

John Dewey and American Social Science

It has not been an easy matter to judge John Dewey's relation to the social sciences in America. Most writers have held that his influence was significant. Some of these think that this influence was a good one; others are critical, since for them it contributed to what is seen to be a technocratic version of social science.¹ It is easy to infer what seems to have propelled this view: Pragmatism was an important and culturally influential philosophical movement in the U.S. Dewey was at Michigan and then at Chicago (with G.H. Mead) at what was the crucial period in the genesis of the social sciences in America; Dewey was distinctly interested in promoting a view which incorporated science and the scientific frame of mind; hence, Dewey's pragmatism must have left its mark on American social science. Those who find that this 'influence' was salutary also believe, I think, that on the whole academic social science provides us with much needed knowledge.²

Although the premises are all true, the argument doesn't work. It doesn't mainly because the key ideas are mostly either mushy or ideological (or both?). To see this, one must be clear not only about Dewey's version of pragmatism, still very much contested, but about the character of social science in America. This last requires some concrete history governed by a philosophically sophisticated understanding of science and its possible goals. For me, what may be termed "mainstream" social science is generally a disaster for substantially the reasons pointed to by Dewey's erstwhile colleague, Thorsten Veblen. Veblen insisted that social science had as its task, "inquiry into the nature and causes, the working and the outcome, of [the] institutional apparatus."³ Such inquiry need bear "no colour of iconoclasm," since even if it did not, its outcome "will disturb the habitual convictions and preconceptions upon which they rest." Instead, "usages and conventions that have by habit become embedded in the received scheme of use and wont, and so have been found to be good and right" are given scientific legitimation. The result is "a 'science' of complaisant interpretations, apologies, and projected remedies" (1957: 136). Veblen's objection, like mine and Dewey's, is not that social scientists were reformers but rather that they were not good scientists.

As regards Dewey, we are just now, I think, beginning to get clearer about his instrumentalism, despite the ill-conceived effort to appropriate it for post-modernist purposes, and even if the two most recent full length accounts, one by an historian, the other by a philosopher, say precious little of any use about how it bears on Dewey's conception of science, including social science.⁴ In this essay, accordingly, I want to develop Dewey's scattered views on social science, both as he came to understand what they had become, and what they might be. Much of what he did say gave ample room for both misunderstanding and misappropriation.⁵ Still, there remains in Dewey's philosophy some untapped resources for reconstituting social science.

The Origins of Social Science in America

It is of considerable importance to notice that the modern disciplines of the social sciences are an American invention, that European Universities had nothing like what we now take for granted as social science. Indeed, some of the disciplines were not part of European higher education until

after World War II when, as with so much else, Americanization became the order of the day.⁶

America provided the nearly perfect conditions for the modern idea of the social sciences.⁷ There was, first of all, "the social problem" produced during the Gilded Age by rapid industrialization, urbanization and massive immigration. Second, America had a "weak state" in the sense that it lacked both significant state bureaucracies and a strong central government. This promoted responses from "civil society," but especially from the private colleges and universities. Third, lacking a feudal past, America was "bourgeois" from its beginnings: As Bledsoe put it, "Americans lacked tradition as a source of authority, but they did not lack 'science'." Before Johns Hopkins became a university in 1876, there were no universities in America--the educational upshot of the absence of a feudal past. Educational entrepreneurs could convince the John D. Rockefellers, Carnegies and Mellons that science was just what was needed and that it could be produced with good effect in the new institutions. Finally, as science had itself been industrialized, a group of European philosopher/physicists had articulated a thoroughly positivist understanding of the successful sciences, from the practically irrelevant idea of "science" as *theoria*, to a *practically* relevant productive and predictive *instrument* whose ultimate vindication was its capacity to generate technologies "for the relief of man's estate."⁸

Indeed, for the men (sic) in "the institutions of higher learning," the problem was not class war, but ignorance. Social problems surely were no less subject to "scientific" solutions than other problems. Moreover, since for them there was nothing fundamentally wrong with America's basic institutions, these problems could be dealt with as technical questions in a piece-meal, ameliorative fashion. But if social scientists were to be *professional* with legitimate claims to authority and autonomy, they must mark out their scientific territories, clear away all that was non-scientific, and establish their own system of credentialing. What this meant was clear enough: It meant establishing distinct disciplines exactly in the terms which they believed any true science must be constituted. The outcome, settled between the wars, was the disciplines of the social sciences as we know them today. This was, then, the context in which Dewey reflected. Where, we may ask, did he fit in?

Dewey and the Origins of Academic Social Science

Dewey said very little about the social sciences and although one finds throughout the corpus references to science, one finds too little in the way of a systematic account of science. Most of the terms descriptive of science and in general use were--and are--vague and uncritically employed: for example, cause, law, theory, explanation and experimental method. Dewey, like most writers today could take these terms for granted even if, as I would insist, one can get contradictory conceptions of science from different analyses of them. This unclarity should not surprise us. What we now think of as an important sub-discipline of philosophy, philosophy of science, emerged only in the 1950s and it is only in the 1970s that there has been a genuine competitor to the positivist interpretation of science.

Logic: The Theory of Inquiry, published in 1938, is surely the main exception to the overall absence of texts on Dewey's theory of science. What is there is very important, but there are many important questions which Dewey did not address and, typically, he does not make much effort to

place his effort in the context of other writers on science, Vienna positivism, for example. When the *Logic* was published, As Ralph Sleeper has argued, it was both ignored and misunderstood, so thoroughgoing were entrenched assumptions about logic and science. Moreover, by this time, systematic misunderstanding of Dewey was also well-entrenched.⁹ Accordingly, it was not then and is not now a genuine competitor for the received view.

At bottom is an ill-developed conception of science which is distinctly Deweyan. On the positivist, technocratic conception, the aim of science is prediction and control. To achieve this one needs only confirmed regularities, laws or law-like statements. On this view, since they can be no part of science, ends are given or assumed and the only question is means. Since it is not within the realm of social science to decide on goals, the social scientist (qua social scientist) is "neutral" regarding who his work serves.

For Dewey, none of the foregoing was true, but for reasons noted, is not an easy matter to get a firm grip of Dewey's alternative view. There is a sense in which it is utterly unique, the consequence of his radical position in epistemology. His "instrumentalism" involves a rejection of the "epistemological problem," and thus of the fact/value dichotomy. It offered a unique conception of "control" and a confusing conception of the character of theory and of the goals of science. I try to keep my account focused, as much as possible, on what Dewey had to say about social science.

Dewey's Rejection of the Epistemological Problem

I noted that Dewey's theory of science presupposed a radical rejection of "the epistemological problem." Failure to see has misled many otherwise astute commentators. Dorothy Ross, for example, singles out Dewey's (1897) lecture, "The Significance of the Problem of Knowledge" as a critical intervention on the side of the technocrats. But this is far from being the case: Its thrust is against traditional foundationist epistemology: rationalist, sensationalist and Kantian. Dewey writes:

Knowledge can define the percept and elaborate the concept, but their union can be found only in action. The experimental method of modern science, its erection into the ultimate mode of verification, is simply this fact obtaining recognition (EW, 5: 21).

Contrary to the epistemologists, there is no *problem* of knowledge *in general*: philosophy is "not an original fountainhead of truth." And this means that for answers to questions about how knowledge is possible we need to look to psychology and social ethics--"including in the latter term all the related concrete social sciences, so far as they may give guidance to conduct" (22). Dewey's project was to naturalize epistemology *and* moral theory.¹⁰

Psychology is naught but the account of the way in which conscious life is...progressively maintained and reorganized. Psychology is the attempt to state in detail the machinery of the individual considered as the instrument and organ through which social action operates (p. 23).

Similarly,

The sociologist, like the psychologist, often presents himself as a camp follower of genuine science and philosophy, picking up scraps here and there and piecing them together in somewhat aimless fashion...But social ethics represents the attempt to translate philosophy from a general and therefore abstract method into a working and specific method; it is the change from inquiring into the nature of value in general to an inquiry of the particular values which ought to be realized in the life of everyone, and of the conditions which shall render possible this realization (p. 23).

This is stunning research program for social science, stunningly ignored. We need to be clear about this. Dewey believed, rightly, that human sciences could help us to understand ourselves: how we think and inquiry and why, when thinking and inquiry is successful, it is successful. They would give us insight into what were our genuine interests and purposes and their relations, and most obviously, they would give us an understanding of the obstacles in present arrangements which keep us from realizing our genuine interests and purposes. The human sciences would be emancipating in exactly the sense that they would clear away misconceptions about ourselves and our arrangements and empower us to reconstruct the social world more in accordance with our wants and aims.

Central to this project was the rejection of the bifurcation of fact and value, a further consequence of the mistaken assumptions that had generated "the epistemological problem." In his *Logic*, Dewey argued that "most current social inquiry" was marked by "the separation of theory and practice" (LW, 12: 487). It is sound principle, Dewey says, that one should avoid making social judgments "on the ground of moral preconceptions, conceptions of what is right and wrong, vicious and virtuous" (489). But this is mistakenly converted to the principle that one should make no evaluations about ends. These are, accordingly, precluded from inquiry. But "only recognition in both theory and practice that ends to be attained (ends-in-view) are of the nature of hypotheses and that hypotheses have to be formed and tested in strict correlativity with existential conditions as means, can alter current habits of dealing with social issues" (491).

If one wants a ready current example, consider poverty. What indeed, are the possible ends-in-view of current policy and what, accordingly, are the existential conditions that are demanded for their satisfaction? It is easy to deal here with high abstractions, "getting people off welfare," "getting people to work," "ensuring that people can acquire skills and knowledge which will make them employable," and to leave up in the air, unexamined, the requisite "existential conditions." Although I cannot prove this here, I would insist that the modern social sciences must take large measure of responsibility for the shallowness of the usual understanding of problems like poverty and crime.¹¹

Moreover, it is easy to assume that "the problems which exist are already definite in their main features," and if so, then inquiry could be aimed at finding the best methods of solution. The result is that "methods for resolving problematic situations are proposed without any clear conception of the material in which projects are to be applied and to take effect," with often a worsening of the situation which generated the inquiry (LW, 12: 487). The analogy between current modes of

inquiry in social science and pre-scientific medicine was apt. As Dewey noted elsewhere, such practice was a combination of empiricism and quackery: Without analysis, symptoms were responded to in terms of handed down remedies. Of course, these sometimes worked. But as regards medicine at least, "it is now recognized that choice of remedial measures looking to restoration of health is haphazard until the conditions which constitute the trouble or disease have been determined as completely and accurately as possible" (488).

The poverty example again illustrates this: It is held that people are not working and that present arrangements make them welfare-dependent. The solution is obvious: eliminate welfare. But it does not take much to see that the conditions which constitute the trouble begin with the absence of a jobs which would pay enough to take a family out of poverty and that one would need here to be clear about a host of other attending steps and conditions to make this possible.

The self-imposed constraints of "allegedly scientific social inquiry" also explains the positivist penchant for "fact-gathering." Dewey had attacked this idea in his 1931 essay, "Social Science and Social Control." Dewey offered that "the existing limitations of `social science' (Dewey's quotation marks) are due mainly to unreasoning devotion to physical science as a model, and to a misconception of physical science at that" (LW, 6:64). In the *Logic*, Dewey held that methods adopted "in the professed name of social science" are merely the form of genuine science since they fail "to observe the logical conditions which in physical science give the techniques of observing and measuring their standing and force" (LW, 12: 492). There are many places where Dewey assessed current social science as deficient. Moreover, it is surprising that the foregoing explanation of the deficiency is overlooked by Ross and other writers who accuse Dewey of contributing to "scientism." In this essay (as in the *Logic*), Dewey held "...[T]he facts of social 'fact-finding' remain a miscellaneous pile of meaningless items" (LW, 6:65). "Since their connections with human wants and their effect on human values are neglected, there is nothing which binds them together into an intelligible whole."

Dewey was surely aware that his colleagues, among them Merriam at Chicago and Ogburn at Columbia had by then established "fact-gathering" as *the* goal of social science.¹² This was, of course, a main target of Robert Lynd's *Knowledge for What?* (1939), a book which was both very Deweyan and very much out of the mainstream. Indeed, in a related section of the *Logic*, Dewey developed an argument that C.W. Mills will pick up in his 1959 *Sociological Imagination*. Dewey saw two one-sided distortions. The "positivist" school (his term) singlemindedly directs itself as "fact-finding"--what Mills had called "abstracted empiricism." But the opposing tendency "places its entire emphasis on conceptions" (LW, 12:497)-- what Mills called "Grand Theory." "Facts are subsumed directly under `principles,' the latter being regarded as fixed norms that decide the legitimacy or illegitimacy of existing phenomena and that prescribe the end toward which endeavor should be directed" (497).

There is another issue, part of his more general instrumentalist theory of inquiry that needs to be introduced if we are to have any hopes of grasping Dewey's thoughts on science.

Instrumentalism and Science

Dewey's commitments to scientific method, his persistent attacks on inquiry detached from human concerns and his extensive use of technological metaphors have caused enormous confusion, almost certainly because as Dewey himself saw, modern science had not been the salvific force that it was once hoped to be.¹³

Surely the most far-reaching attempt to illuminate Dewey's philosophy is terms of "technology" is Larry Hickman's *John Dewey's Pragmatic Technology*.¹⁴ It may be that Hickman goes too far in asserting that "late in his life, technology became a synonym for the very method of inquiry" (1991: 1); but Hickman wisely glosses Dewey's "instrumentalism" by arguing that "Dewey goes beyond theory and beyond praxis to production: his concern is with the making and testing of new entities including extra-organic tools as well as goals and ideals" (15). "Science" in this sense is a more refined and developed form of all inquiry.

Thus, in the *Logic*, Dewey insists that "there is no sharp dividing line between common sense and science." "Gradually and by processes that are more or less tortuous and originally unplanned, definite technical processes and instrumentalities [were] formed and transmitted." It was just these which allowed for "control." "Control"--as Hickman says, a synonym for knowledge--does not refer to the subordination or domination of something. Rather, as Dewey makes clear enough, "control" refers to our capacity to apply intelligence successfully: to produce, adapt, adjust, accommodate, achieve, institute, identify, order, discriminate, and to "resolve" problems in many other sorts of ways. "Control" has been achieved when the problem which generated inquiry has been resolved.

It is in this sense, also, that "practical" must be understood. These "technical processes and instrumentalities" then become "the background of materials and operations which we term science" (LW, 12: 77). And, indeed,

Genuine scientific knowledge revived when inquiry adopted as part of its own procedure and for its own purpose the previously disregarded instrumentalities and procedures of productive workers. This adoption is the radical characteristic of the experimental method of science (LW, 12: 99 and 388-389).¹⁵

But this does entail a collapse of science into technology in the sense that all inquiry has some immediate practical aim and surely not in the sense that we can and should seek to dominate nature. All knowing is technological in the sense that if the problematic situation is to be brought under "control," language, mathematics and/or artifacts of various kinds are required. But the difference between science and common sense is exactly that while commonsense inquiry "occurs for the sake of settlement of some issue of use and enjoyment," scientific inquiry occurs "for its own sake" (LW, 12: 66-67.)

Dewey's position here is almost always overlooked. Dewey did not reject the (Greek) idea that inquiry could be aimed solely at understanding. He rejected the bifurcation of theory and practice, the idea that one could understand *anything* without "tools" and without "experimental operations, involving definite techniques" (LW, 12: 151, 420, 455). Of course, it would be hard to deny that

understanding may well promote the development of technologies--a key feature of late nineteenth century industrialized science. This leaves open the question of whether this was, as Dewey would sometimes at least seem to suggest, the ultimate justification of science.¹⁶

I want to say more about "experimental operations," but we need here to notice that the continuity between science and commonsense creates a very special burden for social science. Cultural conditions impact all inquiry--a critical point for a sociology of science, but because "the physical" is "relatively independent of social issues," "the influence of cultural conditions" is "indirect." For example, "it is not possible...to separate nineteenth century devotion to exclusively mechanical conceptions from the needs of industry of that period." In social science, by contrast, "prejudices of race, nationality, class and sect play such an important role that their influence is seen by any observer of the field" (LW, 12: 482). It is, however, more than annoying to notice that Dewey did not, as far as I can tell, say much about how such prejudices were influencing the social sciences.

Scientific Laws and Causality

Critical to any understanding of science is the conception of law and causality. We can turn here to Chapter 22 of the *Logic*. Dewey begins by rejecting the most characteristic, even defining features of empiricist philosophy of science: that "scientific laws are formulations of uniform and unconditional sequences of events," and that causality must be defined in terms of such sequences (LW, 12: 437). Of all the doctrines which currently inform mainstream social science, these are surely the most pernicious. Once accepted, we are committed to an event ontology and a regularity determinist view of the universe: Whenever this, then that. It is then also easy to assume a covering law model of explanation, and thus to hold also that prediction and explanation are symmetrical. One final consequence is the inability to conceptualize agency: the fact that persons make things happen. But as Dewey rightly sees, "there are no such things as uniform sequences of events" (LW, 12: 445).

It is important to see that these doctrines are empiricist in that they disallow reference to unwitnessable "powers" inherent in "the things themselves." In my view, there is no necessity that this move be "occult" or unscientific. If I am right, the successful sciences make such appeals all the time.¹⁷ Moreover such moves are quite consistent with his idea that commonsense inquiry is continuous with advanced science. Dewey gives some examples: "A good rain will cause the seeds that have been planted to grow." The expectations are "explained" by the unscientific person by attributing a power to rain. The empiricist disallows this, but content with an effort to establish the validity of the expectations, he does not seek to understand the "power." Dewey sees, rightly, that "from the standpoint of scientific inquiry, these expectations are but material of *problems*" (LW, 12: 446), but he seems to miss the main point. For him, the scientific problem is to try to give a more refined regularity and to fill in ever-larger numbers of "variables."¹⁸ But this succumbs to the regularity determinist conception. The scientific problem is not, as positivists would have it, to make better predictions. The scientific problem is identify what is about the nature of water and seeds such that a good rain will (*ceteris paribus*) cause the seeds to grow.

Indeed, in *Experience and Nature*, he seemed to hold to such a view, best termed "realist": He

there argued that "atoms and molecules show a selective bias in their indifferences, affinities and repulsions to other events" (LW, 1:162). These "selective biases," he says, define their "essence," a term Dewey used without prejudicing his fully processual view of the universe. But since on a realist view, the "things" of the universe are always related to other "things," outcomes are never guaranteed. Thus, "iron as such exhibits characteristics of bias or selective reactions," but "iron as a genuine constituent of an organized body acts so as to end to maintain the type of activity of the organism to which it belongs" (195). In a living organism, it functions not to produce iron-oxide--as it would in a hinge--but to contribute to metabolism.

In *Quest for Certainty*, he argued against empiricist ontology, both of the naive realist sort characteristic of Greek science and of modern sensationalist versions. "The experimental method," he writes, "substitutes data for objects" (LW, 4: 79). "By data is signified subject-matter for further interpretation; something to be thought about... Hot and cold, wet and dry, light and heavy, instead of being self-evident matters with which to explain phenomenon, were things to be investigated; they were 'effects,' not causal principles' (LW, 4: 80). Hot, e.g., is surely an effect of what is a most complicated "causal nexus," a nexus that includes not only the properties of bodies, but organisms which experience.

Nevertheless, Dewey's view needs to be distinguished from a scientific realism which holds that "things" have "causal powers." For Dewey, causality is a logical category, not an ontological one. This seems very Kantian: We cannot know "things in themselves" but we can offer "generalizations" which abstract from the existential milieu. The empiricist makes the error of supposing that the abstracted logical characters-- which are related necessarily-- are the existential relations of events. It is, he says, "a confusion of operational means of procedure with the existential result of their application" (LW, 12: 444). For Dewey, the empiricist rightly ruled out "occult" qualities, but then offered "a hybrid notion which took from commonsense the idea of succession and from the science the idea of invariability of conjunction." But "the contents which are *invariably* related in a law are not events, and ...their relation is not one of sequence" (LW, 12: 446). As a rejection of regularity determinism, this seems right. And while I do not think that Dewey's positive account of causality is satisfactory, his rejection of regularity determinism was all that is needed to distinguish his views from the prevailing positivisms in social science. This is often missed.

Ross (1991:253) holds that Dewey's "Psychology and Social Practice" is another place where he endorses technocracy. Dewey argues that the teacher has a psychological theory, like it or not. "Teachers tell you that child is careless or inattentive in the same final way that they would tell you that a piece of paper is white." But, insists Dewey,

it is only through some recognition of attention as a mechanism, some awareness of the interplay of sensations, images and motor impulses which constitute it as an objective fact that the teacher can deal effectively with attention as a function (139).

Dewey's point is exactly that unless teachers have an understanding of the student as a psycho-social being, all their efforts are bound to be misdirected, ineffective, even destructive. It is only

by understanding the psychological "mechanisms" of attention, memory, cognition and judgement and the social "mechanisms" implicated in *all* experience and behavior that the teacher can cultivate the powers of the student.¹⁹ This is for Dewey a research program to be satisfied. We are, he says, discussing the question of the role of psychological science in education only because "we have as yet made so little headway" (144).²⁰

Dewey's use of the term "mechanisms" here is notable and suggests how far he is from a regularity determinist view. This is made even clearer In a 1918 essay entitled " A New Social Science," one of the very few places where Dewey explicitly discusses social science, (the *Logic* is the other notable place) Dewey argues against the idea, inherited from Comte and Spencer--and still current--that "the existing social order is the product of natural laws which are expounded in a rational, scientific way" (MW, 11:89). Dewey insists that World War I should finally have exposed this idea as myth: "...The war has revealed that our existing social situation is in effect the result of a convergence of a large number of independently generated historic accidents" (90). Indeed,

Any science which pretends to be more than a description of the particular forces which are at work and a descriptive tracing of the particular consequences which they produce, which pretends to discover basic principles to which social things conform, and inherent laws which 'explain' them is, I repeat, sheer mythology (90).

Dewey acknowledged radical contingency in the universe, a universe which was both "precarious and stable." There were uniformities-- a consequence of "selective biases" and there were plenty of surprises, a consequence of the open systematic character of the world. But such a metaphysic calls for a historical and concrete social science. The "description of particular forces" at work are the analogue of the "selective biases" discoverable by physical science. The "particular consequences" which they produce are not guaranteed in advance because the relations of such "mechanisms" are complex and historically contingent. There are no "general laws" under which we can subsume and thereby explain wars, revolutions or, for that matter, hurricanes or the genesis of a species.

Dewey concludes this brief but rich essay by remarking that "there is...an immense amount of empirical subjectmatter contained within the confines of existing social sciences. The only trouble is that it has been 'framed up' and betrayed by its mythical and apologetic setting" (91). He does not, unfortunately, elaborate on this idea.

Dewey on Experimentation

Dewey's views on experimentation certainly did not help clarify his position. I noted that, for Dewey, one could not understand anything without "experimental operations, involving technique." There is, of course, a paradigm, characteristic of the laboratory, but how far can this be extended? A long way it seems.²¹ Thus, he insists that "there is no ground whatever upon which a logical line can be drawn between the operations and techniques of experimentation in the natural sciences and the same operations and techniques employed for distinctly practical purposes" (LW, 12: 434). But what counts here as the "same operations and techniques"? This text continues with what may be

his most general definition:

...Experimentation is a form of doing and making. Application of conceptions and hypotheses to existential matters through the medium of doing and making is an intrinsic feature of scientific method (ibid.)²²

Dewey did not, I think, have a clear understanding of the laboratory experiment as it is actually practiced in the successful sciences and this allowed him to give the idea a very extended sense. Only sometimes does he suggest that the main use of an experiment is to test a well-articulated theory. On this realist view, the idea, roughly, is to deduce what the theory entails and then to establish experimental closure to see if what was "predicted" by theory under closure does, in fact, obtain.²³

But if we think of an experiment in this sense, as a situation in which a theory of a "mechanism" is to be tested, then, as is very plain, this is never possible in social science--putting it at a distinct disadvantage. This is not, however, what Dewey seems to have in mind when he speaks of experimenting in social science.

In the *Logic*, he remarks that "every measure of policy put into operation is, *logically*, and *should* be, actually, of the nature of an experiment" (LW, 12: 502; see also LW, 12: 486). Insofar as we should make the effort to see as clearly as we can what consequences obtained *after* a policy was introduced, there is good sense to this. We know, for example, that people didn't stop drinking alcoholic beverages when prohibition was enforced. But this is a test of a *policy* not of a theory of social behavior, exactly because, as Dewey clearly recognized, there are always a host of connected and interacting processes involved which conjointly produced the actual outcomes. In this case, as we now know, "demand" for alcohol was satisfied by *illegal* producers and distributors so that, if anything, the policy served to create criminals--including law enforcement officers--and to deprive the society of any effective control of the production and distribution of alcohol.²⁴

In his 1931 "Social Science and Social Control," alluded to earlier, Dewey did indeed sound technicist. He there offered that "The Five Year Plan of Russia...whether noble or the reverse, has many of the traits of a social experiment, for it is an attempt to obtain certain specified social results by the use of specified definite measures, exercised under conditions of considerable, if not complete, control" (LW, 6: 65). This is, in my mind, so much nonsense: Despite totalitarian methods of "control," the outcomes were, as they must be, conjoint products of a myriad of interacting activities of which some, at least, were directly contradictory to the intentions of the planners. Here "experiment," and "control" get Dewey into unnecessary difficulty.

The example raises, as well, the question of the relation of democracy to social scientific knowledge. For the technocrats, one "controls" the conditions and gets "predictable results." More, because "experts" have knowledge which the "masses" lack, democracy must give way.

Social Science and Democracy

It is easy enough to establish that World War I had a tremendous impact on Dewey and that one of the consequences was his readiness to believe that the war had brought forward "the more conscious and extensive use of science for communal purposes." It had "made it customary to utilize collective knowledge and skill of scientific experts of all kinds, organizing them for community ends." The warfare state, remarkably, had laid the foundations for the Nationalist Liberalism which became the political agenda of Dewey's associates as the *The New Republic*.²⁵ But when Walter Lippman, already persuaded of a technocratic version of social control, published his *Phantom Public* in 1925, Dewey finally came to grips with the problem of scientific knowledge and democracy.

In *The Public and Its Problems* (1927), Dewey agreed that there were a host of "technical" questions which could be answered by "experts": sanitation, public health, healthful and adequate housing, transportation, planning of cities, regulation and distribution of immigrants, selection and management of personnel, right methods of instruction and preparation of competent teachers, scientific adjustment of taxation, efficient management of funds and so on" (LW, 2: 313). But the idea that such knowledge was sufficient was profoundly in error. Those who hold to such views "ignore forces which have to be composed and resolved before technical and specialized action can come into play" (*ibid.*). The problem is deep: "It is in the first instance the search for conditions under which the Great Society may become the Great Community" (327). The public is lost, eclipsed, inchoate, bewildered, caught in a drift which it cannot grasp and therefore cannot overcome. Lippmann (and later C.W. Mills) was not wrong in diagnosing that the American public was a mass, but he was wrong in thinking that social scientists should now rule. Dewey was clear that such "experts" lacked the knowledge that was needed. Indeed, "the prime condition of a democratically organized public is a kind of knowledge and insight which does not exist" (339). Citizens needed to understand what was happening and why. Some technical knowledge was needed, to be sure, but in the absence of a widely shared understanding of the "forces" at work, no democratic public could emerge.

Dewey is clearly correct in this analysis, but he is not as radical as he might be in assigning the causes of this. I put aside here the problems of *distributing* "the kind of knowledge which does not exist," for example, problems of the corporate control of mass communication, and concentrate here on the role of the social sciences themselves. In particular, while he acknowledges the limits of the special sciences in generating such knowledge, he does not seem to see that they contribute mightily to the mystification of what needs to be known. Instead of illuminating and emancipating, too much contemporary social science obscures and misleads.

Dewey gets his hands on some of the reasons for this. He notes that the "backwardness of social knowledge is marked in its division into independent and insulated branches of learning" (171).²⁶ But this is more than a "mark" of its "backwardness": It *guarantees* backwardness. It is not merely, as he says, that there is lacking "continuous cross-fertilization," but that fragmentation prevents us from grasping causes and connections. Thus we are told that poverty is a "psychological" or "cultural" problem: People lose initiative, lack ambition, look for the easy way. The sociologist assumes that this is "fact" (it is not!) and then tries to explain it. We are told the cause is "the breakdown of the family" or to "welfare dependency." Moreover, our social

scientist can, without risk, ignore an economic or historical analysis. She can, for example, altogether ignore the lack of decent-paying jobs and the reasons for this. That can left to the economists who tell us that markets are self-correcting and that, accordingly, a political analysis which calls for state intervention is self-defeating.

Dewey notes also that specialized knowledge aims to be "abstract" which practically means that "it is not conceived in terms of its bearing on human life" (*ibid.*). Plainly, the commitment to value-neutrality requires this. The upshot, of course, is not value-neutrality, but as Veblen insisted, scientific legitimation of "usages and conventions that have by habit become embedded in the received scheme of use and wont, and so have been found to be good and right." Social science happily conspires in persuading us that the poor have only themselves to blame.

He argues forcefully that what counts as "news" in our daily papers is rendered completely unintelligible in terms of its connections but fails to argue that this tendency is reinforced by "fact-gathering" social science. He is correct that "a genuine social science would manifest its reality in the daily press, while learned books and articles supply and polish tools of inquiry" (347), but of course, it is precisely because "we" are not journalists but "social scientists" that we write jargonized "learned" books and articles. As Lynd said, we are either "scholars" or "technicians"--working for whoever will pay the bill.

Finally, for all Dewey's interest in education, he makes no mention of the disastrous consequences of current patterns of education in the social sciences. Instead of cultivating what Mills called "the sociological imagination," we offer students textbooks which guarantee disciplinary fragmentation, empty abstractions and uncritical thought. Instead of seeking causes and insisting on making connections, we require "disciplinary" integrity. Instead of raising questions about "habits embedded in the received scheme of things," we seek "relations of variables."

Dewey was surely on the right track when he observed as early as his essay on Renan (above, note 13) some reasons for these patterns of ideology and disinformation. He then wrote that we do not yet appreciate "the dead weight of class interest which resists all attempts of science to take practical form and become a "social motor" (17). I conclude by saying that we still do not--itself a function of the failure of the present practices of the social sciences.

ENDNOTES

1. Most recently, see Dorothy Ross, *The Origins of American Social Science* (Cambridge: Cambridge University Press, 1991).

2. Ross is not one of those who celebrates academic social science in America. She argues that it is "scientistic." "[Scientism] was the result of a long-standing commitment perennially deferred, an effort to make good on the positivist claim that only natural science provided certain knowledge and conferred the power of prediction and control. With science now defined by its method, scientism demanded that the requirements of natural scientific method dominate the practice of social science (*The Origins of American Social Science*, p. 390).

While I very much agree with Ross as regards outcomes, her explanation is different that the one I offered in my *History and Philosophy of the Social Science* (Oxford: Basil Blackwell, 1987). Moreover, she seems wrongly to assume that the positivists provide a generally correct understanding of natural science. For her, scientism arises only when the social sciences are constituted in its terms. Ross seems to favor interpretative models "available in history and cultural anthropology" or "the generalizing and interpretative model offered by Max Weber" (p. 473). I argued in my 1987 book that there was, a third, realist alternative. It allows us to incorporate the historical and hermeneutic and also to give a proper social science an emancipatory role. I shall suggest that Dewey seems to have stumbled toward a fourth alternative, neither positivist, realist nor "interpretative."

3. Thorsten Veblen, *The Higher Learning in America: A Memorandum On the Conduct of Universities by Businessmen* (New York: Sagamore, 1957), p. 132. This was written before World War I and published in 1918. It remains a wonderful account. Indeed, things have changed little. Dewey and Veblen agreed on much but it is hard to discern how the influences ran. Both had struggled with the views of Peirce.

4. See Robert B. Westbrook, *John Dewey and American Democracy* (Ithaca: Cornell University Press, 1991) and Alan Ryan, *John Dewey and the High Tide of American Liberalism* (New York: Norton, 1995). Westbrook and Ryan get Dewey's views on democracy and politics right. It is a bit surprising that Ryan pays so little attention to issues in the theory of science, given his interests. Ryan finds Dewey's *Logic: The Theory of Inquiry* "somewhat baffling" (p. 309). This is a bit remarkable (though not unusual) since this is the place where Dewey makes his most fundamental assault on the conventional wisdom.

5. I think also that his influence was minimal and even though many parties, often conflicting, were found of drawing on him to suit their purposes. Early Chicago school sociology has some Deweyan marks, but it too moved toward positivism. See Lester R. Kurtz, *Evaluating Chicago Sociology* (Chicago: University of Chicago Press, 1984). G.H. Mead, of course, was the direct influence on symbolic interactionism and Mead's relations to Dewey remains unclear. Symbolic interactionism, in any case, was always a minor competitor to mainstream social science. Perhaps C.W.Mills, for his all unhappiness with Dewey--for many of the right reasons--is the most Deweyan social scientist. It may be thought that American psychology was influenced by Dewey, but unfortunately, this was surely not the case. While arguing this would require an another paper, for some hints, see below.

6. The most comprehensive comparative overview of the emergence of modern social science is Wagner, P., Wittrock, B., and R. Whiteley (eds.), *Discourses on Society: The Shaping of the Social Science Disciplines*, Sociology of Sciences Yearbook, 1991 (Dordrecht: Kluwer, 1991).

7. See my account, *A History and Philosophy of the Social Sciences*, Chapter 11, and Ross, *Origins*, Chapter 3.

8. August Comte who articulated this vision and gave us the term "positivism" also gave us a perfectly usable definition of "positivism." First, science must rid itself of both "theological" and "metaphysical" explanations, explanations in terms of either supernatural entities or "occult forces." Second, scientific laws are defined as "invariant relations of succession and resemblance." "Causes" as unwitnessable powers are rejected. Third, explanation proceeds by subsuming the particular under the universal: what we today call the covering-law model of explanation. These features were shared by a long list of philosopher/physicists writing at the end of the nineteenth century, a list which included Wilhelm Ostwald, Ernest Mach, Pierre Duhem and Karl Pearson. They are found also in Vienna positivism, more recent neo-positivisms and more generally, in anti-realist empiricisms. See my *History and Philosophy of the Social Sciences*, especially pp. 184-190 and chapter 12.

9. See Ralph W. Sleeper, *The Necessity of Pragmatism* (New Haven: Yale University Press, 1986), especially Chapter 6, and Thomas Burke, *Dewey's New Logic* (Chicago: University of Chicago Press, 1994).

10. For a very useful account of Dewey's theory of inquiry as epistemology see, H.S. Thayer, "Objects of Knowledge," in John J. Stuhr (ed.), *Philosophy and the Reconstruction of Culture* (Albany: State University of New Press). I have sketched Dewey's approach as an naturalized epistemology in "Naturalizing Epistemology: Reconstructing Philosophy," in Stuhr, *ibid*.

11. See Stephen Steinberg, *Turning Back* (Boston: Beacon Press, 1995) and Herbert Gans, *The War Against the Poor* (New York: Basic Books, 1995) for review and criticism of the contribution of recent main stream social science to this impoverishment.

12. In 1929, Herbert Hoover assembled a distinguished group of social scientists "to examine the feasibility of a national survey of social trends...to undertake the researches and to make...a complete impartial examination of the facts." This was funded by the Rockefeller foundation with support from the SSRC, one of Merriam's inspirations. Four years of work by hundreds of social scientists filled 1600 pages of quantitative research. The document called "the Ogburn Report" after its director, William F. Ogburn of Columbia, may be taken to signal the full maturation of American-style social science.

13. For example, in his 1893 review of Ernest Renan's *The Future of Science*, "Renan's Loss of Faith in Science," Dewey agreed with Renan's view that "faith in the social career of science, of a wide distribution of intelligence as the basis of a scientifically controlled democracy, has all but vanished" (16).

The forty years since Renan wrote have not done much to add the human spirit and the human interpretation of the results of science; they have rather gone to increase its technical and remote character.

Dewey adds an insightful explanation for this:

Furthermore, Renan does not seem to have realized sufficiently the dead weight of class interest which resists all attempts of science to take practical form and become a "social motor" (17).

These charges recur through Dewey's very long life. See e.g., "The Revolt Against Science" (1945) (LW: 15: 188-191).

14. Larry A. Hickman, *John Dewey's Pragmatic Technology* (Bloomington: Indiana University Press,

1990).

15. It is not altogether clear what Dewey has in mind here. He may suppose with Bacon that the scientific revolution of the seventeenth century owed to incorporation of techniques derived from the workshops of craftsmen. But it has been shown that Baconianism contributed little to the development of the classical sciences: physics and astronomy. As Kuhn notes (in agreement with Koyre and Butterfield, the scientific revolution was not a consequence of new experimental techniques, but of "new ways of looking at old phenomena." Baconian experiments did, later, give rise to a large number of newer scientific fields which had their roots in the crafts and in alchemy. See Kuhn, 1977.

16. Having abandoned the quest for foundations, Dewey had to justify science as a mode of fixing belief "pragmatically." For some discussion, see my "Naturalizing Epistemology: Reconstructing Philosophy," in Stuhr.

17. See Rom Harre, *Varieties of Realism* (Oxford: Basil Blackwell, 1987).

18. He writes that "scientific inquiry proceeds by introducing qualifications. The amount of arsenic has to be specified... The conditions of the system into which it is taken have to be determined...The presence or absence of `counteracting conditions' has to be taken into account..." (LW, 12, 446-447. _.

19. Dewey very early on insisted that all behavior and experience was social, but he did not say much about what this meant or entailed. Mead did better. There are still many problems. For some alternative conceptions, see John Greenwood (ed.), *The Mark of the Social* (Rowman and Littlefield), forthcoming.

20. It may be thought that here, at least, Dewey did have influence. But, I would insist, the direction to which Dewey was pointing is precisely the direction that "scientific psychology" did *not* take. Writing in 1929, Boring summarized the situation:

By 1900 the characteristics of American psychology were well defined. It inherited its physical body from German experimentalism, but it got its mind from Darwin. American psychology was to deal with the mind in use...Thorndyke brought the animals into the formal laboratory... then went over to the study of school-children and the mental tests increased. Hall helped here too with his pioneering in educational psychology...Then Watson touched a match to the mass, there was an explosion and behaviorism was left (1929:494).

The idea of "the mind in use" *sounds* Deweyan; so too the appeal to Darwin. But Thorndyke's animal psychology was not inspired by an interest in discovering the mechanisms of cognition and judgement. On the contrary, like his work in educational psychology, it was inspired by interest in prediction and control. From this point of view, "the law of effect" (like Skinner's later operant conditioning) was quite sufficient. The lessons of Dewey's remarkable 1896 essay, "The Reflex Arc Concept in Psychology" were lost.

Similarly, Lewis Terman's 1906 complaint that "the most serious problems confronting psychology is that of connecting itself to life" *sounds* Deweyan, but this should provoke the question: *How* to connect psychology to life? Dewey would not have agreed that "it was the method of tests that has brought psychology done from the clouds and made it useful to men; that has transformed the `science of trivialities' into the `science of human engineering'" (quoted by Samelson, 1979: 106).

21. In some places, he suggests that a mind experiment may be quite sufficient; in others he seems at least to deny this. For example:

Experimental operations change existing conditions. Reasoning as such, can provide means for effecting the change of conditions but by itself cannot effect it. Only execution of existential operations directed by an idea in which ratiocination terminates can bring about the re-ordering of environing conditions required to produce a settled and unified situation (LW, 12: 121).

22. See also LW, 12: 458. It is clear that all inquiry requires experimentation for Dewey. He says also that there are at least three needs satisfied by experimentation: the institution of data, the elimination of material that is irrelevant to the problem at hand, and the generation of new existential materials.

He generally seems to have in mind something much like the "methods" that Mill had provided in his *Logic* (LW, 12: 190). But sometimes, experiment seems to be exploratory in its aim (LW, 12: 317), close indeed to the Baconian idea of "twisting the tail of the lion."

23. For a systematic discussion of "experiment" see Roy Bhaskar, *A Realist Theory of Science*, 2nd Edition (Atlantic Highlands: Humanities Press, 1978).

24. The bearing of this historical experience on drug policy should not be ignored.

25. See *War and Democracy*, Chapter 13..

26. See also *Logic* (LW, 12: 501-502).