2

Early investments in active ageing

The foundations for active ageing are laid in the early phases of the life course. Early life experiences, and especially education, yield positive effects which will be visible in old age (Dannefer, 2011). Developmental research has generated a tremendous amount of evidence for the long-lasting impact of the conditions in childhood and adolescence on adult development (see for instance Britton, Shipley, Singh-Mannoux, & Marmot, 2008; Portrait, Alessie, & Deeg, 2010; Pruchno, Wilson-Genderson, Rose, & Cartwright, 2010). In sociology, much research has been conducted based on the idea that social inequality accumulates over the life span: Children living in advantaged families will achieve a higher educational status, work in less strenuous jobs, and will earn more life-time income (Dannefer, 2003). The socioeconomic status (SES) of a person can be described by his/her educational status, income/ wealth, and reputation. Educational status indicates individual knowledge and capabilities, income and wealth are resources to buy goods and services, and reputation reflects the capability to influence the action of other persons. In the following section, the impact of educational status (as reached in childhood and adolescence) on health, social integration, and participation in late life will be described. Note that the International Standard Classification of Education (ISCED), distinguishing six levels of education (from primary to tertiary education), will be used when appropriate.

2.1 Health

The increasing life expectancies of the last century have been accompanied by decreasing disability rates and improved functional health among older adults (Manton & Gu, 2007). However, despite these average improvements in health, there are still large disparities in health which have been attributed to disparities in socioeconomic status. For instance, epidemiological research has shown that the socioeconomic status of a person is highly relevant for health (Herd, Robert, & House, 2011). Consistently, it has been shown that lower socioeconomic status is related to worse health (e.g. Adler et al., 1994; Mackenbach 2006; Mackenbach,

Kunst, Cavelaars, Groenhof, & Geurts, 1997; Mackenbach et al., 2008; Marmot, Ryff, Bumpass, & Shipley, 1997; Marmot, 2007).

From a life course perspective it has been discussed whether this relationship varies with age (Alwin & Wray, 2005). Proponents of the cumulation theory (e.g. Dannefer, 1987) assume that the influence of education and income on health increases continuously with age due to a socially stratified cumulation of resources as well as risks over the life-span. Representatives of the age-as-leveller hypothesis (Herd, 2006; Lynch, 2003) suggest that the strength of the relationship between health and socioeconomic status decreases in old age relative to middle adulthood due to a variety of factors (e.g. retirement may end inequalities in the work context; social policies may lead to less inequality in old age; biological frailty may lead to a convergence of status groups; selective survival may eliminate socioeconomic health disparities in later life). A decrease in socioeconomic differences in morbidity and mortality in old age, supporting the age-as-leveller hypothesis, has been found by many investigators (e.g. Beckett, 2000; House, Lepkowski, Kinney, & Mero, 1994; Marmot & Fuhrer, 2004). There is, however, also evidence for continuity of social inequalities in health (Rostad, Deeg, & Schei, 2009; Yao & Robert, 2008), and support for an increasing impact of socioeconomic status on health over the life-span (Kim & Durden, 2007; Ross & Wu, 1996). Different facets of socioeconomic status may be a reason for inconsistent results across studies (Schöllgen, Huxhold, & Tesch-Römer, 2010): While educational differences may be related to the onset of diseases, differences in income and wealth may be more important for functional health and the maintenance of daily activities. Depending on the specific relationship, health inequalities may persist up to old age.

2.2 Social integration

Social integration in old age has precursors in earlier phases of the life span. Social networks accompany the developing person over the life course like a social convoy. While the overall size of the social convoy decreases with age, the number of emotionally close persons seems to be stable up to old age (Antonucci, Birditt, & Akiyama, 2009). Loneliness in old age - a subjective indicator of poor social integration - is influenced more strongly by the quality (and not the quantity) of the social network (Pinquart & Sörensen, 2001). Loneliness is an established risk factor for physical and mental illness (Hawkley & Cacioppo, 2010; Hawkley, Thisted, Masi, & Cacioppo, 2010). There is ample gerontological evidence that social integration, like the existence of a positive partnership, prevents loneliness in old age (e.g. De Jong Gierveld, Broese van Groenou, Hoogendoorn, & Smit, 2009). Intergenerational relations in ageing families, having been analysed thoroughly over the last decades by family sociology, are characterized by emotional complexity, structural diversity, and role interdependence (Silverstein & Giarrusso, 2010). Hence, although help from adult children may be highly important for the care of ageing parents, the effects of intergenerational support, for instance via co-residence of adult children and old parents, on loneliness may depend on contextual factors, like personal income and societal wealth (De Jong Gierveld & Tesch-Römer, 2011). For a steadily increasing proportion of childless individuals, intergenerational family support in old age is not available, anyway. Hence, the focus of ageing research has turned to the role of friends and neighbours. By comparing different birth cohorts, it could be shown that the extended social network has gained importance over the last decade. Friends and neighbours of older people provide not only instrumental help, but give emotional support to an increasing proportion of older people as well (Huxhold, Mahne, & Naumann, 2010).

The effects of social status can also be seen in the domain of social integration. Adult persons with a low education more often report having no confidant, no partner and a lack of instrumental and social support (Mickelson & Kubzansky, 2003; Weyers et al., 2008). The disadvantage of low education very often runs in families: People who come from a family with low education and have a low educational status themselves have – in middle and late adulthood – smaller social networks and get less instrumental and emotional support from non-kin than people coming from a family background with high education and with a high educational

status on their own. However, in respect to kin support (both instrumental and emotional support), there are no differences between educational groups (Broese van Groenou & van Tilburg, 2003; see also Krause & Borawskiclark, 1995). Important explanatory mechanisms between educational status and social integration might be seen in the intergenerational transmission of educational status, living in poor neighbourhoods under financial strain, and/or behaving hostilely towards one another – with the consequence of receiving less social support (Krause, 2011).

2.3 Participation

Educational status which has been attained in childhood, adolescence, and young adulthood has a long lasting effect also on participation rates (employment, volunteering). Educational status opens up career trajectories which are characterized by a variety of differences, e.g. differences in occupational stress or in opportunities for continuous education. During the late phase of employment, mostly defined as the age between 55 and 64 years, early investments in education are still effective (see Hardy, 2006, for a definition of "older workers"). Individuals with higher educational status have a higher probability of gainful employment during the last decade before retirement than individuals with lower educational status. On average, the employment rates in OECD countries among the 55-to-64-year old were in 2006 about 66 percent for the group with the highest educational level (tertiary education), about 52 percent for people with a medium educational level (upper secondary and post-secondary non-tertiary education), and about 40 percent for individuals with the lowest educational level (below upper secondary). Although the rates differ between countries and change over time (see section 4 of this paper for a discussion of country differences), the overall pattern of differences are similar over time (employment rates are reported for the years 1997 to 2006) and across most OECD countries (OECD, 2008, p. 157-158). Hence, for individuals with higher educational status there is a higher probability of gainful employment until retirement age.

Similarly, volunteering rates in middle adulthood and late life vary between educational groups. Individuals with higher educational status more often undertake voluntary service than individuals with lower educational status. In the European study "Survey on Health, Ageing, and Retirement in Europe" (SHARE) it was shown that across countries, the rate of volunteer work, defined as active engagement in voluntary or charity work during the month before the interview, was on average about 6 percent in individuals with low education, about 11 percent in the middle educational group, and about 18 percent in the group with a high level of education (Erlinghagen & Hank, 2006). Similar results concerning educational status can be found in the United States (Kaskie, Imhof, Cavanaugh, & Culp, 2008). As in gainful employment, there are great differences between countries (see section 4 of this paper), but the general pattern of volunteering differences can be seen across countries. Controlling for confounding factors in multivariate analyses (e.g. age, health, and other activities), the rate of volunteering in the high education group still was about 1.7 times higher than in the low education group (Hank, 2011b).

2.4 Early investments: Interventions for health, integration, and participation

Early investments in education definitely appear to be investments in active ageing. Educational status which has been acquired in childhood and adolescence has effects in middle and late adulthood. Individuals with higher education have better health, have a higher chance of working until retirement age, and are more involved in volunteering. Two additional observations should be highlighted here: First, early education sets important framing conditions for health and participation in later phases of the life course. The curriculum, the culture of the classroom and the culture of the school are important for preparing students for active participation and civic engagement (Torney-Purta, 2002). Secondly, health, integration and participation are highly connected. Health is a necessary precondition for active participation in the labour market and in volunteering organizations. On the other hand, it has been shown that social integration and participation have positive effects, for instance in relation to a better health of active volunteers (Cutler, Hendricks, & O'Neill, 2011).

