

BARBARA STODDARD BURKS

1902-1943

The death of Barbara Stoddard Burks on May 25, 1943, at the early age of 40 years, was a truly serious loss not only to psychology but also to biology, sociology, and education. Her record for creative productivity, which has rarely been equalled by one of her years either in quantity or quality, was made possible by an extraordinary combination of intellect, energy, and scientific enthusiasm. As Dr. Florence Goodenough has expressed it in a personal letter to me, "In the short span of her life Dr. Burks' contributions would have done credit to one of double her age. Her zeal in research, her fine technical skill, and her clear insight into the basic principles underlying the problems which she set out to solve won the unqualified admiration of her colleagues both in this country and abroad."

Barbara's ancestry on both sides goes back to superior colonial stock, her father's family being among the early settlers in Virginia and her mother a descendant of the Jonathan Edwards family and of Benjamin Franklin's father. Barbara's relatives, especially on her mother's side, include a large number of outstanding persons in the fields of government, scholarship, science, education, and letters. Her father, Dr. Jesse D. Burks, was a graduate of Chicago and Columbia universities and was widely known for his work in two separate fields: education and municipal research.

Barbara graduated from high school at the age of 16, then worked for a year in the U. S. Bureau of Standards before entering college. My acquaintance with her began when she was a senior student in psychology at Stanford after she had transferred from the University of California at the end of her junior year.

She graduated from Stanford in 1924 with Phi Beta Kappa honors and "with great distinction." The unusual quality of her mind was so immediately evident that she was advised at once to proceed to the doctorate without undergoing the usual probationary period before setting this goal. Her record as a graduate student was in fact one of the best I have ever known.

Barbara was my research assistant in psychology from 1924 to 1929 and my research associate in 1929-30. Her Ph.D. dissertation was completed in 1927, but because of her extensive collaboration with me on other research and writing she did not receive her degree until 1929. Her later academic career was as follows: school psychologist in Pasadena, 1931-32; research associate in child welfare at the University of California, 1932-34; General Education Board Fellow, 1934-36; research associate at the Carnegie Institute, 1936-43. For two years preceding her death she was also associate in psychology at Columbia University.

One might be puzzled to say, on the basis of either the positions she held or her diversified publications, whether Barbara's main interests were in psychology, genetics, or education. Her minor field of study for the doctorate was in mathematics, with emphasis on statistical procedures applicable to bio-social problems. As a graduate student she also found time to master, as few psychologists ever do, the fundamental principles of genetics. Her interests were primarily oriented toward the nature and nurture factors that determine human development, rather than toward any one discipline as such; she was willing to equip herself in whatever borderline fields would contribute to this end.

Her loss will be more keenly felt because of this rare breadth of interests. As expressed by Dr. Gardner Murphy, "The trend towards interdisciplinary research has never been more magnificently exemplified than in the career of Dr. Burks, whose work began with an integration of biological, psychological, and educational materials in her large nature-nurture studies and went on to include materials from sociology and psychiatry. She passed with ease and competence from technical studies of the biology of twinning and of linkage to the subtle and complex problems of childhood egocentrism and of sociometric placement. Quite aside from the sheer volume of her work, there was no more mature or indefatigable student of the bio-social nature of human personality problems."

The early flowering of Barbara's genius is indicated by the fact she had planned the main outlines of her life work on nature and nurture by the age of 20 years and had completed her famous study of foster children soon after her 24th birthday, notwithstanding the extensive assistance she was giving me at the time in the preparation of the 1928 *Yearbook* of the National Society for the Study of Education. Nor is it any disparagement of her later work to say that this study deserves to be ranked among the best of her entire career, indeed among the dozen or so most important contributions in the history of nature-nurture research from Galton to the present. By limiting the number of variables to the lowest possible number and by the application of statistical procedures hitherto unused in nature-nurture investigations, she was able to present cogent evidence of the predominant part played by heredity in determining parent-child resemblance in intellectual performance. It is significant that a repetition of her study by Dr. Alice Leahy in Minnesota, with con-

trols that were in some respects even more rigid than those previously used, yielded results that agreed with Barbara's almost perfectly to the second decimal place.

The value of Barbara's contribution to the 1928 *Yearbook* can hardly be overestimated, for besides her foster children study she prepared a hundred page summary of previous nature-nurture studies, and (in collaboration with Dr. T. L. Kelley) wrote a noteworthy chapter on statistical hazards that confront investigators in this difficult field of research. The foster children research was originally designed as a collaborative affair, with Barbara as my assistant, but because of the initiative and originality she displayed in planning the investigation I was glad to turn over to her the entire responsibility of carrying it through. If space permitted I could speak with equal enthusiasm of her collaboration with me in the 1927-28 follow-up of my gifted subjects and in the writing of Vol. III of *Genetic Studies of Genius*.

Although Barbara's later researches covered a wide range of topics, the nature-nurture problem remained her strongest interest. For some time before her death she had been engaged in a study of foster children in the state of New York. This research was financed by the Carnegie Corporation and was being carried out under the auspices of the Social Science Research Council. It was made possible by the coöperation of the New York State Charities Aid Association and was concerned mainly with the personality adjustment, broadly defined, of three groups of foster children: true parents psychotic, true parents alcoholic, and true parents normal.¹ Only a month before her death she had been awarded a Guggenheim Fellowship to enable her

¹ The study is being completed by Dr. Anne Roe at Yale University.

to complete another study she had under way on identical twins reared apart.

One of Barbara's last important publications was a highly detailed study of the personality characteristics of a single pair of twins reared apart, prepared as a contribution to a memorial volume dedicated to me on my retirement from active service. This study was a masterpiece of finesse in ferreting out minor as well as major differences in personality behavior and indicates the type of work she planned to do with ten or a dozen pairs of separated identical twins during the term of her Guggenheim Fellowship.

While holding a General Education Board Fellowship, 1934 to 1936, Barbara spent the first year at Columbia University making a survey of problems and techniques related to the personality development of children. The second year was spent in Europe, seven months with Piaget and his associates at Geneva, six busy weeks in Germany, and numerous briefer visits to clinics and research laboratories in Great Britain and France. I have seen a confidential report of some 10,000 words in which she summarized her experiences and gave her reactions to the personalities and to the research problems and techniques with which she came in contact that year. Her observations were so keen and her comments so vivid and insightful that it is a pity the report could not have been published in full. In her comments on Germany she had much to say about the blighting effects of the Nazi regime on university research and about its methods of educational indoctrination. It was evident that in 1936 she foresaw as clearly as did our press representatives in Berlin the inevitable outcome of Germany's aggressive mood.

The contacts which Barbara made in Europe in 1936 were doubtless responsible for her appointment two years later,

first as secretary then as chairman, of the Committee in Aid of Displaced Foreign Psychologists. As a representative of the committee she returned to Europe in the summer of 1939. Regarding her work on this committee Dr. Gordon Allport has written me in part as follows: "The burden was very heavy for the first two years, lightening somewhat as time went on. . . . In her annual summary Barbara reported with modesty concerning certain results of her work. Jobs were found for a limited number of refugee psychologists (possibly a score), fellowships and internships were secured for rather more. Aid was given in the preparation of manuscripts, in securing occasional lecture opportunities, and in attending scientific meetings. At one time she had, I think, 200 names of displaced psychologists, most but not all in America. Others were still seeking means of entrance when the war broke out. For every placement, or instance of successful help, I estimate that she wrote twenty letters and made many personal calls. The reward was meagre and discouraging. Yet, even if the successes were not numerous, they were occasionally brilliant. There are a few instances, too personal for record, where her efforts surely turned the tide from disaster to success. Her service stemmed from a deep generosity in her nature, and a willingness to take up dreary and thankless work which other people gladly escaped. Although she encountered discouragements and occasional hostility she persevered without complaint."

It is a fitting tribute to her work in this connection that a committee has been formed to secure contributions for a Barbara Stoddard Burks Memorial Fund to be used as a loan fund in aid of refugee psychologists or geneticists engaged in study or research in this country.

Barbara was married in 1927 to Dr.

Herman Ramsperger who was at that time a National Research Fellow in chemistry at Stanford University and later became assistant professor of chemistry at the California Institute of Technology. The marriage was an ideally happy one. Herman took great pride in his wife's attainments and gave her every encouragement to continue her professional career. His untimely death in 1932, after a lingering illness, was a blow from which Barbara was slow to recover.

Mention should be made of the splendid tribute to Barbara's genius published by Woodworth as a letter to the *New York Times* under the date of May 28, 1943; and of the equally fine tribute in the *Bulletin of the Society for the Psychological Study of Social Issues* which appeared in *The Journal of Social Psychology*, 1943, pp. 161-163. The Woodworth letter was reprinted in *Eugenical News*, 1943, Vol. 28, No. 1, together with an 'In Memoriam' tribute by the editor of the Journal. *Science*, of November 26, 1943, published a brief but excellent necrology by Katherine S. Brehme.

The following bibliography of Barbara's publications was prepared by Enrica Tunnell, of the Columbia University Library.

LEWIS M. TERMAN

Stanford University

PUBLICATIONS OF BARBARA S. BURKS

1. *Him and her*. (Authored under name of Burx.) Boston, Mass.: Four Seas, 1925. Pp. 22.
2. A scale of promise, and its application to seventy-one nine-year-old gifted children. *Ped. Sem.*, 1925, 32, 389-413.
3. With BURKS, F. Motherhood plus a career. *Sunset*, 1925, 54, 49-50.
4. Determining identity of twins. *J. Hered.*, 1926, 17, 193-195; 203-204.
5. On the inadequacy of the partial and multiple correlation technique. *J. educ. Psychol.*, 1926, 17, 532-540; 625-630.
6. Foster parent-foster child comparisons as evidence upon the nature-nurture problem. *Proc. nat. Acad. Sci., Wash.*, 1927, 13, 846-848.
7. Comments on the Chicago and Stanford studies of foster children. *27th Yearb. nat. Soc. Stud. Educ.*, 1928, Part I, 317-321.
8. The relative influence of nature and nurture upon mental development; a comparative study of foster parent-foster child resemblance and true parent-true child resemblance. *27th Yearb. nat. Soc. Stud. Educ.*, 1928, Part I, 219-316.
9. A summary of the literature on the contributions of nature and nurture to the I.Q. and the E.Q. *27th Yearb. nat. Soc. Stud. Educ.*, 1928, Part II, 248-353.
10. Summary of three studies on the effect of training in similar and identical material upon Stanford-Binet test scores. *27th Yearb. nat. Soc. Stud. Educ.*, 1928, Part I, 431-439.
11. Summary of Willoughby's "Family similarities in mental-test abilities." *27th Yearb. nat. Soc. Stud. Educ.*, 1928, Part I, 55-59.
12. With KELLEY, T. L. Statistical hazards in nature-nurture investigations. *27th Yearb. nat. Soc. Stud. Educ.*, 1928, Part I, 9-38.
13. Follow-up test program with a thousand California gifted children. *Psychol. Bull.*, 1929, 26, 8. (Abstract)
14. Note on Professor Freeman's discussion of the Stanford study of foster children. *J. educ. Psychol.*, 1929, 20, 98-101.
15. What makes Jack a bright boy, home or heredity? *N. Amer. Rev.*, 1929, 228, 599-608.
16. When does a test measure the same functions at all levels? *J. educ. Psychol.*, 1930, 21, 616-620.
17. With TERMAN, L. M., & JENSEN, D. *Genetic studies of genius. Vol. III. The promise of youth*. Stanford Univ., Calif.: Stanford Univ. Press, 1930. Pp. 508.
18. The guidance of gifted children. *Yearb. Calif. educ. Res. & Guidance Ass.*, 1931, 48-54.
19. With TOLMAN, R. S. Is mental resemblance related to physical resemblance in sibling pairs? *J. genet. Psychol.*, 1932, 40, 3-15.
20. Needed evidence. *Amer. Nat.*, 1933, 67, 206-221.
21. Parent education. *Calif. Parent-Teach.*, 1933-34, No. 2, 10 & 17; No. 3, 17; No. 4, 15; No. 5, 17; No. 6, 16; No. 7, 17; No. 8, 14.

22. A statistical method for estimating the distribution of sizes of completed fraternities in a population represented by a random sampling of individuals. *J. Amer. statist. Ass.*, 1933, 28, 388-394.
23. With Terman, L. M. The gifted child. In Murchison, C. (Ed.), *A handbook of child psychology*. (2nd ed.) Worcester, Mass.: Clark Univ. Press, 1933. Pp. 773-801.
24. Personality theories in relation to measurement. *Psychol. Bull.*, 1934, 31, 581-582. (Abstract)
25. The role of the psychologist in cooperative research. *Proc. Soc. Res. Child Develpm.*, Wash., 1934, 64-66.
26. Empirical approaches to personality gestalten. *Psychol. Bull.*, 1935, 32, 560-561. (Abstract)
27. Problems in eugenics of personality. *Eugen. News*, 1935, 20, 76. (Abstract)
28. With Jones, H. E. A study of differential fertility in two California cities. *Hum. Biol.*, 1935, 7, 539-554.
29. Children's criticism in the light of Piaget's developmental theory. *Psychol. Bull.*, 1936, 33, 763-764. (Abstract)
30. Personality theories in relation to measurement. *J. soc. Psychol.*, 1936, 7, 140-150.
31. With Jones, M. C. Personality development in childhood; a survey of problems, methods, and experimental findings. *Monogr. Soc. Res. Child Develpm.*, 1936, 1, No. 4. Pp. 205.
32. Cooperative and competitive habits in childhood. In May, M. A., et al., *Memorandum on research in competition and cooperation*. New York: Social Science Research Council, 1937. Appendix I, pp. 55.
33. Genetic linkage determination as a method for establishing the basic components of human traits. *Psychol. Bull.*, 1937, 34, 758-759. (Abstract)
34. Measures and indices of psychological traits. Proceedings of the fifteenth annual conference of the Milbank Memorial Fund, 1937.
35. Retinitis pigmentosa tested for incomplete sex linkage. *Eugen. News*, 1937, 22, 33-42.
36. Studies of available data in connection with research projects in the field of human heredity. Carnegie Instn. of Wash., *Yearb.*, 1937, No. 36, 312-319; 1938, No. 37, 318-323; 1939, No. 38, 283-285.
37. Autosomal linkage in man—the recombination ratio between congenital tooth deficiency and hair color. *Proc. nat. Acad. Sci., Wash.*, 1938, 24, 512-519.
38. Elucidation of the transmission mechanism of a heredity defect in man through linkage relationships to a normal trait. *Eugen. News*, 1938, 23, 70. (Abstract)
39. On the relative contributions of nature and nurture to average group differences in intelligence. *Proc. nat. Acad. Sci., Wash.*, 1938, 24, 276-282.
40. With Strang, R. *Here and there and home*. (Fact and Story Series. Vol. II.) New York: Teachers College, 1938. Pp. 120.
41. With Strang, R. *Seven days at sea*. (Fact and Story Series. Vol. I.) New York: Teachers College, 1938. Pp. 117.
42. Objectivity of report in family studies of heredity. *J. Hered.*, 1939, 30, 505-509.
43. Progress report of the Committee on Displaced Foreign Psychologists. *Psychol. Bull.*, 1939, 36, 188-190.
44. Research projects in the field of human heredity. Carnegie Instn. of Wash., *Yearb.*, 1939-40, No. 39, 240-242; 1940-41, No. 40, 266-267.
45. A critical note on differential class fecundity in Brazil. *J. Hered.*, 1940, 31, 431-432.
46. Mental and physical developmental patterns of identical twins in relation to organismic growth theory. *39th Yearb. nat. Soc. Stud. Educ.*, 1940, Part II, 85-96.
47. Oval red blood cells in human subjects tested for linkage with normal traits. *Collecting Net*, 1940, 15, 168. (Abstract)
48. Personality determinants in a new case of identical twins reared apart. *Psychol. Bull.*, 1940, 37, 522. (Abstract)
49. Report of the Committee on Displaced Foreign Psychologists. *Psychol. Bull.*, 1940, 37, 715-718.
50. With Steggerda, M. Potential marital selection in negro college students. *Sociol. soc. Res.*, 1940, 24, 433-441.
51. Heredity and mental traits. *Sci. Mon.*, N. Y., 1941, 52, 462-468.
52. Social promotion in relation to differential fecundity. *Hum. Biol.*, 1941, 13, 103-113.
53. Whence gifted children? *J. Hered.*, 1941, 32, 100.
54. With Wyandt, H. Oval blood cells in human subjects tested for linkage with taste for PTC, mid-digital hair, hair color A-B agglutinogens, and sex. *Genetics*, 1941, 26, 223-233.
55. A case of primary and secondary per-

- sonalities showing cooperation toward mutual goals. *Psychol. Bull.*, 1942, 39, 462. (Abstract)
56. A study of identical twins reared apart under differing types of family relationships. In McNEMAR, Q., & MERRILL, M. A. (Eds.), *Studies in personality*. New York: McGraw-Hill, 1942. Pp. 35-69.
 57. With BERNSTEIN, M. M. The incidence and Mendelian transmission of mid-digital hair in man. *J. Hered.*, 1942, 33, 45-53.
 58. With HOROWITZ, E., & VALENTINE, R. (Eds.). Comment and clearance. *J. soc. Psychol.*, 1942, 15, 187-196, 395-412; 1942, 16, 143-160; 1943, 17, 347-362.
 59. Foster-family resemblances in intelligence. In BARKER, R. G., KOUNIN, J. S., & WRIGHT, H. F. (Eds.), *Child behavior and development*. New York: McGraw-Hill, 1943. Pp. 245-257.
- Reviews of Books and Monographs*
1. The education of exceptional children, by J. L. Horn. *J. Delinq.*, 1923, 8, 307.
 2. Why children succeed, by S. A. Courtis. *J. educ. Res.*, 1926, 13, 382-384.
 3. Das Genie-Problem, by W. Lange-Eichbaum. *Amer. J. Psychol.*, 1932, 44, 843.
 4. A handbook of child psychology, edited by C. Murchison. *J. genet. Psychol.*, 1932, 41, 240-249.
 5. The first two years, by M. M. Shirley. (3 vols.) *J. genet. Psychol.*, 1934, 45, 276-280.
 6. The etiology of mental deficiency with special reference to the occurrence in twins, by A. J. Rosanoff, L. M. Handy, & I. R. Plesset; Twins: A study of heredity and environment, by H. H. Newman, F. N. Freeman, & K. J. Holzinger; Collected studies on the Dionne quintuplets, by W. E. Blatz, et al. *J. abnorm. soc. Psychol.*, 1938, 33, 128-133.
 7. Social behavior and child personality, by L. B. Murphy. *J. genet. Psychol.*, 1938, 53, 239-246.
 8. Children in foster homes, by M. Skodak. *J. educ. Psychol.*, 1939, 30, 548-555.
 9. Group adjustment: a study in experimental sociology, by W. I. Newstetter, et al. *Sociometry*, 1939, 2, 106-108.
 10. The measurement of linkage in heredity, by K. Mather. *Eugen. News*, 1939, 24, 21-22; also, *J. Hered.*, 1939, 30, 126-127.
 11. The intelligence of preschool children as measured by the Merrill-Palmer scale of performance tests, by B. L. Wellman; A study of environmental stimulation, by H. M. Skeels, et al.; Children in foster homes, by M. Skodak. *J. abnorm. soc. Psychol.*, 1940, 35, 457-462.
 12. A sociometric study of race cleavage in the classroom, by J. H. Criswell. *Sociometry*, 1940, 3, 105-108.
 13. The varieties of human physique, by W. H. Sheldon, et al. *J. abnorm. soc. Psychol.*, 1941, 36, 120-123.
 14. Heredity and environment, by R. S. Woodworth. *J. abnorm. soc. Psychol.*, 1942, 37, 134-137.
 15. Heredity, food, and environment in nutrition of infants and children, by G. D. Scott. *J. Hered.*, 1942, 33, 314-316.
 16. Race, reason, and rubbish, by G. Dahlberg. *J. Hered.*, 1942, 33, 438.