

Foreword

by Sheldon H. White

MICHAEL COLE'S research projects and writings—multitudinous, adventurous, at times deeply searching and thoughtful—have done much to stimulate the growth of developmental psychology in the past three decades. This is a book of reflection and consolidation in which Cole takes the measure of what he has learned through his efforts, and in which he spells out a program for developmental psychology as a cultural-historical science. Cole addresses some fundamental questions. What does it mean to study a human's development scientifically? What kind of science do you arrive at? How broadly does it apply? What use can be made of it?

Developmental psychology came to life as a field of research at the turn of this century. There had been a rising tide of nineteenth-century writings about children, with authors examining their lives and circumstances philosophically, pedagogically, medically, politically, autobiographically, statistically, didactically, sentimentally, apocalyptically. Now there was to be a scientific approach to child development. At the beginning, the approach stood insecurely on scattered facts strung together with much theorizing. Followers of Darwin put together observations of children, animals, cross-cultural beliefs and practices, psychopathology, and so on, to sketch out an evolutionary

picture of the human mind. It was risky, speculative science; William James, in *The Principles of Psychology*, called it "wild work":

So it has come to pass that instincts of animals are ransacked to throw light on our own; and that the reasoning faculties of bees and ants, the minds of savages and infants, madmen, idiots, the deaf and blind, criminals, and eccentrics, are all invoked in support of this or that special theory about some part of our own mental life. The history of sciences, moral and political institutions, and languages, as types of mental product, are pressed into the same service . . . There are great sources of error in the comparative method. The interpretation of the "psycho-ses" of animals, savages, and infants is necessarily wild work, in which the personal equation of the investigator has things very much its own way. A savage will be reported to have no moral or religious feeling if his actions shock the observer unduly. A child will be assumed without self-consciousness because he talks of himself in the third person, etc., etc. No rules can be laid down in advance . . . the only thing then is to use as much sagacity as you possess, and to be as candid as you can.

The hope was that comparative studies of mental development would reveal the plan of the child's growth, giving guidance to educators, parents, pediatricians, social workers, and others with responsibilities for children. And the natural history of the child's development would fit together with the data of comparative neurology, animal psychology, abnormal psychology, and cross-cultural studies in principled ways to yield an evolutionary psychology. The evolutionary psychology given by the comparative method at the turn of the century was thin and marred by Western ethnocentric biases, but it did offer the skeleton of a universal account of children's mental development. Given a somewhat Wagnerian rendition by Freud, it initiated an intriguing, influential, but ultimately quite controversial body of psychoanalytic writings. Could one go beyond facts strung together to make plausible theories? One could if one had systematic, rich, constructive research programs. The history of psychology is a history of the struggle to build such programs.

The late nineteenth and early twentieth centuries brought organized cooperative research enterprises to psychology, scientific pro-

grams modeled on those of the natural sciences. Why did psychology follow the natural sciences? Psychology is occasionally pictured as a discipline haunted by a hapless, hopeless yearning for status as a *real* science. Without denying that there are touches of physics-envy to be found in some psychologists' writings, I think there is more to the problem than that. At the turn of this century, the physical sciences were well-formed, producing findings that were intellectually interesting and practically useful. There was good reason for psychologists to try to follow their pattern of cooperative activity, if only to see how far that pattern would take them. By concentrating on naturalistic questions and methods, psychologists sidestepped some tricky and risky issues. The twentieth-century scientific psychology of the universities, it must be remembered, emerged out of the nineteenth-century moral philosophy courses of the old-time American college. For a time, at least, the new psychologists of the universities (and those who hired them and provided resources to support their research) cherished the hope that a purely naturalistic, value-free enterprise of scientific psychology could yield data that would be used to provide easy, uncontroversial resolutions of the dilemmas, choices, and political confrontations of people living in the institutions of modern society.

But the science of the new psychology would prove to have hidden and awkward restrictions. The methods of a naturalistic scientific program would reveal patterns of organization of human perception, learning, and development, and the rhetoric of that program would assert that such patterns must be true for everyone everywhere. Michael Cole's point of entry into the problems of twentieth-century psychological science was the discovery that part of that assertion was not true. He took part in an effort to export the "new mathematics" to the Kpelle in Africa in the 1960s. He used Western research methods to study the cognitive development of Kpelle children living in a traditional society, and he came face to face with the fact that although tribal children classify, learn, remember, form concepts, and reason in everyday life, they do not perform in a sophisticated manner on experimental procedures designed for the study of age changes in those faculties. Western research procedures are grounded in a world in which children go to school at six years of age and are surrounded by the life, language, and thought of a modern society. Much of what

we consider to be normal to child development is simply a recognition of what usually happens when children grow up in such a world.

In this book Cole reviews the generality of his observations. He discusses the findings of a number of cross-cultural research projects and shows that there are always great difficulties in using traditional natural-scientific inquiries to compare peoples across cultures.

The fact that some twentieth-century psychology has produced findings that are only true within situational boundaries is not completely surprising. Before this century, a number of distinguished philosophers argued that in order to fully understand how the human mind works we will require two psychologies of different orders. We will need the kind of naturalistic psychology with which we are familiar, analyzing mental phenomena as constructions built out of sensations, ideas, associations, reflexes, or sensorimotor schemes. We will need also a less-familiar "second psychology" describing higher-level mental phenomena as entities given form by the language, myths, and social practices in which the individual lives. Such a second psychology would not be expected to yield universal findings. Since higher mental processes are formed by culture, they differ from one society to another.

Cole traces the lineage of proposals for a second psychology through the writings of Vico, Herder, von Humboldt, John Stuart Mill, and Dilthey and, among contemporary writers, through Toulmin, Price-Williams, Boesch, Shweder, and Bruner. There is a lineage of *cultural psychologists*, he says, that has consistently argued for an emphasis on mediated action in a context; the use of the "genetic method" understood broadly to include historical, ontogenetic, and microgenetic levels of analysis; the grounding of analysis in everyday life events; the assumption that mind emerges in the joint activity of people and is in an important sense, "coconstructed"; the assumption that individuals are active agents in their own development; rejection of cause-effect, stimulus-response, explanatory science in favor of a science that emphasizes the emergent nature of mind in activity and that acknowledges a central role for interpretation in its explanatory framework; methodologies that draw upon the humanities as well as the social and biological sciences (Chapter 4).

We have to see this lineage of cultural psychology not simply as an exercise in intellectual history but as an achievement, ideas about