

The History of Howard Gardner **by Ellen Winner**

Howard Gardner's career trajectory as a developmental psychologist parallels that of his age cohort in some ways, while deviating from the canonical pattern in others. Attracted to developmental psychology by his reading of Jean Piaget and his meeting of Jerome Bruner, he soon gravitated to cognitive development, with a special interest in human symbolic capacities. Following postdoctoral work in neurology and neuropsychology, he pursued complementary empirical research programs in cognitive development and neuropsychology. His regular production of research articles for the scholarly community was complemented by a steady stream of books, directed principally at the general reader and at college and graduate students. Around 1980 Gardner's empirical work culminated in the positing of the theory of multiple intelligences, for which he is best known. In the 1980s, like many of his colleagues, he moved in a more applied direction, focusing particularly on issues of teaching, learning, and school reform. In the 1990s, he joined forces with two other developmentally oriented psychologists, Mihaly Csikszentmihalyi and William Damon, to investigate issues of professional ethics - what he and colleagues term 'good work.'

Gardner is part of the third wave of individuals affected by the rise of fascism in Europe. His Jewish parents, Ralph and Hilde Gardner, fled from their native Nuremberg Germany, arriving in America on the infamous Kristallnacht, November 9 1938. Gardner was born on July 11 1943 and grew up in Scranton, a medium sized former coal mining city in northeastern Pennsylvania. He was an excellent student and a promising young pianist. Gardner quit formal study of music at the start of adolescence but continued to play and teach sporadically, and music remains important in his life. He attended local schools in the Scranton area but claims that his education began in earnest when he arrived at Harvard College in September 1961. There he studied history, sociology, and psychology, and audited a record number of courses that spanned the curriculum. He also decided to become a scholar rather than pursue one of the standard professions that his family had in mind for him-the first in his family to attend college.

As an undergraduate, Gardner worked with the noted psychoanalyst Erik Erikson. After spending a postgraduate year as a Harvard Fellow at the London School of Economics, where he read philosophy and sociology, Gardner decided to continue graduate studies in developmental psychology at Harvard. In addition to his ties to founding cognitivists Piaget and Bruner, Gardner also worked closely with the psycholinguist Roger Brown and the noted epistemologist, Nelson Goodman. After completing his doctoral studies, Gardner had the opportunity to work with Norman Geschwind, a brilliant and charismatic neurologist, and he was able to pursue empirical work in both developmental and neuropsychology for the ensuing two decades. Maintaining his Harvard connection throughout, Gardner avoided the usual tenure ladder and became a Professor of Cognition and Education at the Harvard Graduate School of Education in 1986. Thus, while he is widely traveled, and conducted field research in China in the 1980s, his entire adult career has been spent in Cambridge.

Gardner's work is best described as an effort to understand and explicate the broadest and highest reaches of human thought, with a particular focus on the development and breakdown of intellectual capacities, broadly construed. He was a founding member of Project Zero at Harvard University, a group that is dedicated to the study of higher cognitive processes, with a special focus on creativity and the arts. His work in neuropsychology focused on the breakdown of artistic and other high level skills under various forms of brain pathology. His theory of multiple intelligences recognizes a broad swathe of human capacities, including ones from the arts and from the realm of human intercourse that have traditionally been considered nonintellectual and perhaps not even cognitive. His studies of extraordinary individuals, including leaders as well as creators, are cognitively construed; he views leadership as an interaction between the minds of the leader and the minds of his or her constituency. And in his recent collaborative research on work, he looks for evidence of work that is not only excellent in quality but also displays a sense of responsibility about the uses to which that work is put.

Gardner is best known, and properly so, for his capacities as a synthesizer of vast amount of research and theory. His first books treated human developed from the perspective of the arts ("The Arts and Human

Development" ,1973); structuralist thought (Piaget, Chomsky, Levi-Strauss-1973); neuropsychology ("The Shattered Mind")-1975; cognitive science ("The Minds New Science "1985) and Developmental Psychology (1978/1982) an original and well regarded text that he elected not to update.. With the publication of Frames of Mind in 1983 Gardner began to put forth his own views about the mind. This work introduces the claim that standard views of intelligence are flawed and that human beings are better described as possessing 8 or more relatively autonomous intellectual capacities, termed the multiple intelligences, This work quickly became well known and much discussed and, not surprisingly, Gardner became a far more controversial figure. While continuing to produce works of synthesis, Gardner devoted more of his attention to putting forth his own ideas about creativity (Creating Minds 1993) leadership (Leading Minds 1995), and education (The Unschooled Mind, 1991 The Disciplined Mind, 1999 and Intelligence Reframed 1999). His most recent work, Changing Minds (2004) is an examination of the processes by which individuals change their own minds and the minds of other persons.

While he is best known as a synthesizer, Gardner's other research and professional accomplishments merit attention as well. His early empirical work in developmental psychology demonstrated the trajectory of metaphoric production and perceptual capacities in young children as well as the sensitivity of children to style in different art forms. With Judy Gardner, he was among the first to demonstrate imitative capacities in early infancy. With Dennie Wolf, he traced the development in young children of the range of symbol using capacities. With Ellen Winner, he examined the complementary aspects of two forms of figurative competence-metaphor and irony. Turning to neuropsychology, Gardner was the first investigator in modern times to explore the role of the right hemisphere in linguistic and paralinguistic spheres. With Ellen Winner, Hiram Brownell, and others, he led a research effort on the breakdown of narrative, metaphoric, and other forms of linguistic and artistic competence's under various conditions of brain damage. He wrote the chapter on "Extraordinary Cognitive Achievement" in the 1997 Handbook of Child Psychology and, with Seana Moran, has produced an expanded and more original update for the 2006 edition. In that updated chapter, Moran and Gardner describe extraordinary achievement across several domains, including art, science, leadership, and moral excellence.

Gardner's theory of multiple intelligence was conceived of as a contribution to psychology but its greatest influence has been in education. First in the United States, and then in many other parts of the world, educators have drawn inspiration from his theory and have created a plethora of applications in the areas of curriculum, pedagogy, and assessment. Many programs and schools have adopted the phrase "multiple intelligences" and hundreds of books, articles, films, and other adaptations have been created, many with neither Gardner's knowledge nor approval. Spurred in part by this great interest in the educational implications of his work, Gardner has undertaken several projects in education (see pzweb.harvard.edu and his books Multiple Intelligences (1993) and Intelligence Reframed (1999). He has stressed that neither multiple intelligences theory nor any other scientific innovation can be applied directly in the classroom; educational practice is always a reflection of goals and values, which should be explicit as possible. In his book The Disciplined Mind (1991) Gardner has embraced the educational goal of "understanding in the principal disciplines,"; via a number of concrete examples, he has demonstrated how a recognition of multiple intelligences can aid in the inculcation of disciplinary understanding. More broadly, in his educational work, Gardner has pushed for recognition and development of a wide range of human capacities; modes of assessment that are natural (e.g. portfolios, process folios, performances of understanding) and that encompass many forms of critical and creative thinking; pedagogical approaches that stimulate imaginative capacities; and institutional settings that encourage productive thought and creation with a range of materials and genres. Among his most important projects and collaborations have been ATLAS communities, Arts Propel, Teaching for Understanding, Project Spectrum, and a study of interdisciplinarity; over the years he has had rich interchanges with the preschools of Reggio Emilia, Italy, the Key Learning Community in Indianapolis, and the New City School in St Louis. His study of arts education in China was the centerpiece of "To Open Minds" Chinese Clues to the Dilemma of American Education" (1989).

By choice, Gardner has not undertaken major editorial or professional roles. He sees himself primarily as an independent scholar and public intellectual. However, with his long- time colleague David Perkins, Gardner has been instrumental in the founding and flourishing of Project Zero, now one of the oldest and most respected educational research sites in the world. He is an accomplished grant getter and has also

helped to raise significant funds for Harvard University. He belongs to numerous honorary societies and has won various awards, including a MacArthur Prize Fellowship in 1981 (the first year of the Fellowship), the Grawemeyer Award in Education (first American to win this award) in 1990, and the Guggenheim Fellowship (2000). He is also the recipient of 20 honorary degrees including degrees from universities in Italy, Ireland, Israel, and Canada. Married since 1982 to developmental psychologist Ellen Winner, he is the father of four children: Kerith (b. 1969), Jay (1971), Andrew (1976) and Benjamin (1985). Self-described as a happy workaholic, he spends his free time with his family, a close knit group that spans several generations.