ADDITIONAL REFERENCES

- BLEULER, E. (1911). Dementia Praecox or the Group of Schizophrenias. International University Press, New York. (Translated by J. Zinkin, 1950.)
- BLEULER, M. (1972). Die Schizophrenen Geistesstörungen im Lichte langjähriger Kranken und Familiengeschichten. Intercontinental Medical Book Corp., New York.
- BURDOCK, E. I. and HARDESTY, A. S. (1961). An outcome index for mental hospital patients. J. Abnorm. Soc. Psychol. 63 666-670.
- COHEN, P. and COHEN, J. (1984). The clinicians' illusions. Arch. Gen. Psychiatry 41 1178-1182.
- COOPER, J. E., KENDELL, R. E., GURLAND, B. J., SHARPE, L., COPELAND, J. R. M. and SIMON, R. (1972). Psychiatric Diagnosis in New York and London: A Comparative Study of Mental Health Admissions. Maudsley Monograph No. 20. Oxford Univ. Press, London.
- COTTON, H. A. (1922). The etiology and treatment of the so-called functional psychoses. *Amer. J. Psychiatry* 2 157-210.
- FARIS, R. E. L. and DUNHAM, H. W. (1939). Mental Disorders in Urban Areas: An Ecological Study of Schizophrenia and Other Psychoses. Univ. Chicago Press, Chicago.
- FLEISS, J. L. and ZUBIN, J. (1969). On the methods and theory of clustering. *Multivariate Behav. Res.* 4 235-250.
- Häfner, H. (1986). Epidemiology of schizophrenia. Paper presented at Session on Epidemiology and Course of Schizophrenia, in Symposium on Search for the Causes of Schizophrenia, at the Occasion of the 600th Anniversary of the University of Heidelberg, Germany.
- HARE, E. H. (1956). Mental illness and social conditions in Bristol. J. Ment. Sci. 102 349-357.
- JASPERS, K., ed. (1963). General Psychopathology. Translated by J. Hoenig and M. W. Hamilton. Univ. of Chicago Press, Chicago.
- JELLINEK, E. M., ed. (1937). Biometric Bulletin.

- KOPELOFF, N. and CHENEY, C. O. (1922). Studies in focal infection: Its presence and elimination in the functional psychoses. *Amer. J. Psychiatry* 2 139-156.
- KOPELOFF, N. and KIRBY, H. G. (1923). Focal infection and mental disease. *Amer. J. Psychiatry* 3 149-198.
- Kraepelin, E. (1896). Der psychologische Versuch in der Psychiatrie. *Psychologische Arbeiten* 1 77.
- NEYMAN, J. (1950). First Course in Probability and Statistics. Holt, Rinehart and Winston, New York.
- PRICE, D. DE S. (1975). The peculiarity of the scientific civilization. In *Science Since Babylon*, enlarged ed. Yale Univ. Press, New Haven, Conn.
- ROSENTHAL, D. (1962). Problems of sampling and diagnosis in the major twin studies of schizophrenia. J. Psychiatric Res. 1 116-134.
- SARTORIUS, N., JABLENSKY, A., KORTEN, A., ERNBERG, G., ANKER, M., COOPER, J. E. and DAY, R. (1986). Early manifestations and first-contact incidence of schizophrenia in different cultures. *Psychol. Med.* 16 909–928.
- WORLD HEALTH ORGANIZATION. (1974). International Pilot Study of Schizophrenia. Wiley, Geneva.
- ZUBIN, D. and ZUBIN, J. (1977). From speculation to empiricism in the study of mental disorder: Research at the New York State Psychiatric Institute in the first half of the 20th century. In Roots of American Psychology: Historical Influences and Implications for the Future (R. W. Rieber and K. Salzinger, eds.) 104-135. Annals of the New York Academy of Sciences, New York.
- ZUBIN, J. (1938). Sociobiological types and methods for their isolation. Psychiatry 1 237-247.
- ZUBIN, J., ed. (1945). Trends of Mental Disease. Kings Crown Press, New York.
- ZUBIN, J. (1955). Clinical versus actuarial prediction: a pseudoproblem. Proc. of the 1955 Invitational Conference on Testing Problems 107-128. Educational Testing Service, Princeton, N. J.

Comment: Psychiatric Statistics and Clinical Information

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The role of statistics in psychiatry is broad and emerging, attributes also applicable to psychiatry itself, a clinical science with biological and psychosocial underpinnings. It may be helpful to give attention to historical perspectives and informational complexity in order to understand the current role of statistics in psychiatry as well as to be prepared to appraise its future directions.

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Early endeavors to use quantitative methods in clinical and epidemiological psychiatry are best illustrated by the pioneering works of Philippe Pinel, Jean Etienne Esquirol, and J. B. M. Parchappe in the late seventeenth century and first half of the eighteenth century. Their guiding principles were careful observations of clinical events and a critical and quantitative investigative approach. These French pathfinders are responsible for what is probably the earliest documented use of statistics in psychopathology and psychiatric care. Of particular interest here is Parchappe (1839) who, in his Recherches Statistiques sur les Causes de l'Aliénation Mentale, not only presented frequency analyses of patients and patient-related events, but also ascertained relationships between complex domains, i.e., physical and moral causes and