

# This Week's Citation Classic

**Rimland B.** *Infantile autism: the syndrome and its implications for a neural theory of behavior.* New York: Appleton-Century-Crofts, 1964. 282 p. [Personnel Measurement Res. Dept., US Naval Personnel Res. Lab., San Diego, CA]

Part I of this book is an integrated review of infantile autism, a rare mental disorder beginning in infancy. Part II presents autism as a cognitive defect and develops a neural theory of autism. Part III extends the theory of autism into a general theory of behavior. [The *Science Citation Index*® (SCI®) and the *Social Sciences Citation Index*® (SSCI™) indicate that this book has been cited over 425 times since 1964.]

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"How curious! Here is a neural explanation of infantile autism written by a psychologist with no training in physiological psychology or child development!

"In earning my PhD in experimental psychology, I had carefully avoided such irrelevant courses as child psychology and physiological psychology. I did not encounter the word 'autism' until five years after my PhD. Our then two-year-old son, definitely planned and wanted, had been a source of pride and despair from the moment of birth. Physically perfect and startlingly alert, he had screamed so vigorously while still in the hospital that it was almost impossible to nurse him. At eight months, he suddenly began walking, and at one year he was clearly articulating whole sentences. But he never said mommy or daddy, and when not screaming, seemed lost in a perpetual daydream.

"My concern led me to the library, where I found the works of Leo Kanner. Kanner, in 1943, had first described several children *precisely* like mine.<sup>1</sup> I began to read voraciously, first for my own edification, then to produce a review paper. I found the field chaotic; a comprehensive review was needed to pull together what little was known. The level of scholarship was abysmal. Murky psychoanalytic interpretations masqueraded as truth. Authors built incoherent theories on dubious interpretations of isolated events, liberally misquoting each other in the process. The field was dominated by psychoanalysts like Bruno Bettelheim, who asserted confidently that

autistic children were normal youngsters who had emotionally repudiated their unloving families. These theories, presented as fact, deterred biological research and added guilt and untold anguish to the heavy burdens already borne by the mothers of autistic children.

"My study expanded to include genetics, biochemistry, neurophysiology, and other fields. After five years, my wife observed that my 'paper' had become a book. I had to agree.

"In 1963, the Appleton-Century-Crofts Company announced its annual competition for a distinguished contribution to psychology. With misgivings, I submitted my work. To my delight and amazement, the judges 'unanimously and enthusiastically' awarded the first Century prize to *Infantile Autism*.

"The impact of the book was dramatic. In 1978, a national magazine<sup>2</sup> reported that 90 percent of the people in the field felt that Rimland had 'blown Bettelheim's theories to hell.' I have often been told that *Infantile Autism* was pivotal in redirecting the entire field of psychology from its morbid preoccupation with psychodynamics toward a more productive interest in biology. While my two main goals, exposing the psycho-genie myth and encouraging biological research,<sup>3</sup> were realized, my attempt to clarify the muddled problem of diagnosing autism has had little success.

"Part III of *Infantile Autism*, the neural theory of behavior, has had an impact on such diverse fields as aesthetics, philosophy, political science, and artificial intelligence. Morse Peckham devoted an appendix of his book on aesthetics, *Man's Rage for Chaos*,<sup>4</sup> to this theory, and commented that the theory puts Schopenhauer's ideas in an entirely new light. Artist Elizabeth Willmott cited the neural theory extensively in her essay 'Creative relationships.'<sup>5</sup> Political scientist R.I. Wolfe credited the neural theory with giving him the key idea for his paper *War as a Surrogate*.<sup>6</sup> Biocyberneticist Harry Klopf presents, in his forth-coming book *The Hedonistic Neuron*,<sup>7</sup> an independently derived brain model strikingly similar to mine, including stimulus-seeking neurons and a brain stem reticular formation which serves functions crucial to intelligence and consciousness.

"A strange outcome for a story that started with a screaming infant!"

1. Kanner L. Autistic disturbances of affective contact. *Nerv. Child* 2:217-50, 1943. [Citation Classic. *Current Contents/Social & Behavioral Sciences* (25): 14, 18 June 1979.]
2. Katz D R. The kids with the faraway eyes. *Rolling Stone*, 8 March 1979, p. 48-53.
3. Rimland B, Callaway E & Dreyfus P. The effects of high doses of vitamin B<sub>6</sub> on autistic children: a double-blind crossover study. *Amer. J. Psychiat.* 135:472-5, 1978.
4. Peckham M. *Man's rage for chaos: biology, behavior and the arts*. Philadelphia: Chilton, 1965. 339 p.
5. Willmott E. Creative relationships. *Structuralist* 7:23-34, 1967.
6. Wolfe R I. *War as a surrogate*. Paper delivered at the annual meeting of the Peace Research Society. 19 February 1973, San Francisco, California. 51 p.
7. Klopf A H. *The hedonistic neuron: a theory of meaning, learning and intelligence*. Washington, DC: Hemisphere Publishing. In press. 1981.