Short Review

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Continuity in Well-Being in the Transition to Retirement

Georg Henning¹, Magnus Lindwall^{1,2}, and Boo Johansson¹

¹Department of Psychology, University of Gothenburg, Sweden

²Department of Food and Nutrition, and Sport Science, University of Gothenburg, Sweden

Abstract. We review recent longitudinal studies on change and continuity in well-being during the retirement transition. Our conclusion is that most retirees maintain their level of well-being over retirement. Some studies, however, provide evidence for a substantial heterogeneity and dynamic effects. A smaller subgroup experiences losses in resources and challenges which compromise their well-being. Various adaptive actions seem to help to cope with losses, but we still lack more detailed information about the role and effects of these coping strategies. Future longitudinal studies need to address the role of and interplay among these adaptive behaviors over the retirement transition to improve our understanding of continuity and change in postretirement well-being.

Keywords: retirement transition, retirement adjustment, well-being

Introduction

The present review provides an overview of the effects of retirement on well-being, integrating psychological theories proposed to account for continuity and observed changes. Initially we contextualize well-being in the transition to retirement to the theme of stabilization in old age. We then briefly present the theoretical assumptions for expectations of change and continuity in well-being after retirement. We also address potential moderators and mediators of change in well-being. Finally, we report the empirical results obtained from reviewed longitudinal studies in terms of main effects followed by moderators and mediators identified in the reviewed studies.

Retirement Transition and the Challenge of Stability and Change in Well-Being

This special issue deals with health stabilization in older adults, focusing on development in later life. Although older adults nowadays are typically rather healthy when they enter retirement, we know that to understand old age developments, we need to take the entire lifespan into account: Lifespan research highlights the importance of life time experiences, lifestyle and health behavior for late-life physical, mental and cognitive health (Baltes, Staudinger, & Lindenberger, 1999; Deary, Whalley, Batty, & Starr, 2006). There are two main reasons why we consider the retirement transition, representing a from-

tier between preretirement midlife and a new life phase (Ekerdt, 2010), to be a significant event in the context of overall health stabilization and subsequent late-life developments.

First, entering retirement means losing certain work-related roles and resources. Retirement "pushes" people into a new life phase. For many of the "young olds" it is the first time they have to deal with typical aging-related challenges, e.g., specific social roles and expectations and a social network that perhaps needs to be maintained more proactively than in worklife. Understanding how people cope with these challenges when facing them for the first time might help us to understand how people can maintain well-being and health in older ages as well.

Second, retirement might be directly associated with later developments. We know that once people have acquired certain routines, they are unlikely to change. Humans show a preference for continuity, especially in older age (Atchley, 1989). Some events, like retirement, change the availability of resources (Wang, 2007), which might force people to change and to adapt to the new circumstances that may contribute to a change in lifestyle (van Solinge & Henkens; 2008). Adaptation problems because of specific losses in resources might lead to stress and an unhealthier and unsatisfying postretirement lifestyle (Bacharach, Bamberger, Biron & Horowitz-Rosen, 2008). Empirical results show that the way people react to the retirement transition not only produces short-term effects. It is also associated with later well-being and depression (Dingemans & Henkens, 2015; Pinquart & Schindler, 2007). We cannot, however, be sure that the retirement transition is the only causal factor in such a trajectory. Nevertheless, the adaptation in the retirement phase might be a first indicator of how people will develop later on. Interventions might also be specifically tailored for those who present difficulties in this life phase.

We investigate well-being as it is a commonly used indicator of adaptation after life events (Lucas, 2007). Another systematic review looked at the effect of retirement on health before (van der Heide, van Rijn, Robroek, Burdof, & Proper, 2011), but we know that well-being has some unique predictive value: It has been shown to be an important predictor of later health developments and mortality (Diener & Chan, 2011), particularly in people older than 65 (Wiest, Schüz, Webster, & Wurm, 2011).

Changes in Well-Being after Retirement – the Theoretical Background

Change or Continuity

Over the last decades research has often focused on the effects of retirement on well-being. Retirement was long seen as a "crisis" to the older worker. In the context of the old role theory, retirement was typically viewed as a time of loss – the loss of the work role and of other resources as well. Role theory highlights the importance of the work role for self-worth and well-being (Taylor-Carter & Cook, 1995). In this context, occupation is supposed to be crucial for both social status and identity, so losing the work role also means losing a central life role (Ballweg, 1967; Ellison, 1968; George & Maddox, 1977). Retiring should thus be associated with losses in well-being.

In contrast, the continuity theory by Atchley (1971) proposes that work is not as crucial for our self-concept and identity as role theory implies. We tend to form our identity out of multiple sources. Even though job-related roles and activities are lost, other sources to build one's identity on remain, such as family and non-work-related social networks. The continuity theory (Atchley, 1971, 1989) assumes that people aspire to maintain continuity over the lifespan. Successful or normative aging means to maintain one's inner (e.g., preferences, skills) and external (e.g., activities) characteristics (Atchley, 1989). In the adaptation to retirement, retirees continue to view themselves as firefighters or lawyers (or whatever), and they try to save the important aspects of their former work into their postretirement life (Atchley, 1971). The level of well-being is maintained if certain important activities of the work life are transferred into postretirement activities, and the job-related skills can be used successfully in future activities (Atchley, 1971). According to continuity theory, retirement should not lead to major changes in people's wellbeing.

Later studies adapting the lifespan or life-course perspective have highlighted the importance of the individual context of the transition, as well as the interplay of different life spheres (e.g., Kim & Moen, 2002). Not only the status of a person before the transition, but also accumulated experiences over the entire lifespan and earlier transitions might influence how the retirement transition is perceived (Damman, Henkens, & Kalmijn, 2015).

Building on these different approaches, Wang and colleagues (Wang, 2007; Wang, Henkens, & van Solinge, 2011) proposed a general framework to study changes in well-being after the retirement transition, the so-called dynamic resource perspective on retirement. This framework is not directly based on one of the theories mentioned above; it rather aims for integration. A basic assumption of the model is that certain psychosocial and environmental factors influence the availability of specific resources crucial for well-being. Changes in these circumstances and thus in the availability of resources during the retirement process accompany changes in well-being (Wang, 2007). Resources include physical, motivational, or financial resources needed to satisfy important needs. If resources are lost after retirement, the model assumes a decrease in well-being (Wang, 2007). The retirement adjustment process is seen as dynamic; due to changes in the availability of resources, there is always an option for changes in well-being (Wang et al., 2011).

The resource approach does not provide an explicit theoretical account for the specific losses or gains that might accompany retirement. It rather acts as a framework to test hypotheses of interindividual differences in intraindividual change over the retirement transition. By offering a new perspective on retirement, the approach helps to underline the importance of individual resources and resource losses for retirement outcomes, and helps to develop new research questions.

Individual Differences: Moderators of Change or Continuity

Lifespan and resource perspective encourage us to see retirement as an individual event with individual consequences. Possible predictors of change or continuity after retirement include:

Country

Various retirement regulations operate across countries that may influence retirement behavior (Börsch-Supan, Brugiavini, & Croda, 2009). They might also be associated with different views on age and aging, and different possibilities for retirees to engage in societal life and satisfy their needs outside of the workforce. Country specific characteristics are likely to produce cross-national differences, which have been reported cross-sectionally (Fouquereau, Fernandez, Fonseca, Paul, & Uotinen, 2005).

Time of Assessment

Studies on adaptation to life events show that one has to distinguish between a short term effect and later developments (e.g., Lucas, 2007). We know that people are likely to continuously adapt to changes. Potential positive or negative effects might already have disappeared in cases when we measure after an extended time period after the retirement event. After a first phase of negative experiences and losses, finding new roles and activities might help to adapt. On the other hand, Atchley (1976) proposed that the first period of retirement might be associated with a so-called honeymoon, i.e., an increase in wellbeing, due to the individual's experience of new freedom, followed by disenchantment, when people experience everyday life in retirement and face new problems. Thereafter follows a reorientation with a more realistic view of current possibilities and demands in which one has to learn how to cope, which in turn leads to a phase of relative stability. In the last stage, called termination, people might experience a loss of independence due to more pronounced age-related changes. Given these theoretical implications, it is important to consider when well-being is actually assessed following retirement.

Work Life and Work Role

Role theory proposes challenges and problems following the exit from worklife (George & Maddox, 1967). Retirement is likely to be perceived as negative when certain worklife conditions satisfied and contributed to valued and important individual needs. The more important these resources are the more likely retirement is followed by loss in well-being. The closer people are attached to their workplace, the more important the role of a worker and the less desirable leaving the job should be (Adams, Prescher, Beehr, & Lepisto, 2002). If a job does not offer many opportunities, or if the individual rather receives qualities in the private life sphere, retiring should not be perceived as comparably problematic. If some aspects of the work-life even affected one's preretirement well-being negatively, losing those can even be associated with gains in retirement.

Context of the Transition

The lifespan perspective highlights the importance of context, thus also the context of the retirement transition. Retirement does not mean the same for everyone. Research shows that people retire of different reasons (Shultz, Morton, & Weckerle, 1998). It is likely that people who are forced to retire but would have liked to continue working experience more adjustment problems than people who in fact preferred to retire.

Psychosocial Characteristics

The capacity to adapt to changes is partly dependent on specific and available personal resources. Reis and Pushkar Gold (1993) assume that personality might play a role. People scoring higher on neuroticism are expected to experience more negative emotions and to show more maladaptive behavior in retirement. Extraversion and openness are on the contrary assumed to be associated with better adjustment because extraversion might help to establish and maintain social networks and openness might increase the opportunity to engage in new satisfying activities. Furthermore, social support and a stable relationship have been proposed to work as a buffer helping us to adapt to the effects of life stressors (Cohen & Wills, 1985).

Perceived control over one's life or mastery seems to be strongly connected to perceived retirement adjustment (van Solinge & Henkens, 2005; 2008). The assumption that the feeling of control over one's life is essential for well-being is widespread (see e.g., Ryan & Deci, 2006) and viewed as a crucial component for successful aging (Rowe & Kahn, 1997). To perceive control over one's life presumably helps to cope with stressors on the cognitive, emotional and behavioral level (Heckhausen & Schulz, 1995). Perceived control should enable retirees to approach the new life phase choosing appropriate strategies to deal with challenges and new roles.

Adaptive Strategies

As noted, the effect of retirement may partly depend on the unique individual losses associated with retirement. Many scholars seem to neglect the fact that retirees are not to be viewed as "inactive victims of retirement." A main research topic in psychology focuses on our ability as humans to adapt to changes in the environment and to achieve control over one's life. Van Solinge and Henkens (2008) argue that the adjustment to retirement includes coping with the loss of the workrole and developing a satisfactory postretirement lifestyle. As people already anticipate retirement long before the event and are often correct in their assumptions (Ekerdt, Vinick, & Bossé, 1989), processes of adaptation may be initiated long before the actual retirement event (Damman, Henkens, & Kalmijn, 2013) which makes it more difficult to observe adaptive processes in a simple pre/post design: Expectations and plans for retirement are likely to influence postretirement outcomes. Anxiety and expectations might form the way people perceive and react to the adaptive challenges imposed by retirement. Planning for retirement should facilitate the transition by providing a more realistic view on life in retirement as well as control over the situation (Taylor-Carter, Cook, & Weinberg, 1997).

One way to react to the postretirement challenges is to prolong

the work-force participation, i.e., engaging in so-called bridge jobs. This might be helpful to prevent negative consequences of retiring, such as losses of social or financial resources (Kim & Feldman, 2000). On the other hand, bridge jobs only delay the retirement transition. Another opportunity might be voluntary work, which could serve as an opportunity to find meaning and identity in a world without paid work (Van den Bogaard, Henkens, & Kalmijn, 2014). Some studies show that the retirement event increases the likelihood to start volunteering (Mutchler, Burr, & Caro, 2003; Van den Bogaard et al., 2014). Nevertheless, other factors such as socioeconomic status (Chambre, 1984) and previous experience with volunteering over the lifespan (Mutchler et al., 2003) are far more predictive of volunteering than retirement status. Thus, volunteering does not seem to be a major strategy to adapt to retirement in the general population.

Another possible way to adapt might be to increase one's engagement in leisure activities (Atchley, 1971). We know that it becomes less common to initiate new activities at an older age. People rather continue with activities they are acquainted with over their lifespan until worsening health status and losses in resources may force them to reduce activity (e.g., Strain, Grabusic, Searle, & Dunn, 2002). But retirement possibly facilitates an increased involvement in favorable leisure activities. There is some support for this assumption (Long, 1987; Iwasaki & Smale, 1998), but other studies find stability (Agahi, Ahacic, & Parker, 2006; Bossé & Ekerdt, 1981; Seitsamo, 2007) or even decreases after retirement (Nimrod, Janke, & Kleiber, 2009). However, active restructuring of one's life after retirement, resulting in increases in leisure activity or volunteering, might be associated with increases in well-being after retirement, or might at least be needed to maintain stability.

Losses and Gains in Retirement – **Mediators of Change or Continuity**

While the moderators above make it more or less likely to experience a change in well-being after retirement, mediators constitute possible mechanisms of the effect of retirement on well-being. The resource perspective proposes that retirement changes well-being through changes in the availability of resources. Wang (2007) mentions physical, cognitive, motivational, financial, and social resources. Retirement should thus be associated with increases in well-being if people gain new resources by retirement, while people should experience a decline in well-being when resources decrease.

In sum, theories of retirement imply heterogeneous consequences of retirement, depending on individual resources and adaptive behavior. Our review below shows identified general patterns as well as variability of change in well-being after retirement and how different outcomes can be predicted.

Method

A literature review was conducted, using PsycInfo, Pubmed, and Google Scholar. Keywords for the search were retirement transition, reasons for retirement, retirement adjustment, as well as combinations of retirement with happiness, life satisfaction, stress, depression, and well-being. The following inclusion and exclusion criteria were applied:

- 1. Only longitudinal studies of change over the retirement transition were selected to avoid the well-known shortcomings accompanying cross-sectional designs.
- 2. Studies included had to include at least two waves of measurement on a specific well-being measure. We included only studies from 1990 and later in order to examine current developments.
- 3. We did not include studies that mixed retirement with job loss in older age. Even though definitions of retirement differ in the included studies, all of them included to some degree a change of self-reported work status from nonretired to retired.
- 4. The review is deliberately based on broad inclusion criteria of well-being outcomes. Studies of the retirement transition have typically used various outcome measures related to well-being, including specific items and scales of life satisfaction, quality of life, negative and positive affect, distress, and happiness. We also included studies focusing on depressive symptoms, if treated as a continuous scale and not as a diagnostic entity. We excluded studies solely based on other diagnoses of mental health. Furthermore, we excluded studies using measures of specific emotions like anxiety and anger, along the same line as suggested by Luhmann, Hofmann, Eid and Lucas (2012) in their meta-analysis on the effects of life events.

In total, we identified 32 studies meeting our inclusion criteria, i.e., longitudinal studies published later than 1990 and assessing well-being systematically before and after retirement.

Findings

A detailed overview of studies included in the review is shown in Table 1. Three typical methodological approaches were found: Some authors used one group pre/post comparisons, observing change from preretirement to postretirement. Others compared the change in well-being between a group of people retiring and a group continuing working. A third group of authors used regression techniques or structural equation modeling and included changes in occupational status in their models.

Studies differed also in the time between assessments. In the table we list the time between waves for big scale longitudinal

Authors	Data base (sur- vey or project)	N	Number of assess- ments	Time between assessments	Design	Outcome	Measure	Difference be- tween prere- tirement and postretirement well-being	Significant modera- tors/mediators
Abolhas- sani & Ales- sie, 2013	German Socio- economic Panel	10,275	15	Annually	LM	Life satisfac- tion	Single item	0	
Calvo et al., 2009	Health and Re- tirement Study	2,389	7	Biennially	LM	Happiness	ltems from CES-D	0/-	Control over re- tirement
Calvo et al., 2013	Health and Re- tirement Study	6,624	12	Biennially	LM	Depression	CES-D	+/-	Age at retire- ment
	Health and Re- tirement Study		10	Biennially	PP	Depression	CES-D	-	Control over re- tirement, Per- ceived control, retirement tim- ing, Education, Health
Clark & Fawaz, 2009	Survey of Health, Ageing and Retire- ment in Europe*	722	2	1–3 years be- tween mea- surements	PP	Depression	EURO-D	0/+/-	Education, country, work hours, type of occupation
Dave et al., 2008	Health and Re- tirement Study		7	Biennially	LM	Depression	CES-D	-	Social support
0	Work and Re- tirement Panel	1,189	3	5 years be- tween mea- surements	LM	Life Satisfac- tion	Items from the satisfaction with life scale	0/+/-	Voluntariness, bridge job
Gall & Ev- ans, 2000	Retirement Re- search Study	109	3	2–4 months preretirement, 6–7 years post- retirement	PP	Depression	SCL-90	0	
Gall et al., 1997	Retirement Re- search Study	117	3	2–4 months pre, 1 year post, 6–7 years post	PP	Life Satisfac- tion Stress	Single item SCL-90	0 + (short term) – (long term)	
Gayman et al., 2013	Health and Re- tirement Study	3,264	7	Biennially	LM	Depression	CES-D	0/+	Ethnicity
Hershey & Henkens, 2014	Work and Re- tirement Panel	1,388	2	5 years be- tween mea- surements	LM	Life Satisfac- tion	Satisfaction with life scale (short form)	+/-	Voluntariness, reasons for re- tirement
Heybroek et al., 2015	Household, In- come and La- bor Dynamics in Australia survey	724	11	Annually	LM	Life Satisfac- tion	Single item	0/+/-	Sex, education, health, rela- tionship, age at retirement, so- cial support
lwasaki & Smale, 1998	Canada Fitness Survey/Camp- bell's Survey on Well-Being in Canada (follow- up)	(71 re-	2	7 years be- tween mea- surements	LM	Positive and negative affect	Bradburn Af- fect Balance Scale	0	

Table 1. Studies on well-being after retirement included in the review

Authors	Data base (sur- vey or project)	Ν	Number of assess- ments	Time between assessments	Design	Outcome	Measure	Difference be- tween prere- tirement and postretirement well-being	Significant modera- tors/mediators
Karpas et al., 2013		257	3	< 6 months pre- retirement; 7 years postre- tirement	PP	Depression	CES-D	?	Income de- cline, moderat- ed by attach- ment avoidance
Kim & Moen, 2002	Cornell Retire- ment and Well- Being Study	458	2	2 years be- tween mea- surements	CG	Morale	Philadelphia Geriatric Cen- ter Morale scale	0	Well-being pre- retirement; changes in per- ceived control, subjective
						Depression	CES-D		health, income adequacy
Kubicek et al., 2011	Wisconsin Lon- gitudinal Study		2	11 years be- tween mea-	PP	Depression	CES-D	+	Gender, Health,
,	<u>Breama craa</u>	sion), 1,728 (posi- tive psy- chologi- cal func- tioning)		surements		Positive psy- chological functioning	Ryff Scales of Psychological Well-Being	-	Tenacity in goal pursuit, Flexibility in goal adjustment, Financial resources, Work importance and work conditions
Latif, 2011	Canadian Na- tional Popula- tion Health Sur- vey	person-	7	Biennially	LM	Happiness	Single item	0/+	Age at retire- ment
Mayring, 2000	Übergänge in den Ruhestand [Retirement transitions]	329	3	6 months pre- retirement, 6 months postre- tirement, 12 months postre- tirement	PP	Life Satisfac- tion, Happi- ness	Single item	0	Sex, socioeco- nomic status, social network
Midanik et al., 1995	Kaiser Perma- nente Retire-	595	2	2 years be- tween mea-	CG	Depression	CES-D	0	
	ment Study		_	surements		Stress	Single item	+	
Mojon-Azzi et al., 2007	Swiss House- hold Panel	523	5	Annually	CG	Depression	Single item	+	
Nuttman- Shwartz, 2004		56	2	6 months pre- retirement, 12 months postre- tirement	PP	Well-being Stress	Mental Health Inventory	0+	
Pinquart & Schindler, 2007	German Socio- economic Panel		3-20	Annually	LM	Life Satisfac- tion	Single item	Short term: +/-/0, Long term: –	Sex, age at re- tirement, health, unem- ployed before retirement, SES, marital status
Reitzes et al., 1996	Carolina Health and Transitions Study	826	2	2 years be- tween mea- surements	CG	Depression	CES-D	+	

Authors	Data base (sur- vey or project)	Ν	Number of assess- ments	Time between assessments	Design	Outcome	Measure	Difference be- tween prere- tirement and postretirement well-being	Significant modera- tors/mediators
Rhee et al., 2015	Health and Re- tirement Study	1.195	2	Biennially	LM	Depression	CES-D	+/-	Involuntary re- tirement
Seitsamo, 2007		3,815	4	4, 7, and 5 years between measurements	LM	Positive and negative affect	Occupational Stress Ques- tionnaire	+	
Szinovasz & Davey, 2004a	Health and Re- tirement Study	2,695	4	Biennially	LM	Depression	CES-D	+/-/0	Partners retire- ment status, sex, time of as- sessment
Szinovasz & Davey, 2004b	Health and Re- tirement Study	2,649	4	Biennially	LM	Depression	CES-D	0/-	Involuntary re- tirement, early retirement, spousal dis- ability, sex
	Health and Re- tirement Study	2,681	3	Biennially	LM	Depression	CES-D	0	Grandchild care
De Vaus et al., 2007	Healthy Retire- ment Project	385	4	7 days prere- tirement, 12 months postre- tirement, 24 months postre- tirement, 36 months postre- tirement	ΡΡ	Life satisfac- tion Positive and negative affect	Scale by Camp- bell et al., 1976 PANAS	?	Control over re- tirement
Wang, 2007	Health and Re- tirement Study		5	Biennially	LM	Depression	CES-D	+/-/0	Bridge job, re- tirement plan- ning, marital status, sex, spouse work- ing status, physical job de- mands, work stress, job sat- isfaction, health decline, income, mar- riage quality, off-time retire- ment
Wetzel et al., 2015	German Socio- economic Panel		27	Annually	LM	Life Satisfac- tion	Single item	Short term: +, Long term: +	Preretirement work status, education
Yeung, 2013		90	2	6 months pre- retirement, 6 months postre- tirement	PP	Psychological Well-being	Ryff Scales of Psychological Well-Being	0	Planning for re- tirement

Note. CG = control group, PP = pre/post comparison, LM = longitudinal modeling. - = worse WB after retirement, 0 = little or no change, + = better WB after retirement, ? = authors did not report a main effect +/-/0; +/0, +/- or -/0 = Different effects for different subgroups. * data from the British Household Panel Survey was used in this study as well, but not included in this review because the measure did not fit our criteria.

surveys. For pre/post comparisons or differences between retirees and nonretirees, we report measurement inter-occasion time and if provided also the time span between measurements and the retirement event. In studies using longitudinal modeling techniques (LM), we report the changes that are related to the retirement event in the respective paper. If an article included changes between different time phases, we report only the comparisons between preretirement and postretirement wellbeing.

For changes in well-being we always report the direction of effects as "+" if well-being increased and as "-," if it decreased. A decline in depressive symptoms is thus denoted as "+".

Longitudinal Continuity or Change in Well-Being after Retirement

Interestingly, longitudinal studies typically show that retirement does not seem to affect well-being negatively. Only two studies report a negative main effect of retirement (Calvo & Sarkisian, 2014; Dave, Rashad, & Spasojeciv, 2008). Most studies rather find continuity (e.g., Iwasaki & Smale, 1998; Kim & Moen, 2002; Mayring, 2000; Midanik, Soghikian, Ransom, & Tekawa, 1995; Nuttman-Shwartz, 2004; Szinovasz & Davey, 2006) or even a positive impact of retirement under normal circumstances (Latif, 2011; Mojon-Azzi, Souza-Poza, & Widmer, 2007; Reitzes, Mutran, & Fernandez, 1996; Wetzel, Huxhold, & Tesch-Römer, 2015). In a meta-analysis on adaptation to life events, Luhmann and colleagues (2012, p. 609) call retirement "a typical example of a 'neutral' event that comes with costs and benefits," which means that the negative effects are balanced with positive effects and vice versa.

Variability in the Reaction to Retirement

Older studies have frequently neglected individual differences in the transition to retirement, or only investigated certain predictors. Instead of treating retirees as a homogeneous group, recent studies apply latent growth mixture modeling to identify subgroups of retirees with regard to changes in well-being. Wang (2007) used a US sample and a reversed-coded depression score as the dependent variable, while Pinquart and Schindler (2007) used a German sample and investigated changes in life satisfaction. Both identified three subgroups: The largest group showed stability during and after the transition, having enough resources to deal with retirement-related changes (Wang, 2007). Pinquart and Schindler (2007) even found a small temporary increase around the event in this group. A smaller subgroup, unable to cope because of insufficient resources, showed losses in well-being after retiring but later recovered. A last subgroup seemed to benefit from retirement, at least temporarily. Wang (2007) calls this pattern "re-

covering," as members of this subgroup seemed to have felt uncomfortable in their prior jobs (Wang, 2007) or had been unemployed and of bad health, and showed the lowest level of baseline satisfaction (Pinquart & Schindler, 2007). Nevertheless, in the long run, Pinquart and Schindler (2007) found this group experienced the most pronounced decline in well-being of all subgroups in the years following the retirement event. With a similar study design, Heybroek, Haynes, and Baxter (2015) investigated change in life satisfaction before and after retirement in an Australian sample. They found the same three groups as the other authors, but also a fourth group with high preretirement levels of well-being, whose well-being decreased significantly after retirement.

These results show that it is wise to consider the heterogeneity of the effects of retirement. Predictors and correlates of change in well-being after retirement are described further below.

Moderators

Type of Study

As noted above, studies differ in respect to their method. Nevertheless, we cannot find a systematic association between direction of effect and study type in the studies reviewed.

Country of Origin

Even though studies were conducted in different countries, we could not identify any systematic differences between countries.

Time of Assessment

In the reviewed studies, we find no clear difference between short-term and long-term effects.

Facets of Well-Being

Most studies assessed change in depression. Notably, there was more change in depression than in more cognitive-evaluative measures of well-being as life satisfaction, which often remained stable over the transition (Abolhassani & Allessie, 2013; Dingemans & Henkens, 2015; Gall, Evans, & Howard, 1997; Mayring, 2000). These results support the idea of life satisfaction as a stable trait; nevertheless, others found life events to have a stronger effect on cognitive than on affective facets well-being (Luhmann et al., 2012). Studies analyzing stress showed lower levels of stress after retirement (Gall et al., 1997; Midanik et al., 1995; Nuttman-Shwartz, 2004).

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Socioeconomic Status and Education

Pinquart and Schindler (2007) found that lower socioeconomic status predicted less favorable outcomes regarding well-being, while Mayring (2000) found the opposite. But higher education has been associated with better short-term (Clark & Fawaz, 2009) and long-term outcomes (Wetzel et al., 2015).

Sex

Pinquart and Schindler (2007) found women more likely to be part of the group of unsuccessful retirees. Women have also been found to show a greater increase in depressive symptoms than men (Dave et al., 2008). Men and women seem to differ with respect to what matters in the retirement transition: Former job-related factors and income were found to have a greater influence on men's well-being than on women's (Kim & Moen, 2002; Kubicek, Korunka, Raymo, & Hoonacker, 2011), whereas social contacts (Kubicek et al., 2011) and marital quality (Kim & Moen, 2002) had a greater influence on women's well-being. The effect of a joint retirement was found to be less long-lasting for women than for men (Szinovasz & Davey, 2004a). If retirement is perceived as forced or too early, a decline in one's partners' activities of daily living during the retirement transition is associated with worse well-being scores after retirement for women, but not for men (Szinovasz & Davey, 2004b), probably because women are more likely to be forced to retire to take over the caregiver role. Results may change in the future due to women's changing social roles.

Age at Retirement

People retiring at an older age are often found to experience better well-being outcomes in retirement (Heybroek et al., 2015; Latif, 2011; Pinquart & Schindler, 2007). Nevertheless, retiring after the usual retirement age does not necessarily offer any advantages (Calvo, Sarkisian, & Tamborini, 2013). Social norms about the appropriate age to retire might play a role (Van Solinge & Henkens, 2007).

Health

Pinquart and Schindler (2007) found that people who experienced a short-time benefit from retirement were more likely to report bad health before retirement, as it might be a phase of recovery for them rather than a time of losses. On the other hand, this group also perceives particular losses later on. Other studies tend to suggest a positive association between preretirement health and well-being in retirement (Kubicek et al., 2011; Wang, 2007), as health might be crucial for adaptation (Kim & Moen, 2002).

Ethnicity

One study (Gayman, Pai, Kail, & Taylor, 2013) found that changes after retirement differed between Black and White retirees in the U. S.: White retirees experienced increases in wellbeing, while there was no effect among Black retirees.

Work Life

Role theory and resource approach suggest that people who have less work-related resources when retiring experience better outcomes. In line with this idea, former unemployment (Pinquart & Schindler, 2007; Wetzel et al., 2015), working part-time (Clark & Fawaz, 2009), job dissatisfaction, work stress, and physical demands (Wang, 2007) were found to predict an increase in well-being in retirement. A stronger attachment to the workplace was linked to higher depression scores after retirement for women and job satisfaction was linked to a lower postretirement morale in men (Kubicek et al., 2011). Clark and Fawaz (2009) found people in "less attractive" jobs experienced increases in well-being, while people in "more attractive" lines of work experienced losses.

Context of Retirement

The context of retirement seems to play a crucial role. If one decides to retire voluntarily, e.g., planning to spend more time with family or friends, it seems to be positively related to well-being (Hershey & Henkens, 2014). If, however, one is forced to retire, due to health or work-related reasons, it seems to have a negative impact on well-being (Calvo, Haverstick, & Sass, 2009; Dingemans & Henkens, 2015; Hershey & Henkens, 2014; Rhee, Mor Barak, & Gallo, 2015; Szinovasz & Davey, 2004b, deVaus, Wells, Kendig, & Quine, 2007). Other studies also found increased maladaptive coping behavior such as alcohol consumption (Bacharach et al., 2008; Henkens, van Solinge, & Gallo, 2008). Hershey and Henkens (2014) emphasized the specific losses in autonomy and control that involuntary retirees are likely to perceive, and Dingemans and Henkens (2015) found that retiring involuntarily is associated with long-term decreases of self-efficacy.

Psychosocial Characteristics

Known stress buffers seem to help in the retirement transition. Kubicek et al. (2011) found that tenacity in goal pursuit and flexibility in goal adjustment, two general coping styles, were related to better outcomes in retirement. The same applies for higher perceived mastery before retirement (Kim & Moen, 2002). Social support (Dave et al., 2008), and being 234

married seems to facilitate the transition to retirement as well (Pinquart & Schindler, 2007; Wang, 2007). Among the married, however, marital problems before retirement are associated with losses in well-being during the transition period (Wang, 2007). A partner who also is at home after retirement, particularly if he or she retires in the same time, seems to ease the transition, and joint activities seem to drive this effect for men (Szinovasz & Davey, 2004a).

Attachment avoidance was associated with greater losses in well-being in retirement (Karpas, Bamberger, & Bacharach, 2013), and for people scoring high on this trait, losses in income after retirement were particularly problematic. Notably, we found no study investigating the effect of Big Five personality traits on changes after retirement, but it seems that personality also can change reaction to retirement: Retirees were found to become more agreeable and less active in one study (Löckenhoff, Teracciano, & Costa, 2009), but less conscientious in another (Specht, Egloff, & Schmukle, 2011).

Adaptive Strategies

Unfortunately, little is still known about successful ways to adjust to retirement, i.e., associations between certain reactions and changes in well-being after retirement.

Planning for retirement while still in the work force seems to be related to more positive well-being after retirement (Wang, 2007). But planning is not always good: Yeung (2013) found only psychological planning (e.g., taking part in retirement workshops) to be related to better postretirement scores in well-being, whereas the planning of many social activities before retirement was in fact associated with higher levels of distress in retirement.

Unfortunately, only one study investigated the association of change in leisure participation and well-being after retirement, but it failed to find a significant effect (Iwasaki & Smale, 1998). Dave et al. (2008) found physical activity to protect from the negative consequences of retirement. First studies indicate that a bridge employment might enable people to maintain their preretirement lifestyle and their role embeddedness and might therefore produce better and more desirable outcomes (Wang, 2007), especially if they retired involuntarily (Dingemans & Henkens, 2015).

Mediators

Changes in Resources

Resource theory proposes that losing important resources after retirement is associated with losses in well-being. Correspondingly, a decline in health after the transition is associated with losses in well-being after retirement (Wang, 2007). As noted, losses in income (Karpas et al., 2013) and financial control (Rhee et al., 2015) are associated with losses also in well-being. Furthermore, changes in perceived control and mastery go hand in hand with changes in well-being (Kim & Moen, 2002). As noted, women whose partner experiences a decline in activities of daily living between pretreatment and postretirement measurement and who retire involuntary or early, report more losses in well-being (Szinovasz & Davey, 2004b). If retirement is accompanied by a release from grandchild care obligations and thus an increase in free time, it is associated with increases in well-being for men (Szinovasz & Davey, 2006).

Discussion

The review sheds light on what we know about the consequences of retiring on well-being. We know that, in pretest and posttest designs, overall levels of well-being tend to remain stable over the transition to retirement. The few studies that have applied more advanced methods to study change (e.g., Pinquart & Schindler, 2007) show a certain amount of variability in the reaction to retirement. Subgroups of retirees seem to experience different changes in well-being after retirement. Some retirees experience an increase in well-being by exiting a demanding and dissatisfying worklife. Others experience a decline as they already had fewer resources before retirement to deal with the changes that occur, and assumedly lose more resources than others after the transition (Wang, 2007). How people react to retirement depends on situational and personal characteristics, and these factors need to be addressed more in future studies.

Many moderators of the effect of retirement have been identified in the studies reviewed. In general, the effects of retirement seem to depend on the individual resources that are lost or gained in retirement, and especially resources that may outweigh losses. Taken together, the findings inform us that there is a substantial heterogeneity in the response to retirement, even though we know that most retirees maintain their well-being over the event. Those who experience compromised well-being seem to be characterized by

- 1) more substantial losses (e.g., because they are particularly attached to their workplace or they are forced to retire), and/or
- 2) less resources to actually cope with retirement-related changes (e.g., because of a lack of social support).

When studying retirement, it is thus important to consider more in detail what people are leaving, what they are entering and what they actually do to deal and cope with perceived challenges related to the transition.

Unresolved issues

Most studies on the effects of retirement fail to address the question of actual change. Few studies (e.g., Wetzel et al., 2015) have investigated intraindividual change, i.e., change in well-being before and after retirement. Thus, few studies are able to detect if there is a change in level of well-being and in rate of change after retirement and if there might be heterogeneity in this change.

Furthermore, few studies take into account the difference between the transition period and later developments. Those that do so (e.g., Pinquart & Schindler, 2007; Wetzel et al., 2015), show that different factors contribute to specific shortterm and long-term changes after retirement. While retirement might bring a special short-time benefit for some groups (e.g., people with health problems), in the long run these might be worse off than other groups and perceive particular decreases in well-being later on (Pinquart & Schindler, 2007). But how long is this first retirement transition phase? Studies based on approaches like Atchley's (1976) are needed to better understand adaptation and typical phases during the retirement transition. Besides, no studies have actually investigated the correlative stability of indicators of well-being, which would be recommended in future studies aiming at a more detailed understanding of patterns of continuity and change.

People have also frequently neglected change-change associations, that is, how changes of resources, changes in behavior and changes in well-being travel together or influence each other. We know that changes in well-being are associated with changes in health (Wang, 2007) and perceived control (Kim & Moen, 2002). But the only study that has dealt with change in well-being and change in leisure activity (Iwasaki & Smale, 1998) is only of limited help because of the low number of participants and the restriction to physically active leisure activities.

Future studies investigating the entangled patterns of change and continuity after retirement need to focus more on the adaptive processes individuals activate during the transition. We know very little about what actually happens to people's life when they retire and what is aspired and needed for a good life following the retirement event. Most authors speak of adaptation to life in retirement, but we do not know what adaptation really refers to in this respect. People who experience losses in well-being immediately after retirement often recover after a certain period of time and are able to stabilize their well-being (Wang, 2007). How do they reach this goal? To understand this, we need to zoom into people's everyday life. Earlier studies are often based on cross-sectional data or suffer from small unrepresentative samples. Other results are derived from largescale longitudinal studies that were not particularly designed to understand the retirement transition. They often lack the specific information needed, or cannot help to shed light on shortterm developments because of too-long intervals between the measurements. Future studies need to investigate short-term

effects after the retirement event, for example, in a measurement burst design, and ideally combine this type of data with information on long-time developments before and following retirement. Studies should also integrate information on the occurrence of adaptive styles and actions and investigate their effectiveness. This will help to better understand what people expect and how they tend to cope with losses and changes when they enter retirement.

In sum, what we know today is that retirement produces heterogeneous outcomes but the event is not a major treat on well-being for the majority of retirees. Future research needs to find out what people actually do in their everyday life in the transition period to adapt to the new circumstances.

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Declaration of Conflicts of Interest

The authors declare that no conflicts of interest exist.

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Georg Henning

Department of Psychology University of Gothenburg Box 500 40530 Gothenburg Sweden georg.henning@psy.gu.se