'Science' in the Social Sciences

1. Learning Objectives

After reviewing this chapter readers should be able to:

- Understand the nature and scope of a controversy in the philosophy of the social sciences regarding the causal explanation of types of human conduct.
- Appreciate the relevance of later Wittgenstein analyses to some central methodological issues in sociology and other social sciences.
- Understand the limits as well as the strengths of the critique of the social sciences offered by Peter Winch and some of his contemporaries.
- Grasp the relationships that obtain between certain methodological strategies and the purposes of investigators in selecting them.
- Become clear about the concept of 'science' in the social sciences and the ways in which it is used and also sometimes misused.

2. Introduction

Two works of lasting influence on the theory and practice of the social sciences were Emile Durkheim's Suicide (1897) and G. Yule's An Introduction to the Theory of Statistics (1911). Both advanced the thesis that statistical data can be used to identify the causes of socially distributed phenomena. In the middle of the twentieth century, however, several philosophers began to question what had by then become orthodox in social-scientific methodology. In this section, we shall examine some of their arguments and attempt to locate the areas of interest in which they were, and remain, pertinent, and to isolate areas of inquiry where the 'orthodoxy' can be insulated against some of their criticisms.

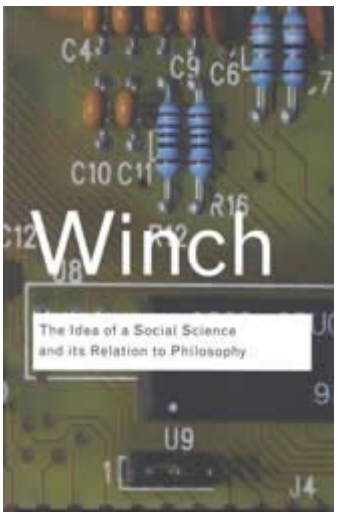
Émile Durkheim (1858 – 1917)

Émile Durkheim was a French sociologist whose contributions were instrumental in the formation of sociology and anthropology. His work and editorship of the first journal of sociology helped establish it within academia as an accepted social science. During his lifetime, Durkheim gave many lectures and published numerous sociological studies on subjects such as education, crime, religion, suicide and many other aspects of society. He is considered one of sociology's founding fathers.

G. Udny Yule (1871 - 1951)

G. Udny Yule was a British statistician who made important contributions to the theory and practice of correlation and association and to time series analysis.

3. Use and Interpretation of Statistical Data



Perhaps the leading figure in the philosophical dispute about the use and interpretation of statistical data in the social sciences was Peter Winch. In his book, *The Idea of a Social Science and Its Relation to Philosophy* (published in 1958 and still in press), Winch exploited Wittgenstein's revolutionary re-thinking of the concept of 'grammar' and sought to apply it to topics central to social-scientific thought and research – action, reason, explanation, causation, rule and others. For the later Wittgenstein, 'grammar' encompasses far more than it does in traditional linguistics: it comprises the rules of use of words and expressions in the language of everyday life, and not just the 'syntax' of such expressions. Applying Wittgenstein's method of 'grammatical elucidation', Winch argued that the concept of a 'cause' is not logically (grammatically) appropriate for the explanation of 'human action' in the sense in which the word 'cause' is used in the natural sciences.

*Image Courtesy of Francis & Taylor, Inc.

For Winch, "all behavior which is meaningful (therefore all specifically human behavior) is ipso facto rule-governed" (Winch, 1988 ed.,:52). Rules are not determinants, since it is a central feature of the concept of a 'rule' that rules can be broken, and this is in sharp contrast to the causal concept of a 'law' (in the natural-scientific sense of this word). Thus, for example, Durkheim's effort to explain acts of intentional self-destruction (suicides) in causal terms would constitute a logically inappropriate program, and not simply one that failed to work out empirically as rigorously as he had hoped.

At first blush, Winch's critique appeared devastating to the entire enterprise of constructing a social science. The promise of Yule's arguments about using statistical data in order to discover etiological (causal) connections in the domain of the social world, and, along with it, the promise of being able to predict outcomes and from there to control them by means of informed social policies, appeared misconceived at best. However, it is crucial to bear in mind that Winch's argument pertained solely to human actions or activities. Social states of affairs such as rates of inflation or levels of (un)employment cannot be exempted from causal reasoning, and because such states of affairs lend themselves to quantification and measurement the project of causal

modeling could proceed, with whatever limitations that might arise in their construction being practical rather than
logical.

Whether or not causal propositions in economic theory are strictly lawful or 'nomological' is still a debated issue, but this need not concern us here. See Hausman, 1994, Parts II and III for some discussion.

*Winch, P. (2007). *The Idea of a Social Science and Its Relation to Philosophy*. London and New York: Routledge Classics.

Ludwig Wittgenstein (1889-1951)

Although he suffered from depression, social anxiety, and isolation, Ludwig Wittgenstein was a mathematical genius and philosopher who spent his life in and out of the most renowned academic circles in Europe. Even though his contributions were sporadic, they gained him unprecedented prestige, which he shunned wholeheartedly.

"In what sense are my sensations private—Well, only I can know whether I am really in pain; another person can only surmise it.—In one way this is wrong and in another nonsense. If we are using the word to know as it is normally used (and how else are we to use it?), then other people very often know that I am in pain.—Yes, but all the same not with certainty with which I know it myself." Wittgenstein, 1953: 23, 246).

4. Causal Reasoning

The same holds true for causal reasoning about states of the organism, an important feature of epidemiological and biostatistical reasoning. Nonetheless, as we learn from Turners's (1997) illuminating discussion of the history of theories of cholera (see also Hughes and Sharrock, 2007:174-75), deriving etiological theories from statistical materials alone has its hazards.

William Farr studied cholera and its concomitants.
Farr's biostatistical 'law' asserted that halving the elevation above sea level in areas where people lived would double the mortality rate for cholera.

William Farr (1807-1883)

Enter **John Snow**, now known as the first epidemiologist.
During an outbreak of cholera in London in 1854, Snow plotted on a map the location of all the cases he learned of. Water in that part of London was pumped from wells located in the various neighborhoods. Snow's map revealed a close association between the density of cholera cases and a single well located on Broad Street. Removing the pump handle of the Broad Street well put an end to the epidemic. This despite the fact that the infectious agent that causes cholera was not clearly recognized until 1905.

Snow's painstaking research showed that what Farr had derived from his statistical distributions culminated in a mistake: his so-called 'law' held only for the 1849 epidemic, and pointed toward the wrong hypothesis: Snow concluded that the relationship which Farr had described was "the result of coincidental circumstances specific to that epidemic" (Hughes and Sharrock, 2007:174-75). Snow propounded the thesis that cholera is a water-borne disease.

Figure 1: John Snow Cholera Map

John Snow's map showing cholera deaths in London in 1854. The Broad Street well is marked with an X (within the blue circle).

Play | Pause | Play Again

4. Causal Reasoning

Although an association between two phenomena is no more than that, one can apply criteria to gauge the strength of the association, and if it is strong, infer that one phenomenon causes the other.

The five criteria:

- A high relative risk
- Consistency
- A graded response to a graded dose
- A temporal relationship
- A plausible mechanism

> **"In light of Snow's hypothesis, Farr tried to modify his own theory to allow the possibility that impure water had a role in the transmission of the disease by treating Snow's mechanism as one contributory variable among others and calculating the net effect. The impurity of water was a net effect established by subtracting the supposed main effect of elevation" (Hughes & Sharrock, 2007:175).**

The actual causal process, however, was not additive (i.e., it was not any combination of impure water with some other factor or factors), and only experimentation could demonstrate the real causal mechanism. Nonetheless, epidemiological work can surely on occasion contribute to the identification of causal agents.

Although it is true that the expression: 'smoking causes lung cancer' is not nomological, the statistical association which it represents points researchers in a productive research direction, e.g., the detailed inspection of the micro-properties of the bronchioles and alveoli of the lungs and the examination and isolation of the chemical constituents of tobacco smoke, etc.

5. Psychiatric Epidemiology

Although certain epidemiological enterprises have wholly legitimate etiological aspirations, one area of epidemiological inquiry has generated a variety of significant interpretive problems, and this is the field of psychiatric epidemiology. Psychiatric syndromes are often "functional" ones: i.e., there is no organic marker for their diagnosis which must therefore depend solely upon behavioral (including communicative) data, so they do not fit into the broader epidemiological category of "diseases of the organism."

> **"...it has been widely claimed that the highest overall rates of mental disorders of all kinds are found among members of the lowest socio-economic groups..."**

Since the pioneering work of Robert E. Faris and H. Warren Dunham (1939) and August B. Hollingshead and Frederick C. Redlich (1958), it has been widely claimed that the highest overall rates of mental disorders of all kinds are found among members of the lowest socio-economic groups, a finding which Ronald Kessler and his colleagues (1994) have more recently described as remarkably persistent over time and geography.

This research raises the questions:

- Are psychiatric syndromes differentially present in lower socio-economic groups (i.e., is their prevalence class-based)?
- Or does the research rather show that psychiatrists are more apt to diagnose mental disorders in such groups than in other ones in a society?

There are further questions to be raised:

- Are community standards of tolerance for systematically aberrant behavior narrower and stricter among members of lower socio-economic groups such that persons exhibiting such behavior are more likely to be referred for psychiatric diagnosis and treatment?

- Are psychiatric professionals dealing with members of lower socio-economic strata more likely to construe lower-class deviances of conduct in psychiatric terms than the behavioral anomalies of members of other social groups?

Given the well-documented fact that levels of inter-clinician diagnostic reliability are much lower for psychiatric syndromes than for organic ones (see Kirk and Kutchins, 1992, Chapter One), interpretive problems loom large for the results of psychiatric epidemiological studies.

Perhaps the most pressing issue remains:

- **If such syndromes do have discoverable etiologies, will these be organic or social-environmental in nature?**
- **If the latter, what sort of variables or factors could be postulated to have causal efficacy, given that the social environment is largely experienced through the ways in which it is conceptualized by its members?**

6. Positivism in Social Science

Returning to Winch: recall that one of the main targets of his Wittgensteinian critique of positivist theorizing and research was the notion that human conduct – rule-following behavior – could be etiologically explained after the fashion of causal explanations in various natural sciences.

> **Positivism**
> is a philosophy that states that the only authentic knowledge is scientific knowledge, and that such knowledge can only come from positive affirmation of theories through strict scientific method.

The Durkheimian proto-multivariate approach to the explanation of variations in the suicide rate was predicated upon the idea that 'suicide' cannot be rationally explained (that is, by the reasons given by its perpetrators in pre-suicidal communications such as suicide notes) and that the only true explanation would have to be sought in the analysis of statistical associations. His putative 'law' – that suicide rates vary inversely with the level of social integration of social groups of which the individual forms a part – was intended to be a causal generalization, although it clearly falls short of nomological status due to its failure to satisfy the counterfactual conditional (that is, it is not true that, absent a state of anomie, people will not commit suicide).

Some subsequent commentators have argued that, while not lawful, Durkheim's generalization may point one in the direction of some to-be-discovered etiological connection between lived experiences in society and suicide rates. However, it is ungrammatical in the Wittgensteinian sense to propose that suicides are all caused by something rather than being (sometimes) the result of rational processes of deliberation and decision-making, of choice. If something is a chosen course of action, it is (grammatically) not something about which the agent had no choice, i.e., he or she was simply caused to do it. (Which is, of course, not to deny that some cases of suicide are ones in which one might argue the agent had no alternative, was compelled to commit the act).

Other philosophers of social science, most notably MacIntyre (1962), Louch (1966), Taylor (1967) and Pitkin (1972), took up similar issues to those raised by Winch in his 1958 monograph. Despite some differences in argumentative style and emphasis, all agreed that any

project aspiring to adduce explanations of human actions (including, of course, the act of suicide) in terms of causal generalizations is ab initio doomed to logical incoherence. However, as Pawson (1989) rightly observed, positivism in social science may have lost its battles but it won the war with its critics. How did this happen.

6. Positivism in Social Science

One reason why the Winch-inspired attack on positivism failed to capture the mainstream in social science was that the available non-positivist alternative research strategies and theoretical perspectives appeared to offer no prospect of usefulness in terms of social policy formation. Especially in the United States, sociological research had become an increasingly policy-oriented and hence largely statistical pursuit. Competing schools of thought, arguably more compatible with the critique of positivism, such as the Chicago version of symbolic interactionism, phenomenological sociology, ethnomethodology and social constructionism, offered no programmatic, let alone substantive, link to policy in the fields of education, crime, health, suicide prevention, and so forth.

Émile Durkheim - Le Suicide

French sociologist Émile Durkheim found that the rate of suicide among bachelors was higher than among widowers and much higher than among married men. In other words, being integrated into a family group seemed to reduce the risks of suicide.

Many studies have subsequently supported the idea that a higher incidence of suicide often accompanies the disintegration of communities and the resulting isolation of individuals. This social disintegration is often caused by rapid social changes that render traditional standards of behaviour obsolete without providing any new ones that individuals can clearly identify.

Consider the "constructionist" alternative to the Durkheimian program for the study of suicide. Atkinson (1978), drawing upon some of the arguments advanced by Sacks (1963,1967) and Douglas (1967), proposed that Durkheim's definition of the "rate of suicide" – the number of people who kill themselves in a given period of time in a given area in relation to the rest of the population – misses a crucial consideration, and should instead read: "the number of people who have killed themselves according to the coroners' records of suicide verdicts in a given period of time in a given area..."

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 mantel 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 mantel of 'science'? If so, from the mantel 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 broach.
- 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 draw 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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