

Narrative and the Human sciences: Genre and Modes of Explanation

There are sciences and there are sciences: molecular chemistry, the ethnographical work of anthropology, astrophysics, quantitative research in economics and sociology, botany, medicine, comparative work in politics or in biology; the big-bang theory and world-systems theory; so too within what is called 'the humanities' there are a variety of concerns, styles of inquiry, genres. Thus, history, philosophical analysis, comparative literature, literary criticism, poetry, biography, the short story, the novel. In what follows, I suggest that the idea of narrative provides a way to show some family resemblances between what are often taken to be very different, even competing tasks among the 'disciplines.' The aim here is mainly to open some space, to stimulate some re-thinking. It is not meant to be definitive or complete.

I begin with a myth about science. A bit of history may soften the path. For most of the nineteenth century, the idea of science was contested. After all *scientia*, like Greek *episteme*, for a very long time meant 'knowledge' and the ways of knowing and objects of knowledge were, for a very long time, many and various. It is easy to forget this, since the history of science and the histories of the sciences have been supremely whiggish: they begin with an idea of the features of some fully institutionalized existing science, and then find the roots of this in the past. What is not part of the trajectory, then, falls off, thenceforth relegated to philosophy, to theology, to letters. Thus histories of modern science refer to Roger Bacon (1214-1292) and to Galileo (1564-1641) but not to Thomas Aquinas (1225-1274) or to Pico della Mirandola (d. 1494). Auguste Comte always appears histories of social science, but Herder never does, well, almost never. (He figures in my *A History and Philosophy of the Social Sciences*.) What results--and what makes such histories whiggish-- is a story of the progressive liberation of science or the particular science from its pre-scientific past. I will not contest the idea of whether this counts as progress; I need only remind you that neither science nor the particular sciences are 'natural kinds,' that people decided, in the course of an extended struggle, what was to count as a science and what was to be its aims and its methods, including here its discursive styles.

The struggle over the idea of science was largely completed by the end of the nineteenth century, at just the point where the social sciences were being institutionalized in the new universities of America. This is a story I sketched in my book, just mentioned and I resist doing it even less justice here. But it will be important to notice that at the end of this century two ideas of importance to our topic became dogma. First, people came to accept the idea that explanation in science was not the metaphysical sort of stuff which the 'founders' of modern science had so desperately resisted. Appeal to 'occult powers,' (Kräfte) 'essences,' 'final causes,' and the like had no place in a proper science. Rather, explanation in science was merely compendious description, or subsumption under law. Thus Ernst Mach could insist that once it was established that $D = 16t^2$, it was easy to 'explain' a fall of 16 feet. The law generated an infinite table. The object fell one second; hence, it fell 16 feet. It was easy to generalize this and to assume that the equations typically displayed in between the prose in scientific writing contains the explanation and that the narrative, along with the analogies and ideas presupposed by author and reader, is merely the window dressing for the real stuff.

The second idea was this: explanatory laws, like the Galilean law of free fall, were but regularities, witnessable and hence grounded inductively. As Hume had argued, to say that something is the cause of something else, is merely to assert a constant conjunction: Whenever this, then that.

One can hardly overestimate the damage done by these two ideas, beginning with the popular understanding of science. But even worse, these two ideas did untold damage in the just then emerging practices of the social sciences. Indeed, in that wonderful introductory portion, 'Sociology as a science,' or 'psychology as science' in the prevailing textbooks in the social sciences, these two ideas appear, usually with modest apologies that the science in question is still a bit immature. It is of little wonder that these two ideas are so taken for granted; little wonder, as well, that there have always been people whose practices betrayed a lack of commitment to these ideas who, more heroically, insisted that the human sciences were nothing at all like the natural sciences, that e.g., explanation in social science was understanding' or 'thick description,' or, at the extreme, quite impossible.

Now in fact I believe that once these ideas are scrapped, the natural and social sciences do have much in common, but especially on what counts as explanation. Although this cannot be convincingly developed at this time, let me try to show that explanation in science implausibly takes the form of subsumption under law and that, in fact, it takes the form of a narrative. Again, it helps if we go back to the beginnings of modern science. The first of the truly modern sciences was celestial mechanics and it is the case, I believe, that this remains our paradigm when we think about science. Thus it is true that we can calculate the position of the moon by appeal to the law of inertia and the inverse square law. But first, calculation is not explanation. To explain what is happening we need the ideas of inertia and of gravity; Newton was rightly hard pressed to respond to those critics who insisted that gravity seemed as much an 'occult power' as the 'fellow-feeling' which Gilbert had imputed to magnets. Newton died unsatisfied with his efforts to resolve the problem. As already noted, Mach did as much as anybody to convince us that calculation was as much explanation as one could get--and as much as one needed. But second, we can make these calculations because the only relevant 'variables' are mass and acceleration and because for all practical purposes we can discount the possibility of other relevant masses confounding our calculation.

But the picture changes if we keep clear a distinction between the aims of the pure or theoretical sciences and the aims of the practical or applied sciences and, even more, if we consider some of the other sciences, for example, biology I true that engineers calculate trajectories for space shots; but physicists worry about the truth of the general theory of relativity. Physicians try to restore cancer victims to well being; but bio-chemists seek an understanding of carcinogens. Indeed, what is most striking, perhaps, is that, in fact, natural scientists rarely attempt to explain outcomes, exactly because most outcomes in the real world are the product of a host of causes complexly operating in the world. Thus, it is true that salt dissolves in water, that sulfur is yellow and that smoking causes cancer. But how are these facts to be explained? We have considerable understanding of optics, but explaining the color of r necessarily involves understanding human perception--of which we know little. Moreover, salt might not appear yellow at some time and

place not because the laws of optics (or of perception) have failed, but because they have not failed and there are other causes at work: the ambient light is blue, not white, the retina is damaged, etc., etc. Similarly, we can very well understand the cellular chemistry of carcinogens but be utterly unable to explain why in some cases, smoking does not always produce cancer.

More generally our most successful sciences give us a better understanding of the causal mechanisms at work in world. But because these are complexly at work, if we are explain outcomes, we need a great deal more than such understanding.

What then is explanation in science? Roughly, it is the effort to identify the relevant causal conjunction which produced the outcome. This involves appeal to our current understanding of the relevant mechanisms and appeal to the linkages and conjunctions of these in time. This is, indeed, telling a convincing story, convincing because we understand the relevant causal mechanisms and we can see that the concrete configuration of these had to produce what was produced. We can put this subjunctively. If just these mechanisms were involved and if they did come together in just that particular way, then the outcome had to be what it was.

To be sure, even in natural science we are usually very far from having such explanations. As noted, we cannot even begin to explain many commonplace phenomena: the evolution of the platypus, why sulphur appears yellow to normal human percipients, why some smokers do not contract cancer, why some drunks get nasty and others get affectionate. Thus, as to the platypus example, we have an understanding of several of the mechanisms involved in evolution, but we lack utterly the specific organism/environmental details which would enable us to explain how the operation of these mechanisms produced the platypus--or for that matter any of the countless remarkable species known to us. Here we are satisfied with 'just so' stories, judging that something like this or that must have happened.

If I have succeeded in undermining mythological ideas about scientific explanation, I am half-way home, for now I think it will be easy to show that explanation in social science has strong parallels to explanation in natural science and then to show that not only that what links all of these is narrative--the effort to tell a convincing story-- but, as well, that much good social science is done as history, or as biography, or even, in the form of a novel!

As a first approximation, let us press an analogy to natural science and distinguish between explanation and the effort to understand the relevant systems (structures) which taken together comprise society. Thus we can think of the structures of capitalism, parliamentary government, the nuclear family, the school, media, etc. as analogous to NaCl, the pancreas, the solar system. The analogy breaks down, of course, when we see that social systems do not exist independently of the beliefs and activities of members. This implies, first, that they are always changing, and second and worse, that there will be distinct limits on how far one can go in understanding any of them without seeing how they are related both within and between particular societies. Thus even where as in modern society, salaried work and home life are carried on in distinct places, because it is the same women (and men) who work and attend to domestic responsibilities, there could be no way to disconnect one from the other. And looking more widely, not only do decisions made in Tokyo or Berlin affect us here, but not to overlook the obvious, East German beliefs about West Germany

surely had significant consequences regarding what has happened in Germany since November [of 1989].

These differences raise difficult problems for disciplinary social science. In the natural sciences, the strategy of abstracting from concrete wholes theoretically articulated systems is exactly what has defined them as disciplines. Thus, mechanics thinks of things only in terms of mass and acceleration; chemistry thinks of them only in terms of the building blocks of molecules. When this strategy meets its limits, bridging disciplines emerge, biochemistry, geophysics, neuropsychology. But it is not clear to me that the conventional disciplinary division in the social sciences was ever strategically productive not only because everything is always inter-related--to some extent at least, this is true also in the natural world--but because it is impossible, except in the imagination, to test our theories about the theorized systems which comprise the social world. We can offer a theory about capitalist societies, as e.g., Marx did in *Capital*, but we cannot look at any concrete capitalist society without its particular, historically rooted systems of culture, law, politics, religion, ethnic and gender relations, etc., etc. In chemistry, we can construct an experiment to test claims about theorized NaCl. We can construct a condition where everything relevant (as this determined by our theory) is controlled. In social science we never can do this.

I noted that natural science is only incidentally interested in explaining outcomes, that its emphasis is on understanding the causal properties of the natural world. In social science, quite the opposite is true. This is a third difference. In social science, we are driven by an interest in explaining outcomes, in explaining revolution, a great depression, an increase in the crime rate, the breakdown of the nuclear family, the failure of education. But, as above, these outcomes are complexly caused. And worse, the acting agent is the dominating causal presence in everything that happens in society.

Let me try to be clear about this, what for many is the most perplexing feature of human science. The social world is the medium and product of individual activities. Consider language. It exists only as incarnate in the speech-acts of members. When speakers speak or write, they use it, thus it is medium. Like any medium, it enables and constrains. One can stray from syntax, or invent a metaphor and still be understood; but one cannot stray too far. Accordingly, language is a changing product, an unintended changing product, since it is but the aim of users to communicate, not to reproduce and transform the language.

We can generalize this idea. Everything that we do reproduces and transforms the social world. As Marx put it, we make history but not with materials of our own choosing. These materials are products of prior activities extending back into time, back into human prehistory. Thus, while most things that happen seem 'determined' quite the contrary is the case. That is, although we do not choose the world--or to a considerable extent our place in it-- we do choose--and these choices do add up. Moreover, and stunningly, most of what happens is unintended. We have reasons--sometimes very good ones, to do what we do--which is why explaining action is something we all can do--but the outcome is not decided by anybody--even those who have the most capacity to control their destinies. Can it be, e.g., that Gorbachev intended the collapse of 70 years of belief about the Soviet system? He was bequeathed a difficult historical legacy and promoted glasnost and Perestroika, but he got the collapse of the Wall and Lithuanian claims for self-determination.

To return then to explanation in social science. As in natural science, we need to understand the mechanisms of society, but we need also to identify the critical linkages and conjunctures, and then we need to grasp the causal consequences of agents acting in terms of these, to understand the available structured alternatives and the reasons for the ones actually taken. We need, thus, to tell a convincing story. In this sense, then, explaining events is 'history' and the form of explanation must be narrative. Some 'histories' are of the remote past, some of the very recent past and some shade into good journalism. Some put greater emphasis on agents, the typical political history; some put greater emphasis on social structure, the writings of Barrington Moore, C. Wright Charles Tilly, John Kenneth Galbraith, Eric Hobsbawm., and some fall in between, perhaps the work of Gerda Lerner or E.P. Thompson. F

But then it is easy to see how biography can be good explanatory social science. Here we focus on one agent and tell the story of his or her implications in society. Here we learn how the decisions made by Walter Lippman were shaped by Harvard, by pre-World War America; and if the biographer is good, we learn about America, the beliefs and structures which shaped Wilson's foreign policy, the politics of media, and much else besides. And, of course, exactly because many things are happening at once, the form is narrative.

But then it is easy to see how the novel may be explanatory social science. Instead of a Walter Lippmann, we have, in Richard Wright's *Native Son*, *Bigger Thomas*, and because Wright understood his world and could tell a story, the story he tells very much helps us to understand it. It would easy, I think, to multiply examples and, almost certainly, it will be necessary to make some qualifications and clarifications. But it may be well if, with your permission, I end my story here.

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