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## Abstract

Changes in personality in old age and the question whether or not interindividual differences in intraindividual change can be attributed in part to functional impairment were addressed in this study. Intraindividual change in two personality dimensions was examined: Extraversion, and Neuroticism. Previous cross-sectional research suggested that despite structural stability these two dimensions show mean level negative age differences from 20 to 60 years (e. g. McCrae et al., 1999). Whether these trends continue in very old age is an open question. It was anticipated that interindividual differences in functional impairment (especially in hearing and vision) might play an important role in predicting change in old age. Hearing and vision losses have been associated in young people with lower Extraversion and higher Neuroticism, and in older people with restricted social participation and loss of well-being.

Three waves of longitudinal data on Extraversion and Neuroticism from the Berlin Aging Study (BASE; P. Baltes & Mayer, 1999) were analyzed. The BASE sample initially consisted of  $N = 516$  persons (age 70 – 103, stratified by age and gender).  $N = 215$  individuals participated in the third assessment (T3 in BASE) four years later, and  $N = 132$  in the fourth assessment six years later (T4). Sample attrition was primarily due to mortality. Extraversion and Neuroticism were assessed on all occasions with selected items from the NEO (Costa & McCrae, 1985). Visual acuity and hearing were also assessed with standard tests on each occasion. Latent growth curve modeling was used to examine hypotheses about trajectories of change over a six-year period of time. Further analyses were carried out to examine the extent to which functional impairment predicted individual differences in level and / or slope in Extraversion and Neuroticism over time.

Mean levels of Extraversion were found to decrease over time in old age whereas Neuroticism remained stable. There were significant interindividual differences in the level and slope of Extraversion and Neuroticism. Vision and hearing impairment in old age was found to be associated with these individual differences. Lower levels of Extraversion as well as higher and increasing levels of Neuroticism could be attributed to impairments in vision or hearing in old age. Overall, however, rank-order stability was maintained over 6 years.

These findings suggest that the personality dimensions Extraversion and Neuroticism are vulnerable to changes over time in old age. Interestingly, it is more positively valued attribute, Extraversion, that shows greater mean-level losses. These changes can be linked to the function of personality to adapt on the environment (Allport, 1959). Old age is characterized by many losses, which challenge the individual's capacity to adapt and in turn may result in personality changes. Interindividual differences in mean levels of Extraversion and Neuroticism and intraindividual change in these dimensions were found to be attributed in part to sensory losses.