

FINAL REPORT / Abschlussbericht

Historical Differences in Late Work Life Experiences and Retirement Adjustment

(Historische Unterschiede im Erleben des späten Arbeitslebens
und in der Anpassung an den Ruhestand)

Projektnummer: 441444293

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1 General Information

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Project title: Historical Differences in Late Work Life Experiences and Retirement Adjustment

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2 Summary

Zusammenfassung

Über die letzten Jahrzehnte haben sich die gesellschaftlichen und rechtlichen Rahmenbedingungen für die Arbeit im Alter und den Rentenübergang stark verändert. Gleichzeitig unterscheiden sich die Geburtskohorten, die sich aktuell im späten Erwerbsleben befinden oder in den Ruhestand gehen, in verschiedenen psychologischen und gesundheitlichen Aspekten von früheren Kohorten. Im aktuellen Projekt wurde untersucht, inwieweit sich dementsprechend auch das Erleben der späten Erwerbsphase und die Anpassung an den Ruhestand verändert haben. Diese Untersuchungen sind aus zwei Gründen besonders relevant: Erstens wird es aufgrund des demographischen Wandels und der politischen Wende hin zur Förderung eines verlängerten Arbeitslebens, immer wichtiger zu verstehen, inwieweit ältere Mitarbeiter*innen mit Ihrer Arbeit zufrieden und motiviert bleiben können. Zweitens ist der Übergang in den Ruhestand eine Lebensphase, die Risiken aber auch Chancen für die weitere Entwicklung im Alter birgt. Mit dem längeren Leben wird auch die Phase des Ruhestands länger, und somit die Bedeutung des Übergangs zentraler. Auf Basis großer deutscher Längsschnittstudien konnte in mehreren Publikationen gezeigt werden, dass sich die Anpassung an den Ruhestand zwischen den 1990er und den 2010er Jahren wenig geändert hat, und sich auch während der Covid-19 Pandemie keine Besonderheiten zeigten. Zudem zeigt sich, dass die Arbeitszufriedenheit in den letzten Jahren der Erwerbstätigkeit weniger sinkt als noch in früheren Jahren, allerdings war die Arbeitszufriedenheit direkt vor dem Ruhestand in den 2010er Jahren geringer als in früheren Jahrzehnten. Das ist vermutlich auf verringerte Möglichkeiten zu einem frühen Erwerbsaustrieg zurückzuführen. Bisher noch nicht begutachtete Ergebnisse weisen zudem darauf hin, dass ca. 50-jährige 2022 eine geringer ausgeprägte intrinsische Arbeitsmotivation zeigten als eine Vergleichsgruppe gleichen Alters 2011. Es zeigen sich in verschiedenen Publikationen stabile oder sogar wachsende soziale Ungleichheiten, so dass Menschen mit höherem sozioökonomischem Status zufriedener mit ihrem Leben, ihrer Arbeit und dem Ruhestand sind und sich diese Unterschiede teilweise historisch noch vergrößert haben. Weiterhin konnten innerhalb dieses Projektes neue Erkenntnisse zur späten Erwerbsphase gesammelt werden: Bisher nicht begutachtete Ergebnisse zeigen zwar, dass die Arbeitszufriedenheit sich zwischen 40 und 65 im Durchschnitt wenig verändert. Mithilfe deutscher und schwedischer Daten konnte aber gezeigt werden, dass in den allerletzten Jahren des Arbeitslebens im Durchschnitt sowohl die autonome Arbeitsmotivation, als auch die Arbeitszufriedenheit abnimmt. Zudem verliert die Arbeitszufrie-

denheit an Bedeutung für die allgemeine Lebenszufriedenheit, was wir als Abnabelungsprozess von der Arbeit interpretieren.

English Summary

Over the last decades, societal and legal norms concerning late work life and retirement have changed remarkably. At the same time, birth cohorts who are currently in their late work life or retiring differ in several psychological and health aspects from earlier cohorts. In the present project, we investigated if the experience of the late work life and retirement adjustment show similar historical differences. These investigations are important for two main reasons: First, because of the demographic change and the political reorientation towards a longer work life, it becomes more important to understand if and how older workers can maintain their work motivation and satisfaction until retirement. Second, the transition to retirement is a life phase with risks but also chances for long-term developments in older age. With longer lives, the phase of retirement is getting longer and consequently, the transition to retirement gets more important. Based on German panel surveys we could show in several papers that retirement adjustment has changed little between the 1990s and the 2010s, and there was no particular change during the covid-19 pandemic either. In addition, work satisfaction in the 2010s showed less declines in late work life than in earlier decades, but people retired at lower levels of work satisfaction. The latter effect is probably a consequence of increasingly limited opportunities for early retirement for dissatisfied workers. Unpublished results further suggest that workers around age 50 in 2022 were less intrinsically motivated for their work than a comparable group of workers around that age showed in 2011. Furthermore, we found in several publications stable or even growing social inequalities, which means that people with higher socioeconomic status were more satisfied with their life, their work and their retirement and these differences have partly even increased over historical time. Furthermore, we were able to gain new information on the late work life. Although unpublished results show mean-level stability between age 40 and 65 in terms of work satisfaction, three papers based on Swedish and German data, focusing specifically on the last years at work, showed a decline in autonomous work motivation and satisfaction, as well as a decreased importance of job satisfaction for general life satisfaction, which we interpret as a work disengagement process.

3 Progress Report

In particular over the last decade, the interest of psychological researchers in the role of historical time on human functioning in older age has increased considerably (Drewelies et al., 2019). In the funded project, we investigated historical differences in retirement adjustment quality and work attitudes among workers in their late career. Historical differences describe differences between people of the same age in different historical periods, which can be a product of both cohort effects or period effects (Huxhold, 2019). Given the advantages of later-born cohorts for example in terms of cognitive health, adaptive personality traits or social resources (Brandt et al., 2022; Huxhold, 2019; Karlsson et al., 2015), later-born cohorts of retirees may find it easier to adjust to retirement as they have more resources to cope with the changes and challenges associated with retirement (Wang et al., 2011). However, a general political shift from an early retirement approach towards longer working lives have restricted individual opportunities to follow one's retirement preferences, as exceptions from the mandatory retirement age have been abolished (Hofäcker et al., 2018). This lack of control may make it harder to adjust to retirement. In the first part of the project (funding phase: 2020-2022), the focus was therefore on historical differences in retirement adjustment. Here we had the following main research questions: *1. Do historical differences in retirement adjustment exist in Germany? 2. What are the mechanisms behind potential differences? 3. Do historical differences vary between educational groups?*

Given that both cohort differences as well as social and political developments may also influence older workers' perceptions of the work place, and given the influence of the Covid-19 pandemic on all life areas, In the second funding phase, our additional research questions were: *1. How has the Covid-19 pandemic influenced retirement adjustment? 2. How has the psychosocial and health situation of older workers (50+) changed across historical time in Germany? 3. Are there specific (latent) sub-groups of older workers or retirees that are differentially affected by historical time?*

Our analyses were based on existing German longitudinal multi-cohort studies of ageing, that allowed to compare people of similar age in different historical periods. Most studies were conducted by Georg Henning as the first author, but all collaboration partners were involved in at least one of the resulting papers.

3.1 Historical differences in retirement adjustment

In three papers, we investigated how retirement adjustment quality had changed in Germany over the last decades. In the first paper (Henning, Johansson, et al., 2022), we investigated historical differences in retirement adjustment based on the population-based German Ageing Survey (DEAS). The DEAS consists of four samples of the German popula-

tion aged 40-80, drawn from the population registry in 1996, 2002, 2008 and 2014 respectively, who are followed over time with panel interviews. We compared retirees from each of the samples at their initial assessment, who were retired for up to 5 years. Retirement adjustment quality was measured with three different indicators (perceived change in life after retirement, retirement satisfaction, adjustment difficulties). Retirement satisfaction was higher in later samples, but for the other two outcomes, there was no evidence for systematic increases or decreases with historical time over the studied period. White-collar workers reported better adjustment than blue-collar workers did, and for two of three outcomes, this effect was stable over time. The white-collar workers' advantage concerning retirement satisfaction, however, increased with historical time. Although these results speak in favour of relative historical stability, they were based on cross-sectional data, so we had no information on the pre-retirement adjustment.

In the second paper (Henning, Segel-Karpas, et al., 2022), we investigated historical differences in change in subjective well-being across the retirement transition. We further included perceived control as a predictor of change in well-being. Analyses were based on the DEAS again and we compared three groups of workers, either retiring between 1996 - 2002, 2002-2008 or 2008-2014 in terms of their pre-retirement well-being (1996; 2002 or 2008, respectively) and their change in well-being until the respective follow-ups 6 years later. Results showed historical improvements in preretirement positive affect (i.e., later samples had higher preretirement levels). Contrastingly, earlier samples showed a larger increase in positive affect across the retirement transition compared to later samples. Differences were rather small. No historical differences were found in life satisfaction. Furthermore, we found that the association of perceived control and positive affect increased over historical time.

In the third paper (Henning et al., 2023), we investigated how levels and long-term changes in life satisfaction before and after retirement changed over historical time in Germany and Switzerland. We used longitudinal data from the German Socioeconomic Panel Study and the Swiss Household Panel from 2000 to 2019. Swiss retirees showed higher life satisfaction than German retirees. There were improvements in levels of life satisfaction and preretirement changes in life satisfaction with historical time in both countries. Furthermore, we found that short-time changes in life satisfaction across retirement improved over historical time in Germany.

Finally, we investigated the role of the Covid-19 pandemic (Henning et al., 2025): We compared workers in the DEAS retiring during or just before the first wave of the pandemic (2019-early 2021) with workers retiring long before the pandemic (2015–2017) in terms of retirement adjustment, measured by perceived adjustment difficulty (in 2017 for the control

group and in 2020/21 for the COVID-19 group) and change in life satisfaction across the transition (2014–2017 or 2017–2020/21, respectively). We found no significant differences in either measure of retirement adjustment. Thus, retirement adjustment was apparently not harder in the pandemic than before. We further found that in line with our expectations, social activities before the pandemic only showed positive effects in the group retiring before the pandemic. Those retiring in the pandemic may not have been able to benefit from their prior social activities due to contact restrictions or health problems. Our findings of relatively stable well-being in the pandemic are in line with a further paper we published on the psychosocial health of people in the second half of life in the pandemic (Wettstein et al., 2023), which showed particular increases in depressive symptoms and decreases in subjective age and attitudes towards own aging in Summer 2020, but adaptation in Winter 2020/21 in the DEAS.

Apart from well-being and perceived adjustment, there may also be other indicators of adjustment quality, for example social engagement. Therefore, we studied historical differences in volunteering around retirement in a further paper (Henning, Arriagada, et al., 2024). We compared individuals aged 60–70 in five cross-sectional waves (1999, 2004, 2009, 2014, 2019) of the German Survey on Volunteering to investigate how the association of retirement status and volunteering has changed with historical time. Overall, engagement levels had increased across samples with historical time, but voluntary work had become less time consuming. The (negative) association of retirement and volunteering was not significant once we controlled for sociodemographic characteristics. There were no historical differences in the association of retirement and volunteering, suggesting that the role of retirement for volunteering has seemingly not changed over time. The historical increases in levels of volunteering are in line with another study we conducted (Kelle et al., 2025), based on the DEAS.

Taken together, these papers show historical stability or small historical improvements, depending on the outcome, in retirement adjustment between 1996 and 2021. Furthermore, existing educational inequalities stayed the same or increased, whereas other predictors of adjustment seem to have stayed the same. Thus, there is little support for large changes in the experience of the retirement transition in Germany over the studied period.

3.2 Historical differences in work attitudes

We used SOEP data from 1985 to 2019 and studied predictors of pre-retirement levels and declines of job satisfaction (Henning, Muniz-Terrera, et al., 2024). Our analyses showed mean-level decreases in job satisfaction the last work years, and further demonstrated that trajectories among those retiring later in historical time were more positive. Nevertheless, workers later in historical time also retired at lower levels of job satisfaction. Whereas the positive developments of pre-retirement job satisfaction change may be related

to improved psychosocial resources (Drewelies et al., 2019), the historical differences in pre-retirement levels may relate to the increasingly restricted choice to select early retirement (Hofäcker et al., 2018), so dissatisfied workers remained.

In a further, so far unpublished paper, we studied historical differences in intrinsic work motivation in the German “Leben in der Arbeit” (lidA) study between in workers aged between 50 and 52 in either 2011 or 2022/23. The lidA study is a longitudinal multi-cohort survey of the working population aged 50+ and currently consists of four waves ($t_0 = 2011$; $t_1 = 2014$; $t_2 = 2018$; $t_3 = 2022/23$, (Hasselhorn et al., 2014). At the fourth wave (in 2022/23), an additional sample was added, born 1971 (Ruiz Marcos et al., 2023). As this new sample was almost the same age (50-52) in 2022 the oldest sample had been in 2011 (50-51), we used data from those two groups assessed in 2022/23 ($N = 2,501$) and 2011 ($N = 2,749$), respectively. We found that those in the later-born sample in 2022/23 showed slightly lower intrinsic work motivation ($d = 0.11$) than their earlier-born counterparts in 2011, even after controlling for differences in age and sociodemographic information, as well as opportunities for development, social support at work and quantitative work demands. Our analyses also showed that opportunities for development as well as social support showed a stronger association with work motivation in the later-born sample, compared to the earlier cohort.

Taken together, the results imply rather small but positive historical developments in work attitudes up to the pandemic. Afterwards, however, there seems to be a small historical decline, at least in intrinsic work motivation.

3.3 Deviations from the original plan and additional research in the project

In the first phase of the project, we mainly followed the original plan and answered all three research questions. In the second phase, we deviated from the original plan. We did not test if there were specific (latent) sub-groups of older workers or retirees that are differentially affected by historical time, because there were methodological and theoretical problems with the data and the methods we had planned to use. Instead, when we discovered a mean-level decline in job satisfaction in the last years at work (Henning, Muniz-Terrera et al., 2024), we became interested to see if we could see similar effects in other data sets and with other variables, which would highlight the need to study the last years at work as a psychologically distinct period in life and in a career. Our analysis based on three annual waves of the Health, Aging and Retirement Transition in Sweden study, showed that workers who retired after the study period showed declines in autonomous motivation (i.e., motivation for the activity itself) which those who continued to work did not show. Controlled motivation (i.e., motivation by external forces) did not decline (Henning, Stenling et al., 2023). In a further study with SOEP data (Henning, Muniz-Terrera et al., 2025), we found that the association of job satisfaction and general life satisfaction got smaller once workers approached retirement,

which suggests disengagement processes with an increasing importance of the work place. However, as the effect of leisure satisfaction on life satisfaction did not change, we do not know yet what replaces work as a source of life satisfaction in the last years before retirement.

References

- Brandt, N. D., Drewelies, J., Willis, S. L., Schaie, K. W., Ram, N., Gerstorf, D., & Wagner, J. (2022). Acting like a baby boomer? Birth-cohort differences in adults' personality trajectories during the last half a century. *Psychological science*, 33(3), 382-396.
- Drewelies, J., Huxhold, O., & Gerstorf, D. (2019). The role of historical change for adult development and aging: Towards a theoretical framework about the how and the why. *Psychology and aging*, 34(8), 1021-1039. <https://doi.org/10.1037/pag0000423>
- Hasselhorn, H. M., Peter, R., Rauch, A., Schröder, H., Swart, E., Bender, S., du Prel, J.-B., Ebener, M., March, S., & Trappmann, M. (2014). Cohort profile: the lidA Cohort Study—a German Cohort Study on work, age, health and work participation. *International journal of epidemiology*, 43(6), 1736-1749.
- Henning, G., Arriagada, C., & Karnick, N. (2024). Retirement and volunteering in Germany—historical changes and social inequalities. *Research on aging*, 46(1), 15-28.
- Henning, G., Baumann, I., & Huxhold, O. (2023). Historical and Cross-Country Differences in Life Satisfaction Across Retirement in Germany and Switzerland From 2000 to 2019. *The Journals of Gerontology: Series B*, 78(8), 1365-1374. <https://doi.org/10.1093/geronb/gbad066>
- Henning, G., Johansson, B., Lindwall, M., & Huxhold, O. (2022). Retirement adjustment in Germany from 1996 to 2014. *Work, Aging and Retirement*, 8(3), 304–321. <https://doi.org/https://doi.org/10.1093/workar/waab027>
- Henning, G., Muniz-Terrera, G., Stenling, A., & Hyde, M. (2024). Job satisfaction declines before retirement in Germany *European Journal of Ageing* 21(33). <https://doi.org/https://doi.org/10.1007/s10433-024-00830-0>
- Henning, G., Segel-Karpas, D., Hyde, M., & Huxhold, O. (2025). Retirement Adjustment in the Pandemic—Did Risk-and Protective Factors Change?? *Social Indicators Research*, 1-21. <https://doi.org/https://doi.org/10.1007/s11205-025-03680-0>
- Henning, G., Segel-Karpas, D., Stenling, A., & Huxhold, O. (2022). Subjective well-being across the retirement transition – historical differences and the role of perceived control. *Psychology and aging*, 37(3), 388-400. <https://doi.org/10.1037/pag0000662>

- Hofäcker, D., Hess, M., & König, S. (2018). Change of retirement transition in the political paradigm shift in Europe: Late career and retirement transitions in Germany, Austria, Sweden and Estonia. *Zeitschrift für Gerontologie und Geriatrie*, 52(Suppl 1), 40-51.
- Huxhold, O. (2019). Gauging effects of historical differences on aging trajectories: The increasing importance of friendships. *Psychology and aging*, 34(8), 1170-1184. <https://doi.org/10.1037/pag0000390>
- Karlsson, P., Thorvaldsson, V., Skoog, I., Gudmundsson, P., & Johansson, B. (2015). Birth cohort differences in fluid cognition in old age: Comparisons of trends in levels and change trajectories over 30 years in three population-based samples. *Psychology and aging*, 30(1), 83-94. <https://doi.org/10.1037/a0038643>
- Kelle, N., Simonson, J., & Henning, G. (2025). Baby Boomers and their voluntary engagement: A cohort comparison among the middle-aged and older population in Germany. *Nonprofit and Voluntary Sector Quarterly*, 54(1), 129-150. <https://doi.org/https://doi.org/10.1177/08997640241240417>
- Ruiz Marcos, J., Steinwede, J., & Kleudgen, M. (2023). *Methodenbericht: lidA Welle 4 [Methodological report: lidA wave 4]*. https://arbeit.uni-wuppertal.de/fileadmin/arbeit/Publikationen/infas_2023_Methodenbericht_lidA_W4.pdf
- Wang, M., Henkens, K., & van Solinge, H. (2011). Retirement adjustment: A review of theoretical and empirical advancements. *American Psychologist*, 66(3), 204-213. <https://doi.org/10.1037/a0022414>
- Wettstein, M., Spuling, S. M., Wünsche, J., & Henning, G. (2023). Middle-aged and older adults' psychosocial functioning trajectories before and during the COVID-19 pandemic: Evidence for multidirectional trends. *Psychology and aging*, 38(7), 627-643. <https://doi.org/10.1037/pag0000760>

Published Project Results

4.1 Category A – Articles in peer-reviewed journals, contributions to peer-reviewed conferences or to anthology volumes, and book publications

- Henning, G., Arriagada, C., & Karnick, N. (2024). Retirement and volunteering in Germany – historical changes and social inequalities. *Research on Aging*, 46, 15-28. <https://doi.org/10.1177/01640275231170798>
- Henning, G., Baumann, I., & Huxhold, O. (2023). Historical and cross-country differences in life satisfaction across retirement in Germany and Switzerland from 2000-2019. *Journals of Gerontology: Social Sciences*, 78, 1365–1374. <https://doi.org/10.1093/geronb/gbad066> (Open Access)

- Henning, G., Johansson, B., Lindwall, M., & Huxhold, O. (2022). Retirement adjustment in Germany from 1996 to 2014. *Work, Aging and Retirement*, 8(3), 304-321. <https://doi.org/10.1093/workar/waab027> (Open Access)
- Henning, G., Muniz-Terrera, G., Stenling, A., & Hyde, M. (2024). Job satisfaction declines before retirement in Germany. *European Journal of Ageing*, 21, 33. <https://doi.org/10.1007/s10433-024-00830-0> (Open Access)
- Henning, G., Muniz-Terrera, G., Stenling, A., Potter, S. & Hyde, M. (2025). Do predictors of life satisfaction change in the last years leading up to retirement? The case of job satisfaction and leisure satisfaction. *Journal of Personality*. <https://doi.org/10.1111/jopy.70009>
- Henning, G., Segel-Karpas, D., Hyde, M., & Huxhold, O. (2025). Retirement adjustment in the pandemic – did risk- and protective factors change? *Social Indicators Research*. <https://doi.org/10.1007/s11205-025-03680-0>
- Henning, G., Segel-Karpas, D., Stenling, A., & Huxhold, O. (2022). Subjective well-being across the retirement transition—Historical differences and the role of perceived control. *Psychology and Aging*, 37(3), 388–400. <https://doi.org/10.1037/pag0000662>
- Henning, G., Stenling, A., Tafvelin, S., Ebener, M., & Lindwall, M. (2023). Levels and change in autonomous and controlled work motivation in older workers – the role of proximity to retirement and sense of community at work. *Journal of Occupational and Organizational Psychology*, 96, 33-55. <https://doi.org/10.1111/joop.12406> (Open Access)
- Kelle, N., Simonson, J., & Henning, G. (2025). Baby boomers and their voluntary commitment: A cohort comparison among middle-aged and older population in Germany. *Nonprofit and Voluntary Sector Quarterly*, 54 (1), 129-150. <https://doi.org/10.1177/08997640241240417>
- Wettstein, M., Spuling, S. M., Wünsche, J., & Henning, G. (2023). Middle-aged and older adults' psychosocial functioning trajectories before and during the COVID-19 pandemic: Evidence for multidirectional trends. *Psychology and Aging*, 8, 627–643. <https://doi.org/10.1037/pag0000760>

4.2 Category B – Any other form of published results

Henning, G., Kelle, N. & Infurna, F. (2022). *Nine-year changes in work satisfaction in midlife – the role of age and flexible goal adjustment [Preprint]*. <https://psyarxiv.com/3zs5y>

4.3 Patents (applied for and granted)

None