

ABSTRACT

The central objective of the present dissertation study was to examine questions about heterogeneity and differential development in old age from a systemic-wholistic perspective (Magnusson, 1996). This study was embedded into lifespan scripts about the contexts of developmental change at the macro-level, the evolutionary and ontogenetic foundations of change, and the complex nature of these changes (P. B. Baltes, 1997; P. B. Baltes et al., 1998). These scripts were used as an organizing principle to generate questions about profiles of psychological functioning in old age, enduring changes in these profiles over time, and its underlying mechanisms and outcomes. Rather than considering single domains of functioning, a systemic-wholistic perspective was adopted. This perspective was operationally defined as empirically-derived subgroups: Members of a given subgroup shared communalities in psychological profiles across multiple domains of functioning at baseline assessment (11 constructs in total) and the subgroups differed from one another in these profiles. The present analyses extended previous cross-sectional work (Smith & Baltes, 1997) into a longitudinal design using the 6-year longitudinal sample ($n = 132$) of the Berlin Aging Study (BASE; P. B. Baltes & Mayer, 1999). It was proposed that opting for an approach that explicitly focuses on studying structural and functional interdependencies among various domains might provide insights that complement what is known from more function-specific research. Findings speak to this proposal.

A first set of questions was aimed at the identification and description of the range of heterogeneity in psychological functioning in old age and its correlates. Three subgroups were empirically identified by using cluster analysis. Despite positive selection of the 6-year longitudinal BASE sample, these subgroups represented distinct entities in their psychological profiles across measures of cognition, personality and self-related functioning, and social integration. They were also differentiated by a set of cross-disciplinary constructs (age, gender, biological, and environmental factors) that represented past and current contexts of development and that were used as external validation measures.

A second set of questions examined differential development in psychological functioning over time and its underlying mechanisms. At the level of subgroup membership, relative stability was preserved: About two thirds of the longitudinal participants remained in their subgroups over time. At the level of the subgroup-defining profiles, the subgroups differed in their vulnerability to functional decline and this decline differed across the psychological domains. Little evidence was found for notions about qualitative transitions in advanced old

age (e.g., Birren, 1959) suggesting that subgroups with less functional/desirable psychological profiles at baseline assessment would be most at risk for decline over six years. In most domains, instead, subgroups with desirable profiles of functioning showed more reliable decline than subgroups with relatively less desirable profiles. In general, age, gender, and biological factors played a minor role in determining subgroup change over time. In part, this finding was likely due to both the positive selection of the longitudinal BASE sample, but also to the relatively short time intervals between occasions. Additional individual-level analyses indicated that BASE participants who changed subgroup membership status over time reflected an additional aspect of differential development in old age.

A third set of questions addressed outcomes of heterogeneity and differential development in old age. To do so, subgroup differences in psychological profiles and change over time were linked to subjective and objective outcomes of successful aging (P. B. Baltes & Baltes, 1990; Rowe & Kahn, 1997; Ryff & Singer, 1998). In support of the hypotheses, subgroups with more functional/desirable psychological profiles reported higher well-being over time and also lived longer after the end of the study period than did relatively less desirable profile subgroups.

The present study demonstrated that combining a lifespan perspective with a systemic-wholistic approach contributes to furthering our understanding of the nature and diversity of development in old age, the changing biological and environmental opportunities and constraints that shape individual development, and the potential late-life outcomes of development. Thus, the approach taken represents a heuristic tool to examine questions about structural and functional interdependencies among psychological, biological, and environmental domains and complements more function-oriented research.