New Keywords

A Revised Vocabulary of Culture and Society

Edited by
Tony Bennett
Lawrence Grossberg
Meaghan Morris

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Science

There are words in the culture which scientists are so highly prized that they have scarcely any competition at all. Take, for instance, "reality," "reason," and "truth." And take it for granted that all culture speaking most authoritatively in the name of science is called science. The instability of reference flows partly from the ways in which "science" folds together description and prescription. It is generally considered good to be scientific and to speak in the name of science, and, for that reason, there are many claimants to the title: domestic science, nutrition science, management science. More practices now represent themselves as scientific than ever before.

At the same time, there is a sense in which fewer things are now scientific than ever before. In the early modern period, the Latin scientia just meant knowledge, usually in the sense of a systematically organized body of knowledge, acquired through a course of study. Francis Bacon's *De augmentis scientiarum* (translated in the C17 as *The advancement of learning*) catalogued "the division of the sciences," which were taken to include history, philosophy, the principles of morals, and theology (traditionally, "the queen of the sciences") (Fisher, 1990). When, in 1660, the newly founded Royal Society of London wished to indicate that they were not much concerned with things like civil history, politics, and dogmatic theology, they described their business not as "science" but as "the improvement of natural knowledge." During the course of the C19 and especially the C20, "science" came overwhelmingly to pick out those practices proceeding by observation and experiment, thus jettisoning history and philosophy and leaving the social sciences a courtesy title, with limited credibility in the general culture or among natural
scientists" (Geertz, 2000). Moreover, the global authority of natural scientific method has been increasingly disputed by those human and social "scientists" who reckon that the Geisteswissenschaften (or human sciences) ought to reject the procedures and goals of the Naturwissenschaften (or natural sciences).

Linguistically, this more restrictive sense of "science" was an artifact of the way English usage developed and changed in recent centuries. Into the C20, and up to the present, the F plural les sciences had a greater tendency to acknowledge procedural and conceptual similarities between, say, geology and sociology, as did the Russian singular nauka (with its Slavic cognates) and the G Wissenschaft (with its Scandinavian and Dutch cognates). Vernacular English once employed "science" in its original inclusive L sense (as in the skeptically proverbial "Much science, much sorrow"), but by the C19 "science" did not usually need the qualifying "natural" to summon up the idea of organized methodical research into the things, phenomena, and capacities belonging to nature as opposed to culture.

How this shift occurred is still little understood. One of the leading aims of influential C17 English experimentalists was the rigorous separation of bodies of knowledge and epistemic items capable of generating certainty from those which were at best probable or at worst conjectural, arbitrary, or ideologically colored. Insofar as the natural sciences were founded on a basis of legitimate fact, with disciplined means for moving from fact to judiciously framed causal account, they were capable of generating a just degree of certainty. By contrast, those intellectual practices which were founded on speculation or metaphysical dictate, and which were buffeted by human passion and interest, were unlikely to yield consensual certainty. The Royal Society protected the quality of its natural knowledge by policing the boundary between it and the potentially divisive "affairs of church and state" (Shapin, 1996). The condition of certainty in natural knowledge was, thus, a publicly advertised methodical separation between knowledge of things and knowledge of morals, between "is" and "ought." It was just very hard to keep human passions and interests at bay when the objects of inquiry were things to do with the human condition, and so the prerequisite for scientific certainty was a degree of moral inconsequentiality. A quality of certainty was, therefore, one means by which the prized designation of "science" might be exclusively attached to methodically proper inquiries into nature. In fact, such an imperative and its boundaries were embraced in C17 England with greater enthusiasm than in France, where René Descartes promised that the outcome of his philosophical method would include a demonstratively certain science of morals.

Another distinction, increasingly important through the C19, was the ability of intellectual practices to predict and control their objects. Bacon's dream was to enlist methodically reformed natural knowledge in the expansion of man's, and the state's, dominion, but the argument for the material utility of theoretical science was not widely credited until the C19, and was not decisively secured until Hiroshima experienced the power which theoretical physicists were capable of unleashing. As the ultimate patron of organized
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inquiry, the state was to pay for those intellectual practices which could demonstrably enhance its power and increase its wealth. There was much residual skepticism to overcome, but, by the mid-19th century, most Western states had begun to accept their role as paymasters for a range of natural sciences, including certain strands of cartography, geology, astronomy, botany, zoology, physiology, chemistry, and physics.

The emergent human sciences made utilitarian claims as well. Governments promised the delivery of certain, causal knowledge of the springs of human action, knowledge of which lay knowers themselves were unaware, and knowledge whose possession could be used not just to understand but to manipulate human conduct and belief, exactly as if human beings were molecules (Bauman, 1992). Here the promise of methodically guaranteed certainty — on the model of the natural sciences — might index the capacity of the human sciences to predict and control. Such attempts did not fall utterly. Many modern governmental and commercial practices powerfully, if imperfectly, predict and manage human conduct through embedded forms of social-science-in-action. Consider, for example, projections of retail expenditures, traffic engineering, the design of kitchen appliances, and the arrangement of goods on supermarket shelves, though the relations between these embedded practices and academic inquiries is problematic. Moreover, the human sciences have the tremendous capacity, occasionally and uncontrollably, to realize their concepts, to see them become vernacularized, and thus a constitutive part of the world that expertise seeks to describe and explain. Consider the careers of such concepts as “charisma,” “penis envy,” “being in denial,” and “the grieving process.” But the human sciences have never managed the trick of establishing their unique expertise as sources of such knowledge; these are domains in which the laity do not always defer to academic experts. Accordingly, the flow of cash from government and industry to the different modes of academic inquiry is a vulgar, but surprisingly reliable, index of what is now officially accounted a science and what is not.

The official reference of “science” promises some definitional stability and coherence. Suppose one just says that science is what is done in the departments of a science faculty; that it is what the US National Science Foundation, and the science bits of the Research Councils UK, fund; that it is what’s found in the pages of Science magazine; and what’s taught in science classrooms. This “institutional” or “sociological” sensibility highlights the sense in which one can rightly say that the modern “we” live in a scientific culture while acknowledging the fact that a very significant proportion of that culture’s inhabitants have little idea of what scientists do and know.

But just because the “official” or “sociological” definition of science sets aside its prescriptive aspect, few intellectuals have been content to leave matters there. Efforts to demarcate science from lesser forms of culture, and to make science available as a pattern to be emulated, have traditionally involved the specification of its supposedly unique conceptual content and, especially, its uniquely effective method. Yet, for all the confidence with which various versions of the scientific method have been propounded over the past several centuries, there is but one method, that of the empirical, paradigmatic kind, that is continually to be offered up as the exemplar of all such methods. Talk about “the scientific method.” In the early to mid-20th century, the bases of that unity, but, since 1962, the flourishing of a variety of more relaxed and naturalistic methods (Shwed, 2001). Disunity, a common phenomenon in many sciences, are not the natural sciences coherently existent? Yet, for all the localized acumen, the nature of science, the outrance of some of the 1970s testify special, even sacred in its integrality and identity of science is to challenge and that is one reason why the substantial consensus about what.

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Steven Shapin

See: EMPIRICAL, KNOWLEDGE

Self

The notion of self is one of the most often used concepts in cognitive science, and its study has been a central focus of research in psychology, sociology, anthropology, and philosophy. The self is defined as an individual's subjective experience of oneself, including one's conscious awareness of one's own physical, mental, and emotional states. It is the sense of being an entity distinct from one's environment, and it is a fundamental aspect of human consciousness. The self is also a dynamic construct that changes over time and is influenced by various factors such as social interactions, cultural values, and personal experiences.

In the context of psychology, the self can be divided into two main components: the self-schema and the self-concept. The self-schema refers to the mental structures that organize and interpret information about oneself, while the self-concept refers to the actual knowledge and beliefs about one's own characteristics and abilities. The self is also closely related to the concept of identity, which refers to the sense of personal continuity and stability over time.

The study of the self has important implications for understanding human behavior and psychology. For example, the self-concept is believed to influence decision-making, social relations, and mental health. The self-schema is also thought to play a role in the way individuals process information and make judgments. Overall, the self is a complex and multifaceted construct that is essential for understanding human behavior and psychology.
the past several centuries, there has never been anything approaching consensus about what that method is (Rorty, 1991; Shapi, 2001).

Talk about “the scientific method” is predicated upon some version of the “unity” of science. In the early to mC20 many philosophers embraced a moral mission to formalize the bases of that unity, but, since T. S. Kuhn’s (1970) *Structure of scientific revolutions* in 1962, the flourishing of a variety of “disunity” theories indexes the local appearance of a more relaxed and naturalistic mood (Cartwright, 1999; Dupré, 1993; Schaffer, 1997; Shweder, 2001). Disunity theorists doubt that there are any methodical procedures held in common by invertebrate zoology, seismology, microbial genetics, and any of the varieties of particle physics, which are not to be found in non-scientific forms of culture. How can the human sciences coherently either embrace or reject “the natural science model” when the natural sciences themselves display such conceptual and methodological heterogeneity? Yet, for all the localized academic fashionability of naturalism and pluralism about the nature of science, the outraged reactions to these tendencies which surfaced in the *science wars* of the 1990s testify to the remaining power of the idea of science as integral, special, even sacred in its integrity (Shapi, 2001). To dispute the coherent and distinct identity of science is to challenge its unique and coherent value as a normative resource, and that is one reason why the idea of a unitary science persists in the absence of any substantial consensus about what such a thing might be.

**Steven Shapi**

See: **EMPIRICAL, KNOWLEDGE, OBJECTIVITY, THEORY**.

**Self**

The notion of *self* is one of the most ubiquitous in the lexicon of the modern West. We speak effortlessly of the difference between our *true self* and our *ordinary selves*, in a language where we *confide in ourselves*, experience *self-doubt*, and sometimes take a *good long look at ourselves*. We hear daily discussions of *self-esteem, self-talk, and self-empowerment*, coming from psychologists, counselors, talk-show hosts, advice columns, and a multitude of *self-help* books, videos, and on-line guides. Yet, in the opposite direction, a powerful stream of theory insists that the *self* is only the surface effect of impersonal or unconscious forces. The notion of self is now precariously poised between indispensability and non-existence.

Things were not always thus. Not all cultures have posited a self in the sense of a single inner source of conscience and consciousness dedicated to self-reflection. The Homeric Greeks invested the individual with multiple sources of thought and action, some of them being conduits for supra-human forces and gods transmitting the vagaries of fate and fortune directly into human agency and judgment (Dodds, 1973). In medieval English, “self” referred not to an inner personal identity but to the generic idea of sameness, whose