
Foreword to The Ecology of human development by Urie Bronfenbrenner (Harvard U Press. 1979)

Michael Cole

Goethe, who commented wisely on so many aspects of human experience, said of our attempts to understand the world:

Everything has been thought of before,
The difficulty is to think of it again.

To this I would add (supposing that Goethe also said something to this effect, but not having discovered his discovery) that ideas are only as important as what you can do with them. Democritus supposed that the world was made up of atomic particles. Aside from his error in overlooking the implications of assuming that all atoms move in the same direction at the same rate, his astute guess about the atomic structure of matter did not have the same impact as Rutherford's rediscovery (with cloud chamber in hand) in 1900. In short, an idea is as powerful as what you can do with it.

Approximately one hundred years ago a number of scholars began to think that it would be possible to understand human psychological processes by conducting experiments, modeled on the precision and explicit, quantitative, data-analytic techniques that had propelled the physical sciences to such prominence in human affairs. Wilhelm Wundt is usually given the credit for this idea, although the *science* of psychology was born almost simultaneously in universities located in Germany, London, Cambridge (Massachusetts), and Kazan (U.S.S.R.).

What has been lost in our textbook accounts of the history of psychology is the fact that a great many other scholars who were around when psychology embraced the laboratory were not especially moved by the new enterprise. We tend to forget that Wundt himself believed that many psychological mysteries were beyond the reach of experimental methods, a belief not always shared by his

more zealous followers. Even before dissension began to appear in the ranks of those who followed in Wundt's path, more serious reservations were voiced about the utility of laboratory techniques for explaining our inner workings. Wilhelm Dilthey was an early and eloquent critic of Wundt's "new" psychology. Dilthey, after long deliberation, concluded that psychology should give up its quest for general laws of human psychological processes. Instead, he advocated that we strive for a *descriptive* psychology that would capture the unique complexity of the individual with all of its idiosyncrasies. Dilthey believed that by reducing the complexity of human nature to carefully measured reaction times or minutely detailed introspective reports, Wundt and his followers accomplished little more than the interment of human psychological processes in a crypt fashioned of brass instruments.

Dilthey's position has not prevailed in academic psychology, and for good reason. His very enticing view of adequate psychological description has never satisfied us as a model for complete psychological analysis. The infinite tangles of past experience and present circumstances that make us what we are smother us in particulars, defying explanation or generalization; faced with such complexity, any plausible simplifying procedure can appear to be a lifeline.

Recognizing psychology's limitations, we joke that Henry James was the great psychologist, his brother William the novelist. Lamenting psychology's limitations, we nonetheless expect a proper scientific discipline to provide us with more systematic information about ourselves than a novel can. Lacking such a rigorous discipline, we have followed Wundt's narrower path in our methods, but the limitations of theory imposed by that choice do not rest easy. We are faced with the paradox of a successful science that tells us precious little about the concerns that beckon us to it. Those who engage in psychology as professionals either come to terms with its limitations or become bored with neat experiments, the significance of which remains too often obscure. Finding no promising alternatives, many choose inaction.

Although there have been many changes in the particulars of psychological theory since the time of Wundt and Dilthey, the two extreme approaches that generated the schism between descriptive and explanatory psychology in the first place have prevailed, as have their differences in sophistication of methods and acceptance as disciplines. Wundt's structuralism gave way to new schools of scientific psychology, each complete with its own structured, systematic, and constrained models and methods: Gestalt psychology,

functionalism, behaviorism, and (most recently) experimental, cognitive psychology. Dilthey's criticism of this continuing effort to build a "nomothetic" psychological science has been rediscovered repeatedly, most recently in the humanistic psychologies of the late 1960s and 1970s, but each time without the crucial analytic tools for descriptive analyses or the power to explain what it describes.

Some few among psychology's practitioners, even in the earliest days, sought ways to link the descriptive and explanatory approaches, recognizing in this schism the seeds of psychology's undoing as a discipline. For example, in the early decades of the twentieth century it was common, especially in Germany, which gave birth to both movements, to encounter discussions of the "crisis" in psychology, for which various authors proposed various solutions. Coming on the heels of a decade of social and scientific activism in the 1960s (in which he took an active part) Urie Bronfenbrenner's work represents the continuation of efforts by this small, heterogeneous, but significant group of psychologists to overcome the "crisis" in psychology by constructing a discipline that is *both* experimental *and* descriptive of our lives as we know them.

His themes are those which concern everyone who hopes that psychology will shed light on our experience. The promise he offers us is very enticing. Psychology need not choose between rigor and relevance. It can do more than explain "strange behaviors in strange places." If properly pursued, it can tell us how those strange places and strange behaviors relate to the mundane contexts we refer to as our "everyday lives."

Professor Bronfenbrenner urges upon us his concern with specifying what people do in a way that will generalize beyond the contexts of our observations. He emphasizes the crucial importance of studying the environments within which we behave if we are ever to break away from particularistic descriptions and contentless processes. In both these concerns, he follows in the footsteps of very able predecessors.

But what should lead us to believe that Bronfenbrenner's prescriptions will succeed when the work of men whose ideas he has built on (Kurt Lewin, for example) seems to have disappeared-sunk into the sands of time or so absorbed into our collective folk wisdom that it is no longer extractable for purposes of analysis? The answer lies in his specification of procedures that are enough like what we already do to make them comprehensible, yet different enough to provide a better approximation *to* real-life phenomena.

Almost everyone who has read about psychological experiments

has had occasion to puzzle over their meaning. Are Stanford students sadists or craven cowards as their behavior in Zimbardo's prison experiments suggests? Are people slaves to authority who would willingly inflict harm on helpless fellows as the Milgram studies of compliance tell us? Are people really indifferent to strangers in distress? Can IQ tests possibly tell us about the value of day care?

To each of these and many other questions Bronfenbrenner gives us the only honest answer imaginable—the same answer his grandmother would have offered had he been able to discuss these questions with her—"it *all depends*." In technical language, "it all depends" translates into the idea that the explanations for what we do (assuming we achieve serviceable descriptions) are to be found in interactions between characteristics of people and their environments, past and present. As Bronfenbrenner says, "the main effects are in the interaction." He would also follow Kurt Lewin in suggesting that if we want to change behavior, we have to change environments.

All of these commonsense suggestions entail a reorientation of the way we think about psychological processes, which must come to be treated as properties of systems, systems in which the individual is but one element. These ideas will succeed if Bronfenbrenner has (to paraphrase him) irked and goaded enough able scholars by his audacious assertions into trying to prove him wrong. Systematic challenges, even if they should disable his specific assertions, would constitute success. These are ideas worth having again and again until we are ready to exploit their power. When that day arrives, psychology will become a unified science of human behavior.

Michael Cole

University of California, San Diego