

This Week's Citation Classic

Baltes P B. Longitudinal and cross-sectional sequences in the study of age and generation effects. *Hum. Develop.* 11:145-71, 1968. [Universität des Saarlandes, Federal Republic of Germany and West Virginia University, Morgantown, WV]

Cross-sectional, longitudinal, and cohort-sequential research designs for the study of human development are presented and discussed. Particular attention is paid to Schaie's general developmental model. Schaie's model is critically evaluated and a modified strategy (cross-sectional and longitudinal sequences) is proposed. The role of generational change in human development is stressed. [The Social Sciences Citation Index® (SSCI™) indicates that this paper has been cited over 165 times since 1968.]

Paul B. Baltes
Max Planck Institute for
Human Development and Education
Lentzeallee 94, D-1 Berlin 33
Federal Republic of Germany

April 16, 1981

"This article is the outcome of a fruitful dialectical relationship between one of my mentors, K. Warner Schaie, and myself. While I was a graduate exchange student from Germany at the University of Nebraska during 1963-1964, Schaie was my sponsor and mentor. During that time, Schaie wrote his influential article on the general developmental model.¹ The dialectic resulted from the fact that I was very much impressed with the importance of Schaie's work, but at the same time had emerging disagreements with the specifics of his proposal.

"After returning to Germany to complete my doctorate (1967), I decided to focus in my dissertation on developmental research design including an assessment and reformulation of Schaie's model. This occurred with long-distance encouragement from Schaie, although he continued, as is true for most dialectical arguments, to vehemently disagree with my felt need to modify his proposals. The present article is a partial summary of my dissertation work. Since then, the dialectic has progressed and together we have tried to present a shared view in which we spell out both our commonalities and our differences.²

"A contingency accentuated further the intellectual dialogue. In 1968, Schaie attracted me as a faculty member to West Virginia's department of psychology. There, we developed our personal and professional

friendship further, while the public assumed us to be mortal scientific enemies. This resulted in a number of amusing experiences at meetings where colleagues, especially graduate students, noticed with much surprise that Schaie and Baltes were friendly colleagues who enjoyed their intellectual conflict as a mutually enhancing condition.

"What is the gist of the reformulation offered in the article? First, the role of cohort effects in cross-sectional age studies was emphasized supporting the basic premise for Schaie's proposals. Second, Schaie's work was put into a larger context and, in addition, it was described in a perhaps more readable fashion than was true for his original article. Third, it was shown that Schaie's model promised more than it could deliver. While it is important to chart the age-development of successive cohorts, Schaie's simultaneous effort at causal explanation of age and cohort variation was a less than persuasive recipe. The primary value of cohort-sequential strategies is in descriptive identification of the fact that age-development can differ among cohorts. This can be best accomplished by what I have called 'cross-sectional and longitudinal sequences.'³ Explaining the why and how of age and cohort variation is a separate matter and should be approached in various ways depending on theory and content.³

"Why has this article received much attention? One reason is surely that it deals with the basics of methodology in developmental psychology. Showing how cultural change jeopardizes the age-based interpretation of cross-sectional studies, the bread and butter of many developmentalists, is a serious matter. Furthermore, the lively dialectic among some of the innovators and their integral colleague-friends (such as Riegel and Nesselroade) was bound to help the cause.⁴ Additionally, several concurrent trends in neighboring fields provided a supportive context. This is particularly true for sociology, where the interplay between individual development and social change has been equally emphasized (e.g., Elder, Riley).^{5,6} Sequential methodology plays a crucial role in such a venture. Finally, despite my own certainty about the matter, the dialectic is far from settled. There is more work (and citing!) to be done."

1. Schaie K W. A general model for the study of developmental problems. *Psychol. Bull.* 64:92-107, 1965.
2. Schaie K W & Baltes P B. On sequential strategies in developmental research: description or explanation? *Hum. Develop.* 18:384-90, 1975.
3. Baltes P B, Cornelius S W & Nesselroade J R. Cohort effects in developmental psychology. (Nesselroade J R & Baltes P B. eds.) *Longitudinal research in the study of behavior and development.* New York: Academic Press, 1979.
4. Riegel K F. Dialectics of human development. *Amer. Psychol.* 31:689-700, 1976.
5. Elder G H, Jr. Age differentiation and the life course. *Annu. Rev. Sociol.* 1:165-90, 1975.
6. Riley M W, Johnson W & Foner A, eds. *Aging and society (vol. 3): a sociology of age stratification.* New York: Russell Sage Foundation, 1972. 652 p.