

Book Reviews

A Variable Reexamined

Birth Order. Its Influence on Personality. CÉCILE ERNST and JULES ANGST. Springer-Verlag, New York, 1983. xviii, 344 pp., illus. \$29.80.

Historically, research on the psychological effects of birth order has often involved little more than the mere inclusion of this convenient subject variable at the data analysis stage of a particular psychological investigation. The likelihood of a statistically significant relationship between birth order and the current variables of interest was duly probabilistic; the psychological utility was usually minimal—Adlerian objections notwithstanding. As one might guess from that account of the situation, positive, negative, and neutral effects of birth order on a wide range of psychological variables have been reported. Initial reports of striking relationships of birth order with *X* come cheap in the literature; follow-up replications for reliability come dear, if at all.

It is in this arena of volatile and ephemeral effects that Ernst and Angst attempt to bring order and integrity. The undeviating standard by which all reports of birth order effects are measured in their book is method, not magnitude. Careful scrutiny is applied to several areas of current birth order research, and precious little of any group's dogma is left standing.

Chapter 1 introduces the reader to some recognized pitfalls in birth order research, and chapter 2 provides an application of this methodological rigor to relationships of birth order to several biological factors (for example, birth weight, prematurity, minimal brain damage). Chapters 3, 4, and 5 examine intellectual outcomes of birth order and twin status for intellectual functioning; chapters 6, 7, and 8 review influences on occupation, socialization and personality, and mental illness. Chapter 9 allows the authors a chance to summarize the findings of their literature review spanning the years 1946 to 1980, and chapters

10 and 11 report data on scholastic achievement, personality, and drug consumption from a representative sample of 19- to 20-year-olds from Zurich, Switzerland.

Ernst and Angst's conclusion across a broad array of personality characteristics is that birth order has essentially *no* influence on personality. Time and time again, superficial birth order effects dissolve to insignificance when (i) a comprehensive review of the literature is accomplished and (ii) reports containing fundamental problems of method are given their proper weight—zero. Terms such as “slightly higher,” “did not contribute,” “negligible,” “very much reduced,” and “no influence” punctuate Ernst and Angst's concluding descriptions of the psychological impact of birth order on the reviewed variables. Perhaps Ernst and Angst's title for their book is a misnomer!

On the other hand, Ernst and Angst spare little verbal rope in hanging what they feel are egregious examples of shoddy research or theory. “It may be a sign of a general lack of adequate theorizing in birth order research that Zajonc's confluence model has won wide recognition in spite of such evident weakness” (p. 42). “The many investigations in which birth order is the independent variable are methodologically inadequate. By neglecting social variables, they have contributed to a mythology of the firstborn” (p. 73).

In summary, Ernst and Angst make two general contributions to birth order research. First, their literature review, though not exhaustive, is comprehensive for the years identified and provides an excellent new reference for the field. Second, their emphatic call for stringent methodology in birth order research is both expertly exemplified and timely. Some of the authors reviewed by Ernst and Angst have taken premature findings regarding birth order and IQ and have advocated in newspapers and popular magazines the curtailment of family size nationally to only two children spaced many years apart. Other authors have

espoused quite radical parenting styles to compensate for what they felt were necessary personality outcomes for sibs of certain birth order positions. These approaches may or may not prove to be the correct ones for a given family. One clear message from Ernst and Angst's work is that far greater methodological rigor must be exacted in this area before any family-related decision, private or public, can be proffered as sound.

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Graphical Presentation

The Visual Display of Quantitative Information. EDWARD R. TUFTÉ. Graphics Press, Cheshire, Conn., 1983. 198 pp., illus. \$32.

Statistical Graphics. Design Principles and Practices. CALVIN F. SCHMID. Wiley-Interscience, New York, 1983. xii, 212 pp., illus. Paper, \$24.95.

These two books attest to a growing interest in graphical presentation over the past dozen years, following a half century of virtual neglect. Otherwise, they have little in common, aside from general agreement on some do's and don't's for graphical designers. The books are written from different perspectives and have different purposes. Tufte's work—ambitious, innovative, and idiosyncratic—is especially concerned with graphics as a tool of analysis and with the development of a theory of data graphics. Schmid's book—conventional, well balanced, and highly instructive—stresses the presentation function of graphics and tries to take stock of the discipline, its practices, problems, and research needs.

The most engaging part of Tufte's work is his historical review. He calls his book “a celebration of data graphics,” and his first chapter in particular is just that. The centerpiece of the chapter—which he thinks may be “the best statistical graphic ever drawn”—is Charles Joseph Minard's map depicting the decimation of Napoleon's army on its march to Moscow and back. The line of march, battle sites, troop losses, and temperature readings during the cold and disastrous retreat are all imaginatively combined. Other memorable examples include E. J. Marey's rendering of the train schedule for the Paris–Lyon run (which is adapted attractively for the book's jacket), the life cycle of the Japanese beetle, a chart of radio emissions from