligibility which they have, and without which they are not even recognizable? Again, Winch's use of the later work of Wittgenstein can guide us here. Consider the following distinction: what something means to me (or to you, or to him or her, etc.) is not identical to what it means or, *more simply*, i.e., in the sense that it can be shared with others.



Example 1: Personal vs. Intersubjective

I was born and raised in Liverpool, England. The personal significance (in this sense of 'meaning') of 'Liverpool' is wholly idiosyncratic to me (but also perhaps to many others): it would encompass having visited the Cavern Club where the Beatles first performed, it would encompass the arrival of African-American sailors at the docks holding vinyl records of Stax and Motown artists which they would sell to local record retailers, and so forth.

However, what 'Liverpool' means simpliciter is (roughly) that it is the name of a large port city in the upper northwest of England. In other words, we can distinguish two sense of 'meaning', one sense is that of 'personal significance' (of interest to biographers, but not to social scientists), and the other sense is that of, to borrow a phrase from phenomenological philosophy, 'intersubjective' intelligibility, which has nothing to do with idiosyncratic meaning but everything to do with socially-shared meaning. And it is the latter which alone concerns the social scientist. To put it bluntly, intersubjectivity is as close as we social scientists can approximate to the 'objectivity' of natural phenomena. Does this preclude us from the mantle of 'science'? If so, from the mantle of which science?



Exercise 2: Personal vs. Intersubjective

Please select which expression reflects *personally meaningful (significant)* versus what is *intersubjectively intelligible*. Note that while these distinctions can occasionally be blurred, the point of this exercise is to capture the importance of TWO sorts of 'meaning' which Winch and Wittgenstein wish to distinguish for specific analytical purposes.

Drag and drop the phrases below into their appropriate category. When complete, click the button below to see if you correctly identified the phrases.

Personally Meaningful

Intersubjective

Emerald is my wife's favorite colored brooch.

England is part of the United Kingdom north-west of France.

Public speaking makes me nervous.

Fenway Park is an historic baseball park in Boston.

The Grand Canyon is a steep-sided gorge in Arizona.

Claude Monet was a founder of French impressionist painting.

Tulips bloom in my front yard each spring.

Summer is the season following spring.

Green Eggs and Ham is my daughter's favorite book.

Brazil is where I love to watch soccer.

Tulips blooming is my favorite sign of spring.

Hiking in the country is relaxing.

10. Summary

In this chapter we discussed the social sciences as they pertain to the objective of the causal explanation of types of human conduct. To do so, we considered the relevance of logical analyses (Wittgenstein) to some central methodological issues in sociology and other social sciences.

Ultimately, sociological and other social-scientific work has to be judged on its intrinsic merits (of rigor, of originality, of cogency, and of many other virtues and values), such that debates like those which Peter Winch initiated over half a century ago can be set aside.

Striving to attain some ideal of "scientificity" has become less of a noble objective and, where it still persists, more of a shibboleth. Good, interesting, insightful, productive, rigorous work can be judged for what it is without our having to ask (and re-ask) the question – yes, but is it SCIENCE?

11. Glossary of Terms

GLOSSARY

Anomie

In Emile Durkheim's analysis of variations in rates of suicide, he appeals to the idea that such rates are related to the degree of social and normative integration of people into their communities or the wider society. A lack of such social integration is called 'Anomic' after the Greek "an" (without) and 'nomos' (law).

Classes of Explananda

This expression means: 'types of things to be explained'. In studies of methodology, the terms explanans (Latin for: explanation) and explanandum (plural: explananda) (Latin for: that which is to be explained) are commonly used. In this text, the distinction is being strongly drawn between two distinctively differentiable types of phenomena to be explained: (1) human actions and practices and (2) social 'states of affairs'. Since one can compute 'rates' for either explanandum, it is important not to conflate their logical differences. Thus, for example, a 'rate of suicide' is a rate of the occurrence over time of a type of human action (the act of intentional self-destruction). The 'rate of mortality' is a rate of occurrence of something (death) which is not an action but an event. The 'rate of inflation' is an index of a social 'state of affairs' (viz., the degree to which certain commodity prices are rising over a period of time), and so forth. The latter 'rates' are not 'rates of the occurrence of human actions', even though it can be argued that 'inflation' is a product of human actions and decisions of such variety, range and complexity as to defy independent treatment and aggregation, hence the explanation of a 'rate of inflation' will have a wholly different form and logical status to an explanation of a 'rate of mortality' which in turn will not resemble an explanation of a 'rate of occurrence of a type of human action, such as a criminal act of type X, etc'.

Falsifiability

Sir Karl Popper's well-known central criterion for characterizing an empirically-grounded proposition as a candidate for a scientific explanation as, indeed, 'scientific'. Popper held a metaphysical view of induction and truth rather than a commonsensical, everyday conception, and so he argued that no scientific proposition can ever be conclusively verified

(i.e., shown to be true), but he did believe that a genuine candidate for a scientific proposition must be supportable by some characterization of a method for how other investigators might attempt to demonstrate its falsity. Only such in-principle 'falsifiable' propositions ought to be permitted to enter the canon of a science.

Nomological, Nomological Status

For a proposition to be nomological is for it to express a universal law (again, from the Greek 'nomos', meaning 'law'). An example of a nomological statement which is true would be: a falling body in a vacuum falls at 32 feet per second squared). The nomological status of a proposition is its relationship to a lawful statement in the context of a scientific investigation or scientific theory.

Positivism, Positivist

This term refers in this text to the idea that the study of human affairs in any of their trans-biological dimensions can only be accomplished, or can best be accomplished, by using principles of inquiry drawn from other, established, natural sciences. Such principles can include the goal of lawful generalization, of causal explanation, of idealization of instances to facilitate generalizing typologies of phenomena, of measurement, and so on.

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