some form of it, for granted rather than making its existence and form the things to be explained. The theoretical equipment that Merton provided had helped sociologists to move forward with their distinctive tasks. The very success of their efforts then became an important force in leading sociologists to new directions in theory and method. And that is what Merton both hoped and forecast.

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Vignettes from an Oral History

Insights on the Child Development Movement in the United States. MILTON J. E. SENN. With commentary by William Kessen and L. J. Borstelmann. Published for the Society for Research in Child Development by University of Chicago Press, Chicago, 1975. iv, 108 pp. Paper, $7. Monographs of the Society for Research in Child Development, vol. 40, Nos. 3–4.

The field of child development as a distinctive scientific enterprise appears to have survived many of the stresses of its early days and to have begun taking on the privileges and burdens of maturity. After prolonged struggles with the problems of marginal status, multiple leading figures urging it in different directions, and deficiencies in empirical knowledge and conceptual sophistication, the field now can point to capable and imaginative investigators from a variety of scientific disciplines, established research institutes, more academic departments, rapidly expanding journals, and, in the past decade, an unparalleled surge of interest among talented students. And current demands on child developmentalists, including demands for more assistance in the solution of pressing psychological, biological, and social problems, reflect an assumption that they are capable of providing such help.

Not that the field is free of problems. Support of research on child development—especially federal support—is currently declining; the researchers themselves remain divided on the relative merits of "process" versus "substantive" research and on the importance of immediate social relevance; and communication between child developmentalists, on the one hand, and government, colleagues in parent disciplines, and social action groups concerned with children's rights and welfare, on the other, is less than optimal.

On balance, however, the growth and progress of the field have been impressive. Much has been learned about the development, particularly in infancy and early childhood, of such basic mental functions as perception, cognition, language, memory, and sensory capabilities and about the development of personality and social behavior throughout childhood and adolescence. Of obvious social relevance, we now know far more than in the past about the effects on development of separation from primary caretakers and of inadequate stimulation early in life; about beneficial and destructive child-rearing techniques; about the effects of pre- and postnatal nutritional deficiencies, chromosomal and hormonal abnormalities, and the effects of drugs; about psychological and neurophysiological factors in learning disabilities and their treatment; about sexual development, sex differences, and changing sex roles; about dealing with behavioral problems and psychophysiological disturbances; and about the contributions of poverty, discrimination, disturbed parent-child relationships, and social dislocation to a host of problems ranging from neurotic disorders to drug use and delinquency.

In the light of recent progress, it is easy to forget that the field is only about a half-century old and that the careers of a number of its pioneers have spanned much or all of that period. Fortunately for us, Milton Senn, a pioneer himself and for many years Sterling professor of pediatrics and director of the Child Study Center at Yale, realized that, although a sustained interest in children and their development frequently seems conducive to longevity, time ultimately extracts its toll. In 1963, he began a series of extensive, informal taped interviews with men and women who have been associated in one way or another with the study of child development over the years, obtaining their recollections about the development of the field.

This monograph is a partial distillation of the material obtained. (Complete tapes and transcripts have been deposited in the Child Development Archive of the National Library of Medicine.) As the author himself notes, it is not his intention to present a systematic history of the study of child development in this country, which has been done by others. Instead, he concentrates on three topics, which reflect his own special interests: the reactions of people who have worked in child development to some of the major figures and influences in the field during their careers; the relationship of the study of child development to pediatrics and child psychiatry through the years "as viewed by various scientists in a position to hold opinions worth hearing"; and the relevance of the child development movement to better child-care practices in the United States.

In each of these areas, Senn contributes additional information, a unique perspective, and perhaps most interestingly, a feeling for the personalities and idiosyncrasies of the major figures involved and their interaction (or lack of it): G. Stanley Hall, John Dewey, Caroline Zachry, Lawrence K. Frank, Robert S. Woodworth, John B. Watson, Arnold Gesell, Lewis M. Terman, Freud, Kurt Lewin, Piaget, and many others. Anyone who doubts that history not only makes, but is made by, outstanding men and women should read this monograph.

The role of Lawrence K. Frank in the child development movement provides a dramatic case in point. As an economics student at Columbia in the early 1900's, Frank became concerned with the high rates of infant and maternal mortality prevailing among the poor. Subsequently, as the interests of this charismatic, enthusiastic, and endlessly curious man expanded, he became convinced of the need for a sound program of child rearing for children generally—in the home, in school, and in the agencies of child care. He recognized that if such a program was to be carried out effectively there was a need for more intensive research in child growth and development, as well as improved adult education, especially parent education. In great measure through his efforts, a number of centers for research in child development were set up, including the Institute of Child Welfare at the University of California at Berkeley, founded in 1927. In a tribute to Frank, Henry Murray of Harvard once referred to him as "the procreative Johnny Appleseed of the social sciences, a peripatetic horn of plenty, crammed to his lips with everything that's new, budding, possible, and propitious, . . . who has gone from place to place, from symposium to symposium, radiating waves of atmospheric warmth, cheerfulness, and hope, as he spread the seeds for novel, hybrid, research projects to be nurtured, implemented, and actualized by others."

A striking aspect of these recollections is the essential contribution of many able women in the history of child development studies. It would be difficult to conceive of the development of the field without the work of such figures as Jean Macfarlane, Nancy Bayley, Lois Meek Stoltz, Mary Cover Jones, Myrtle

McGraw, Marjorie Honzik, Lois Murphy, and numerous others, including Margaret Mead in America and, abroad, Anna Freud, Charlotte Bühler, and Susan Isaacs. Ironically, a number of leading women educators in the 1920's, including the presidents of Barnard, Wellesley, Bryn Mawr, and Vassar, were strongly opposed to involvement in work in the preschool field because, as Lois Stoltz recalls, they thought "it was somewhat beneath them."

In discussing the relationship of child development studies to pediatrics and child psychiatry over the years, Senn and his respondents present a paradoxical picture. A number of pioneer contributors to the study of child development—people like Gesell, Alfred Washburn, C. Anderson Aldrich, Leo Kanner, Lester Sontag, David Levy, William Healy, and Senn himself—brought to it valuable new perspectives from these disciplines. Yet most found little initial understanding or encouragement of their concern with development and at times encountered outright hostility or rejection among their peers in medicine and psychiatry. Pediatric colleagues at Yale could not understand why Gesell was "wasting his time" studying normal growth and development when he could have been doing presumably more important laboratory and clinical work on disease processes.

Julius Richmond, pediatrician and the "father" of Head Start, recollects "the feeling of loneliness which Dr. Senn and I and others coming after him felt in our field." However, Richmond now feels that, although knowledge of child development is still not widespread in medicine, "we have moved to a point at which there is fairly general acceptance in pediatric circles and child psychiatry circles, and, I think, the other child care professions, of the importance of the growth and development of children. I think that we haven't been successful in providing enough education in our respective fields to really do the training and educational job as well as we should."

Of special interest today, when demands for "relevance" in developmental research are becoming increasingly insistent, is the reminder in Senn's monograph that much of the original impetus for the child development movement came from concern with finding better answers to pressing problems of children—better methods of education, greater help to parents in child rearing, more adequate child health care, and prevention and treatment of emotional disturbances. As Robert Sears has recently commented, "Today's novitiates in the 'science' of child development must not complain when they feel the heat of social demands put upon them. The field grew out of *relevance*. Its content and its multidisciplinary structure are a product of the demands for social usefulness." Indeed, it is probably their concern not just with scientific discovery but with improving the situation of the world's children that ultimately binds together the tenacious minority of psychologists, pediatricians, child psychiatrists, educators, sociologists, anthropologists, behavioral geneticists, and others whose collective work determines what the "child development movement" is, and what it will become.

As William Kessen observes in one of two perceptive commentaries appended to this monograph (the other is by L. J. Borstelmann), Senn's publication "is all at once biography, history, gossip, and evidence. As biography, it is lovingly and persuasively partisan; as history, it is revealing, selective, and necessarily limited by its method; as gossip, it is tame; as evidence, it is without parallel, essential to any future chronicle of child study."

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The Study of the Very Bright

Terman and the Gifted. MAY V. SEAGOE. Kaufmann, Los Altos, Calif., 1975. xiv, 258 pp. + plates. $10.

Intellectual precocity has not always been generally applauded. Shakespeare helped further the myth that precocity is unhealthful when in *Richard III* he said, "So wise so young, they say, do never live long." The 19th-century American writer Margaret Fuller warned that "For precocity some great price is always demanded sooner or later in life." The British critic and essayist William Hazlitt had noted of some English writers that "Their productions . . . bear the marks of precocity and premature decay." The great French writer Alfred de Musset summed up the matter well when he wrote, "How glorious it is—and also how painful—to be an exception."

Growing up on an Indiana farm, Lewis Madison Terman (1877–1956) keenly felt the proddings of his high intelligence and strong academic motivation. Despite lifelong bouts with pulmonary tuberculosis, he worked extremely hard and effectively to build up a solid body of empirical evidence that would counter prejudices against the intellectually gifted. The essential tool for this endeavor, which began before 1921 and will continue under his financial auspices through this century, was his revision and standardization in the English language of the Frenchman Alfred Binet's 1911 intelligence scale. Terman's Stanford-Binet Intelligence Scale (1916, 1937, 1960) is one of the greatest contributions of psychology to human affairs. Through the work of Terman and Arthur S. Otis, his student, it led also to group testing of intelligence and other abilities and achievements. Terman and Otis pioneered in the development of multiple-choice items and quick, objective scoring. In use to this day, the Stanford Achievement Test Battery attests to the fruitfulness of their work during World War I and thereafter.

Though "IQ tests" are much maligned, especially because results from them can be misused greatly, the Stanford-Binet Intelligence Scale remains a psychometric marvel. No other instrument spans so well almost the entire range of mental ability from slow-learning preschoolers to brilliant adults. No other one mental test can provide the well-trained school or clinical psychologist with as valid a single IQ. Because it must be administered by the examiner to examinees individually and must be scored carefully, use of the Stanford-Binet is slower and more expensive than group testing, but for many persons it is well worth the cost.

Binet had developed his first scale in 1905 for differentiating among seemingly dull young school children, and that was the use to which Henry H. Goodard put it in the United States by 1910. As early as 1904, however, in his first published paper, Terman showed that his interests lay at the other end of the intellectual continuum. It is fitting that his last paper, read at the annual American Psychological Association meeting in 1955 and reproduced by Seagoe in the book under review, briefly summarized "the characteristic traits of gifted children" and then presented some of the results of Terman's most recent follow-up studies of his more than a thousand highly gifted "children," by then of average age 44.

Chiefly during 1921–22 Terman located 1528 California children, most of them of school age, who represented approximately the upper one-half of 1 percent of the IQ distribution. By 1925 the first volume of his Genetic Studies of Genius series (five volumes thus far,