BOOK REVIEWS

Ventures in Patronage

Fundamental Development of the Social Sciences. Rockefeller Philanthropy and the United States Social Science Research Council. DONALD FISHER. University of Michigan Press, Ann Arbor, 1993. xiv, 343 pp., illus. $49.50.

The influence of the great American philanthropic foundations upon the growth of knowledge and the spread of learning in the first half of the 20th century is incalculable. In the period between 1900 and 1945, the foundations established by John D. Rockefeller, Sr., Andrew Carnegie, Mrs. Russell Sage, and others supported research in public health, medicine, natural science, and social science on a previously unimagined scale. Through support concentrated in the major U.S. research universities and selected institutions of higher education and research overseas, their faith in the promise of scientific knowledge laid the basis for the modern research system as it has operated since the establishment of the National Science Foundation after the end of the Second World War. Before 1945, Congress was reluctant except in war to support scientific endeavor. The major foundations were actively willing to do so, and in the process changed the contours of the scientific world.

The architects of these changes in the world of learning were in the main officials of the foundations, who became managers of science and entrepreneurs of research. Many were themselves trained in science, medicine, or social science and had held university appointments before moving into the world of philanthropy. The main outlines of their influence are well known in the natural sciences and medicine. Recent monographs by Robert E. Kohler on the impact of Warren Weaver in molecular biology (*Partners in Science*, University of Chicago Press, 1991) and Steven C. Wheatley on the leverage of Abraham Flexner on medical education (*The Politics of Philanthropy*, University of Wisconsin Press, 1988) have shown the power and influence that foundation officials wielded. Well acquainted with the leading figures in their fields of interest, such men worked almost entirely behind the scenes and in this era relied on their own judgment, without the benefit of peer review, to determine where to "make the peaks higher."

In the development of the social sciences, a vital role was played by the Laura Spelman Rockefeller Memorial (the Memorial), under its director, Beardsley Ruml, from 1922 to 1929 and subsequently by its successor, the Social Science Division of the Rockefeller Foundation. Donald Fisher's monograph examines this influence as manifested in the Social Science Research Council (SSRC) in New York from its foundation in 1923 to 1945. The brainchild of Chicago political scientist Charles E. Merriam, the SSRC was underwritten by Rockefeller philanthropy as a national organization for the social sciences in which learned societies in anthropology, sociology, political science, economics, psychology, statistics, and history were to be represented.

The aim of the founders of the SSRC, Merriam and Ruml, was to create a vehicle for the rapid development of the social sciences. In the period after the First World War a reorientation and expansion were taking place that transformed the character of the social sciences, and the SSRC was an agent of the transformation. Social science became much more empirical in orientation and, in disciplines such as economics, psychology, and political science, much more quantitative. Merriam, the most influential academic figure in the SSRC's early history, pioneered the application of scientific method in political science. These movements were reinforced by a belief in the value of interdisciplinary work, an aim that underpinned the foundation of the SSRC. The SSRC pursued various programs for fellowships, for advanced study, and for research in particular fields and functioned as a broker for the social sciences with government.

The SSRC was supported financially to a generous degree by the Memorial, and the fact of this support is a central plank of Fisher's thesis in the book. This is that there was a close relationship between the barons of the expanding social sciences (such as Merriam), the officials of the great philanthropies (such as Ruml), and the state. As a result of Rockefeller philanthropy operating through the agency of the SSRC, Fisher argues, the social sciences had by the end of the 1930s become much more technocratic and social problem oriented than they were in the early 1920s, and much more influenced in the problems investigated by the concerns of the state.

The thesis that wealth can distort the development of scientific knowledge has a long pedigree and in recent years has been propounded by a number of radical scholars in relation to the influence of foundations. Fisher, influenced by theorists such as Antonio Gramsci and Michel Foucault, posits a direct connection between financial power and the growth of knowledge. He argues that the founders of the SSRC, supported by the Rockefeller Foundation, believed that social science was going to help solve the problems faced by the capitalist system. "They certainly had a vision for the social sciences. . . . they were sophisticated conservatives who wished to preserve the underlying structure of society by increasing the quality and quantity of social scientific knowledge" (pp. 32–33).

This is a popular thesis in some quarters, but there is much that is wrong with it. Fisher's exposition of it, based on the rich Rockefeller Archives at Pocantico Hills, focuses too much upon the Memorial and its successor, not enough upon the broader intellectual trends that were bringing about changes in the social sciences. These included a desire both to emulate recent advances in the natural sciences, for example in biology, and to learn more in an empirical way about the character of contemporary society. Fisher's thesis is overdeterminist. There may have been an elective affinity between the world views of Ruml and those of Merriam, but the influence ran as much from Merriam to Ruml as in the other direction. The trends Fisher illuminates owed much to a movement to professionalize social science in the wake of the successful professionalization of the natural sciences in the late 19th century. The belief in the intellectual potential of social science was shared by officials of the philanthropic bodies. Ruml and his associates sought scientific understanding rather than social amelioration as their objective, and if they had a political position it was liberal rather than conservative.

The actual influence of the SSRC on the practice of social science is not conclusively demonstrated in Fisher's account. In one of its principal aims, promoting interdisciplinarity, it was singularly unsuccessful in bringing about change. Fisher's study also greatly exaggerates the centrality of the state at this period. When in 1929 President Hoover set up the massive study of American social conditions published four years later as *Recent Social Trends*, its funding of over half a million dollars was provided not by government but by the Rockefeller Foundation through the good offices of the SSRC. This reflected the deep suspicion in Congress until well after 1945 of an

over-active government. "The state" is reified in Fisher's account, and he misses the significance of foundations as intermediary institutions that were free to act as they did precisely because they were not the handmaiden of government. The verdict on the book must be that it contains much fascinating original documentary material, but the overall interpretation remains unconvincing.

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Learning to Speak

The Child's Path to Spoken Language. JOHN L. LOCKE. Harvard University Press, Cambridge, MA, 1993. xii, 518 pp., illus. $39.95 or £27.95.

Children master the basics of the phonetic system, grammar, vocabulary, and conversational principles of their native tongue in the span of a few short years, a feat not lost on any linguist who has devoted a lifetime to explicitly describing the rules in any one of these domains for even one language. Moreover, they do so at a relatively predictable pace, following fairly regular patterns of acquisition, regardless of the language to be learned or the cultural milieu in which they are raised. How is such a prodigious accomplishment possible?

Perhaps the most contentious area of disagreement among developmental psycholinguists is the degree to which the capacity for language is inherent, species-specific, and reliant for its development only upon exposure to adult language models, and the degree to which it arises only through the interaction of children with the significant adults in their environment. The former account of language acquisition is usually termed "nativist," and the latter is often described as "social-interactionist."

In this new contribution to the developmental psycholinguistic literature Locke seeks to challenge many of the assumptions implicit in both nativist and interactionist accounts of language development. Reviewing research from a wide array of disciplines, he makes a number of proposals that have the potential to substantially alter the way language acquisition is studied and explained.

Perhaps Locke's most important contribution is his suggestion that acquisition researchers have treated language too narrowly, that, in concentrating on language's complex structural properties and in particular on the acquisition of grammar, they have given insufficient attention to its essentially communicative nature. Further, in real life spoken communication involves the transmittal of both linguistic and paralinguistic information. Appreciating an utterance fully requires not only a knowledge of its structural properties but also the ability to abstract from the stream of speech information about the speaker's gender, emotional state, and focus.

Locke notes that the processing of such paralinguistic information is known to be different from that of linguistic information, tending to be localized to the right cerebral hemisphere rather than the left. He believes that the relatively early development of the right hemisphere enables the infant to process the paralinguistic content of adult speech addressed to him, which in turn fosters the child's inherent (and strongly reinforced) desire for attachment and social interaction. Locke details the case for a quasi-modular "specialization in social cognition" (SSC) that ontogenetically (and phylogenetically) predates and enables the activities of a "Grammatical Analysis Module" (GAM). The SSC leads the child to perform certain nonlinguistic analyses of verbal and nonverbal interactions, while the GAM as posited resembles other nativist proposals for a species-specific language module (such as Chomsky's Language Acquisition Device), the primary function of which is the mastery of grammar.

On the basis of data from the observation of children learning spoken English and signed languages, Locke proposes that the GAM does not operate conspicuously until the age of about 24 to 28 months, at which point evidence of grammatical learning emerges through children's overregularization of morphological affixes (for example, the use of the never-overheard term "goed" for "went," despite the use at a younger age of the apparently unanalyzed form "went"). Prior to the GAM's onset of activity, the child may seem linguistic, and is indisputably communicative, but has no control over the arbitrary, rule-governed subsystems of language such as morphology, syntax, and phonology.

Locke's evidence for this dual route to spoken language is garnered from a number of sources and disciplines. Among the more interesting data presented are the results of conditions that appear to disable the SSC (such as autism), with ensuing disruption of the linguistic systems hypothetically subserved by the GAM.

Locke has a particular talent for disarming nativists and social interactionists of some of the basic artillery used in their skirmishing. Nativists often defend their account of language learning by identifying infant "linguistic knowledge" that is unlikely to be the result of experience. A growing body of research documenting the perceptual capabilities of extremely young infants has been used to posit innate predispositions for the analysis of linguistic input. For example, soon after birth infants are capable of discriminating between finely contrasting sounds within and across human languages, male and female voices, and varying prosodic patterns. However, Locke points out that recent findings regarding prenatal hearing make it difficult to describe any behavior demonstrated at or soon after birth as nonenvironmentally influenced. In an extended discussion that further undermines the distinction between biology and experience, Locke details the effects of various sources of perceptual stimulation on neurological development. He notes that infants aggressively solicit various kinds of perceptual stimulation, which has documented consequences for cortical organization and functioning. Similarly, he questions the assumption that the ways in which parents interact, verbally and nonverbally, with their infants are determined strictly by environmental factors, finally concluding,

> The classic opposition—genes versus the environment—now appears to be rather shopworn and empty. In reality, there never was a *versus* in this artificial dichotomy and there never were just two factors in the equation. Instead, we see that early brain developments beget others, that the child is an active agent in the creation of its brain and neurolinguistic capacity, that environments are themselves the expression of genes which are also inherited by the infant, . . . that behavior influences function and function influences structure, and that experience produces lasting changes in the architecture and function of the brain.

In *The Child's Path to Spoken Language* Locke reminds us that language learning occurs in the very real context of physical and social maturation and that children are neither little linguists nor experimental subjects in the laboratory. Researchers approaching the problem of language acquisition from different perspectives should welcome his contribution. Though he argues with many of the tenets defended by nativists and social interactionists in their debates about the relative merits of their theories, he dismisses none of their findings, striving instead for their noncompetitive inclusion in a full account of infant language learning.

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