NEW PATHWAYS IN RETIREMENT RESEARCH: INNOVATIVE PERSPECTIVES ON SOCIAL INEQUALITIES AND THE DISTRIBUTION OF TRANSITIONAL RISKS

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Editorial: New pathways in retirement research: Innovative perspectives on social inequalities and the distribution of transitional risks

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Editorial on the Research Topic
New pathways in retirement research: Innovative perspectives on social inequalities and the distribution of transitional risks

The transition from work to retirement remains one of the major turning points within an individual's life course, as it entails a variety of significant changes. Income and occupational prestige may decrease, but so does work-related stress. Similarly, work-related social networks may loosen, but private networks can be strengthened, and time is freed up for formerly neglected or new tasks and activities (Atchley, 1975). Studies have explored why people retire (individual motivations), how they retire (institutional pathways), and how retirement affects different dimensions of older adults' lives, including their health, wellbeing, finances, social networks, and activities (Henkens et al., 2018).

We know that individuals retire in different ways and experience their retirement differently, but beyond that, research also strongly suggests that the retirement transition is closely related to markers of social inequalities (Hofäcker et al., 2015). How a person experiences retirement both as a transition and as a life stage is likely to be influenced by the nature of their (previous) employment and by their gender, marital status, ethnicity, and social class. Retirement transitions may also be influenced by welfare legislation in a particular country and by discourses and norms around "right" retirement ages, and inequalities may be enhanced or even altered to some degree by policies to extend working lives (Hofäcker et al., 2015). Such policy changes include increases in pension ages, the closure of early retirement options, the lowering of replacement rates, and, in some countries, the abolition of mandatory retirement ages (Harper, 2015).

Against the context of demographic aging, policies increasingly aim at delaying retirement in an attempt to "extend working lives." This aim is implemented through, for

example, "activating" older employees and keeping them in the labor market as long as possible, while at the same time framing their (in-)ability to do so in terms of individual responsibility (Lain et al., 2022). However, not all older workers are able to keep working until a rather old age. Concerns are, hence, raised that social inequalities in retirement transitions are increasing (Hofäcker et al., 2015). At the same time, research suggests that ageism is still widespread among employers, resulting in older employees being viewed as less productive, less likely to be invested in and more likely to be offered early retirement routes (Stypińska and Nikander, 2018). This results in a new and pronounced form of "structural lag" between societal expectations (and, often, individual preferences) on the one hand and institutionalized stereotypes and limited possibilities to work for older adults on the other. In this context, pressures to extend working lives may increase inequalities among those working longer and among those in retirement.

Thus, social inequalities and the distribution of transitional risks are in the focus of research. Understanding and explaining these inequalities as well as their extent, roots and consequence is not only relevant from an academic perspective but is of utmost importance from a societal and practical perspective. Against this backdrop, this Special Issue Topic focuses on social inequalities regarding retirement. It consists of eight studies authored by researchers from the Netherlands, Belgium, Germany, the United Kingdom, Austria, Italy, Sweden, and Poland, all revolving around inequalities in retirement transitions, but doing so from different perspectives and using a variety of qualitative and quantitative methodological approaches. Addressed topics are inequalities in (planned) retirement timing, ageism, retirement practices and meanings, resonance of retirement transitions, flexible retirement as well as life-expectancy and healthcare usage in retirement.

In the context of financial pressures to extend lives, the paper by Hess et al. investigates the extent to which individuals are adapting their retirement expectations. They do this by analyzing the planned retirement ages of older workers in Europe using data from the Survey of Health, Ageing and Retirement in Europe (SHARE). Their analysis suggest that people's plans are adapting: across the 10 European countries investigated there is an increase in planned retirement age of 1.36 years.

While people's expectations about the retirement timing might be changing, we might expect increases in employment to be unevenly spread across different segments of the population. De Luigi et al. examine the planned retirement timing of Italian women using the Labour Force Survey and a Heckman selection model. They find that the comparably high planned retirement ages of women in Italy are mainly driven by those with low and medium education. The authors explain that this group often has fragmented employment histories and therefore faces financial pressures to postpone retirement.

Issues of fairness related to extended working lives are also addressed in the paper by Deeg et al. One of the central equity issues in pensions policy relates to life expectancy - the potential period of time for which an individual can expect to benefit from receiving a pension. The authors explore occupation-based differences in life expectancy using data from the Dutch population-based Longitudinal Aging Study Amsterdam (LASA). They find that those working in non-skilled general, technical, and transport have shorter life expectancies than those in professional roles. It is argued that these occupation-based differences in life expectancy contort the actuarial fairness of pension system, as those with higher expectancy will receive benefits for a longer time. As a result, they argue that pension ages should be adapted to life expectancy projections for different occupational groups.

Scherger's conceptual paper also provides a critical lens on policy to extend working lives. In policy circles, it is often assumed that "flexibilizing the retirement transition" is an innovative and humane way of extending working lives. While flexible work is seen as helping people to work longer, "flexibility" is an ambiguous term that can have both positive and negative outcomes in different circumstances. Scherger therefore develops a conceptual framework to help future research make sense of these different "dimensions" of flexibility. As she makes clear, access to "flexible retirement" is unequally distributed if people, for example, are financially unable to reduce their hours. Likewise, "flexibilization" can also be understood in terms of shifting responsibility onto individuals to take responsibility for their extended working lives. Scherger's paper therefore makes an important contribution, enabling researchers to analytically account for the seemingly contradictory dimensions within the flexibilization in later life.

As with the previous paper discussed, Vickerstaff and Van der Horst also interrogate a topic central to debates about older workers and extended working lives: age norms and stereotypes. Commonly, previous research has conceptualized this in relation to stereotypes held by managers toward older workers, and the implications of this for their treatment at work. In this paper the authors suggest that such as focus on ageism, while important, is incomplete. They argue that older individuals are also likely to internalize negative norms of what it means to be older in social contexts such as the workplace. To examine this, they analyse semi-structured qualitative interviews with employees and managers in the United Kingdom. A "decline narrative" of aging is shown to be widespread among both groups, but this can have different effects on retirement planning—from serving as a motivation to retire early, or, conversely, stay employed longer.

The papers by Urbaniak and Bischoff et al. also draw on qualitative research to examine the lived experience of retiring. Urbaniak's paper draws on a qualitative, practice-theoretical approach to explore how social inequalities are (re-)produced in everyday retirement practices and meanings in Poland.

She finds four broad types of retirement practices—caregiving, working, exploring and disengaging—and discusses how older adults redefine the meanings of the term "retiree" in the Post-Communist context. These practices and meanings, she argues, reflect structural and individual inequalities at the intersection of gender, age, and socioeconomic status.

Equally drawing on practice theories, Bischoff et al. deploy a mixed-methods research design to explore the affective transitional experiences and retirement practices of older adults in Germany. Their paper explores how relations between the self and the world transform when people retire, which social practices facilitate this process, and which role dimensions of social inequality—such as gender, income, education, or mental health status—play for resonance transformations in this transition. They find that the transition from work to retirement entails a specific "resonance choreography" that differs by retirement pathway, and that people retiring "too early" (based on chrono-norms) or on atypical pathways (e.g., unemployment) tend to experience more dissonance in the retiring process, which can in turn affect their wellbeing and health.

The final paper in this Research Topic explores another topic of interest to aging societies and retirement: healthcare usage. This topic is explored in the paper by Wetzel et al. The authors examine how secondary healthcare usage changes during the retirement transition. Analysing Swedish register data, they find no overall changes in secondary healthcare use with retirement, but differences based on gender and education. Following the retirement transition, gender differences in secondary healthcare use are shown to decrease, while within-gender educational differences tend to increase. These changes, they argue, can affect health and life expectancy in the long run, and reflect inequalities explored elsewhere in this Research Topic.

Taken as a whole, this Research Topic of papers makes an important contribution to debates on employment and retirement in older age. It covers a range of European countries, and empirically examines issues of importance to policy including retirement planning, life expectancy, healthcare usage, and inequalities in employment. Conceptually and empirically it also contributes to our understandings of the flexibilization of retirement, internalized age norms, and the lived experience and meanings of "retirement." It offers new and innovative perspectives on inequalities before, in and after the retirement transition.

Author contributions

All authors listed have made a substantial, direct, and intellectual contribution to the work and approved it for publication.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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The Impact of Age Stereotypes and Age Norms on Employees' Retirement Choices: A Neglected Aspect of Research on Extended Working Lives

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This article examines how older workers employ internalized age norms and perceptions when thinking about extending their working lives or retirement timing. It draws on semi-structured interviews with employees (n = 104) and line managers, human resource managers and occupational health specialists (n = 52) from four organisations in the United Kingdom. Previous research has demonstrated discrimination against older workers but this is a limiting view of the impact that ageism may have in the work setting. Individuals are likely to internalize age norms as older people have lived in social contexts in which negative images of what it means to be "old" are prevalent. These age perceptions are frequently normalized (taken for granted) in organisations and condition how people are managed and crucially *how they manage themselves*. How older workers and managers think and talk about age is another dynamic feature of decision making about retirement with implications for extending working lives. Amongst our respondents it was widely assumed that older age would come with worse health—what is more generally called the decline narrative - which served both as a motivation for individuals to leave employment to maximize enjoyment of their remaining years in good health as well as a motivation for some other individuals to stay employed in order to prevent health problems that might occur from an inactive retirement. Age norms also told some employees they were now "too old" for their job, to change job, for training and/or promotion and that they should leave that "to the younger ones"—what we call a sense of intergenerational disentitlement. The implications of these processes for the extending working lives agenda are discussed.

Keywords: ageism, age stereotypes, age norms, older workers, extending working lives, qualitative interviews

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INTRODUCTION

In this article we address how age relations in organisations impact on the willingness of older workers to extend their working lives. Internationally, an important policy phrase has been "live longer, work longer" (OECD, 2006; Street and Ní Léime, 2020). Policymakers are trying to stimulate older people to extend their working lives, for example in the context of the United Kingdom (UK) by abolishing mandatory retirement ages, increasing the State Pension Age, and by introducing age discrimination legislation (see e.g., ILC-UK, 2017, and Lain, 2016, for an overview). These policies

are introduced in response to predicted increased population aging and worries about increasing dependency ratios and the affordability of welfare states. There are various problems with this policy narrative as well as its proposed solutions, including that it appears to be a "one-size-fits-all" approach that ignores the different realities of various groups of older workers (for more detail see e.g., Street and Ní Léime, 2020). Another issue is that such policy changes occur in social contexts of considerable ageism.

Ageism is commonplace and embedded at all levels: in public policy narratives when talking about older workers, in popular narratives about baby boomers stealing prosperity from younger generations; in organisational regimes which favor the ideal fit and healthy worker (aka not "the old") and in workplace banter about older workers being put out to pasture. Although there is a long history of research that shows that negative images of older workers are related to discrimination against these employees (see e.g., Chiu et al., 2001; Macnicol, 2006; Hurd Clarke and Korotchenko 2016; Earl et al., 2018), there is less attention to how older workers may themselves make labor market decisions based on internalization of these narratives. Recent reviews have asked for more qualitative research on ageism (Harris et al., 2018) and we seek to begin to address this gap in the literature.

THEORETICAL CONSIDERATIONS

We are seeking to extend our understanding of various components that are part of ageism. Ageism involves active discrimination, but also stereotyping and age norms. The latter two may operate against people as well as being internalized by those subject to them. It is typical in organisational studies to research ageism as perpetrated by managers against employees (for example, Chui et al., 2001; Henkens, 2005; for an overview of the workplace literature see Naegele et al., 2018). Whilst there is evidence for discriminatory behavior by managers against older (and younger) employees this is a limiting view of the impact that ageism may have in the work setting.

Conceptually we see "age" "as a socially and culturally constructed category" (Krekula et al., 2018, p.37; see also Calasanti and Slevin, 2001; Calasanti, 2020). Regarding older workers, we need to understand how age is constructed and performed in the workplace. Age stereotypes identify what is routinely attributed to particular age groups. Prevalent stereotypes about older workers include that they are "(a) less motivated, (b) generally less willing to participate in training and career development, (c) more resistant and less willing to change, (d) less trusting, (e) less healthy, and (f) more vulnerable to work-family imbalance" (Ng and Feldman, 2012, p. 821; see also Posthuma and Campion, 2009). In their meta-analysis, Ng and Feldman (2012) only found some evidence for (b), though this does not say *why* they would be less willing to participate in training and career development. Hurd Clarke and Korotchenko (2016) summarize existing literature as follows: "the research suggests that ageism is often deeply internalized as individuals accept stereotypes that depict later life as a time of poor health, cognitive impairment, dependence, lack of productivity and social disengagement" (p. 1759). Part of this is an internalized health-decline-narrative, which has been referred to as "health pessimism" (see e.g., Brown and Vickerstaff, 2011). It has been claimed that because workers themselves believe the stereotypes, many cases of age discrimination go unnoticed (Laczko and Phillipson, 1990). Recent research suggests that stereotypes about motivation, mental and physical health remain very persistent (Kleissner and Jahn, 2020) and age and health perceptions might also have an impact on older workers' motivations to continue or leave work (Van der Horst, 2019).

Next to age stereotypes, age norms (at which age should you do what?) are also important to take into account. In an employment context, ageist ideas will play out in interpersonal interactions but also institutionally through policies and routine practices (Martin et al., 2014; see also Krekula (2009) on age coding practices). Age norms are frequently normalized (taken for granted) in organisations and condition how people are managed and how they manage themselves. Age norms are related to how people manage themselves because they will inform people's understanding of their own age and its implications in the work context. Ageism exists through social relations rather than primarily being a characteristic of individual behavior (cf. Van der Horst and Vickerstaff, 2021:4), which is exemplified by the fact that: "older workers" are only "old" in relation to other presumably "younger workers" and vice versa. The rise of narratives about intergenerational fairness (see Willetts, 2010; Wildman et al., 2021) may feed into concerns about older workers job blocking younger generations. This may in turn have increased the impact of age norms on labor market considerations in recent years.

Few studies have specifically researched the impact of internalized ageism on older workers but some studies do refer to cases of self-exclusion or what Romaioli and Contarello (2019) in a different context have referred to as a self-sabotage narrative: being "too old for". Minichiello et al. (2000) show with an Australian sample that "older people may adjust their lives so as to accommodate problems they encounter" and that "older people may simply "drop things out of their life" once access becomes difficult rather than lobby for improved resources" (p. 263), Gaillard and Desmette (2010) showed using a Belgian sample that positive stereotypes of older workers were related to lower early retirement intentions and a higher motivation to learn and develop, and in 2008 that identifying as an "older worker" was related to higher early retirement intentions (Desmette and Gaillard, 2008). Brown and Vickerstaff (2011) suggested that health pessimism may be a factor in retirement planning.

The main aim of this article is a qualitative exploration of the role of internalized age stereotypes and norms in employment decisions of older employees in the United Kingdom. As much is already known about *which* stereotypes exist, we focus more on how older workers and their managers deploy these stereotypes and age norms when talking about their working lives; we are interested in the social relations of age; how ageism is performed and reproduced through interactions and how this affects thinking about retirement.

TABLE 1 | Number of participants by case study organization and employee details.

organization	Hospitality	Local government	Transport	Manufacturing
Type of respondent				
Human resource/pension/occupational health managers	3	5	6	13
Line managers	5	9	6	5
Employees	22	37	19	26
Employee demographics				
Gender				
Female	64%	54%	37%	19%
Male	36%	46%	63%	81%
Age				
50–59	64%	76%	74%	42%
60–64	32%	24%	21%	19%
65+	5%	–	5%	4%
50+ (specific age undisclosed)	–	–	–	35%

Percentages may add up to more than 100% due to rounding.

DATA AND METHOD

This article is based on individual semi-structured face-to-face employee interviews (n = 104), as well as interviews with line managers, human resource and occupational health managers (n = 52) divided over four organizations. The organizations were located in different sectors, with varying workforces, and in different regions in the United Kingdom (the South East, North West, West, Wales and the Home Counties; for further details see **Table 1**). Interviewees were selected out of employees aged 50 or over who volunteered to participate using a maximum variation sampling strategy (Patton, 1990; Flyvbjerg, 2016). Managers were selected because they had responsibilities for workforces which included some older workers. In this article we concentrate primarily on the interviews with employees. The data were collected between 2014 and 2016 and interviews were held at the work location during working hours, but in a setting that ensured confidentiality. The average length of interview was between 45 and 50 min, they were digitally recorded, and transcribed verbatim.

Employees were interviewed about their retirement plans, experiences of age discrimination at work and their views on policy changes around extending working lives. Questions were open ended encouraging respondents to articulate issues salient to them. Interviews with managers centered on how their organisations managed older workers. The focus in this paper is an analysis of how people talk, the language used, about age and ageing. Though the focus of the interviews was not on internalized age norms and how this affected work decisions, these topics emerged in many interviews when people gave their views on changes in policies, experiences at work, and/or their plans for the future. It may be that the data contains many examples of internalized age-stereotypes because it was not directly questioned. Spedale (2018) notes in her study how the identification as "an older worker was predominantly unconscious and informed by age-related hidden assumptions and taken-for-granted beliefs" (p. 41). By identifying age norms and stereotypes when talking about different topics, the data may contain a more "natural" discussion of age at work. The qualitative data were analyzed thematically. An initial deductive coding frame was developed based on the larger project's research aims and empirical and theoretical interests. In addition, an inductive open coding approach was taken so that themes and issues could arise from the data. After identifying internalized ageism as an emerging theme, the interviews were thematically recoded in NVivo 12 using the framework for analysis in **Table 2** and read and reread for comments on the relationship between ageism and employment decisions (on framework analysis see Ritchie et al., 2003).

Our approach here is part of the discursive turn in gerontology (Previtali et al., 2020). Through our focus on talk we hope to both expose the ageist narratives in society and in organizations but also to explore how people actively construct their own understandings of reality. Our purpose is not to attempt to replace other explanations of the dynamics of retirement decisions but rather to add another layer to our understanding. The direct quotations from interviews below are selected as indicative for the identified category. Employee interviewees are identified by gender and age; managerial employees by their role.

RESULTS

Context

In all of the organizations the overwhelming majority of employees said there was little direct age discrimination for example in access to training. There were some individuals who felt they had been passed over for opportunities or targeted for redundancy because of their age, but in general employees agreed with managers that their organizations were not overtly ageist.

> I've not come across any discrimination, other than the banter around your desk kind of thing, you know. (Male, 57).
>
> I get as much abuse as I think we dish out, the old fart in the office, but no I don't see any different treatment. (Male, age undisclosed).

TABLE 2 | Framework for qualitative analysis.

	Stage 1	Stage 2	Stage 3	Stage 4
Rq: To what degree do older workers accounts involve internalized negative stereotypes about issues such as memory, cognitive and physical decline and positive stereotypes about warmth and dependability?	Read transcripts for positive and negative stereotypes and use of language	Code for: 1) memory issues, physical capability, productivity, attitudes toward training and development and IT, dependability, expertize, knowledge, warmth. Deductively and inductively 2) for language used	Review codes, identify related codes/ relationships between codes Identify any common or particular language forms	Develop conceptual categories

As these two quotes demonstrate people think of ageism as about direct discrimination and do not see that age stereotypes and norms are embedded in everyday interactions. Both managers and employees regularly employed ageist stereotypes when talking about older workers or about themselves, what we might refer to as casual or normalized ageism. These reflected the standard negative stereotypes about memory issues, physical capability, productivity, attitudes toward training and development and IT:

> I'm just cast as a scatty old lady, you know. (Female, 52).
>
> Although people live longer they don't necessarily—it's hard to predict at what point they're no longer going to be really capable of doing their job, to be blunt. (Male, 56).
>
> I suppose might be that some of the older people might be more kind of dinosaurs in terms of technology and slower to pick up the latest, you know, electronic tools and things. (Male, age undisclosed).

There were also more positive stereotypes about dependability, expertise, knowledge, warmth:

> I think as you get older you get more of a sense of responsibility. You don't like letting people down. You tend to work your way round problems rather than think, oh no, I'm not doing this, I'll go somewhere else. (Female, 61).
>
> You know, when there's a problem they come running to us first, we'll get it sorted. Yeah, I suppose I think they do look at it like that, yeah. (Male, 54).

Managers made explicit comparisons between older and younger workers:

> I think certain individuals, as they get older and more established in their role, choose not to pick up on every opportunity that's put before them, but the excitement comes for us as managers for the younger guys who are, "Yeah, what can I do? Give us more, can I do that, can I do this?" and that keeps that process going. [. . .] if the older guys don't want to pick up on it, it's not because it's not available and we would hold it back for them, it's definitely available but sometimes their attitude or their energy towards it is less so than the guys further down the chain. (Male, 50 interviewed as an employee but with line manager responsibilities)

The prevalence of age based stereotypes was recognized by some employees and to a degree resisted.

> Now training, I think it was perceived, and I think it was a wrong perception, that these people had no experience of working on computers, which is completely wrong because those guys like everybody else were going down Tesco's and Curry's buying laptops and desktops and playing around on Facebook and YouTube just like everybody else. (Male, 51).

Sometimes it was not the stereotype itself that was resisted, but the degree to which it would apply to them. They considered themselves as not yet "old" as stereotypes about what it means to be "old" did not apply. Many of the employees interviewed said that they did not "feel" their chronological age and felt that they were valued but at the same time many expressed concern about how others might see them or overlook them:

> you do become invisible . . . but it's like you are cannon fodder in a way, you're just there to keep the wheels turning. (Female, 57)

Categorizing Talk About Age

Two conceptual categories developed from the analysis of how managers and employees deployed ageist stereotypes and age norms when talking about work opportunities, retirement timing and extending working lives: 1) the prevalence of a decline narrative, namely the widely held assumption that ageing inevitably brings worsening physical and cognitive health, and 2) the prevalence of an intergenerational narrative. The latter had two dimensions: one about being "too old for" something and the second related to intergenerational disentitlement; the need to step away and privilege younger workers.

Both narratives involve a comparison. The decline narrative conditions how people view the implications of getting old and has a role in how they think about continuing or ending work; here people compare themselves with an imagined future self. The intergenerational narrative is how people place themselves in relation to other generations in the workforce, here people compare themselves (and are compared) to others.

Decline Narrative

In discussing future retirement, the health and mortality of colleagues, family, and friends were constant topics leading to something which may be referred to as the decline narrative (Gullette, 2004) or "health pessimism" (cf. Brown and Vickerstaff, 2011). This was expressed repeatedly as not knowing when "one's time is up" or being able to predict how long decent health would last. For many, this expected age related decline in health translated into a desire to retire in time to enjoy some leisure:

> One lady, she retired, she was only retired two months and she passed away. And, you know, you think, I don't want that to be me. And I know you can never say, but I don't want to work my whole life just to retire and then die. I'd like to enjoy a bit of free time. (Female, 50).

There was a strong sense of not wanting "to run out of time" and instead wanting to "maximize enjoyment of their remaining years in good health" (cf. Pond et al., 2010). In relation to the raising of the state pension age in the United Kingdom some felt that policy might force people to work too long, prejudicing their ability to enjoy retirement, this was especially true for those in manual occupations.

> I can understand that you shouldn't have to retire at 65 or whatever age they want to choose, because there's lots of people perfectly capable of working and they want to, but I do think we're in danger of keeping people in work who are not fit, because your bodies do start to wear out a bit and the older you get the more susceptible you are to things going wrong and then what are we going to do with those people, what are they going to do? (Female, 58).

For some others the decline narrative worked the other way around and they saw work as a means for staving off the inevitable decline. Paid work was for them a way to stay active and this would be necessary to stay healthy (longer):

> Inside I still feel 35 [laughs], shame that the mirror doesn't agree with me, but [both laugh], yeah, I mean the job is very physical, so but I look on that as being like keep fit, I'm a great believer in use it or lose it, and I think if I'd have given up work at 60 I'd have been a little old lady by now, probably about three stone heavier and gray haired. (Female, 64).

Not all decisions to stop working or extend working life are related to age stereotypes; some look forward to a period in which they have time for hobbies as they are in a financial position to stop working. Others have more negative reasons to give up their job such as health problems and being unable to continue working. Again others are happy to continue working or are not financially able to retire even though they would prefer to. Next to these push and pull factors, which have been identified in previous research, our data does suggest that the decline narrative also plays a role in how people weigh up the factors encouraging or discouraging continued employment. Many employees talked about a fear of being viewed as old and used pejorative language such as "pottering about", "being a dinosaur", "doddery" in describing other older people or their future selves.

Intergenerational Narrative

A second narrative expressed by some of our interviewees is about comparisons between age-groups in the labor market. The interviewees are comparing themselves with younger workers and either consider themselves as now "too old" for certain opportunities, or younger workers more worthy for these opportunities. This comparison can be made implicitly or explicitly. The first dimension of this narrative is the "too old for" (TOF)-narrative, which is based on an implicit comparison, where the older worker now considers themselves "too old for" their job or development:

> I've spoken to other people and they've said it's a young person's game. [. . .] multitasking in your head and you've got three—, no, 20, 30, 40 tickets coming through and you're trying to mentally keep hold of it all. [. . .] I'm not a woman I can't multitask (both laugh). So it would be very hard to keep on doing that. (Male, 52)

TOF was most clearly and commonly expressed in relation to training:

> I just feel at 60 now, is that really too old for me to be able to, you know, go on all these courses? And there's quite a few that they want me to do. (Female, 59).

In the TOF-narrative the younger "other" is implicit. But other times intergenerational comparisons are made more explicitly. Many believed that in straightforward competition organizations preferred younger over older workers and that once you are over 50 opportunities in the labor market diminish markedly:

> I continually look online, in the papers, I look in places, but when you are 57 and there's a 30 year old applying for the same job, they're not going to take me, are they? They're not. (Female, 57).

Whilst the lack of opportunities for older people was lamented there was a very strong feeling among many of the interviewees that rising state pension ages and the urge to extend working lives was bad for younger generations:

> Give the young people who are out there a chance to get into work, because there's a lot of people unemployed. And I think the longer we go on, the less chance there is for them to get into work, because there's less people retiring. That's how I look at it any road. That's my point of view. (Male, 60).

> I actually have a problem with people working longer cause—, guilt's not the right word, but there are lots of young people who can't get jobs, you know. (Male, 69).

A number of employees thought that it was right that opportunities *should* go to younger people. Age norms were internalized by older workers who expressed the view that they were now "too old" for training and/or promotion and that they *should* leave that "to the younger ones":

> I'm not particularly after getting promoted, I'll leave that for the younger ones. I'm just happy where I am and for me I would rather be in this kind of job. (Female, 56).
>
> I don't want to improve. I don't mean I don't want to improve. I will do what I'm doing. I want to give the chance to the young people. [. . .] I'm very, very sorry, I am not interested. Give the chance to the young people. (Male, 54).

Older workers here are wrestling with it being unfair that older workers may be discriminated against whilst also feeling that they have less entitlement to work when younger groups are unemployed, are still building a career or have young families to support. Many people mentioned their children or grandchildren and how difficult the labor market and work was for them.

DISCUSSION

With an increasing call for employees to extend their working lives, it is important to explore all the factors that are likely to limit this policy goal. The research reported here focused on a hitherto neglected aspect that of the role of internalized age stereotypes and norms in inhibiting older workers. There is a rich literature on direct discrimination against older workers and to a large extent our managers and employees were thinking about this kind of prejudice in relation to ageism. Age discrimination legislation has been around long enough in the United Kingdom for managers and many employees to know that it is proscribed in law and hence when asked our respondents in the majority said that there was no different treatment based on age.

The language managers used to talk about older workers and the way those older workers framed their own thoughts about, work, extending working lives and retirement tells a rather different story. Age stereotypes were routinely employed with respect to older workers capabilities and potential. Age norms about what was appropriate for different age groups were used to talk about training and development or extending working lives. In this sense ageism was normalized in all of the organizations, taken for granted and to a large extent unexamined. Ageist language did not seem to have the power to shock in the way that overtly racist or sexist language nowadays might.

The decline narrative—that with age comes inevitable physical and cognitive deterioration—was prevalent in how employees talked about extending their working lives and/or retirement. It was a factor in their thinking about the desirability of employment as they aged. This was true for those identifying as in good health as well as those with current health issues. As in other studies many people were concerned to retire early enough to still enjoy some health in retirement (Pond et al., 2010; Brown and Vickerstaff, 2011). However, for a minority this decline narrative functioned as an incentive to stay in work as a means of maintaining social and physical activity and staving off the onset of ill-health. This latter view chimed more with the increasingly dominant public narrative of active and healthy aging: that work is good for you and keeps you physically and mentally fit (Department for Work and Pensions (DWP), 2017: 9; Moulaert and Biggs, 2012; Laliberte Rudman, 2015). In doing so of course it still takes the eventual and inevitable decline as its point of departure. The decline narrative has been discussed in the existing literature and our study confirms its ubiquity but we noted that it can play either a positive or a negative role with regard to extending one's working life.

More distinctive were our findings about the intergenerational narrative. If we conceptualize age as social construct then it focuses attention on the relational aspects of age and how age relations are played out in specific contexts. A rather obvious statement is that older workers are only old in relation to some other younger reference group. However, we could clearly see in the comments of both managers and employees that such comparisons were very much alive in people's minds. They were employed when they were thinking about career opportunities, training and development or the desirability of extending working lives. This was manifested in the "too old for" narrative, expressing a sense that there is a specific chronology for when things are appropriate in the working life. This is perhaps all the more remarkable in our sample as the majority were in the age category 50–59 (see **Table 1**), with presumably many years still in employment. This self-sabotaging narrative, as Romaioli and Contarello (2019) have characterized it, does lead to older people self-limiting. This means older workers potentially opting out of opportunities that are actually available.

The other dimension of the intergenerational narrative we have dubbed "intergenerational disentitlement", as there was a strong element in our respondents' comments that as older workers they were less entitled to training and development and possibly even to a job when compared to younger (potential) colleagues. Here many of our respondents were expressing a tension between a commitment to the fact that age discrimination is unfair and should be resisted whilst nevertheless worrying that by taking a promotion or staying in work they might be denying, by implication a more deserving, younger person. This sense of disentitlement could potentially be an important factor in a situation of redundancies, where both managers and employees may feel that if anyone should go it should be the older workers.

This sense of age-based disqualification for job opportunities might undermine formally equitable processes in the workplace; everyone may be entitled to apply for a job, a redeployment or a promotion but some older workers may define themselves as "too old" or think it should "be left for the younger ones". Age management policies tend to focus on direct discrimination and formal equality but may do little to tackle underlying and normalized ageism of the sort uncovered here.

Individual decisions about whether to carry on working or retire are as we know complex and constrained. The interaction of health, wealth, marital status, employer action and government policy combine to structure what is possible and what is desirable (Vickerstaff, 2006; Loretto and Vickerstaff, 2012; Hasselhorn and Apt, 2015; Lain, 2016; Phillipson et al., 2019). The study reported here seeks to include in the list of dynamic variables in retirement decision making, a full and rounded sense of the impact of ageism. It has added another layer to our understanding. The power of ageism to influence end of working life actions is not limited to direct discrimination, although this still certainly plays a significant role, it also encompasses normalized and taken for granted assumptions about age norms, what is suitable for different age groups and why, as well as internalized stereotypes about older workers abilities and aptitudes.

Limitations of the Current Research and Suggestions for Future Research

We have to acknowledge a note of caution about the generalizability of our findings. By the standards of much qualitative work we had a quite large and diverse data set. Our employee respondents covered a good spread of occupational levels in diverse organizations and the gender balance of the sample reflected the gender composition of the different organizations, with a slight over-representation of female respondents. With the weight and depth of interview material we were able to triangulate responses and have concentrated on oft repeated themes and tropes. The sample was however ethnically homogeneous with the overwhelming majority of our respondents identifying as white British. A more diverse sample including a range of the black and minority ethnic populations in the United Kingdom might have confirmed our findings or uncovered different ways of talking about age and generations. In this article we have not examined the gender differences in ageist talk but rather concentrated on the expressions and themes common to both genders. Further research could usefully delve into the subtle differences in how women and men talk about and experience age.

Our respondents were also interviewed in a particular time and place. We do not seek to diminish the importance of public policy and organizational contexts in setting parameters for what is possible for older workers. It would be interesting to see similar narrative analyses undertaken in different national contexts to see whether internalized ageism is as strong and has the same dimensions as identified here. It is also the case that public narratives of what is right or expected of older populations are in some flux as we shift progressively from a societal view of retirement as an earned right for a long working life to the duty on older people to carry on contributing to economic life. Individuals, with their own dispositions, life experiences and family contexts are wrestling with these changing new messages as are we as researchers. It would be interesting in further research to try to link more clearly the impact of public narratives about greedy baby boomers, intergenerational inequity and healthy aging on narratives in the workplace.

The Main Contributions of This Research

We have addressed the spirit of this special issue by identifying a new pathway in retirement research methodologically and conceptually. In so doing we have added another layer to our understanding of the factors that are in play in disposing early retirement or later working. Although we cannot specify the weight or percentage contribution internalized ageism plays in decisions about paid work we have highlighted that it cannot be ignored as a factor. Methodologically we have demonstrated that in addition to quantitative analyses, case studies of organizational practice, and assessments of the impacts of public policy changes, we need to look at how people talk and think about age in the work setting. Embodied stereotypes and taken for granted age norms make a profound contribution to individual and organizational practices around extending working lives. Conceptually we have tried to deepen our understanding of ageism in the work place. We extended the narrow and limiting focus on discrimination against older workers to investigate other components of ageism, namely how older workers respond to age stereotypes and age norms in how they manage themselves.

DATA AVAILABILITY STATEMENT

The dataset analysed for this study can be found in the UK Data Archive, with reference SN852868. https://beta.ukdataservice.ac.uk/datacatalogue/studies/study?id=852868.

ETHICS STATEMENT

The original data design and protocols received full ethical approval by the University of Kent. Further ethical review and approval was not required for the current study.

AUTHOR CONTRIBUTIONS

These authors have contributed equally to this work and share first authorship.

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(Re)production of Inequalities in Retirement Practices and Meanings Assigned to the Term 'Retiree' in the Post-Communist Context

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In the institutionalized life course transition from work to retirement is the transition that culturally defines the beginning of later life. However, there is no universal way of experiencing retirement or understanding retirees' social roles. Especially in the context of the post-communist, liquid modern reality in Poland. The social role of the retiree, defined as a set of rules and expectations generated for individuals occupying particular positions in the social structure, is constructed at the intersection of what is culturally defined and individually negotiated. Therefore, the way in which individuals (re)define term "retiree" and "do retirement" reflects not only inequalities in individual resources and attitudes, but also in social structure in a given place and at a given time. In this contribution, I draw upon data from 68 qualitative interviews with retirees from Poland to analyze retirement practices and meanings assigned to the term "retiree." Applying practice theory, I explore the inequalities they (re)produce, mirror and reinforce at the same time. Results show that there are four broad types of retirement practices: caregiving, working, exploring and disengaging. During analysis of meanings assigned by participants to the term "retiree," two definitions emerged: one of a "new wave retiree" and the other of a "stagnant retiree." Results suggest that in the post-communist context, retirement practices and meanings assigned to the term "retiree" are in the ongoing process of (re)negotiation and are influenced on the one hand by the activation demands resulting from discourses of active and productive aging, and on the other by habitus and imaginaries of retirement formed in the bygone communist era. Retirement practices and definitions of the term "retiree" that emerged from the data reflect structural and individual inequalities, highlighting intersection of gender, age and socioeconomic status in the (re)production of inequalities in retirement transition in the post-communist context.

Keywords: transitions, retirement, inequalites, practice theories, qualitative research, stagnant retiree, new wave retiree, post-communist

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INTRODUCTION

The transition from work to retirement might serve as a risk point for older adults by multiplying individual and structural inequalities and/or creating new ones (Dewilde, 2012; Grenier, 2012). Major transitions in older people's lives can lead to developing new social roles assigned to statuses acquired as result of transitioning processes. Literature refers to this process of getting adjusted to a

new status as the incorporation stage of the transition (Van Gennep, 1960). Transitioning into retirement might involve ending a life-long identity built around the working role (Bordia et al., 2020) and is considered as one of the cultural markers that indicates beginning of old age (Irwin, 1999). As such, it poses lots of questions around inequalities concerning roles and practices developed in incorporation stage of retirement transition and transitional outcomes in different life spheres (Bosworth et al., 2016; Fasang, 2012). I argue that the (re) distribution of these inequalities is incorporated into the meanings and (re)negotiations of retirees' roles and retirement practices[1]. Following the practice theory approach, I trace inequalities in practical understandings (Schatzki, 2002) of "doing retirement" and defining term "retiree" in a post-communist context.

In the 1960s, retirement was considered a time of stepping down and disengagement that starting from professional roles and stretching out beyond, also encompassing other areas of life (Cumming and Henry, 1961). Therefore, retired, older people were referred to as "roleless" (Burgess, 1960). This understanding of retirement as a period of limited activities and withdrawal from social roles was also common in Poland during the communist regime (Jałowiecki, 1973; Czerniawska, 1998). Now, as the population is aging, the meaning of older age and retirement is changing. Public discourse on active aging (Walker and Maltby, 2012; Boudiny, 2013) and policies of extending working life (OECD, 2006; Berkman et al., 2015), highlight that the concept of older people as "roleless" is far from the truth (Vidovićová, 2018). Changes around retirement practices and meanings assigned to the term "retiree" are influenced by individual and structural factors. I argue that with profound changes in the welfare system (Śleszyński, 2017), Poland is an interesting case study of sociocultural inequalities and tensions around retirement in post-communist regimes (Vanhuysse, 2004; Libman & Obydenkova, 2019), as individual transitioning into retirement was entangled with structural transitioning into a post–communist regime and/or its long-term consequences.

So far there has been little consideration of how retirees experience retirement transition in a liquid post–communist context (Krzyżowski, 2011; Krzyżowski et al., 2014). Especially the analysis of inequalities (re)produced in retirement practices and meanings assigned to the term 'retiree' was missing. This paper reports on an exploratory study aimed at addressing these deficits. It examines inequalities in practices of 'doing retirement' and (re)negotiating meanings assigned to the term "retiree." Unpacking these inequalities is important to better understand retirement transition in a post-communist context.

In this contribution, I draw upon data from 68 qualitative interviews with retirees from Poland to analyze retirement practices and meanings assigned to the term "retiree." Applying practice theory, I explore inequalities embedded in the practical knowledge (Schatzki, 2002; Kustermans, 2016) of doing retirement. In doing so, I analyze retirement practices and meaning retirees assign to the term "retiree." I argue that this allows one to capture how the roles of retirees are (re)constructed at the intersection of what is culturally defined and individually negotiated in the post–communist context.

The paper is structured into four parts: the first part outlines theoretical insights on retirement as a life transition and the contexts of transitioning into retirement in a post-communist jurisdiction. The second part introduces the study "Early Stage Retirees in Urban Environments in Poland" and the data analyzed in this contribution. The third part presents the results, and the fourth part discusses them.

Retiring as a Major Life Transition

In this contribution, retirement is understood as a transitional process that occurs within the individual's life course and incorporates objective transformation as well as subjective developmental change in identity, expectations, preferences, and meanings. Retiring as a transition involves changes in the material situation, social status, social networks, social roles, identity, and lifestyle (Mortimer and Moen, 2016). Whereas those changes might have positive as well as negative outcomes for individuals, there is a longstanding recognition of the importance of the major life transitions, such as retirement, on (re)production of inequalities. Current literature highlights that individual and structural forms of (dis)advantage are accumulated during the lifecourse and transitions can lead to further inequalities in old age (Dannefer, 2003; Dewilde, 2003; Scharf et al., 2005). It's also argued that (dis)advantage experienced across the lifecourse can impact subjective interpretations of transitions in later life (Grenier, 2012).

There is a growing international body of evidence on retirement impacts on inequalities across multiple domains of life such as: services, amenities and mobility, (e.g. Peace & Holland, 2001), material and financial resources, (e.g. Tchernina and Tchernin, 2002), sociocultural aspects, (e.g. Laliberte Rudman, 2015), civic participation, (e.g. Ní Léime et al., 2015), and social relations, (e.g. Patulny, 2009). There are also numerous publications testifying to the role of individual resources having an impact on individual experiences of retirement. According to a recent review of factors contributing to retirement adjustment by Barbosa et al., 2016, the most researched dimensions contributing to different experiences of retirement transitioning and their outcomes for individuals are: physical health, finances, psychological health and personality-related attributes. Their review also highlights the roles of leisure, voluntary retirement, and social integration in the retirement transition experience. The authors conclude that to extend the knowledge on retirement transitions, it is necessary to investigate further under-researched domains of institutional, social, and cultural elements, and among others, the perception of retirees' roles.

The perception and conceptualization of the "retiree" has changed across time, from being viewed as the loss of a social roles (Burgess, 1960), through the continuity of roles (Atchley, 1989; Quick and Moen, 1998), and currently it's recognized as a period of possibilities/pressures to acquire multiple new roles (Vidovićová, 2018). Within the discourse of productive aging,

[1]Retirement practices presented here should be distinguished from practices of retiring

activity in older age is considered beneficial (Taylor and Earl, 2016), which contributes to the development of activation demands that new generations of retirees are facing and need to respond to (Tomasik and Silbereisen, 2014). As a result, with time, along with the population aging, the transition into retirement has become "fuzzier" (Kohli et al., 1991) and (re) produces numerous inequalities. There is a longstanding tradition of understanding retirement as a transition that involves the evolution of social roles, (e.g. Crawford, 1973; van den Bogaard, 2017). There is also a recognition that social roles are important for people transitioning into retirement (Moen et al., 2000; Heaven et al., 2013; Phyllis) as they contribute to well-being of individuals and impact wider communities (Musick and Wilson, 2003; Lum and Lightfoot, 2005). Despite that, however, only a limited literature exists specifically addressing the way in which individuals (re)define the term "retiree" and experience retirement in the post-communist context.

Krzyżowski (2011), analyzing the influence of social roles on retiring strategies, notes the role of cultural patterns and their individual interpretations. He highlights that individual interpretations of retirees' roles are gendered and rooted in their sociocultural context. Krzyżanowska (2011) illustrates the mixed influence of understandings of old age and leaving the labor market on attitudes toward retirement. In their conceptual framework of old-age culture in Poland, Krzyżowski et al., 2014 highlight the role of individual resources in how inequalities in retirement are distributed and concluded that these inequalities determine the level of activity in old age. All of the publications mentioned analyze the meanings and (re)negotiations of retirees' roles in the post-communist context follow to some degree lines drawn by the most often applied theoretical perspectives of retirement as a form of decision-making and/or retirement as an adjustment process (Wang and Shultz, 2010).

Aiming to contribute to the body of evidence on experiencing retirement in post-communist contexts and expand inquiry beyond limitations incorporated into existing theories, this contribution follows the recent call to explore the potential of practice theory in advancing our understanding of the retirement transition (Wanka, 2019). In the line of argumentation offered by practice theories, the practice of retiring and retirement practices are not just done by the retiree alone; the material, institutional and cultural settings in which the retiring and being retired takes place and the idea of what it means to be a retiree (and motivations for it) are all equally involved in creating the practice of retiring and retirement practices. In a practice-theoretical framework, retirees are produced through practices: "They understand the world and themselves and use know-how and motivational knowledge according to the particular practice" (Reckwitz, 2002, p. 256). In this contribution, I focus on the incorporation stage (Van Gennep, 1960) of the retirement transition and argue that to advance empirical analysis of inequalities in the retirement transition means to reflect on certain practices that create the experience of retirement and on understanding of the term "retiree."

The context in which retirement is "being done" and the practical knowledge of being a retiree is being constructed is framed to some degree by policy regulations, (e.g. statutory retirement age, available pathways to retirement) and public discourse (around retirement, retiree roles and aging as such). A growing body of evidence highlights how discourses framing active and productive aging are highly discriminatory with regard to income, education, health status, and gender (Marshall and Katz, 2016; Calasanti and Repetti, 2018). Kohli and Rein. (1991) analyzed the impacts of making the retirement transition in earlier life stages on well-being, and also considered the legitimacy of different institutional pathways and their potential for "stigmatisation," highlighting the complex distribution of inequalities in retiring and being retired.

Therefore, retirement, which is a turning point in an individual's life, should be considered as a processual, practical accomplishment that involves various social practices, sites, and human, as well as non-human, actors (Wanka, 2019). This processual perspective of the socially constructed accomplishment entails inequalities from both individual and structural dimensions (Moen, 1996; Elder, 2003; Phyllis). The moment when individuals formally leave the labor market (practices of retiring) and the way they organize their lives during the incorporation stage of the transition (retirement practices) (re)construct inequalities from the perspective of individual biographies (Dingemans and Henkens, 2014) and also from the perspective of the functioning of wider entities as communities or societies. The context in which individuals make the transition to retirement has important implications for individual perceptions of what it means to be retired (Ekerdt, 2009, 2010). I argue that those inequalities are (re)constructed in definitions of the term "retiree" and in retirement practices. In turn, they both can be considered as yet another dimension of inequalities involved in the retirement transition. This is especially visible in the context of the post-communist regime in Poland, characterized by ever-changing pension system and competing imaginaries of retirement.

The Liquid Reality of Retiring in Post-Communist Poland

Retirement practices and understandings of retirement can be perceived as being (re)negotiated and emerging at the intersection of individual resources and the structural setting. As previously mentioned, I consider Poland to be a very interesting site to analyze meanings assigned to the term "retiree" and retirement practices as both structural and individual circumstances remain in flux due to the consequences of the major socioeconomic transition from a communist to a democratic regime in 1989. In this context, individual life course transitions (retirement) have been entangled with deep structural changes resulting from a socioeconomic transformation (Trafiałek, 1998; Krzyżowski, 2011). This entanglement of individual and structural transitions magnifies the (re)production of inequalities in individuals' experiences of the retirement transition. To unpack individual retirement experiences, presented in the next part of this contribution, here I provide a brief overview of the structural setting of the Polish pension system.

Until 1998, there was a pay-as-you-go pension system with defined benefits in Poland. In pay-as-you-go schemes,

TABLE 1 | Changes in pension system in Poland between 1999–2017.

Year	Scope	Description
1999	Social security system reform	This reform replaced the former system based exclusively on the "intergenerational solidarity principle" with a mixed system combining "defined benefit" and "defined contribution" arrangements. The new three-pillar system was principally defined by two mandatory pillars: "Mandatory public" was provided by the social security institution (zakład ubezpieczeń społecznych, ZUS), and "mandatory private" by the open pension funds (otwarte fundusze emerytalne, OFE). While older citizens could choose whether to remain in ZUS or to share their contribution between the ZUS and OFE, those born in or after 1968 were obligated to join the two-pillar system. Finally, the reform created the third pillar ("voluntary private"), to be effectuated in relation to company pension plans
2000	Increase the attractiveness of employee pension programs	Due to the Act of March 2, 2000, amending the Act on employee pension programs and certain other acts, the financing of the basic contribution was changed; previously it was paid from the employee's salary, but in 2000 it began to be financed by the employer
2003	Adjustments regarding benefits for uniform services	Uniform services were excluded from the general system and returned to the supply system
2004	Increase the attractiveness of voluntary savings	The Act of August 27, 2003 amended the Act on the organization and operation of pension funds, while other acts initiated a number of changes in provisions regarding fees, including the possibility of differentiation of fees due to the membership period being annulled or expired. Another change concerned the benefits collected by PTE on OFE assets. An act on individual retirement accounts also became applicable
2005	Adjustments regarding benefits for miners	Introduction of privileges for miners. They pay contributions within the general system; however, their pension is not linked to the contribution amount
2009	Introduction of bridging pensions	It allowed for paying a pension to people working in special conditions that end their professional activity before reaching the effective retirement age
2011	Reduction of contributions to OFE	Lowering the amount of premiums to OFE from 7.3 to 2.3%
2013	Increase of retirement age	Until 2013, the retirement age was defined separately for men and women at ages 65 and 60, respectively. From January 1, 2013, the retirement age was supposed to be increasing by a month in January, May and September each year until it reaches 67 for both sexes (women in 2040, men in 2020)
2014	Further changes in OFE	OFE were made to transfer 51.5% of their assets and all of their government bonds to ZUS, and they were forbidden from investing in government bonds in the future. Between April 1, 2014 and July 31, 2014, every person insured in the second pillar funds had to decide whether to keep their contributions there or to transfer all of them to ZUS; contributions remaining in the second pillar would be gradually transferred to ZUS in a process beginning ten years before the person's retirement
2017	Changes in general pension system	Return to the constant retirement age at the age of 60 for women and 65 for men. Changes in the amounts of pensions: Raising the minimum pension amount and valorisations

Adopted from: A. Owczarczyk (2019), p. 150.

contributions of working people finance the current pension payments. In the defined benefit system, the amount of one's pension depended on the amount of earnings from selected years of their professional career and the period of insurance coverage. In this system, there were many opportunities to retire earlier. This meant that, despite the retirement age of 60 for women and 65 for men, the effective retirement age was about 5 years lower at the time (Zieleniecki, 2012). The social security system operating in Poland until 1998 was criticized as costly and unfair, and for being in danger of financial collapse (Góra and Rutkowski, 1997). The main disadvantage of the system was a number of incentives for early exit from the labor market and numerous pension privileges for various professional groups. Early retirement was often a way to avoid unemployment during the difficult period of transformation (Trafiałek, 1998) Therefore, the number of pensioners increased rapidly, which in turn created additional challenges to the stability of the pension system and the economic growth of the country (Chlon et al., 1999).

Consequently, the reform introduced in 1999 aimed mostly to ensure the financial stability of the system and maintain its solvency despite the high deficit of the system at the starting point and the gradual aging of the population. This required, on the one hand, the restoration of realistic proportions between the amount of the pension and the value of contributions paid by the insured person and, on the other hand, the creation of a system which would ensure that the inflow of these contributions would be significantly higher than under the system conditions before the reform. It was assumed that this will be possible by creating incentives in the pension system to increase labor activity and reduce the gray economy, as well as by creating a funded pillar of the system which will stimulate economic growth, thanks to the profits from investments in the financial market, and provide relatively higher pensions. The creators of the reform also believed that the introduction of two sources of financing, through risk diversification, would make it possible to increase the security of future payments (Góra and Rutkowski, 1997; Gomułka, 2014).

After this first change, the post-communist pension system was subject to numerous adjustments spread over time. Detailed analysis of the motives and consequences of these changes exceeds the scope of this study. To highlight how volatile the system was, **Table 1** presents the brief overview of changes introduced in pension system between 1999 and 2017.

The stability of the existing pension system is still in question ((Bednarczyk and Raszewski, 2017), which might diminish individual agency and control in retirement transition, thereby reinforcing uncertainty in retirement decisions and contributing to ongoing processes of (re)negotiation and (re)definition of retirees' roles, practices of retiring, and retirement practices.

In research on retirement transitions in Poland, in-depth studies on lived experiences remain limited (Kowalska, 2015; cf.; Krzyżowski et al., 2014). The existing body of evidence focuses primarily on the macroeconomic factors contributing to retirement decisions, possible pathways to retirement, and their outcomes for retiring individuals (Chybalski, 2013; Olejnik, 2016; Perek-Białas, 2017). Existing research tends to concentrate on retirement decisions and their context. Research show that employers often do not invest in older employees, limiting their opportunities to acquire competences needed in the ever-changing labor market (Perek-Białas et al., 2011; Stypińska, 2011). Consequently, they might be perceived as not equally valuable employees, which pushes them to retire. The research also shows that systematic solutions facilitating the gradual withdrawal from professional roles are limited and employees often remain unaware of such opportunities. Even though retirement is now perceived as a process that unfolds over time, rather than as a one-time discrete event with individuals transiting from full employment to full retirement and increasing proportion of workers engaging in bridging employment and unretirement (Fisher et al., 2016; Krejcova & Rašticová, 2020). Bridging employment, which is common in Western European countries, the United States, and Canada (Gobeski & Beehr, 2009; Von Bonsdorff et al., 2009) is not considered that often in Poland (Rzechowska, 2010). In 2013, only 8.7% of the population aged 50–69 declared a reduction in the number of working hours before deciding to retire (GUS, 2013:50). This all overlaps with the fact that the vast majority of retirees do not plan extensively for retirement and might experience this transition as a major rupture for which they were not fully prepared (Szatur-Jaworska et al., 2006). This refers also to economic aspects of becoming a retiree.[2] As such, many do not know how to organize their own lives in this incorporation stage of the transition. Unpacking how individuals (re)define term "retiree" and "do" retirement in this liquid structural setting is critical to better understand the (re) production of inequalities related to the retirement transition in this post-communist context.

METHODS

Data presented here come from the mixed-methods project "Early Stage Retirees in Urban Environment in Poland: Social Contexts of Activity Patterns" (2011–2015) that analyses the social context of retirees' activities in the urban environment in Poland. The project deployed qualitative and quantitative methods, gathering data on different activities of individuals who were in the incorporation stage of the retirement transition. The main focus was on understanding what activity means in the context of retirement (quantitative data analysis, desk research and public policy analysis) and how it is performed in the urban environment. In this contribution, only data from the qualitative component of the project are analyzed.

The qualitative component of the research consists of 68 individual in-depth interviews with people who lived in an urban environment (second-largest city in Poland) and received pension benefits. Those were the only predefined inclusion criteria for the sample, as the main focus of this qualitative part of research was on the choice of participants providing new insights and not on building a representative sample (Kaufmann, 2010). In order to theoretically saturate research categories, the choice of subsequent participants was dictated by their significance in relation to the data already gathered in completed interviews. For this reason, subsequent participants were selected on the basis of both similarity (a similar situation) and contrast (an extremely different situation) in relation to those characterized in the course of the conducted analysis (cf. Glaser and Strauss, 2017). This strategy allows for filling in the gaps and developing research intuitions that emerge during the analysis. Beyond the formal selection criteria, an equal gender balance, as well as heterogeneity in regard to marital and health status as well as material situation, educational attainment, former occupations, and pathways to retirement, (e.g. from unemployment, early retirement) were considered. As the experiences of retiring were diverse, the final sample includes people who retired at different stages of their life and those already retired at the time of interview from three months up to 10 years. There were 30 males and 38 females included. The youngest participant was 58 years old and the oldest 78 years old. **Table 2** presents sociodemographic characteristics of the participants.

Participants took part in in-depth interviews that lasted approximately one and half hours and consisted of three parts: an open narrative biographical portion, a semi-structured portion and a map exercise where participants worked with the researcher to map out places and parts of the urban environment they choose for different types of activities. The maps were used to probe for differences in experiencing the urban environment during their retirement trajectory.

The author conducted 53 interviews with the support of research assistants, who carried out 15 interviews. All interviewers were experienced with qualitative interviewing and their background was in sociology. All interviewers were trained in using interview guides and the map exercise. The interview guide was tested in two pilot interviews that were not included in the final sample. Participants were primarily approached through gatekeepers or by interviewers in public spaces. Participants that were approached by gatekeepers were contacted by researcher via phone to establish the details of the time and place of the interview. Each participant was informed about the purpose of the research and what participation in the study involved. All participants expressed informed consent prior to the data collection and agreed to audio recording the interviews. None of the participants withdrew from the participation at any stage of the study.

Participants decided on the most convenient time and location of the interview. Researchers contacted participants via phone to confirm date and place of the interview one day before the

[2]In 2015 the average monthly pension in Poland was 2,170.64 PLN (ca 542 €) and the minimum of existence minimum at the level of 518.00 PLN (ca 130 €) (GUS, 2016: 35).

TABLE 2 | Sociodemographic characteristics of the participants.

Age	Years of birth	1936–1955
Gender	Male	30
	Female	38
Primary occupation	Administrative and office staff, secretaries, post office workers, receptionists, telephone operators	7
	Creative and higher education professions, engineers, doctors, lawyers, teachers	22
	Directors, presidents, and managers of companies and institutions and state and local government administration	15
	Employees of shops, service points, personal services, security, conductors, babysitters, drivers	9
	Owners and co-owners of companies, plants, sales outlets, and other non-agricultural department managers	4
	Skilled workers and foremen employed outside agriculture and forestry	5
	Technicians and other associate professionals, nurses, non-commissioned officers, police officers	2
	Workers carrying out simple work outside agriculture and forestry, cleaners, caretakers, support workers	4
Marital status	Married/in partnership	43
	Single	6
	Divorced	4
	Widowed	15
Pathway to retirement	From full-time employment	12
	From part-time employment	11
	Early retirement	21
	From disability pension	2
	Continues to work while retired	17
	From unemployment	5

scheduled meeting. Two participants wished to postpone the interviews due to unforeseen circumstances and participated in the interview at a later time. Interviews were conducted between March and November 2014 in Kraków. The majority of interviews (40) were conducted in researcher's office at the university. 20 interviews were conducted in public spaces (parks, cafes, and restaurants) and eight at participants' homes.

Interviews took place with only researcher and interviewee present, with nobody else present during the interview. In two cases, there were partners of interviewees present in the home, but not in the room where the interview took place. Field notes were taken during and after the interviews.

Collected data were transcribed by the researcher and research assistants. Data were anonymized and later analyzed by the researcher using MAXQDA software to code the data and derive themes from them. The following seven main themes emerged during the analysis: 1) retirement trajectories, 2) definitions and meanings assigned to the role of retiree, 3) definitions and meanings assigned to activities comprising "retiring" and "being retired," 4) retirement as time for others, 5) retirement as time for oneself 6) the role of the urban environment in retirement transition, 7) challenges and opportunities faced by retirees in the urban environment.

For the purpose of this contribution, data were revisited to focus on retirement practices and meanings assigned to the term "retiree." The main question leading this analysis was: what practices and meanings produce retirees in a post–communist jurisdiction? In the first step, following the practice theory approach, I analyze retirement through the lens of practices that construct retirement. In the second step, following the principles of semantic analysis, I reconstruct the definition of the term "retiree" emerging from the narratives. Based on the interviewees' narratives, six separate networks for the keyword "retiree," were created: 1) equivalents, 2) opposites, 3) terms, 4) associations, 5) actions by the subject and 6) actions toward the subject. The semantic field of the term "retiree" was created as a result of sorting out the separate networks within the field. The thematic or conceptual relationships and the functions of the phrases and actions used in the narratives made it possible to understand the fuller meaning of the concept of "retiree," or the group of meanings in which it was used (cf. Dudkiewicz, 2006).

RESULTS

In this section, the main themes identified from interviews are presented. First, I explore retirement through the lens of "doing" by focusing on meanings assigned to four broad types of retirement practices: caregiving, working, exploring, and disengaging. This is followed by the definitions of term "retiree" reconstructed from participants' narratives.

Retirement as Caregiving

Retirees' narratives highlighted the predominant presence of caregiving as a retirement practice in the post-communist context. The narratives clearly marked a different pattern of expectations and their implementation in the case of women and men. Women more often presented their retirement experience through the lens of caregiving practices than men did. There were 15 retirees providing care for older adults on the daily basis and 18 who provide care for their grandchildren. The retirees' narratives have often reflected on caregiving for grandchildren as the most "natural" and deeply internalized retirement practice.

Aneta (born in 1949, retired in 2012), who started taking care of her grandchildren occasionally already when she was working part time, now provides care for her grandchildren on a regular basis. She highlights the emotional attachment she developed with her youngest grandson as well as her daughters' expectations to provide care for him:

> It (taking care of grandson) can be tiring, but I think [. . .], it's natural that my daughter expects me to help, you are expected to be granny I would put it that way [laughter]. And it's a pleasure because, you know, you love your grandchildren (Aneta, at the time of interview was 65 years old, retired for two years).

Anastazja (born in 1947, retired in 2004) in her story illustrates even further the intersection of linked lives, gendered norms of care, and the wider economical context entangled with retirement practices in the post-communist context. Anastazja's daughter wanted to develop her professional career in a highly competitive environment, which pushed Anastazja to retire earlier and take care of her granddaughter:

> I practically raised Anna (granddaughter). Her mum needed to work a lot at that time so I stepped in. [. . .] when she was little, she called me mum. (Anastazja, at the time of interview was 67 years old, retired for 10 years)

Among people experiencing retirement as caregiving, there were five people who provided daily care for both: older adult(s) and grandchild (ren). Bartosz (born in 1955, retired in 2008), who is the only man in this category, highlights the dynamic aspects of the sandwich generation's retirement practices. Bartosz retired earlier to take care of his care-dependent mother after his father passed away. The additional task of taking care of his grandchildren was imposed on him and his wife in the fifth year of his retirement due to the sudden rupture in his daughter's economic and family status. After the divorce, Bartosz's daughter took up secondary employment and spends most of her time working in order to earn enough to be able to pay her mortgage:

> There is no other way out, the daughter is left alone [after the divorce] with two children, and the wife and I have to take care of them (. . .), and they stay with us until their mum picks them up late in the evening (Bartosz, at the time of the interview was 59, retired for six years).

Joanna (born in 1952, retired in 2012), describing her retirement practices, focuses on caregiving for her 93-year-old godmother, who suffered a stroke. Since then, Joanna takes care of her daily and highlights how reciprocity impacts her caregiving practice:

> I am looking after her (godmother) with all my heart (. . .). She has been good to me all my life and I want to pay her back as much as I can (Joanna, at the time of the interview was 62, retired for two years).

Lech (born in 1948, retired in 2012), who retired earlier due to heath issues, decided to provide care to his care-dependent neighbor, whose wife passed away. Lech reflects on the sense of moral obligation that motivates him, which is not rooted in personal reciprocity but in broader ethical terms:

> I think this is an obligation to help an older person. I know if I don't help him (the neighbor), nobody will. (Lech, at the time of interview was 66 years old, retired for two years).

Retirement as Working

Whereas in the majority of narratives, retirement encompassed withdrawal from professional activities, in the narratives of 17 retirees (of whom 12 are men), the most important set of practices was related to experiencing retirement as working. The group of retirees working past retirement age can be split further into two groups: those with higher socioeconomic status, who worked in higher positions or were self-employed and those from a younger cohort with lower socioeconomic status. In the latter group, a majority of narratives framed working past retirement age as an economic necessity.

Eliza (born in 1950, retired in 2009), with a precarious working trajectory, highlights that in order to afford her everyday needs she requires more money than her pension benefits provide. Therefore, she continues employment past retirement age despite the desire to stop working:

> I continue to work (. . .) in fact if it wasn't for the money, I would not work. If the money were better, if only I had a higher pension, I couldn't care less about working and this type of activity (Eliza, at the time of interview was 64, retired for five years).

In some cases, working past retirement age intersected with motivation to provide help to working family members highlighting another dimension of linked lives' impacts on retirement practices. Marta (born in 1952, retired at 2010) agreed to work in her daughter's grocery store, enabling her daughter to gain a skilled worker for a lower wage and at the same time allowed Marta to gain an extra income:

> After I retired, because I had fairly low pension benefits, I worked for my daughter, I was helping her as I knew the job (. . .) (Marta, at the time of interview was 62, retired for four years).

As other narratives highlight, for those who worked in low-paid jobs before retirement, pension benefits are often a way of ensuring financial stability. Andrzej (born 1947, retired in 2012), whose working trajectory was interrupted by unemployment on numerous occasions, currently works as a support worker and reflecting on his situation, points out that for him retirement means working as usual:

> I was immediately aiming for this, as soon as I got to retirement age I was simply going to retire and still work [. . .] then my budget will improve significantly [compared to the situation] when I have just one [pension benefits or wage]. (Andrzej, at the time of interview was 67, retired for two years).

On the other hand, in the case of self-employed and people with higher socioeconomic status, working past retirement age was not perceived through the lens of economic necessity and often was experienced as an opportunity to maintain positive well-being and the identity of a productive member of the social system. Bogdan (born in 1942, retired in 2009), who continues to run family business while retired highlights the positive impacts of work on his well-being:

I always liked to work, and I still like it, and during periods when there is less work, I find myself falling into some sort of nostalgia, having too much time to think about negative things, so I prefer to have a lot of work so that I don't focus on negatives. (Bogdan, at the time of interview was 72, retired for five years).

Some male participants, who perceive work past retirement age as a matter of choice, also highlight that working allows them to feel productive and keep their masculine identity of being doers. Zygmunt (born in 1948, retired in 2005), who works part-time in a managerial position in his son-in-law's company, highlights that even if the work as such is not always pleasant, it provides him with the sense of meaning:

> this work is neither easy nor pleasant, but it gives me an assurance that I feel I am still needed, that I'm still doing something. I'm not bored at home, I don't disturb my wife in the kitchen, I don't sit in a room or something like that (Zygmunt, at the time of interview was 66, retired for nine years).

Retirement as Exploring

Narratives that focused on retirement as exploring were predominant among those who were: younger, at earlier stages of the retirement transition, and more often, women. Practices of exploring differ on many levels and incorporate diverse activities; however, they share the same focus on retirees' needs to explore one's own pleasures and to (re) discover oneself in the incorporation stage of the retirement transition.

Emilia (born in 1953, retired in 2013), who worked as an administrator, highlights that after getting involved in a church-led charity, volunteering became a way for her to (re)connect with her local community and share her skills beyond her previous work role:

> Apparently, I must have some mission [laughter] and some purpose beyond my work. That is why I signed up for this project, to deepen my optimism, which I can pass on to others. I wanted to do something I have never done before [. . .] it [project she volunteers for] is mainly addressed to the unemployed, to a hundred people from the area. (Emilia, 61 years old, retired for a year).

For others, as highlighted by Wacław (born in 1951, retired in 2009), who worked in an office, exploring meant to be more interested and proactive in discovering the cultural life that the city has to offer:

> *Before retirement, there wasn't that much time, you had to earn a living (. . .). And there was always more work to do, because you had to earn some money. And now I have more time to go out whenever and wherever I want to. For example, to a museum or other interesting places. I just look for what is there. If I find something interesting, then I decide with my wife what will we do.* (Wacław, at time of interview 63, retired for five years).

The stories of Emilia and Wacław highlight that retirement as exploring might be experienced through activities that retirees were not able to be involved in while working. Most often, this was due to the fact that they focused primarily on their professional and/or family roles. Those two stories also highlight a more general difference between genders: whereas women were more likely to engage in organized activities and activities in the public space (participation in lectures at universities of third age, fitness classes, etc.), men more often presented their exploring through individual activities, sometimes limited to the privacy of their homes. Regardless of gender, retirees experiencing retirement as exploring highlighted the role of being selective and focusing on activities they considered interesting and valuable, as illustrated by Aleksandra (born in 1953, retired in 2008):

> [. . .] I was going to the regional library, where for the whole time of summer holidays there were various courses every week. There was also a language course, but I wasn't interested in that, but for example, there was a computer course, a short two-day course then three days break, and another course I was interested in (Aleksandra, at the time of the interview 61, retired for six years).

For those who experience retirement as exploring, it was more common to take an active stand against age discrimination. For example, Tadeusz (born in 1950, retired in 2005) describes how he avoids the label of "retiree-friendly activities" while exploring his opportunities:

> [. . .] but I am not particularly interested in what is for retirees, but in what is <u>for people</u> (Tadeusz, at the time of interview 64, retired for nine years).

For most retirees, experiencing retirement as exploring these practices translated into higher level of internalization of activation demands. Wiktor (born in 1947, retired in 2009) highlights how his long-standing interest in taking walks evolved into more conscious way of experiencing his environment motivated by an ambition to pass on knowledge on his neighborhood:

I started to take an interest in the way I went on those walks, because I started to take a detailed interest in a given monument I passed on my way or other elements, in order to have knowledge, to be able to somehow . . . pass that knowledge on to friends who

came to visit us (Wiktor, at time of interview 67, retired for five years).

Retirement as Disengaging

For some of interviewees, retirement was predominantly experienced through the practices of spatial and affective disengagement. In such stories, being retired was framed as being able to "do nothing" and "go nowhere" in contrast to the pre-retirement stage of life, filled predominantly with the activities related to the labor market and outside the home. In those narratives, retirees were opposed to activation demands and were inclined to rely on imaginaries of retirement shaped by the habitus of the bygone communist era. Łukasz (born in 1943, retired in 2008), who worked as a mechanic, refers to retirement as being an award deserved after years of work:

> I will tell you, after so many years of work, after all this, I think I deserve a period of doing nothing, don't I? [. . .] (Łukasz, at time of interview 71, retired for 6 years).

Leaving professional obligations due to retirement in the experience of retirees creates the possibility to use time unproductively and some enjoyed this opportunity, which was not available during their working lives. For retirees who were more advanced in their retirement trajectories, the practices of disengaging and disengaging were framed as being able to rest, as Katarzyna (born 1938, retired in 2005) highlights:

> I'm kind of lazy now because I am at ease, there is no longer any obligation to do so [. . .] If I want to do something, I will do something, if not then I am resting, just like that. Let it be the whole day even. (Katarzyna, 76 years old, retired for 9 years).

Similarly, Artur (born in 1936, retired in 2004), who worked as a teacher and complained about the burnout related to being overworked, when reflecting on what being retired means to him highlights the positive well-being following disengagement:

I simply can stay home and do nothing, and I don't need anything more to be happy (Artur, 78 years old, retired for 10 years).

Both Katarzyna and Artur represent older cohort of retirees, whose expectations around retirement were influenced by the rules of old pension system and imaginaries of retirement developed in communist era.

For some of the interviewees, practices of disengagement were encompassed by their individual mindsets and/or health status. In this group, the macrostructural factors were often presented as important mediators of retirement practices.

Paweł (born in 1936, retired in 2011) before retirement worked part-time as a technician and highlights how his retirement experience is framed by his lack of interest in spending his time actively. He considers also the limited pension benefits that contribute to his withdrawal by limiting his possibilities:

When you get to this age, you will see . . . I don't know what gets into a person, but you just don't want to. You don't want to do this, you don't want to do that. You just don't want to. And the government gives you nothing so you can't afford much (Paweł, at time of interview 78, retired for 3 years).

Nina (born 1942, retired 2004), who worked in a store, reflects on her ill health, changes in the social network resulting from intersection of retirement and bereavement, as well as wider socioeconomic circumstances contributing to her disengagement:

> A person cannot go anywhere [without a husband], there is no such thing as social life for me now as I'm retired and alone. [. . .] it's just such times that people somehow can't afford to go out like they once did (Nina, at time of interview 72, retired for 10 years).

Narratives of some interviewees, who experienced retirement as disengagement, highlighted how important it was for them to ground their sense of entitlement to this passive way of spending time in a social contract framing older people as those who need to withdraw at least from the labor market in order to let younger people be fully engaged. Tomasz (born 1948, retired 2008) highlights that his disengagement results from perception of the need to "make space" in the labor market for younger generations:

> [. . .] my wife who is younger is still working, and I'm already languid in retirement to give the space for the new generations, right? (Tomasz, at the time of interview 68, retired for six years).

Reconstruction of the Definitions of the Term "Retiree"

Unpacking the practical knowledge underlying presented retirement practices requires further analysis of definitions and meanings assigned to retirees' roles. Therefore, in these collected narratives, a semantic analysis of the term "retiree" was deployed. Each interview was analyzed according to Robin, 1980 guidelines. **Table 3** presents findings of this analysis.

It became clear that interviewees in their narratives assign meanings to the term "retiree" in two sub-groups. Therefore, to capture this split, two definitions were reconstructed, as recognized by the interviewees[3], who distinguished two types of retiree. Those opposite definitions capture opinions and experiences of interviewees and can be considered two ideal types that reflect inequalities in practical understandings of being retiree.

A stagnant retiree is a person of advanced age, a sluggard, an introvert, a person who suffers from having too much free time, somebody who is homebound, who is alone, who has a period of professional prosperity behind them, who is more likely a man, as opposed to people in managerial positions, people who are

[3]These definitions are based on the native language of the interviewees. Some of the culturally transmitted meanings might be impossible to translate into foreign language.

TABLE 3 | Semantic field analysis of term retiree in collected narratives.

Type of retiree[a]	Equivalents Synonimy	Opposites	Terms	Associations	Actions by the subject	Actions toward the subject
Stagnant	- A Person of advanced age	- People in managerial positions	-is homebound	-Sofa	-requires help	-Employing as caregiver for grandchildren
	-An old person	-People who are influential	-is alone	-Slippers	-visits doctors frequently	-considering a second-class citizen
	- A sluggard		-has a period of professional prosperity behind them	-TV	-do not keep up with the world	- Being ignored by the government
			-is more likely a man	-Soap operas	-is unable to adapt to change, -lives in slow motion, -lags behind, -suffers from having too much free time	
				-Radio Maryja		
New wave	-A person who experiences second youth	-Grandparents	-is unconstrained by work	-Discounted prices of tickets	-wants to live	-Taking their advices
	-A person who has a green ID	-People who are working and have no life	- is more likely a woman	-Nordic walking	-has their own life	-Showing on television
		- home-bound people who are staring out on the streets	-is creative	-Swimming	-knows how to take care of one's health	-Liking
		-"Traditional" retirees, planting their roots in a sofa and wailing over their fate	-is intense	-Internet	-takes trips with friends, -keeps one's mind active, -works past retirement age	
		-Grandmothers with crutches	-is modern, is committed, is wiser, better prepared for life, is younger in spirit	-Press and books	-has no time	
		-Grandparents in slippers	-is active			
		-The old	-is at a higher level of development, is at peak			
		-The sick and the very disabled	- is more powerful and self-sufficient, -is rather efficient			
		-Retirees with difficult life experiences	- is constantly busy with something			
		-Retirees living in the countryside	- is engaged in physical activity			

[a]*Definitions were reconstructed on the basis of narratives but names were coined by the Author.*

influential. The stagnant retiree complains, sits on a sofa, wears slippers, watches TV, watches soap operas, listens to Radio Maryja[4]. Being a stagnant retiree is associated with visiting doctors frequently, being terribly tied up with grandchildren, requiring help, not keeping up with the world and being unable to adapt to change, living in slow motion, lagging behind. The stagnant retiree is employed as caregiver for grandchildren, is being treated as a second-class citizen, as a burden and is not thought of by the authorities.

A new-wave retiree is a person who experiences second youth, who is unconstrained by work, who wants to live, who has a green ID[5], benefits from discounted prices of tickets, who is more likely a woman, as opposed to the "grandparents" who take care of their grandchildren, people who are working and who do not live life, home-bound staring out on the street, "traditional" retirees, planting their roots in a sofa and wailing over their fate, grandmothers with crutches and grandparents in slippers, the old, the sick and the very disabled, old-type retirees with difficult life experiences, retirees living in the countryside. The new wave retiree is creative and intense, modern, committed, wiser, better prepared for life, younger in spirit, active, liked, at a higher level of development, at their peak, more powerful and self-sufficient, rather efficient. Being a new wave retiree is associated with having their own life, doing Nordic walking or swimming, knowing how to take care of one's health, using the Internet, reading the press and books, taking trips with friends, keeping one's mind active, working past retirement age, having no time. The new wave retiree is constantly busy with something, is engaged in physical activity, having their advice taken by others and being shown on television.

[4]Radio Maryja is a religious and political socially conservative Polish radio station.
[5]In Poland, those entitled to retirement receive an ID card that confirms their retiree status. This card is green in color.

Presented definitions capture contrasting activities, different sets of skills, wishes and capitals between different types of retirees, reflecting inequalities (re)constructed in meanings assigned to retiree in the post-communist context. The fact that it was impossible to present one coherent definition of term retiree highlights that the understanding of retirees' roles is still under construction and as the reconstructed definitions show, is influenced by imaginaries of retirement that have been developed in the context of activation demands on the one hand, and bygone communist era on the other.

The differences in the oppositions assigned to the term "retiree" across both definitions highlight that the demarcation line separates stagnant retirees from influential people in managerial positions and the new-wave retirees from the generation of what they labeled as "traditional" retirees. Those "traditional retirees" represent here retirees from imaginaries of retirement constructed in communist era when retirement was perceived as withdrawal and role of retiree was perceived as a "roleless" role.

DISCUSSION

This study sought to explore the way in which retired individuals (re)define term "retiree" and "do retirement" in a post-communist context. As argued in line with a practice-theoretical framework, subjects (retirees) are produced through practices (retirement practices). Therefore, the main focus of this contribution was to unpack the (re)production of inequalities in practices that frame the experiences of the incorporation stage of retirement trajectory and meanings assigned to the role of retiree in this post-communist context. Some authors, in analyzing the retirement experience, focus on a level of human agency that allows retirees to make choices that either adapt to, or react against, their context (Elder, 2003). Practice theories highlight that the agency is distributed across the network of employers, retirement schemes, colleagues, laws, families, bodies and health, and retirees themselves (Wanka, 2019). As I argued in this contribution, in the post-communist context, individual transitioning into retirement is entangled with structural transitioning and its long-term consequences. Therefore, it's not so much the level of individual agency that constitutes the retirement experience in this liquid reality but rather the process of (re)inventing retirement through practices and meanings assigned to them.

The transition into being a retiree served as major turning point in most of participants' lives and was experienced as a process involving sociocultural, institutional, and individual contexts and the interplay between them. This interplay impacted the distribution and (re)production of inequalities in experiencing retirement in this post-communist jurisdiction on many levels. While retirement practices were often diverse across individuals, in this contribution I focused only on four broad group of practices that emerged from participants' narratives: caregiving, working, exploring, and disengaging. Below, I discuss findings on inequalities (re)constructed in these practices and meanings assigned to the term "retiree."

Considered from a gender perspective, the retirement practices presented here revealed numerous inequalities. They were mirrored predominantly in narratives around experiencing retirement as working and caregiving. Interviewees' narratives highlighted gendered inequalities in terms of external pressures and expectations (Titkow, 2004) as well as in terms of individual experiences of caregiving. The cases presented highlight how providing care for grandchildren was perceived mainly in terms of: economic necessity, a way to support one's own children, an opportunity to build emotional relationships with grandchildren, or to transmit knowledge and skills. In providing care for older family members, interviewees most often highlighted the aspects of moral obligation in such practices. As the stories of Joanna and Lech demonstrate, practices of caretaking were not limited to immediate family members. Sociocultural expectations in post-communist countries associate the role of women with demands to provide care for children, grandchildren, and aging parents (Naldini et al., 2016). These expectations were strongly internalized by the women interviewed.

Whereas men in this study referred to their caregiving relationships in terms of providing practical support, women emphasized their emotional bond with grandchildren and the older adults they cared for. On the other hand, narratives of the twelve men in this sample presented working as central to their masculinity. This mirrors results suggesting that men reinforce their gendered identity as "doers" and providers (Ribeiro et al., 2007), and adds to the argument on maintaining such identity through retirement practices of working and internalization of activation demands. This study reflects the findings of previous work that has documented inequalities emerging at intersection of individual, sociocultural, and formal contexts testifying that women are more likely than men to forgo paid employment at various stages in the life course to be involved in caregiving roles (P. Moen et al., 1994; M. E. Szinovacz et al., 2001; Van Houtven et al., 2013). In the sample, the majority of women who experienced retirement as working continued to work as their retirement benefits were insufficient for their needs. This contributes to the body of evidence highlighting that involvement in caregiving roles leads to career and financial disadvantage (Presser, 2003) and contributes to greater inequalities between men and women (Hoque and Kirkpatrick, 2003). This also highlights the intersectional character of inequalities reflected in retirement practices.

Narratives gathered in this study testify that it is necessary to place the understanding of retirement practices in the wider context of previous life experiences (Elder, 1995) and existing networks (Elder, 2003). Following the idea of "linked lives" (Settersten, 2015) research, evidence shows that retirement decisions are not made in a vacuum but are influenced by the social context and significant others (Grenier, 2012; Eismann et al., 2019). Researchers highlight that especially the family context in which labor-market decisions are made is important for unpacking our understanding of the retirement transition (Denaeghel et al., 2011). Results presented in this study bring this argument further, showing that this impacts not only retirement decisions but also the retirement practices in the incorporation stage of the retirement transition. This

contributes to the body of evidence highlighting that the degree to which lives are linked either through marriage, social networks, or family relations can influence an individual's experience of retirement (Szinovacz and Deviney, 2000; Orrange, 2003; Schirle, 2008; Maximiliane E.). In the narratives analyzed, practices of caregiving and working were often linked with lives of significant others and were (re)constructed and (re) negotiated within social networks of retirees. Data show that in the liquid structural setting of the post-communist context, family structure might be (re)negotiated and roles (re)assigned depending on the individual and structural inequalities, as in case of Anastazja, who took over the role of mother for her granddaughter or Bartosz, who cares for his mother and grandchildren.

The practices presented here (re)construct inequalities in socioeconomic status that intersect with available resources, mediated by gender and social position. For participants with higher education, higher level of income, and in better health, retirement was often experienced as exploring practices that encompass active search for new roles, opportunities, developing new interests or deeper involvement in existing hobbies. For the majority of participants with lower socioeconomic status, exploring practices were not as established as their experience was mostly constructed by practices of working and caregiving. For participants with a precarious working trajectory, working practices were experienced as economic necessity. In the sample there were participants who retired at different stages of their life course, within different regulations of an ever-changing pension system. This lack of stability of the pension system created another source of inequality among people who were able to retire on given terms at a given time and those who were not. It multiplied inequalities resulting from gender, age, education, occupation and individual lifecycles.

The narratives also highlighted age cohort inequalities not only in terms of different possibilities created by the pension system but also in retirement practices. This was especially present in narratives around disengagement and attitudes toward activation demands. For those who were born earlier and whose social imaginaries of retirement were influenced by the communist heritage, retirement was predominantly constructed by practices of withdrawal and a low level of internalization of activation demands. As opposed to some earlier research showing that retirees might experience retirement as "anti-activity activities" (Katz, 2000) and frame them as a waste of time or guilty pleasures (Wanka, 2020), participants in this research often framed practices of disengagement as their entitlement and a desired way to experience retirement. I argue this is linked to habitus formed in the bygone communist era and reflects inequalities between expectations toward the retiree role created within the social imaginaries of different cohorts of retirees.

In debates around Polish culture of aging (Krzyżowski et al., 2014), national and local aging policies, (e.g. Błędowski, 2002), and in the offer of outlets available for retirees, (e.g. Pędziwiatr, 2015) two contrasting views on retirees' role are presented. First, rooted in a concept of "role-less" role (Burgess, 1960) and the other incorporated in the vision of active and productive aging (Caro and Bass, 1993). To some degree, the definitions reconstructed from the narratives mirror this classification. The reconstructed definitions indicate that the meanings assigned to the role of retiree are ambiguous. Based on the clear division that interviewees drew between "new wave" and "stagnant" retiree, it's possible to capture changes taking place in the area of retirement practices in post–communist contexts. This seems especially interesting when considering the distinctions marked in both definitions. Whereas in the definition of an "stagnant" retiree, the distinction is made on the basis of the opposition between a retiree and employee, in the case of the definition of a "new wave" retiree, it's the opposition between two different types of retirees. This indicates that the reference point for defining retirees' roles is shifting and captures the distinction between habitus shaped in the previous regime and habitus emerging now. The definition of the "new wave" retiree mirrors activation demands especially in the captured associations and listed actions of retirees that highlight physical and mental activity. Public discourse of active and productive aging seems to be captured by retirees in the definition of the "new-wave" retiree who is *being shown on TV*. Reconstructed definitions capture not only generational or age cohort differences but highlight also gendered inequalities, associating "stagnant" retirees rather with being a man and "new wave" retirees with being a woman. This result would require further investigation in other post-communist regimes.

The added value of looking closer at polish case in context of how retired individuals (re)define term "retiree" and "do retirement" in a fluid post-communist context emerges from the fact that Poland is the only one among OECD countries that has lowered its age of eligibility for retirement. In October 2017, Poland introduced new legislation to lower the official pension age to 65 for men and 60 for women. This is a significant policy reversal from the 2012 pension reforms which pro-posed increasing the official pension age to 67 years by 2020 for men and 2040 for women. It was a very specific, political decision, that plays a critical role in the reconstruction of the roles and images of retirement in Poland. This new political approach to retirement is rather unique among European countries as, contrary to models based on active aging policies, it favors rather disengagement. European Commission has raised concerns about these new reform, given that the decision goes against pension policy reforms in other EU countries that are increasing the pension age and moving toward gender equalization (Clemens and Parvani, 2017). As data presented in this study couldn't capture impacts of this reform further research on how retired individuals (re)define term "retiree" and "do retirement" is needed that would focus specifically on inequalities related to gender and economical aspects of retiring. Comparative approach that would include more post-communist jurisdictions would be also needed in the future research.

As I was aiming to present in this contribution, analyzing differences in retirement practices allows for tracking the interplay of sociocultural, (i.e. gendered norms on caregiving)

and institutional, (i.e. statutory retirement age) inequalities across individual lives. Findings from this study, although limited to one jurisdiction, highlight that some ways of understanding and going into retirement shaped in the communist context may be anachronistic considering the heterogeneity in retirees' retirement practices and meanings assigned to them. Quotes from Łukasz and Tomasz, who while reflecting on their withdrawal practices tried to find reaffirmation of their views from the researcher highlight explicitly that retirement practices are inevitably (re)negotiated and (re)constructed in the reality that is intersubjective. Results presented here indicate that a once predictable pattern associated with aging and retirement is changing (Biggs 2005) and retirement transitions have become increasingly complex and new approaches are required to capture this complexity. Further unpacking how individuals (re)define the term "retiree" and "do" retirement in this liquid structural setting is critical to better understand inequalities related to retiring in a post-communist context. It is also critical in order to assess the capacity of existing institutional systems to support individuals during retirement transition.

DATA AVAILABILITY STATEMENT

The datasets presented in this article are not readily available because dataset consists of in-depth interviews containing sensitive data of participants. Requests to access the datasets should be directed to anna.urbaniak@univie.ac.at.

ETHICS STATEMENT

Ethical review and approval was not required for the study on human participants in accordance with the local legislation and institutional requirements. Written informed consent for participation was provided for this study in accordance with the national legislation and the institutional requirements.

AUTHOR CONTRIBUTIONS

The author confirms being the sole contributor of this work and has approved it for publication.

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Planned Retirement Timing in Europe: Are Europeans Adapting to the Policy of Extending Working Lives

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As populations are ageing concerns regarding the sustainability of European welfare states have come to the forefront. In reaction, policy makers have implemented measurements aimed at the prolongation of working lives. This study investigates weather older workers have adapted their planned retirement age, as a result of this new policy credo. Based on data from Survey of Health, Ageing and Retirement in Europe (SHARE) the analysis shows an increase of the planned retirement age (1.36 years) across all ten European countries investigated, albeit with country-specific variations. Variations on the individual level can be detected in regard to gender, education and self-reported health status.

Keywords: population ageing, preferred retirement age, retirement transition, retirement behaviour, SHARE, pension

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INTRODUCTION

Population ageing with its increasing number of older people has resulted in concerns that the financial future of many European welfare states is in jeopardy since the late 1980s (Harper, 2015). The fear is that welfare expenditures for a growing number of older people have to be financed by contributions from a shrinking number of younger people. These concerns are raised with regards to the sustainability of health care, long-term care as well as pension systems. Concerning the latter, particularly, public pay-as-you-go pensions are seen as vulnerable to population ageing (Ebbinghaus and Naumann, 2020).

In response policy makers in many European countries have implemented reforms aimed at delaying retirement and extending working lives. They have increased state pension ages, closed early retirement options and invested in the employability of older workers (De Tavernier et al., 2019). It seems that these reforms have taken effect as actual retirement age as well as older workers' employment rates are increasing; however, from different starting points and with different paces (Ebbinghaus and Hofäcker, 2013). Yet, many of these reforms have a time-lagged effect as for example increases of state pension ages are realized in a stepwise process (Hofäcker, 2015). Thus, today's pensioners have often not felt the full impact of the reforms (yet).

Nevertheless, previous studies have shown that older workers not only adapt due to the new credo of extended working lives, but are also quite precise when estimating their retirement timing. Older workers' planned retirement age might therefore help evaluate the reforms' impact and could be used as a proxy for older workers' future actual retirement behavior (Haider and Stephens, 2007; Örestig et al., 2013). Hess (2017a) found that the preferred retirement—the age at which one wants to retire—has increased in several European countries. Single country studies find that the expected or planned retirement age—the age at which one realistically believes to retire—has increased in

Germany (Coppala and Wilke, 2010), the Netherlands (De Grip et al., 2013), Sweden (Örestig et al., 2013) as well as the United States of America and Australia (Sargent-Cox et al., 2012). So far however, no studies exist that investigates the planned retirement age and its potential changes in a European country-comparative perspective. The study at hand aims to fill this gap in the literature.

Based on data from Survey of Health, Ageing and Retirement in Europe (SHARE) we, thus, explore the planned retirement age in a cohort and country comparison. Further analyses consider country, socio-economic status, and gender differences. In the following we will first discuss the societal contexts in more detail and present and derive our research questions.

SOCIETAL CONTEXTS AND RESEARCH QUESTIONS

Increasing life expectancy and decreasing fertility rates are resulting in a growing number of older people in absolute and relative terms. By the year of 2070 30% of all Europeans are estimated to be aged 65 and older, up from about 20% today (European Commission, 2020). Simultaneously, in the years to come, the workforce potential—meaning the share of the working-age population—will decline in most European countries (van der Gaag and de Beer 2014). As many of Europe's public pension systems are based on the pay-as-you-go principle this means that fewer and fewer workers paying contributions to the pension system are facing more and more retired people receiving pensions. In addition, due to an increased life expectancy, these retired people do live longer (Hofäcker et al., 2015).

This development has increased concerns about the long-term financial sustainability of public pension systems. Harper (Harper 2015, 23) summarizes this concisely: "the social security systems now face serious financing problems as the number of beneficiaries is increasing at a time when the working population is declining—a simultaneous increase in payments and decrease in revenues". In some European countries—in particular with conservative welfare states—the challenges stemming from population ageing seem even more problematic as the policy of early retirement has led to comparably low retirement ages. Based on the idea of the lump-of-labor and with the aim of decreasing unemployment rates the policy of early retirement offered older workers financially attractive early retirement options, allowing them to exit the labor market well before the state pension age with only small pension reductions (Hess et al., 2016). This resulted in a disadvantageous ratio of retired over working population.

In response policy makers in Europe have implemented reforms aimed at extending working lives by delaying retirement timing and, hence, decreasing the number of people receiving pensions and increasing the number of people paying contributions. Additionally, in some countries, selected sectors—high-technology, health and care as well as crafts sector—are faced with an increasing shortage of skilled workers (Brunello and Wruuck, 2019; Ehrlich et al., 2020; Naegele 2020). Sustaining experienced and reliable older workers is considered one measure to mitigate this lack of skilled workers and to ensure companies' competitiveness in the future.

These reforms included the closing of early retirement options or making them financially much less attractive, and, consequently, making early retirement more expensive for older workers (Hofäcker 2015). State pension ages were raised and in some countries are even indexed to life-expectancy (Naegele and Bauknecht 2019). Furthermore, public pensions were lowered and privatization and marketization elements were introduced to compensate the lower incomes from the public pensions (Ebbinghaus 2016, 2021). Efforts were also made to strengthen older workers' workability and employability. Fighting ageism at the workplace and creating age-inclusive company cultures became more important in the opinion of policy makers and employers (Naegele et al., 2018, 2019). Investments in measures of life-long learning and training for older workers have increased and the concept of a life-course oriented human-resource strategy emphasized the importance of preventive health care programs at the workplace (Frerichs et al., 2012; Walker, 2019). The effort at the national and company level are supported by international organizations like the Organization for Economic Co-operation and Development (OECD) (Boppel et al., 2011) and the European Union (EU) (Walker and Maltby 2012). In particular the role of the EU's Open Method of Co-ordination and its pension sustainability target to increase the employment rate of the 55–64-years-old to 50% or more played a crucial role (Allaj et al., 2016). It seems as if the reforms have been effective as older workers' employment rates and retirement ages are increasing: "Labour market participation at older ages has substantially increased since the turn of the century and companies are using this new potential—employment rates of older workers have risen much more strongly than for the rest of the population and this rise is marked across all education levels." (OECD 2020, 39).

It must, however, be mentioned that the reforms aimed at delaying retirement are not the only potential explanation for these developments (Hess 2018). The overall labour market development has been well and the demand for workers has increased—at least in some European countries. In addition, today's older workers are healthier and better educated than their predecessors (Hess 2016).

Against this background, the main aim of the paper is to explore the influence of the above-described developments and policy measurements on the planned retirement age of older workers. Consequently, the first research question is: How has the policy shift towards extending working lives affected older workers' planned retirement age? Secondly, as the increase in the employment rates does differ between countries the paper also wants to investigate these country differences. Hence, the second research question is: Does the effect of the policy shift towards extending working lives on older workers' planned retirement age differ between countries? The third research question addresses potential group differences in this regard and states: Does the effect of the policy shift towards extending working lives on older workers' planned retirement age lives differ between social groups? In the following we give a

brief overview of previous research, expand on the theoretical considerations we base our analysis on and develop our hypotheses.

STATE OF THE ART AND THEORETICAL CONSIDERATIONS

The study at hand is not the first to explore how older workers' ideas when to retire have developed over time. Using data from the European Social Survey and Eurobarometer Hess (2017a) shows that the age at which older workers would like to retire has increased in the 12 European countries investigated. Although the preferred retirement age and the planned retirement age differ, it seems that older workers are reacting to the new credo of late retirement, albeit with group-specific differences. Whereas De Grip et al. (2013) show for the Netherlands and Coppala and Wilke (2014) for Germany that higher educated seem to be more responsive (and adjust more) to policies promoting the extension of working lives, Öresting et al. (2013) find differences in regard to retirement preferences between men and women and those in favorable and unfavorable working conditions in Sweden. The latter, as the authors argue, finding themselves often in occupational positions with high psychological and physical strains, resulting in earlier retirement preferences. Sargent-Cox et al. (2012) report similar effects for poor health and an overall younger expected retirement age for Australian workers compared to the U.S. sample in the study. With the exception of Hess (2017a) these studies have either taken on a single country focus (Örestig et al., 2012; De Grip et al., 2013; Coppola and Wilke, 2014) or investigated the preferred retirement age from a comparative perspective at only one point in time (Hofäcker 2015; Sargent-Cox et al., 2012). The study at hand will add to the existing research corpus by taking on a country comparative and time-sensitive perspective when investigating the development of the planned retirement in Europe.

The aim of this study is to link the trend towards extending working lives on the country level (macro) and the workplace level (meso) with the planned retirement age on the individual level (micro). Institutionalism offers such a link, as it not only explains "how opinions, preferences, actions and outcomes are constituted and related to norms and policies, but also how they are interrelated" (De Tavernier, 2016, 7). Institutionalism can be divided into three different strands (rational choice, sociological and historical institutionalism), all with different emphases. Whereas rational choice institutionalism focusses on the individual rational actor that executes his or her preferences, sociological institutionalism explains these preferences as a result of internalized societal norms as well as one's individual identity. Historical institutionalism incorporates the temporal aspect by addressing (re-)production and the occasional change of policies and norms over time (De Tavernier, 2016). For the paper at hand we focus on sociological institutionalism as theoretical basis as it emphasizes the importance of cultural values and norms, reflected in the above-mentioned policy shift towards the prolongation of working lives, for an individual's retirement planning (Hall and Taylor, 1996; Knill and Lenschow, 2001).

According to sociological institutionalism institutions shape individuals' action with incentives and constraints for which they set a frame, which aligns to commonly shared norms and values. Sociological institutionalism, thus, is making the explicit link between individual actions and cultural contexts (Hall and Taylor, 2007; Bevir and Bevir, 2010). Jensen (1996), for example, shows that shared norms and values have an influence on whether individuals use certain offers of welfare state institutions at all, while Pfau-Effinger (2005) and Hall and Taylor (2007) point to the importance not only of internalized values and norms, but also of social role expectations expressed through institutional frameworks. The argument of sociological institutionalism is not deterministic in nature; rather, it is about limiting the options from which the individual can choose: "Institutions influence behavior not simply by specifying what one should do but also by specifying what one can imagine oneself doing in a given context" (Hall and Taylor, 2007). Elaborated upon earlier work, Hall and Taylor (1996) even went so far to hold institutions responsible, not only to simply affect "the strategic calculations of individuals, as rational choice institutionalists contend, but also their most basic preferences and very identity" (Hall and Taylor, 1996, 948).

Taking a sociological institutionalism perspective on the questions of the study at hand, one could make the following argument: the reforms aimed at extending working lives have changed the institutional level in a way that it now incentives later retirement and restricts behaviors (e.g. early retirement) that are inconsistent with the (newly) shared social norm of prolonged working lives. This should affect older workers and lead to an increased planned retirement age. Hence, our first hypothesis (H1) is: the reforms aimed at extending working lives have resulted in an increase of the planned retirement age of older workers in the countries investigated. As retirement preferences are not only a result of being embedded in institutional context, but also of an individual's experiences and characteristics, exploring social group differences seems purposeful. Regarding retirement planning earlier research has pointed towards effects of gender, health, income level and educational differences (Hofäcker et al., 2015; Esser 2005; Stiemke and Heβ, 2020). Therefore, our second hypothesis (H2) states: the increase of planned retirement age differs between social groups. Previous research produced ambivalent results regarding the direction of these group differences (see for example Coppola and Wilke 2014; Hess 2017b), hence, we do not predict for which groups the increase is stronger and for which groups it might be weaker. As the often so called "paradigm shift" in labour market policies—from early retirement to extended working lives—might be mediated by specific labour market and pension as well as cultural settings and country-specific age norms (Hess 2017a), taking on a country-comparative perspective appears necessary. Thus, our third hypothesis (H3) is: the increase of the planned retirement age differs between countries. Again, we make no prediction about the direction and extend of these differences in the increase. In the following sections of the paper the methods used are introduced, results are presented and discussed.

METHODS

To explore our research questions, we use data derived from the SHARE. SHARE is a longitudinal panel survey in which people who are 50 years and older are interviewed about their health, household composition, economic situation, as well as work, volunteering and physical activity. Interviews are conducted biannually in a variety of European countries (Börsch-Supan et al., 2013). The sample for the analysis at hand is restricted to those in employment and aged between 55 and 65. We combine those from wave 1, which was collected in 2004, and wave 6—collected in 2015 to allow for a comparison over time. Hence, the sample was further restricted to countries that participated in wave 1 and wave 6. These countries include: Austria, Germany, Sweden, Spain, Italy, France, Denmark, Greece, Switzerland, and Belgium. The sample consists of 15,441 respondents. Country-specific case numbers range from n = 593 in Italy to n = 2,566 in Belgium.

The planned retirement age was operationalized using the question on the expected age of first collection of pensions. Answers were given in years. Outliers (less than 3 percent) under 55–65 years old were deleted. To test the first hypothesis that the planned retirement age has increased over time regression technique was employed. The planned retirement age served as dependent variable and hence, linear regressions were used. Independent variables were the cohort (2004 vs 2015), gender (female vs male) and level of education. Country-specific educational categories were classified according to the International Standard Classification of Education (ISCED-97) (UNESCO 2012) and recoded into low (ISCED 1, 2), medium (ISCED 3, 4) and high (ISCED 5, 6). In addition, interaction effects between cohort on the one hand and gender and education on the other hand were included in the models. Control variables were age, self-rated health, the ability to make ends meet and the country of residence. Self-rated Health and the ability to make ends meet were operationalized as dichotomous variables with (poor vs good self-rated health) and (problems to make ends meet vs no problems to make ends meet). The control variables were chosen based on findings from previous literature (see for example Hofäcker, 2015).

RESULTS

As shown in **Table 1** the distribution of the sample is as expected: About half of the sample are women and the average age is between 56 and 58. About half of the respondents report poor health and about a quarter state they have problems to make ends meet. These variables do not vary substantially between 2004 and 2015. One can observe that the share of older workers with low education is decreasing and, thus, the share of those with medium and high education is increasing. This is in line with timing of the educational expansion (Breen 2010) from which the 2015 cohort of older workers did probably already benefit. The variable of main interest - planned retirement age - has increased by 1.36 years from 63.11 to 64.47. This development is in line with the first hypothesis.

Table 2 shows the variation across the countries and the two cohorts. In general, higher planned retirement ages are found in the Scandinavian countries—which is in line with Hess (2017a)—and the lowest in Austria. In addition, it demonstrates that the increase of the planned retirement ages is a pan-european development that is taking place in all ten countries included in the analysis and is not driven by certain outliers. The strongest increase is found in Italy and the weakest in Spain. This country variation was expected in our third hypothesis.

Table 3 depicts the results from the linear regressions. The findings regarding the control variables are in line with previous research. Those with poor self-rated health plan to retire earlier than those with self-reported good health (Nilsson et al., 2016; Hess and Naegele, 2020). This might be explained by the possibility to use different early retirement options that are connected to one's health status (for example disability pensions). Those with difficulties to make ends meet in contrast plan to retire later. Hess (2017b) finds the same correlation with German data and explains it by financial pressure that can be mitigated with delayed retirement and consequently higher pensions benefits. The positive association between age and planned retirement timing is line with results of Hofäcker et al. (2015).

When looking at our hypotheses, the increase in the planned retirement age between 2004 and 2015 is supporting hypothesis 1. This result is also reflected for European data in Hess (2017a) as well as in the earlier discussed studies with specific country focusses on Germany (Coppola and Wilke, 2014), Netherlands

TABLE 1 | Descriptive overview of sample.

	Cohort 2004			Cohort 2015			Δ 2004 and 2015
	Obs	Mean/Share	Std. Dev	Obs	Mean/Share	Std. Dev	Mean
Planned retirement age	6,767	63.11	2.88	8,674	64.47	2.45	1.36
Female	6,767	49%	0.5	8,674	53%	0.5	0.04
Age	6,767	56.22	4.28	8,674	57.58	4	1.36
Poor self-rated health	6,767	55%	0.5	8,674	56%	0.5	0.01
Problems to make ends meet	6,767	28%	0.45	8,674	25%	0.43	-0.03
Low education	2,181	32%	0.47	1,620	19%	0.39	-0.13
Medium education	2,664	39%	0.49	3,853	44%	0.5	0.05
High education	1922	28%	0.45	3,201	37%	0.48	0.09

TABLE 2 | Overview of planned retirement age country values.

	Cohort 2004			Cohort 2015			Δ 2004 and 2015
	Obs	Mean	Std. Dev	Obs	Mean	Std. Dev	Mean
Austria	231	61.16	2.9	437	61.85	2.7	0.69
Germany	1,042	63.44	2.2	1,462	64.67	1.7	1.23
Sweden	1,220	64.40	2	712	64.91	1.6	0.51
Spain	346	63.93	2.1	514	64.38	1.9	0.45
Italy	361	61.01	3.5	232	64.86	3	3.85
France	822	60.61	2.7	739	62.12	2.5	1.51
Denmark	878	65.14	0.9	1,571	66.48	1.4	1.34
Greece	386	63.25	3.8	650	64.03	3.5	0.78
Switzerland	422	63.63	1	850	64.46	1	0.83
Belgium	1,059	62.16	3.1	1,507	64.05	2.4	1.89

TABLE 3 | Linear regressions with planned retirement age as dependent variable.

	Coefficient	*p*-value
Cohort (Ref: 2004)		
2015	0.993[a]	(0.000)
Gender (Ref: Male)		
Female	−0.328[a]	(0.000)
Education (ref: low education)		
Medium	−0.209[b]	(0.002)
High	0.133	(0.069)
Age		
In years	0.058[a]	(0.000)
Self-rated health (Ref: Good)		
Poor	−0.209[a]	(0.000)
Problems to make ends meet (ref: Not)		
Yes	0.302[a]	(0.000)
Country (Ref: Germany)		
Austria	−2.649[a]	(0.000)
Sweden	0.573[a]	(0.000)
Spain	−0.082	(0.380)
Italy	−1.486[a]	(0.000)
France	−2.670[a]	(0.000)
Denmark	1.671[a]	(0.000)
Greece	−0.734[a]	(0.000)
Switzerland	−0.150	(0.060)
Belgium	−0.923[a]	(0.000)
Interaction Cohort and Education		
2015 # medium	0.163	(0.085)
2015 # high	0.124	(0.215)
Interaction Cohort and Gender		
2015 # gender	0.206[c]	(0.005)
Constant	60.470[a]	(0.000)
Observations R^2	15,4410.31	

Levels of Significance.
[c]p < *0.05.*
[b]p < *0.01.*
[a]p < *0.001.*

(De Grip et al., 2013), Sweden (Öresting et al., 2013) and Australia/U.S. (Sargent-Cox et al., 2012). It seems as if the reforms aimed at delaying retirement have also affected prospective retirees and their plans when to make the transitions from work to retirement.

Supporting hypothesis 2 we find that planned retirement age does significantly vary by gender and education. In line with previous research (De Preter et al., 2013; Holman et al., 2020) women plan to retire earlier than men, probably due to the lower labor market attachment of women, certain early retirement options only accessible for women and couples retiring together whereas women on average are somewhat younger than their partners. For education the regression shows a u-shaped connection. Those with medium education plan to retire earlier than those with low and high education. This u-shaped connection was found earlier with German data for the actual retirement age by Hofäcker et al. (2015) and for the expected retirement age by Hess (2018). "However, while high-skilled workers both want and expect to retire late, low-skilled workers prefer to retire early but expect that they have to work longer in order to ensure a reasonable pension. This finding hints at rising social inequality in the transition from work to retirement" (Hess 2018, 1). We also find that the increase of the planned retirement age is stronger for women than for men indicated by the positive interaction effect of cohort and gender. This is in line with steeply rising female employment rates among older workers (Ebbinghaus and Hofäcker, 2013). No significant interaction effect for cohort on the one hand and education on the other hand was found.

DISCUSSION

The demographic ageing has fueled concerns and started discussions about the long-term financial sustainability of welfare states as a whole and for pay-as-you-go public pension systems in particular. Policy makers have reacted by implementing reforms aimed at delaying retirement and extending working lives. These reforms include among others the increase of statutory state pension ages, the closing of early retirement options and investments in older workers' employability and workability. It seems as if the reforms are being effective as older workers' employment rates are increasing. The study at hand explored if these increases are mirrored in the planned retirement age of older workers. Based on date from SHARE and comparing the years 2004–2015 we find an average increase of 1.36 years. This increase can be observed in all analyzed countries, however with large variation in the extent. In addition, the increase is stronger for women then for men narrowing the gap between women and men.

When interpreting the results at least four limitations must be acknowledged. Alternative explanations besides the reforms aimed at extending working lives might be found for the increase of the planned retirement age. As earlier research has shown retirement decisions—and the planning that goes along with them—are multi-factored and complex. It could be argued that the general good development of the labor market in some countries has influenced the detected increase. In addition, cohort effects might play a role. Today's older workers are better educated and healthier than their predecessors, in particular more women are working in these cohorts. Hence, the fact that increasingly more women enter and "age" in the labour market might be reflected in the observed stronger increase of the planned retirement age for

women. The second limitation is that a potential effect of the economic and financial crisis from 2008 on the planned retirement age is not controlled for in the paper. The strong increase of the planned retirement age in Italy supports such an effect, as older workers in Italy might have come under pressure to ensure sufficient pensions due to job-loss and the overall economic downfall in the crisis. However, the weak effect in Greece contradicts this assumption, highlighting the necessity of further, more in-depth investigations of the main drivers behind the increase of planned retirement age. The third limitation is the limited number of countries, which should be addressed in future research. In particular, Central and Eastern European countries would be an interesting addition to the analysis. Finally, a potential selection bias must be acknowledged: Only those still in employment at the age of 55–65 can report a planned retirement age; those who are retired or otherwise inactive cannot and they might differ from those who are employed systematically. However, previous research investigating expected and preferred retirement age in a cohort comparison (Hess 2017a, 2018) found that this bias does not contort the results, when conducting a Heckman Test.

Despite these limitations, the study makes an important contribution and extends previous research in the field. It is the first analysis that shows that the planned retirement is increasing in many European countries. This might be seen as some sort of relief for policy makers, but these findings also hint at the rise of social inequalities in retirement transitions. Should it appear that certain social groups are disadvantaged with regard to their retirement planning, policy makers and scientist alike need to take notice and take action to prevent inequalities from exacerbating.

DATA AVAILABILITY STATEMENT

Publicly available datasets were analyzed in this study. This data can be found here: http://www.share-project.org/home0.html.

AUTHOR CONTRIBUTIONS

MH, LN and WT developed the idea, MH, LN, LB and WT wrote the paper and JM conducted the analysis.

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frontiers in Sociology

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Occupation-Based Life Expectancy: Actuarial Fairness in Determining Statutory Retirement Age

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This study examines occupation-based differences in life expectancy and the extent to which health accounts for these differences. Twentyseven-year survival follow-up data were used from the Dutch population-based Longitudinal Aging Study Amsterdam (n = 2,531), initial ages 55–85 years. Occupation was based on longest-held job. Results show that the non-skilled general, technical and transport domains had an up to 3.5-year shorter life expectancy than the academic professions, accounting for the compositional characteristics age and gender. Statutory retirement age could be made to vary accordingly, by allowing a proportionally greater pension build-up in the shorter-lived domains. Health accounted for a substantial portion of the longevity difference, ranging from 20 to 66%, depending on the health indicator. Thus, health differences between occupational domains today can be used as a means to tailor retirement ages to individuals' risks of longevity. These data provide a proof of principle for the development of an actuarially fair method to determine statutory retirement ages.

Keywords: retirement age, occupation, longevity, health, longitudinal study

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INTRODUCTION

Actuarial fairness is considered a key aspect of a just pension system (Schokkaert and Van Parijs, 2003; De Tavernier, 2021) and can be understood as "equal treatment for equal risks" (Landes, 2015, p. 521). For a pension system to be actuarially fair, an individual's contributions (plus interests) should equal the individual's expected benefits. Expected benefits are directly linked to the expected duration of time during which they will be enjoyed, i.e., the individual's life expectancy. It is well-known, however, that life expectancy is strongly socially stratified (Kunst and Mackenbach, 1994). Moreover, in European countries the longevity gap between lower and higher socio-economic positions has been shown to be increasing (Unger and Schulze, 2013; Östergren et al., 2017; Tanaka et al., 2019). Thus, equal treatment through a uniform statutory retirement age does not do justice to the socially highly unequally distributed life opportunities and is not actuarially fair (Unger and Schulze, 2013). Given a uniform statutory retirement age, Barnay (2007) showed that executives and the intermediate professions benefit much more from the pension system than manual workers. Likewise, several authors concluded that such pension systems generate a Matthew effect, redistributing means from the less well-off to the better-off (Myles, 2003; Schokkaert and Van Parijs, 2003; Queisser and Whitehouse, 2006; Simonovits, 2015). When contributions and benefits would be adapted to differences in life expectancy, redistribution towards an actuarially fair system could take place. This study proposes a mechanism through which this could be achieved.

Various policies affect actuarial fairness of pension systems. One way to make pension policies actuarially fair is through early retirement regulations. Some European countries offer early retirement possibilities for specific categories of workers in highly demanding jobs. In their overview, Natali et al. (2016) find a wide variety of classifications and interpretations of what constitutes arduous jobs across countries, and note that the concept is often not clearly delineated. This is the case for the new Finnish years-of-service pension (Finnish Centre for Pensions, 2015), for instance, where discretion is given to medical doctors to make decisions in individual cases. In other countries, such as Belgium and the Netherlands, social partners continue to disagree about which jobs fall in this category, illustrating the arbitrary nature of decisions about which jobs are particularly demanding.

This study aims to develop a more objective method to determine statutory retirement ages rooted in actuarial fairness by quantifying occupation-based life expectancies. Linking the resulting life expectancies to pension build-up would improve actuarial fairness of pension systems. Thus, workers in occupational domains with a shorter life expectancy should be facilitated to retire earlier by adjusting their pension build-up. It is important to note that by taking actuarial fairness as our point of departure, the question of whether inequalities in life expectancy are actually caused by occupational exposure differences is not relevant (indeed, selection into occupations might play an important role, leading to compositional differences, see Ravesteijn et al., 2018). The principle merely requires that pension policies are adjusted to observed differences in longevity: contributions and expected benefits should balance out–no matter what causes occupation-based differences in life expectancy.

Earlier evidence shows that numerous factors impact longevity, including physical and mental health related factors, social conditions, and heredity (e.g., Goldman et al., 2016; Iacob et al., 2016; Suemoto et al., 2017). Among these, social stratification indicators such as level of education and level of occupation play an important role. Many of these studies considered occupation as a proxy for socio-economic position. Indeed, in the United Kingdom occupational class has been used as the standard indicator of social class (Llena-Nozal et al., 2004). But also in studies outside the United Kingdom, occupation has been used as such, e.g., in Canada (Tjepkema et al., 2013), in Denmark (Brønnum-Hansen et al., 2020), and in other European countries (Tanaka et al., 2019). In these studies, the occupational classification represents a hierarchy of skill level, rather than actual occupations. It may be argued that social class is the main factor at work in occupation-related differences in health. Early studies by Moore and Hayward (1990) and Johnson and colleagues (1999), however, showed that important mortality differences between occupations exist that are not accounted for by social status, income, and education. A recent study by Leinonen et al. (2018) showed evidence of variation in sickness absence between four large industrial sectors despite the fact that these were examined within particular occupational classes. These studies support the unique contribution of occupation to health outcomes.

Evidence on the impact of employment characteristics other than job level on mortality comes from studies on working conditions. In a meta-analysis of 17 studies, Amiri and Behnezhad (2020) reported that in people with job strain, which is a combination of high demands and low control at work, the risk of mortality is 20% higher than in the reference group. Also physical demands have been shown to be associated with increased risk of mortality (Mikkola et al., 2019). In a recent study from our own group, people at age 55 who had physically strenuous jobs regarding repetitive movements and use of force had a 1.5–2.0 years shorter life expectancy than their counterparts with less strenuous jobs, and people who had jobs with a low variation in activities and low autonomy had a 1.1–2.5 years shorter life expectancy than their counterparts with jobs with high variation and autonomy (de Wind et al., 2020). Working conditions may be concentrated in specific occupations, but essentially cut across occupations. The findings from studies on working conditions are relevant for the management of older workers' balance of work capacity and work demands, which is to be achieved mainly in the workplace and at the company level. For pension policy, however, it is useful to consider a higher aggregate level.

Studies addressing the impact on mortality of occupation per se are scarce, although they have a long tradition (Fox and Adelstein, 1978). Moore and Hayward (1990) showed that in the United States between 1966 and 1983, service workers had a 4.5-year shorter life expectancy from age 55 than professionals. In another US study, Johnson and colleagues (1999) found increasing risks of mortality across the occupational spectrum from the highly skilled occupations to less-skilled and generally more labor-intensive occupations. A more recent South Korean study of workers enrolled in a national insurance program showed that workers in elementary occupations had a twice as high mortality rate as professionals (Lee et al., 2016). A recent study in the United Kingdom was based on linkage of census data with 10-year follow-up registry mortality data and distinguished 60 occupations (Katikireddi et al., 2017). It showed that among men, the highest mortality rates were in elementary construction, housekeeping and factory workers, whereas health professionals had the lowest mortality. Among women, factory workers and garment trade workers had high, and teachers and business professionals had low mortality rates.

In this study, we will specifically address differences in longevity by broad occupational domains, as they closely correspond to industrial sectors. A sector is defined as a group of industries with the same main economic activity; the latter is indicated by the predominant type of occupation (Statistics Netherlands, 2021). Using sector as a study unit offers a number of advantages from a policy perspective. First, it suits the actuarial fairness argument as, in most countries, pension entitlements and contributions are linked to employment sector. Second, variations in pension policies can be decided by social partners in sector-specific collective bargaining, and occupational pension schemes often already are sector-specific (De Preter et al., 2012; Wiß 2015). Third, sector of employment is information that is easily accessible for governments and is readily available in many state registers. In Netherlands, the country in which our

study is based, the focus on sector has direct applicability, as negotiations between unions of employees and employers are conducted sector-wise, and pension funds, the institutes that provide the work-related pension benefits, are organized within sectors. Hence, we formulate a first research question:

- What are quantitative differences in longevity between occupational domains?

We are aware of the issue that in developing occupation-based retirement ages, the calculation of occupation-based life expectancy involves mortality follow-up of individuals over time until enough individuals should have deceased in order to construct reliable mortality tables. This can only be done on historical data. However, occupations change over the years in terms of task use and demands (Romeu Gordo and Skirbekk, 2013; Cassidy, 2017), so that occupation-based life expectancies of earlier generations may not be generalized to those working in the same occupations today. To overcome this problem, we test to what extent the relation between occupational domain and life expectancy is accounted for by health in the historical data. We are not aware of earlier studies testing the role of health. However, if indeed health acts as an explanatory factor of this relationship, we can use health differences between domains today as a means to tailor statutory retirement ages to individuals' risks of longevity, thereby making pension systems more actuarially fair. This leads to our second research question:

- To what extent are health indicators explanatory factors in the association between occupational domain and longevity?

MATERIALS AND METHODS

Sample

Data are used from the 1992–93 baseline cycle of the Dutch population-based Longitudinal Aging Study Amsterdam (LASA), linked to vital status follow-up from municipal registries. LASA is a prospective study of cohorts based in three regions of the Netherlands that together form a representative sample for the Netherlands (Deeg et al., 2002; Hoogendijk et al., 2020). The baseline sample included 3,107 55–85-year-olds. Older ages and men were oversampled, so that each 5-year age group included about 250 male and 250 female participants. Among these participants, for 19 the vital status was unkown, 173 responded to a short version of the interview which did not include questions about current or past work, 80 missed one or more of the work questions, and 304 never had a job. Excluding these participants left a study sample size of 2,531.

Dependent Variable

Vital status is traced periodically through the Municipal Personal Records database which covers all residents in the Netherlands. For the current study, mortality ascertainment up to December 31, 2019 was used, providing about 27 years of mortality follow-up. At the probing date, 84.0% if the study sample had died.

The dependent variable is operationally defined as the Realized Probability of Dying (RPD). The RPD is an individual measure of survival time relative to the total population, based on sex and age at baseline (Deeg et al., 1989). As such, the RPD belongs to the family of relative survival measures (Rutherford et al., 2012). We opt for this individual measure of survival rather than using commonly used group-based methods to predict survival time, such as Cox proportional hazards models, for several reasons. First, an individual measure is more accurate than group-based approaches. Second, it lends itself as the dependent variable in linear regression models, with the advantage that examination of explanatory factors (our second research question) is straightforward (Mood, 2010). Third, as the RPD is based on the age and sex of each individual participant, differences the in age-sex composition across occupational domains are accounted for. Differences in RPD can be transformed into differences in number of years of life expectancy.

Using life tables based on the total population for subsequent years (1992 through 2019) during the study period, the RPD compares for each individual of a specific age and sex this person's survival probability with the overall survival probability of the Dutch population of that age and sex, from the starting month of the study through the years up to December 31, 2019. In formula:

$$\mathrm{RPD} = \left(1 - d_1^{(ai,s)}\right) \ldots \left(1 - d_n^{(ai,s)}\right)$$

where n is the total number of calendar years during which the participant is followed up to death or end-of-study, d_i is the probability of death according to the life table in calendar year i ($i = 1 \ldots n$), a_i is the age in calendar year i, and s is the sex of the participant.

Possible values of the RPD lie between 0 and 1. These values introduce a rank order among all sample subjects. The reference population has a mean RPD of 0.50. If the RPD is greater than 0.50, this means that the subject has lived a relatively short time; if it is less than 0.50, the subject has lived a relatively long time after baseline. For example, the value of a man's RPD is 0.80 if 80% of his age and sex peers in the total population are still alive at the time of his death. The name "realized probability of dying" comes from the notion that the individual has "realized" the probability of death when a certain percentage of the reference population is expected to be still alive. The actual amount of survival time needed to reach a particular RPD varies according to the age and sex of the individual at baseline, with older people needing less time to achieve a lower RPD than younger people, and men needing less time than women. For example, a man aged 65 years when first participating in LASA in 1993, who dies after 20 years in 2013, has an RPD of 0.39. By comparison, a woman aged 65 years in 1993 will have the same RPD of 0.39 when she dies after 24 years, in 2017.

For those participants still alive at the end of the study period (December 31, 2019), i.e. 16.0% of the study sample ($n = 406$), a value of the Realized Probability of Dying is imputed. The RPD for these participants is estimated by assuming that their remaining survival time corresponds to the median population survival time from end-of-follow-up onward. This amounts to multiplying the probability of reaching their age at the end of 2019 by 0.5. For example, a woman aged 65 when examined in

1993, reaches the age of 91 in 2019 with probability 0.30. If she is still alive at the end of 2019, her imputed RPD is 0.15, implying that it is expected that she will die when only 15% of her 1993 cohort is still alive. This approach is derived from standard actuarial methods.

If the study sample's RPD shows a uniform distribution, the survival distribution of the sample represents that of the total population. In this case, the logit of the RPD (LRPD = log(RPD/(1-RPD))) approaches a normal distribution with mean 0, and can be used as the dependent variable in analysis of variance and linear regression analysis. In our study sample, the mean (standard deviation) of the RPD and the LRPD are 0.50 (0.28) and 0.05 (1.66), respectively, and thus its survival is very close to that of the total population.

Independent Variables

Occupational Domains

For baseline participants who currently did paid work, their precise job description was recorded. For those who had done paid work in the past, the job description of their longest-held job was recorded. For those participants whose current job was not the longest-held job, data on their longest-held job were used, because workers may have moved to less strenuous jobs and for them, the association of occupation with longevity may be underestimated (Moore and Hayward, 1990). Based on the job characteristics domain (e.g., agricultural, care, teaching), required skill level (i.e., elementary through scientific, based on required education, training period, and work experience), and tasks (e.g., cattle breeding, nursing, instructing), jobs were classified into 43 occupational categories according to the Netherlands Standard Classification of Occupations 1992 (Statistics Netherlands, 2001; Rijs et al., 2014). These categories were condensed into 13 broad occupational domains by collapsing the skill levels within one domain. For the current study, seven of the largest domains were selected: the non-skilled general, technical, transport, administrative/commercial, care, agriculture, and pedagogical (teaching) domains. The technical domain includes jobs such as construction, machine work, electro-technical maintenance. The administrative/commercial domain includes jobs such as book keeper, buying clerk, hotel manager. The care domain includes (para)medical and social care and services jobs. Together, these seven domains constitute 91.7% of the sample. Domains that had less than 90 cases were grouped and served as the reference category for comparison of survival time. This category includes the following domains: natural science, juridical/security, cultural/linguistic, social science, and management. All had a survival time longer than average (**Supplementary Table A**). The mean (standard deviation) of the LRPD of the reference group was −0.21 (1.61).

Health

In order to facilitate implementation in the practice of pension insurance, we selected five health measures that are commonly retrievable from register data for initial analyses, i.e., sickness days, number of medications, hospital admission, outpatient visits, and general practitioner contact. For sensitivity analyses, we selected seven other health measures that have been proven to be a "best" predictor set for longevity (Suemoto et al., 2017).

Sickness days. These were self-reported as the number of days during the past month that participants had been ill to such extent that they had to stay in bed, with response categories 1) no days, 2) 1–3 days, 3) 4–7 days, 4) more than 1 week but less than a month, 5) all month.

Number of medications. The medications which the participants were using were recorded by the interviewer by inspecting the medicine containers. The total number of medications used was included in the analyses.

Hospital admission was self-reported. In order to avoid recall bias, hospital admission was not asked longer back than 6 months.

Outpatient visits. Contact with a medical specialist or psychiatrist was self-reported and also pertained to the past 6 months.

General practice contact. Contact with the participant's general practitioner was self-reported and pertained to the past 6 months.

Four chronic conditions, i.e., obstructive lung disease, cardiovascular disease, diabetes, and cancer, were self-reported. Comparison with general practitioner records showed a satisfactory agreement (Kriegsman et al., 1996).

Disability was self-reported using the Global Activity Limitation Index, which asks about activity limitation that has lasted at least 3 months. It is coded as 1) no limitations, 2) mild limitations, 3) severe limitations (Van Oyen et al., 2006).

Self-rated health was measured using the single, widely used question "How is your health in general?," with codes from 1) very good, to 5) poor.

Cognitive impairment was ascertained using the Dutch translation of the MiniMental State Exam (MMSE, Folstein et al., 1975). On 23 questions and tasks, respondents received one or more points when they gave the correct answer or performed the task correctly. Scores range from (0) all answers incorrect, to (30) unimpaired.

Covariates

Other independent variables, for descriptive purposes, include socio-demographic characteristics: age, gender, education in years, and occupational skill level. The latter variable was coded from 1) elementary to 5) scientific. Work status was included in the analyses, because evidence shows that health tends to improve after retirement (Eibich, 2015), and that before retirement age, people who currently do paid work are in better health than people who do not do paid work (Scharn et al., 2019). Work status was defined using two dummy variables: doing paid work versus not doing paid work, and being fully retired versus not fully retired.

Statistical Analysis

The socio-demographic and health characteristics of the seven occupational domains were compared using the chi-square test for dichotomous variables, and ANOVA's F-test for continuous variables. Likewise, the distribution of the LRPD across the domains was examined using ANOVA's F-test. To provide an illustration of this distribution, the domain-specific remaining life

TABLE 1 | Socio-demographic characteristics of the occupational domains selected. Source: Longitudinal Aging Study Amsterdam, 1992–93 (n = 2,531).

	N (%)	Gender[a] (%)		Education in years[b]	Skill level[c]	Work status[d] (%)			LRPD[e]
		Male	Female	M (sd)	M (sd)	Paid work	Age <65, no paid work, not retired	(Early) retired	M (sd)
General	224 (8.9)	29.9	70.1	6.8 (1.9)	1.0 (0.1)	8.0	21.9	70.1	0.17 (1.68)
Technical	679 (26.8)	77.5	22.5	8.6 (2.8)	2.6 (0.7)	11.5	13.8	74.7	0.15 (1.66)
Transport	99 (3.9)	92.9	7.1	7.4 (2.3)	2.5 (0.5)	10.1	13.1	76.8	0.26 (1.69)
Administrative	618 (24.4)	43.6	56.4	9.4 (2.8)	2.7 (0.6)	14.3	21.2	64.6	0.02 (1.64)
Care	397 (15.7)	12.5	87.5	8.3 (3.5)	2.6 (0.8)	11.5	21.3	66.2	–0.04 (1.60)
Agriculture	194 (7.7)	79.4	20.6	8.1 (2.3)	2.7 (0.5)	21.1	8.2	70.6	–0.20 (1.65)
Teaching	107 (4.2)	46.8	53.2	13.6 (3.1)	4.3 (0.5)	17.1	10.8	72.1	–0.27 (1.71)
Others	211 (8.3)	52.3	47.7	9.5 (4.1)	4.0 (0.8)	12.6	14.6	72.8	–0.26 (1.61)

[a]*Gender differences between the domains are significant at* p < *0.001.*
[b]*Educational differences between the domains are significant at* p < *0.001.*
[c]*Occupational skill level (range 1 = elementary … 5 = scientific) differences between the domains are significant at* p < *0.001.*
[d]*Work status differences between the domains are significant at* p < *0.001.*
[e]*Logit of the Realized Probability of Dying; differences between the domains are significant at* p = *0.003.*

expectancies from age 65 were calculated based on the mean RPD of each domain, and shown in a figure. Subsequently, a series of linear regression analyses was performed to test survival time differences. The first model included only the domain dummy variables and age; in a second model work status was added. A next series of linear regression models included in addition one health variable at a time, and examined to what extent this health variable accounted for the association between domain membership and survival time, by comparing the coefficient of each domain dummy in the models without and with the health variable and calculating the percentage decline in this coefficient. In a final model, all five health variables were included and again, the percentage decline in the domain dummy coefficients was calculated. In a sensitivity analysis, the domain coefficients in the models without and with the 'best' predictor set of seven health variables were compared. As 14.6% of the sample had missing values on one or more variables, 12.8% of which was due to medication use only, multiple imputation was applied. Fifteen imputations were performed. If a health variable showed a non-linear association, its quadratic term was tested in the case of a continuous variable, or dummies were created.

RESULTS

Descriptives

At baseline, 333 participants currently had a paid job, whereas 2,198 had no current job but had held a job earlier in life. 76 participants had moved from their longest-held job to their current job, 71 of which currently worked in a different occupational domain.

Table 1 shows the distribution of socio-demographic characteristics across the domains. The percentage of males is highest in the transport domain (92.9%), followed by the agricultural and technical domains (79.4 and 77.5%, respectively), and lowest in the care domain (12.5%). The average level of education is highest in the teaching domain (13.6 years) and lowest in the non-skilled general domain (6.8 years). Likewise, average skill levels are highest in the teaching and "other" domains (4.3 and 4.0) and lowest in the elementary domain (1.0), but among the other five domains, there are no clear differences (circa 2.6). Note, that the standard deviation of years of education is relatively high in the care domain, reflecting that this domain includes substantial numbers of both lower and higher educated workers. The highest percentages of currently paid workers are observed in the agriculture and teaching domains (21.1 and 17.1%, respectively). In the non-skilled general, care and administrative domains, the highest percentages of people without paid work younger than 65 years and not retired are observed (21.9, 21.3, and 21.2%, respectively). The highest percentages of (early) retirees are found in the transport and technical domains (76.8 and 74.7%, respectively). Differences between domains regarding all socio-demographic characteristics are statistically significant at $p < 0.001$, indicating cross-domain heterogeneity.

The distribution of the five key health indicators across the occupational domains is shown in **Table 2**. Although health differences between the selected domains and the "other" domain are apparent, only few differences reach statistical significance at $p < 0.05$. Considering only these differences, it is seen that workers in the technical domain have relatively many and in the agriculture domain have relatively few sick days; workers in the non-skilled general domain use relatively many medications and are relatively often admitted to a hospital; and workers in the technical domain have relatively few family physician contacts.

Association of Occupational Domain With Life Expectancy

The Logit of the Realized Probability of Dying (LRPD) ranges from +0.26 for the transport domain to −0.27 for the teaching domain (overall cross-domain difference: $p = 0.003$, **Table 1**). **Figure 1** shows the LRPD-derived remaining life expectancies for

TABLE 2 | Key health characteristics of the occupational domains selected. Source: Longitudinal Aging Study Amsterdam, 1992–93 (n = 2,531).

	≥1 sick days past month (%)	No. of current medications (M, sd)	Hospital admission[a] (%)	Outpatient visit[a] (%)	Family physician contact[a] (%)
General	8.1	2.0 (1.8)[d]	14.0[c]	48.3	74.6
Technical	10.3[c]	1.8 (1.8)	11.4	50.4	68.0[c]
Transport	8.1	1.7 (1.8)	11.9	57.5[b]	74.6
Administrative	9.4	1.6 (1.8)	8.1	49.6	73.6
Care	6.1[b]	1.7 (1.8)	9.2	44.7[b]	69.6
Agriculture	3.1[d]	1.5 (1.6)	8.4	42.3[b]	73.1
Teaching	6.5	1.5 (1.7)	10.4	50.5	70.0
Others	8.1	1.6 (1.8)	8.1	51.0	75.2

[a]*In the past 6 months.*

Significance of difference between each domain and the "others" domain:

[b]p < *0.10;*

[c]p < *0.05;*

[d]p < *0.01.*

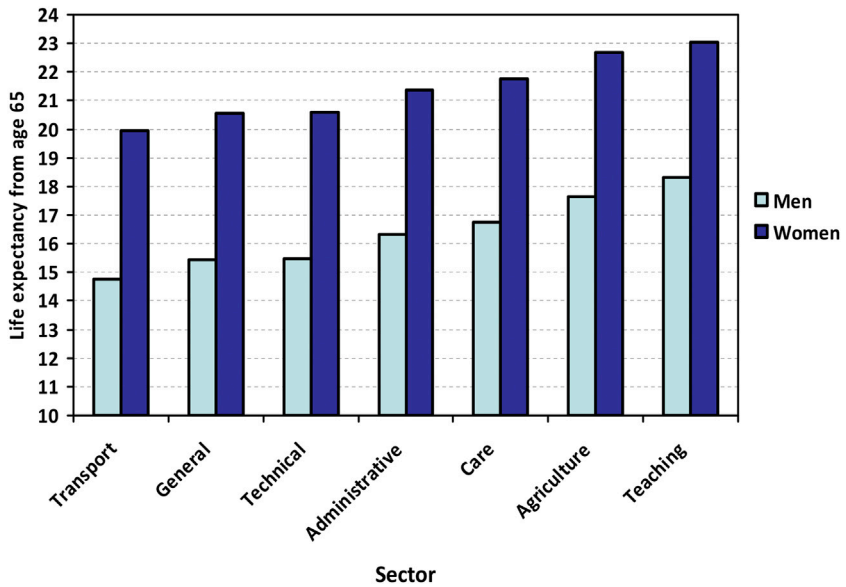

FIGURE 1 | Life expectancy by occupational domain for men (light colors) and women (dark colors) at age 65. Note: The data are based on analysis of domain specific relative survival using the full sample, the results of which are compared to the population-based sex-specific survival curves at age 65 in order to obtain life expectancies (**Supplementary Figure A**). Source: Longitudinal Aging Study Amsterdam, 1992–93 to 2019.

men and women at age 65. The transport domain is characterized by the shortest life expectancy, i.e., 14.7 years for men and 20.0 years for women. The teaching domain is characterized by the longest life expectancy, i.e., 18.3 years for men and 23.1 years for women. For men, the difference amounts to 3.6 years; for women, this is 3.1 years. In-between are, in ascending order, the non-skilled general, technical, administrative, care, and agriculture domains. The population median of the survival time at age 65 is 16.5 years for men and 21.5 years for women. Thus, on the lowest end of the spectrum, the transport domain's life expectancy is 1.8 years below the population median for men and 1.5 years for women. On the other end of the spectrum, the survival time advantage of the teaching domain is 1.8 years for men and 1.6 years for women. These differences would imply that male workers in the transport domain would be allowed for example a 1 + 1.8/16.5 = 1.1 greater pension build-up during their working years, accompanied by a proportionally earlier statutory retirement age than male workers in a domain with a median life expectancy.

A further test of these differences using linear regression analysis (model 1 in **Table 3**) yields statistically significantly higher LRPDs for, in descending order, the transport, the non-skilled general, the technical, and the administrative domain as compared to the other, non-defined domains (Bs ranging from 0.503 to 0.264; $p < 0.05$). Adding work status to the regression model somewhat decreases the regression coefficients, such that the coefficient for the administrative section no longer reaches statistical significance (model 2 in **Table 3**).

TABLE 3 | Linear regression models of LRPD on occupational domain[1], adjusted for age (model 1), and adjusted for age and work status (model 2). Source: Longitudinal Aging Study Amsterdam (*N* = 2,531).

	Model 1			Model 2		
	Regression coefficient B	**Confidence interval**	**Significance (*p*-value)**	**Regression coefficient B**	**Confidence interval**	**Significance (*p*-value)**
General	0.422	0.112; 0.732	0.008	0.388 (0.158)	0.078; 0.698	0.014
Technical	0.405	0.150; 0.660	0.002	0.395 (0.130)	0.140; 0.650	0.002
Transport	0.503	0.111; 0.895	0.012	0.499 (0.200)	0.107; 0.891	0.013
Administrative	0.264	0.007; 0.521	0.045	0.243 (0.132)	–0.014; 0.500	0.066
Care	0.204	–0.070; 0.478	0.146	0.175 (0.141)	–0.101; 0.451	0.213
Agriculture	0.065	–0.254; 0.384	0.690	0.060 (0.163)	–0.259; 0.379	0.712
Teaching	–0.022	–0.404; 0.360	0.910	–0.024 (0.195)	–0.406; 0.358	0.903
Paid work	-	-	-	–0.282 (0.114)	–0.505; –0.059	0.014
(Early) retired	-	-	-	–0.275 (0.122)	–0.514; –0.036	0.024

[a]*Each domain is compared to the "others" domain.*

TABLE 4 | Linear regression models of LRPD on occupational domain[1], adjusted for age and work status (model 1), and additionally adjusted for five health variables (models 2). Imputed data (*n* = 2,531)[2]. Source: Longitudinal Aging Study Amsterdam, 1992–93 to 2019.

	Model 1			Model 2		
	Regression coefficient B	**Confidence interval**	**Significance (*p*-value)**	**Regression coefficient B**	**Confidence interval**	**Significance (*p*-value)**
General	0.344	0.032; 0.656	0.030	0.273	–0.029; 0.575	0.076
Technical	0.383	0.128; 0.638	0.003	0.308	0.061; 0.555	0.015
Transport	0.484	0.092; 0.876	0.016	0.392	0.010; 0.774	0.044
Administrative	0.244	–0.015; 0.503	0.090	0.193	–0.058; 0.444	0.130
Care	0.155	–0.121; 0.431	0.272	0.122	–0.147; 0.391	0.372
Agriculture	0.047	–0.274; 0.368	0.773	0.113	–0.199; 0.425	0.475
Teaching	–0.038	–0.420; 0.344	0.845	–0.040	–0.410; 0.330	0.832
≤1 sick days < all month[a]	-	-	-	0.187	–0.044; 0.418	0.111
Sick all month[a]	-	-	-	1.960	0.900; 3.020	<0.001
Medications[b]	-	-	-	0.038	0.030; 0.046	<0.001
Hospital admission	-	-	-	0.249	0.024; 0.474	0.031
Outpatient	-	-	-	0.140	0.001; 0.279	0.050
Family physician	-	-	-	–0.181	–0.328; –0.034	0.016

[1]*Each domain is compared to the "others" domain.*
[2]*Pooled data based on 15 imputations.*
[a]*Two dummy variables, reference category is 0 sick days.*
[b]*Quadratic term.*

The Role of Health

To test the role of health, first, in five separate regression analyses, one for each health variable, the occupational domain coefficients are compared between non-health-adjusted and health-adjusted models (**Supplementary Table B**). It is observed that number of sick days, number of medications, hospital admission, and outpatient visits are strongly associated with survival time, but family physician contact is not. Of all health variables, the number of medications explains the largest portion, ranging from 16.2% for the non-skilled general domain to 9.1% for the administrative domain. Contact with the family physician does not contribute any explanatory value.

The final model including all five health variables yields similar decreases in the B-coefficients of the non-skilled general, transport, technical, and administrative domains, ranging between 19.0 and 20.9% (**Table 4**).

Sensitivity Analysis

The 'best' predictor set of seven health measures accounts for a substantially larger portion of the association between occupational domains and longevity (**Supplementary Table C**). The greatest decrease in the B-coefficient is observed for the non-skilled general domain, amounting to 66.5%. For the technical and transport domains, the percentage decrease is 48.1 and 41.9%, respectively. For the administrative domain, the portion accounted for is 20.2%, and thus similar to that using the initial five health measures.

DISCUSSION

In this study, we provided evidence regarding the extent of quantitative differences in longevity between occupational domains. As a proof of principle for the determination of actuarially fair statutory retirement ages, we indeed found domain differences, in that the non-skilled general, technical, and transport domains had significantly shorter survival times than the domains with academic professions. These findings correspond to the scarce literature that links occupational

domain to mortality (e.g., Moore and Hayward, 1990; Johnson et al., 1999, Katikireddi et al., 2017, Lee et al., 2016). Furthermore, we found for four of our five health indicators which are presumably retrievable from registries, that they explained a substantial portion of the association of domain with longevity. The joint contribution of these health variables was about 20% for the domains with the shortest life expectancy. The contribution of a "best" predictor set of health indicators ranged from 66.5 to 20.2%, with the largest percentage in the domain with the shortest life expectancy. These findings suggest that health differentiates among occupational domains in a similar way as life expectancy.

Comparison of the differences in life expectancy found in our study with the pertinent scientific literature is not straightforward. In reports from the few studies addressing the association of occupation or occupational domain with mortality, the findings are commonly expressed as risk ratios or percentages excess mortality. Therefore, differences in life expectancy expressed in years, such as our study reports, are not directly comparable. The only study reporting between-domain differences in life expectancy in years, to our knowledge, showed a maximum difference of 4.5 years at age 55 (Moore and Hayward, 1990). Considering the mean life expectancy at age 55 is larger than at age 65, this difference is comparable to the one we found at age 65. Our earlier study on work conditions and life expectancy at age 55 showed a maximum difference between unfavorable and favorable work conditions of 2.6 years for men and 2.3 for women (de Wind et al., 2020). The latter are smaller than the domain differences found in the current study. A German study in 16–65-year-olds of the effect of working conditions on self-rated health found a 16-months "ageing effect" of high physical strain, and a 6-months effect of low control (Ravesteijn et al., 2018). Although the use of a different health measure and different occupational characteristics do not allow a close comparison with our own study, these effects are also smaller than the domain-effects on survival time in our current study. Thus, occupational domain is certainly a relevant criterion to differentiate shorter from longer life expectancies.

It may be argued that health behaviors are a major factor at work in occupation-related differences in health, because unhealthy behaviors are shared within occupations (Fox and Adelstein, 1978; Johnson et al., 1999). The implication would be that differences in longevity by occupational domain arise from behavior that is independent from employment and thus should not be accounted for in pension policy. One study of workers in the construction sector compared the variance explained in work ability by health conditions and health behaviors on the one hand and work-related factors on the other hand (Alavinia et al., 2007). Health behaviors, including obesity, physical activity, and smoking, explained less than 1% over and above age and occupational status. In contrast, the explanatory value of the work-related factors, including both physical and psychosocial demands, was 22%. Several other studies on work ability adjusted for health behaviors and provide evidence that occupational factors impact health outcomes independently of health behavior (Lund and Csonka, 2003; Andersen et al., 2016; Schram et al., 2021). In an extra analysis of our own dataset, we have added the lifestyle factors smoking, heavy alcohol consumption, obesity, and minutes spent on physical activity (walking, doing a sport) as confounders to our basic analytic model (i.e., model 2 in **Table 3**). Interestingly, these factors acted as suppressors, i.e., the regression coefficients for the general, technical and transport domains became stronger. This was due to the fact that the domain "other" included substantially more current smokers and heavy alcohol consumers than the specified domains, while this category had a relatively long survival time. In our study, therefore, unhealthy behaviour does not explain the association between domains and longevity. These findings once again support the relevance of occupational domain for pension policy.

From the identification of health indicators as explanatory factors, two kinds of implications can be noted. One is, in line with our second research question, to differentiate between occupational domains in determining pensionable ages. The other one is to improve health in the workplace. Numerous observational studies on work and health have noted the latter implication. However, health intervention studies in the workplace so far do not show very promising results, i.e. effect sizes are small, if any (e.g., Hazelzet et al., 2019; Söderbacka et al., 2020). Until effective interventions are designed, differentiation of pension policies based on health differences between occupational domains is recommendable to reach greater actuarial fairness.

Strengths and Limitations

We emphasize that our findings should be considered as preliminary. Nevertheless, we can already state some strengths and limitations. The sample used is representative for the older Dutch population in 1992–93. Our analyses use occupational domain as the basis, because domains closely correspond to industrial sectors, and in the Netherlands pension policies are negotiated by social partners in sector-specific collective bargaining and occupational pension funds are organized by sector. Thus, implementation of our model is facilitated. The measure of survival time used is sensitive to inter-individual differences, because it is based on age and gender, and is prospective. Furthermore, our exposure variable was longest-held job rather than current job, so that health selection through transition to less strenuous jobs was precluded (Moore and Hayward, 1990).

In addition to these strengths, there are some weaknesses. First, the sample is relatively small when it comes to studying occupational domains more comprehensively. We selected the seven largest domains, based on a rule of thumb that their sample size is not smaller than 90. This makes it difficult to compare our findings to studies that had much larger sample sizes available and were able to make finer distinctions (e.g., Katikireddi et al., 2017). Also, the reference category consisted of the non-selected domains, in which a variety of smaller domains was collapsed, although they generally consisted of professional occupations, with concomitant greater survival times. With a larger sample size, we might have been able to observe clearer survival differences between domains. Furthermore, as there are gender

differences in lifetime careers, even within a domain (Cambois et al., 2017; Riekhoff and Järnefelt 2017; Amiri and Behnezhad, 2020) and women tend to live longer than men, gender-specific analyses would have been preferable, but were not possible due to the relatively small sample size. However, as the survival measure LRPD is based on sex and age, gender differences in longevity were accounted for.

A second issue is that our sample has a broad age range (55–85 years). This implies that survival effects were examined of working in occupational domains, the exposure to which may have taken place decades earlier. Possibly, the effects of this exposure have weakened over the years. Regardless, we still find substantial survival time differences between domains. The long-lasting effect of working conditions on health is supported by studies of post-retirement health that showed that the health effects of poor working conditions lasted as long as 15 years post-retirement (Gueorguieva et al., 2009; de Breij et al., 2019).

A third limitation is that we were not able to incorporate the fact that individuals do not remain in the same occupation throughout their full careers (Kreiner et al., 2018). However, we did include the job that the participants had held during the longest time. Moreover, for participants currently working, their longest-held job was used if their current job was not the same as their longest-held job. Unfortunately, we did not have information on the duration of working in each occupational domain. In future research, using such information, work histories may be constructed for those participants who changed domain during their working career. Then, "weights" could be assigned to career years depending on domain. For example, 1 year working in non-skilled general occupations could be counted as 1.1 years in pension build-up.

A fourth issue may be that we initially selected health measures that could be retrieved relatively easily from registers available to pension funds. Although four of the five measures proved to be strongly associated with survival time, together they explained only 20%, a substantial yet relatively small portion of the association of occupational domain and survival time. In a sensitivity analysis, more direct health measures that have been shown to be strong and consistent predictors of longevity (Suemoto et al., 2017), including diseases and impairments, explained much greater portions, with a maximum of 66% for non-skilled general occupations. Although these measures are less likely to be available in registers, they confirm that for the longevity of non-skilled and skilled manual occupational domains, health is a strong explanatory factor.

Fifth, it may be argued that we included only a few covariates. Again, this choice was motivated by the likely availability of covariates in registers available to pension funds. We would like to stress, meanwhile, that we were primarily interested in longevity differences between occupational domains per se, because of their applicability in practice. Thus, we did not pursue a study of the unique predictive ability of domain for survival time given other individual and work-related characteristics.

As a final point, it must be acknowledged that working conditions within an occupational domain may vary substantially, which may result in substantial differences in life expectancy. Translated to industrial sectors, thus, unfairness within sectors may remain when applying sector-based pension rules. This may have implications for public acceptance of such rules, and may reduce predictability of pension benefits and timing.

To apply research findings in practice, the uncertainty that surrounds estimates and that is inherent in survey research should be minimized. As a further step, therefore, we recommend that the same research questions are addressed using national data from countries that have long-standing population-wide registry data available. Using such data would solve the sample size related limitations of our study. Due to somewhat different occupational distributions and prevalence of part-time work, however, the effects of having a certain occupation on health and life expectancy might vary across countries and time periods. Hence, the comparison would also act as a "robustness check" of the proposed mechanism, to see if its performance is dependent on certain circumstances. For the current study, however, we started with Dutch data with a long survival follow-up in order to provide a proof of principle.

CONCLUSION

In this study, we aimed to provide a proof of principle of a mechanism to reach greater actuarial fairness by linking retirement ages to occupation-based life expectancies. We showed that the non-skilled general, technical, and transport domains have a shorter life expectancy than the professional domains, amounting to 3.5 years for a man, and 3.1 years for a woman aged 65 years. Statutory retirement age could be made to vary accordingly, by allowing a proportionally greater pension build-up in the shorter-lived domains. Also, we were able to show that health accounted for a substantial portion of the association between occupational domain and longevity. Thus, health differences between domains today can be used as a means to tailor retirement ages to individuals' risks of longevity. This method provides a basis for pension policies of greater actuarial fairness, by linking pension build-up and statutory retirement ages to occupation-based life expectancies, instead of holding on to a one-size-fits-all statutory retirement age.

DATA AVAILABILITY STATEMENT

A publicly available dataset was analyzed in this study. This dataset can be found here: https://lasa-vu.nl/en/request-data/. Data from the Longitudinal Aging Study Amsterdam are available for use for specific research questions provided that an agreement is made up.

ETHICS STATEMENT

The studies involving human participants were reviewed and approved by the Medical Ethics Committee, VU University Medical Center, archive number 92/138. The participants provided their informed consent to participate in this study.

AUTHOR CONTRIBUTIONS

Conceptualization, WT and DD; methodology, DD and SB; writing - original draft preparation, DD and WT; writing - revision and editing, DD, SB, and WT.

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SUPPLEMENTARY MATERIAL

The Supplementary Material for this article can be found online at: https://www.frontiersin.org/articles/10.3389/fsoc.2021.675618/full#supplementary-material

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frontiers in Sociology

REVIEW
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Flexibilizing the Retirement Transition: Why, How and for Whom? Conceptual Clarifications, Institutional Arrangements and Potential Consequences

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In many countries, flexibilizing the retirement transition is seen as an innovative policy which may help to solve some of the problems ageing societies face. The paper aims at specifying what is or can be meant by flexibilizing the retirement transition. The proposed conceptual framework contributes to a better understanding of the potential individual and structural consequences of flexibilized retirement transitions. It spells out four dimensions based on which measures of flexibilization can be differentiated, compared and examined more closely: aggregate vs. individual flexibilization (the latter resulting in gradual retirement), the temporal form and reference of flexibilizing measures, accessibility and eligibility, and financial risks and costs resulting from flexible transitions to retirement. These dimensions of comparison are exemplified by referring to existing measures of retirement flexibilization, in particular wage subsidies and partial pensions. Based on the conceptual argument, some of the potential consequences of flexibilized retirement transitions are discussed critically and in particular with regard to questions of social inequality. As these reflections show, the framework may also help to unpack the policy logic behind flexibilizing retirement transitions, and the very different interests it may serve.

Keywords: flexible retirement, pensions, partial pensions, flexibility, flexibilization, pension systems, pension reform, inequality

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INTRODUCTION

As populations in most Western societies are ageing and public budgets are under strain in many Western countries, pension systems and arrangements regarding the transition to retirement are facing great pressures.[1] Politicians are thus looking for innovative policy solutions to reconcile competing, sometimes even contradictory aims in old age policies, such as prolonging working lives, reducing public expenditure (or at least preventing its increase), preserving or re-establishing social justice, and avoiding old age poverty. Measures to flexibilize the retirement transition constitute one

[1]While population ageing is one reason for rising public budgets at least to some degree in many countries, there are other reasons as well and the exact role of population ageing is contested, as is the question of whether the problem of population ageing is not greatly exaggerated by some political actors in order to justify cutting social policy spending.

such policy solution which is assumed to benefit most involved parties. However, although the flexibilization of the retirement transition is on everyone's lips and figures importantly in many political party programs and declarations of intent, there seem to be as many meanings of flexible retirement as there are political positions, and often what is meant by the term differs widely.[2]

This paper aims at specifying what is usually or can be meant by flexibilizing the retirement transition. I will spell out different dimensions that help to categorize and analyze the different ways in which a flexible retirement transition can be realized. The resulting conceptual differentiation can serve as a tool for describing and comparing existing measures of retirement flexibilization, also between countries or over time, their consequences and their implications with regard to social inequalities. The resulting framework contributes to a better understanding of the different kinds of policy logic behind flexibilizing retirement transitions and the different interests it may serve. I will argue that the answer to the question of whether the promises associated with the flexibilization of retirement can really be achieved, be they longer working lives, saving money, or individual wellbeing, depends on the design of measures and strategies of flexibilization. In many cases, reasonable doubts exist as to the fulfilment of these promises.

The paper adds to the literature that deals with the intersection of individual life courses and social policies. It gives a conceptual and necessarily partial overview of the literature on flexibilized retirement transitions, their implications and consequences. Given the abundance of related literature, it can only cover parts of the quickly evolving discussion which now spans more than two decades. Correspondingly, the limited number of examples of policy measures I give is from a small number of countries, chosen in a pragmatic way, and by tendency representing a European view on life course regulation and pensions.

As a starting point, institutionalized retirement, the retirement transition and the role of pension age in modern welfare states are discussed. Then I sketch the promises that are connected to the idea of flexibilized retirement and outline what flexibilization means in the context of retirement. The following section presents the core of the argument and spells out four different dimensions of measures which can serve to describe flexible retirement transitions: aggregate versus individual flexibilization, the temporal dimension (amongst others in relation to pension age), accessibility and eligibility criteria, and financial costs and risks. After summarizing contested issues around gradual retirement transitions, the final discussion and conclusions point to the gaps of this argument, and consider the prospects of flexibilized retirement transitions critically and with a specific emphasis on social inequalities.

[2]The idea for this paper emerged from interviews with experts on old age, work, and pensions who also talked about measures to flexibilize retirement transitions. These interviews exemplify the mentioned variety of interpretations of the term (see Hagemann and Scherger, 2016).

THE INSTITUTIONALIZED RETIREMENT TRANSITION AND THE ROLE OF PENSION AGES

In modern Western (and other) societies retirement is defined as the phase at the end of one's life that is free from the need to participate in the labor market because one or several old age pension(s) are paid. Early forms of retirement have existed throughout centuries for selected members of society, such as soldiers or civil servants. However, in most countries, retirement as a separate life stage of a considerable length (of at least a few years) has only become a reality for the majority of the population sometime after the Second World War (Kohli, 1987; Thane, 2006). The conditions for this to happen were increasing longevity and a concentration of death in higher ages, as well as the expansion of (public or other) pension systems providing sufficiently high pension incomes which actually allowed the majority of the population to stop working. Consequently, the actual employment rates of older people after pension age decreased to the level of a small minority, albeit with a considerable degree of variation over time and in different countries. The transition to retirement and the life stage of retirement itself thus became predictable and a matter of biographical expectation. Before, the majority of older people had to keep on working as long as they were able to. As their health and skills declined, very often a process of de-skilling into less demanding and lower paid jobs took place. In the case of severe illness and disability preventing paid work, people had to rely on family support or poor relief (Thane, 2006).

A pension system and thus the emergence of a retirement phase are a constitutive part of all Western welfare states, although the concrete institutional arrangements, especially the role of the state in providing pensions, differ widely across countries. A commonality of most of these arrangements is a general statutory pension age which defines the age from which (public) pensions can be received, usually under certain conditions such as having paid contributions for a certain amount of time, or time of residence. As Kohli (1987; Kohli, 2000; also Atchley, 1982) points out, a general pension age at which people withdraw from labor market participation fulfils several collective as well as individual functions in industrialized economies: on the individual level, the pension age serves the cognitive function of enabling individuals to structure and plan their life courses; on the collective level, it helps to organize the labor exit of older (supposedly less productive) workers and succession in a rational way; it organizes the access to old age benefits and thus protects older people from poverty and the necessity to participate in the labor market, and thus, as economists add, serves redistributive purposes (Barr and Diamond, 2010: 78–93); and it has a moral function as a "legitimate" conclusion of working life and form of intergenerational reciprocity (Kohli, 2000: 16; see also Kohli, 1987). In a broader sense and as a constitutive part of modern welfare states, pension systems even contributed to processes of nation-building (Kohli and Arza, 2011: 252).

The transition to retirement consists of two different steps which, at least in its ideal-typical form, happen at the same time:

The exit from the labor market and the beginning of pension payments. Although the terms "pension age" and "retirement age" are often confounded, the former refers, strictly speaking, to the age when pension receipt is possible for the first time, while the latter means the withdrawal from the labor market—or sometimes, as "mandatory" or "default" retirement age, the age that prescribes withdrawal from the labor market (see below). The degree to which the ideal-typical concurrence of these two steps (first pension receipt and labor market withdrawal) is realized not only depends on the pension regime considered, with liberal, more individualized welfare regimes usually being characterized by less standardized transitions and higher employment rates before and after pension age (for example Blossfeld et al., 2011). Timing and form of the retirement transition are also subject to historical change. Not only have statutory pension ages been decreasing in the course of the maturation of pension systems. Further institutional as well as historical changes have, at least for a certain time, led to a weakening nexus between institutionalized pension ages on the one hand, and actual transition behavior, i.e., effective pension or retirement ages, on the other. Faced with high unemployment rates, institutional early retirement pathways (as well as parallel policies on company level) were established in many countries which allowed labor exit and the beginning of pension payments before reaching the state pension age and under certain conditions (Kohli et al., 1991). In many countries, early retirement was most widespread in the 1980s and 1990s (for an overview of decreasing effective retirement ages see Latulippe and Turner, 2000: 181). Since then, institutional possibilities of early retirement have been cut back considerably or ceased in most countries (Ebbinghaus, 2006), with the consequence that effective retirement ages have increased again—which can be seen as a de-flexibilization of the retirement transition (Fröhler et al., 2013). Further pension reforms implemented as reaction to perceived demographic pressures and limited public budgets have added to this development, amongst others by reducing the level of pension payments in public schemes, privatizing pension provision, and, importantly, increasing pension ages (Ebbinghaus, 2011; Anderson, 2015).

FLEXIBILIZING THE RETIREMENT TRANSITION

The Promises of Flexibilized Retirement in the Context of Policies to Extend Working Lives

In many OECD countries, recent waves of pension reform include flexibilizing the retirement transition as an aim, and concrete measures allowing for (more) flexibility have been implemented. Flexibilizing the transition also features prominently in plans for future pension reform in party programs, government reports, and also in recommendations by inter- and supranational bodies and organizations, including the EU and the OECD. However, while the aims and hopes connected to it are high, it is often not clear what exactly the appealing catchword of retirement flexibilization relates to.[3]

Flexibilizing the retirement transition is seen as a way "to contribute to the general increase of working lives" (European Commission/Social Protection Committee, 2007: 2; also European Commission, 1999; Reday-Mulvey, 2000) and to raise the labor market participation of older workers (see also Belloni et al., 2006; Fornero and Monticone, 2007), amongst others in order to avoid potential labor shortages (Eurofound, 2012a: 9). Some even see the flexibilization of the retirement transition as an alternative to increasing pension ages (Bredt, 2008). Prolonging working lives and increasing the labor market participation of older workers are therefore primarily motivated by the wish to contain the costs of pension systems. These are seen to be under pressure because of demographic ageing, but also further factors such as dampened economic growth, deregulated labor markets and unemployment (Pierson, 2001; see also footnote 1).

Over and above the aim of containing public expenditure, flexibilized retirement transitions are also assumed to have positive effects on the level of labor markets, companies and individual actors. Latulippe and Turner (2000: 182) assume, without giving supporting evidence, that partial retirement can "improve worker morale and reduce absenteeism", and Reday-Mulvey (2000: 54) postulates it can increase productivity per hour. Flexible transitions are also supposed to give "individuals more choice in their retirement transitions" (European Commission/Social Protection Committee, 2007: 2; Fornero and Monticone, 2007; Belloni et al., 2006). As surveys show, many older workers indeed say that they wish to retire gradually (for several countries: Aegon Center for Longevity and Retirement, 2015; for Germany: DGB, 2014). A Eurobarometer survey from 2012 shows that almost two thirds of Europeans find the possibility to combine partial pensions with a part-time job more attractive than full retirement, and roughly one third would like to continue working beyond pension age. Furthermore, more than two thirds think that a lack of gradual retirement options is a main barrier for older people working (European Commission/TNS opinion and social, 2012: 47–48, 74–79). Accordingly, the common perception by individual actors as well as policy makers is that avoiding abrupt "cliff edge" retirement and instead retiring gradually benefits the wellbeing of older workers and future retirees (OECD, 2006: 98–99). According to this view, it can ease psychological adjustment to retirement, and help to adjust work hours in case of health limitations (also Latulippe and Turner, 2000: 181–182).

Consequently, flexibilizing the retirement transition supposedly has the potential to reconcile competing goals of pension reform, such as saving money and allowing a reduction

[3]Relatively vague concepts with positive connotations, such as flexibilization, are particularly useful in politics, as they are open for projections and different interpretations but still seem to relate to important shared values. Apart from "flexibility" (which is used in different policy contexts) other examples for this are "fairness" or "intergenerational justice".

in work hours for those who need it. Following this view, implementing flexibilizing measures and regulations should lead to a win-win situation for all. While it is not the aim of this paper to check these assumptions in detail (but see the section *Contested Issues Around Gradual Transitions to Retirement* for related literature), the following argument offers a framework for evaluating existing measures of flexibilization.

Defining Flexibilization

When talking about flexibilized (retirement) transitions, it is necessary to distinguish between the *rules and regulations* which organize these transitions on the one hand, i.e., pension regulation, statutory pension ages etc., and *actual transitions* and their timing on the other, in particular effective retirement ages. The actual process of transitioning to retirement has always been more complex than implied by its institutional regulation, which often assumes retirement as a single step of stopping work and starting to receive a pension, or at least very few steps of transitioning. In particular the actual retirement transitions of women have always been (more) complex, whose employment patterns are more discontinuous throughout prime working age and also in the transition to retirement (see for example Loretto and Vickerstaff, 2013; Ní Léime and Loretto 2017). At the same time, retirement processes follow systematic patterns which are not arbitrary and can be compared between different social strata, historical times, countries, or welfare regimes. An important concept to describe these temporal patterns is (de-) standardization (see, for example, Brückner and Mayer, 2005; Scherger, 2009), which relates to both the incidence and temporal uniformity of transitions. The latter includes the order and timing of transitions and their sub-steps, the reversibility and the (un-) ambiguousness of transitions, their aggregate temporal variation and their duration or gradation.

In the following, by the term "flexibilization"[4] of retirement transitions I mean *intended forms of limited de-standardization*. This flexibilization can be based on purely individual strategies or on institutional measures. It is mostly the latter that the debate around pension and retirement policies refers to. Tendencies of de-standardization in factual (retirement) transitions can, however, also occur despite or "against" institutional regulation, for example as unintended and potentially undesired effects of unemployment in late careers. In this paper, I focus on the institutional level, i.e., I understand as "flexibilization" those pension- and retirement-related regulations or strategies that intentionally aim at making the transition to retirement less temporally fixed and uniform, more pluralized, more varied, more heterogeneous or simply: more flexible, both on the aggregate and individual levels.[5] Importantly, "flexibilization" is by definition limited in its degree and does not mean a completely individualized and unregulated transition—which would imply the disappearance of any generalized retirement transition.

A flexible retirement transition in this sense relates to the order, timing and organization of the two steps of the retirement transition—withdrawal from work and beginning of pension payments—which do not need to happen completely or simultaneously anymore if the transition is flexibilized. This may lead to a longer and ambiguous transition period between the main working career and full retirement, which some call "partial retirement" (Latulippe and Turner, 2000). More concretely, measures and strategies to flexibilize the retirement transition then relate to the questions of whether and to what extent one can stop working before pension age or continue working after pension age, and of when, how, and under which conditions they can receive a pension. While *institutional regulations* aiming at the flexibilization of retirement transitions (such as partial pensions) offer a defined frame and defined rules with regard to when, how and for whom flexibilized transitions are possible, *purely individual strategies* to flexibilize one's retirement transition can be applied regardless of legal regulation. These individual strategies of "DIY flexibilization" will be discussed in the following as well because they form an important benchmark for understanding institutional regulation related to the flexibilization of retirement. It is of course not only the state and individual actors who decide upon and shape flexible retirement transitions. Employers, either individual employers or collectively organized employers, also play a crucial role (see Fröhler et al., 2013 for the example of Germany). It is employers who hire and fire older workers before, at or after pension age, offer part-time jobs or not, allow for gradual reductions in work hours or not. Finally, collective representation of workers often plays an important role, as unions[6] are involved in collective agreements with employers, for example.

In the following, I will describe different dimensions of measures to flexibilize the retirement transition. These dimensions are key to understanding how the state, employers and potentially unions open, restrict or even prevent individual actors' choice in transitioning flexibly from working (full-time and without receiving an old-age pension) to complete retirement. The concrete examples of flexibilizing measures I refer to are chosen pragmatically from a limited number of European countries and are necessarily only of exemplary character. Furthermore, there is an emphasis on measures connected to the first pillar of public pensions. Corresponding rules may also exist for occupational and private pensions at least with regard to some measures (such as partial pensions).

DIMENSIONS OF FLEXIBILIZING THE RETIREMENT TRANSITION

I propose four analytical dimensions in order to systematically describe and examine measures and strategies that flexibilize the

[4]The term flexibilization has its roots in debates on labour market flexibilization; the meaning of these two kinds of flexibilization is at least similar. Flexible retirement transitions are also substantially connected to flexibilized labour markets in several ways, for example in that older people can be seen as a flexible labour market reserve.

[5]For examples of the study of actual retirement transitions and their flexibilization, see Blossfeld et al. (2011) and Buchholz et al. (2011).

[6]The importance of unions varies widely between countries, and even in countries with well unionized workers, union coverage is far from complete.

retirement transition and that can be applied to all forms of flexible retirement transitions. First and very generally, flexibilization can be related to the *aggregate* level of the retirement transition or to *individual* retirement transitions. The second dimension relates to the question of *when* (i.e., before or after pension age) and in *which temporal patterns* flexibilization is supposed to take place. Third, policy measures related to flexible retirement transitions are often conditional upon the fulfilment of *eligibility criteria* and not *accessible* to everyone. Fourth, strategies and measures to flexibilize the retirement transition differ with regard to who bears the related (potential) *financial costs* or *risks*.

Dimension 1: Aggregate Versus Individual Flexibilization

A flexibilized retirement transition can either relate to the timing of the transition as observed on the aggregate level, or to the individual level. Flexibility on an (exclusively) *aggregate* level implies that individual retirement transitions happen in one clear-cut step, but that the age of this transition varies between individuals. By contrast, flexibilization on the *individual* level refers to *stepwise, gradual* or *phased* individual transitions. The latter meaning often takes center stage in current debates and suggestions around the flexibilization of the retirement transition.

The most important example of flexibilization on the *aggregate* level is early retirement. Measures allowing early retirement have become less important in debates around pensions in recent years, but are still relevant, especially against the background of (further) increasing statutory pension ages. Collective actors who criticize recent pension policies and the prolongation of working lives still see early retirement as an essential form of flexibilizing the retirement transition, especially in the case of incapacity to work or disability. Unions in many countries demand financially protected early retirement options for those who are ill or disabled (for Germany and the United Kingdom: Hagemann and Scherger, 2016). In its terminological thesaurus, the International Labour Office defines "flexible retirement" as the "option given to retirees to choose the age at which they retire (usually within certain limits)" (ILO 2020). Institutionalized early retirement, i.e. rules allowing people to retire and receive a pension before reaching regular pension age, were very common in many Western pension regimes (for overviews see Kohli et al., 1991; Ebbinghaus, 2006), especially in conservative welfare states. The explicit aim of many of these policies was to alleviate labor market pressures (and to improve unemployment statistics) in times of high unemployment—seemingly offering a win-win situation for all involved parties. In the heyday of these regulations, claiming pensions based on these pathways was often not connected to deductions in pension payments. In recent decades, such early retirement pathways without pension deductions have been phased out.[7] While early retirement is still possible in many countries, early retirees have to accept deductions in pension payments. A special case of early retirement are (full or partial) incapacity pensions granted to those who are not able to work anymore, or only in part-time, due to health reasons. In most countries (and often in contrast to the past), they are conditional upon strict health tests and accessible to younger people as well. For older people, who constitute the majority of their claimants, they can also function as a flexible transition to old age.

Allowing the deferral of pension receipt beyond pension age is the second way of flexibilizing the retirement transition on the aggregate level. Pension deferral is often rewarded by higher pension payments and seen as a measure to incentivize longer working lives (Eurofound, 2012b). In the United Kindom, for example, deferral of the state pension is rewarded by a permanent increase in the amount of the pension of around 5.8 per cent for every year after pension age that the pension is not claimed (Department for Work and Pensions, 2021); in Germany, this permanent increase is 0.5 per cent per month (6 per cent per year) (Czepek and Weber, 2015; for further countries see Eurofound, 2012b: 51–52).

A far-reaching and also symbolically highly relevant form of flexibilizing pension age on the aggregate level is the abandonment of a "normal" or "regular" pension age. An example for this can be found in the Swedish pension system. Since the reform in the 1990s, the public Swedish earnings-related pension scheme only defines a lowest possible pension age of 61, and each year that someone retires later than this is rewarded by an estimated 10 per cent increase in annual pension income (OECD, 2015: 352–355; Halleröd, 2015: 110). For the universal guarantee pension for low income earners, however, a pension age of 65 applies (which is expected to be increased in the years to come), and this guarantee pension is tested against the amount of the earnings-related pension that someone would have received at the age of 65—thus institutionally still "expecting" a normal pension age of 65 in this tier of the pension system.

Strictly speaking, deductions for early retirement and rewards for late retirement (i.e., after statutory pension age) in pension systems which still have a statutory pension age are equivalent to such a "corridor" of pension ages. However, the symbolic significance of a clear and fixed pension age may be high as it fulfils the (cognitive) function of biographical orientation (see Kohli 1987; Kohli, 2000).

Flexibilization on an *individual* level implies a gradual, stepwise or phased transition to retirement.[8] This means, in general terms, that the withdrawal from the labor market, pension receipt and age are combined in unusual ways, with the consequence that the retirement transition is only completed in several steps and in a longer period of time. Usually such a gradual transition involves reducing work hours at some point. While continued full-time work and at the same time receiving a pension can be seen as a gradual transition as well, I will, in the following, concentrate on measures and strategies which in one way or the other imply reduced work hours, i.e., part-time work.

[7]Women's lower state pension ages, which have been or are phased out in most countries where they existed, can be seen as a special case of these early retirement regulations.

[8]Further terms that are used here are partial retirement, or, more rarely, "progressive" retirement (Eurofound, 2001).

This may also refer to a new job. Employment which forms a '"bridge" between main (full-time) career and full retirement, and which may span beyond pension age, is often related to as "bridge employment", especially in the American literature (for example, Alcover et al., 2014). The two most important explicit policies which support reducing work hours and thus working part-time in preparation for full retirement are wage subsidies for older people who are close to pension age, and the payment of partial (or even full) pensions. In the following, I will focus on these measures as prime examples of policy measures aiming at gradual retirement transitions on the individual level.

Examples of Measures Aimed at Gradual Transitions to Retirement

Partial (i.e., reduced) *pensions* are an important way to retire gradually. The International Labour Organization (ILO), e.g., defines "partial retirement" as the "combining of part time employment with receipt of a reduced pension" (ILO 2020). Rules for drawing partial pensions exist in many countries, with the Scandinavian countries having a longer tradition of offering partial pensions (see, for example, Ginsburg, 1985; for further examples from other countries see; Belloni et al., 2006; Eurofound, 2016). The payment of (statutory) partial pensions is independent from where the older worker is employed. Often the wish to reduce work hours may imply having to find a new, part-time job.

In Sweden, for example, at the minimum age for pension receipt in the earnings-related public pension, 61, one can also claim a partial pension (of 25, 50, or 75 per cent) which is possible in both parts of the pension, the pay-as-you-go NDC-scheme (income pension) as well as the funded part (premium pension), or in a combination of both (Palmer, 2004; see also Lindquist and Wadensjö, 2011). No upper age limit or earnings limit apply, and further pension rights can be accrued if contributions are paid based on continued work. The full pension is recalculated upon full retirement. The German earnings-related social insurance pension for instance now allows for flexible partial pension receipt—of a flexible percentage between 10 and 99 per cent of the full pension—for everyone who can already claim a pension, either under one of the few remaining institutional early retirement paths (then with deductions on the partial pension) or under the regular statutory old age pension. Before reaching regular pension age (but not after), earnings limits are applied which are in most cases derived from the partial retiree's full wage in the last 15 years.[9] In the time before reaching regular pension age, further pension claims are accrued based on the pension contributions for the part-time job; after pension age, the same applies, and there is an additional accrual corresponding to the (in this case partial) reward for pension deferral (Deutsche Rentenversicherung, 2020a; Deutsche Rentenversicherung, 2020b). So far, partial pensions are only rarely received in Germany (Deutsche Rentenversicherung, 2020c: 197), although they have been flexibilized in 2017.

Wage top-ups of different kinds, especially if subsidized by the state, can also enable older workers to work part-time in order to transition to retirement gradually. In this case, older workers usually stay with their employer, reduce their work hours to part-time work in the prospect of retirement, and at least parts of their wage loss are compensated. The German "Altersteilzeit" (literally: old age part-time) can be cited as an example of such a legal measure, which had mainly labor-market related aims when it was introduced in 1996 (based on another version of such a regulation existing earlier). The related law created a frame for regulations on the company level or on the level of collective agreements; the possibility of such transitions continues to exist, but the wage top-ups are not subsidized anymore. Under certain conditions, the framework allows older workers from the age of 55 to reduce their work time flexibly until retirement, for example to half-time, and still get roughly 70 per cent of their old wage, plus an even higher share of pension contributions (Fröhler et al., 2013: 57–64). The wage top-up was, until the end of 2009, subsidized by the state if an unemployed person or someone who had just finished their education was newly employed for the job of the person making use of the possibility of "Altersteilzeit". Most people and companies who benefited from the law, however, did not use it for a stepwise reduction of work hours, but in its "block" version, meaning that the employee continued to work full-time with reduced wages in a first phase, and then completely left work in a second phase, in which, like in the part-time model, parts of their wage were still paid. Thus the regulation was actually mostly used as a path to early retirement. A similar scheme with state-subsidized wage top-ups exists in Belgium (Albanese et al., 2015: 8–11), although eligibility criteria are being tightened, especially by raising the age of eligibility. France is another example of a country where a similar scheme existed which was ceased in 2005 (Hallé and Jolivet, 2007; see also Latulippe and Turner, 2000: 192).

Besides partial pension receipt and (subsidized) wage top-ups for older part-time workers, further flexibilizing measures mainly organized on the level of collective agreements or of single companies include the use of long-term working time accounts (Wotschack and Hildebrandt, 2007). Such long-term accounts can enable individual workers approaching retirement, but also in other phases of life, to reduce their work hours while continuing to receive their full wages, if they have "saved" the appropriate amount of time (and money) on their account. While the use of such accounts is at the discretion of employers, they nonetheless need to be regulated on the national level (for the German example see Fröhler et al., 2013: 70–78). Finally, occupational pensions may also offer possibilities of gradual retirement if they can be paid out early.

Apart from measures offered by the state and/or the employer, reducing work hours is of course also possible outside of such schemes. In these cases, the individual workers can for example fall back on their savings, the financial support of others, or even state benefits other than pensions (such as social assistance) to compensate the wage loss, although the latter are usually conditional upon further criteria or may be subject to means-

[9]These earnings caps were suspended in the two years of the COVID-19-pandemic, 2020 and 2021.

testing. All these possibilities, however, still presuppose that the employer allows the reduction of work hours or that a new job with part-time hours is available. Continuing work in a part-time job is of course also possible after pension age. This can be combined with full or partial pension receipt, if pension receipt is not completely deferred.

Dimension 2: Timing and Temporal Patterns of Flexibilization

The second dimension by which flexible retirement transitions can be characterized relates to the question of *when* and in *which temporal patterns* flexibilization is supposed to take place. First and foremost, this refers to the temporal association with pension age: Flexibilizing measures or strategies can relate to the time before state pension age, and allow for an earlier starting point of the transition to retirement, or to the time after state pension age, or to both. Typically, different temporal patterns also imply different conditions and consequences. Regarding early retirement, there is usually a lower age boundary for earliest pension receipt (with the exception of incapacity pensions), while an upper age for pension deferral only exists in a minority of countries (for EU-countries: Eurofound, 2012b: 51–52). For subsidized wage top-ups such as those described above stricter age-related rules normally apply. In most countries there has been a shift with regard to the timing flexibilizing measures aim for. While attention to measures geared towards flexibilized transitions spanning *past* pension age has grown and more of such measures have been introduced, measures beginning a longer time before pension age have been at least restricted in access and/or financially penalized, if not abolished, especially if they include complete early retirement (Ebbinghaus, 2006).[10]

Other temporal characteristics of flexibilizing measures concern the question of whether they are limited in their duration and have a latest end, such as full retirement at pension age for the wage top-ups described above. Rules related to timing (i.e., age) and duration affect how long the "hybrid" zone between the main working career and full retirement lasts, and how many steps it consists of. Theoretically, several measures and strategies can be combined, leading to an even longer transition to gradual retirement. For example, an older worker could continue working part-time and receive a partial pension from shortly before pension age until one year after, then reduce his/her work hours further while receiving a full pension, to finally retire completely at age 70. However, realizing such pathways to retirement, especially if they involve several steps of reducing one's work hours (i.e., phased retirement in a strict sense), may be difficult because of the accessibility of part-time jobs and the eligibility for partial pensions (see below).

An issue closely related to the timing and the temporal patterns of gradual transitions is the existence of *default retirement ages*, which force older people to give up their job at a certain age. Framing European legislation, more concretely the European Directive on employment equality (2000/78/EC), in principle bars general default retirement ages.[11] This, for example, contributed to the abolition of the British default retirement age in 2011 (Department for Business Innovation and Skills, 2011) and increased the chances of continued employment for older people. Still, forms of mandatory retirement (ages) continue to exist in many countries, if not on the national level, but on the levels of collective or company agreements, or for specific occupations. Germany is a typical example of a country in which retirement ages are still ubiquitous on these levels, and may hinder continued employment beyond state pension age (Mahlmann, 2011: 82–86; O'Dempsey and Beale, 2011: 68, 75). On a more general level, pension systems differ with regard to the question in how far regulations but also the related cultural set-up allow for a clear differentiation between pension age and retirement age—a disentanglement which is a precondition for organizing flexible retirement transitions. The idea that a pension age cannot and should not imply a (simultaneous) mandatory retirement age has traditionally been more common in Anglo-Saxon liberal welfare states, with the United States being one of the earliest examples of abolishing mandatory retirement, in 1986. With regard to cultural norms regarding old age, ideal pension ages and extended working lives, the existence of different "work-retirement cultures" has been empirically corroborated, which impact actual old age transitions (Jansen, 2018).

Dimension 3: Eligibility for and Accessibility of Flexible Retirement Transitions

The third analytical dimension of flexibilized retirement transitions concerns the question of how accessible measures of flexibilization actually are. The related measures are often not accessible to everyone and can be conditional upon the fulfilment of eligibility criteria. The more regulated and financially supported measures and strategies of flexibilization are, the more eligibility criteria tend to apply. Receiving a partial pension is usually not only conditional upon a minimum age, but also a minimum period of contributions, in Germany for example the same contribution periods as for full pension receipt. If a partial or full pension is claimed due to incapacity (or disability), minimum contributions may be lower, but health or disability tests will apply. Whether an older worker can access schemes like subsidized wage top-ups depends on the one hand on general conditions, such as contribution periods. On the other hand, it depends on the approval of the employer, the corresponding regulations on the company level or on the level of collective agreements. In coordinated market economies, collective agreements can play a prime role in organizing and regulating flexible retirement transitions, and in protecting employees from potentially negative

[10]This is also reflected in the cited older overviews of policies to flexibilize the retirement transition (see for example Latulippe and Turner, 2000; Reday-Mulvey, 2000).

[11]Fixed retirement ages may, however, still be legal in cases where they are well justified, as in the case of specific occupations or because of certain conditions on the labor market.

consequences of such transitions. However, such schemes are often only accessible to selected (longer-term) core employees.

Beyond these institutional eligibility criteria especially for those who transition to retirement flexibly from their old job, the other essential condition for being able to retire gradually through working part-time is the availability of a suitable job. If future retirees want to reduce their work hours from full-time to part-time and stay in the same job, their employer has to allow for such a reduction. Although there are no corresponding systematic empirical studies, sketchy evidence indicates that such a reduction is not necessarily welcome in many sectors and branches. Many people wishing to retire gradually therefore choose to or have to work in a different job in order to realize their plans. However, finding a job around pension age is difficult in many countries, as stereotypes and age discrimination are rife (Krekula and Vickerstaff 2017: 20–30), especially with regard to re-employment as opposed to retention (Schmitz, 2015). Additionally, labor legislation may impede the employment (or retention) of older people especially after pension age.[12] For all of these reasons some older people accept downward mobility, in particular after pension age, as a part-time job is often not available in their former qualified occupation, and more part-time jobs are often available in low-paid service jobs requiring no or low qualifications.

Empirical evidence on those who work beyond pension age in part-time and thus realize a form of gradual retirement shows that doing so seems particularly easy for well-qualified people including many self-employed (see for example Scherger, 2015a; also Alcover et al., 2014). At the same time, in some countries, low service, part-time jobs seem to be easier to find for older people (Lain, 2012) who may use them for their individual strategies of gradual retirement. As they do not have an employer, self-employed have more choice in reducing their work hours in order to retire gradually—which is underlined by the high share of self-employed among all workers around and after pension age in most countries (Eurofound, 2012b: 38–41; contributions in Scherger, 2015a). At the same time, however, this high share may indicate that some formerly employed workers choose to become self-employed, amongst others because they are faced with difficulties to find a new job, or that some long-term self-employed have low pensions and less access to (partial) pensions so that they have economic reasons to delay their retirement.

Both, eligibility rules for measures of flexibilization and availability of suitable jobs, cannot be overestimated in their importance for whether flexibilized retirement transitions are possible, and for whom this is the case. Put more generally, many labor market- and employer-related "push"-factors into complete retirement (Ebbinghaus, 2006: 11–19) are also negatively connected to the availability of gradual retirement transitions. However, another, more variable factor is as crucial as eligibility criteria and the availability of (part-time) jobs: the financial incentives for and risks of flexible retirement transitions.

Dimension 4: Financial Costs and Risks of Flexibilized Retirement Transitions

A "key strategy" of pension reform in Europe has been "to operate via incentives: incentives to work, incentives to save, and incentives to retire later" (Kohli and Arza, 2011: 4). This also applies to flexible retirement, with later transitions often being rewarded financially, and earlier (partial) retirement and pension receipt being connected to financial penalties in the form of pension reductions. Thus a fourth and crucial dimension in which strategies and measures to flexibilize the retirement transition vary is the question of who bears the *financial costs* or the *financial risks* of a flexibilized and gradual transition to retirement (or vice versa, who reaps the financial rewards). This question is essential for understanding who is able to realize flexible retirement transitions and what consequences this may have for their later full retirement in terms of financial resources. Saving financial costs by prolonging working careers is one central goal of promoting flexibilized transitions to retirement, and to be realized, these savings must be generated in some way. Generally speaking, such costs can be borne by the individual, by the collective (of pension contributors in the case of contributory pensions or tax payers for tax-financed pensions)—or by the employer in the case of occupational pensions.

There are different ways of looking at the financial dimension of flexible retirement transitions. From a *(macro-)economic point of view* and focusing on pension systems and state budgets, actuarial neutrality or fairness of flexible retirement transitions are an aim and a benchmark based on which corresponding measures are assessed (for an economic definition see Bridges and Disney, 2005: 49; Simonovits, 2003). The economic line of thinking also implies that possibilities of flexible (earlier) transitions will always be seized by individual actors if there are financial incentives to do so, which often implies costs on the collective level, as in the case of partial pensions paid before pension age. The aim of actuarial neutrality means that any measure should be conceived in a way so that, for example, partial pension receipt before regular pension age does ultimately not lead to higher costs in the form of higher lifetime pension payments. Leaving aside the question whether this should be the most important criterion of evaluation, this is only possible if early (partial) pension receipt involves relative reductions in pensions, or if combining the partial pension with working indeed leads to a longer career with longer pension contributions, compared to what would have happened without the partial pension. With regard to existing measures of flexibilization, attempts of corresponding economic analyses doubt that they have really led to actuarially neutral pensions or to overall reduced costs (see next section). In a similar way, it is a debated question whether and in which proportion cost savings through working beyond the pension age (should) benefit the individual actor, for example in the form of a higher pension. Finally, actuarial neutrality often builds on the wrong assumption that life expectancy is distributed evenly; to be a more accurate

[12]For example, German employers for a long time were reluctant to retain their employees beyond pension age because legally, they were obliged to give them permanent contracts if they had a permanent contract before. Corresponding legal exceptions were introduced in 2014.

approximation, the underlying modelling would have to include the fact that many early (partial) retirees have a much lower life expectancy than those who work longer or even beyond state pension age (see for example Simonovits, 2003).

From an *individual point of view*, by contrast, the more temporally proximate and concrete financial consequences of a gradual retirement transition will matter more than the relatively abstract actuarial fairness of institutionalized (partial) pension receipt. As the economic and sociological literature show, many individual actors have a low level of financial literacy and know little about finances in general and their own financial (retirement) arrangements (Hershey et al., 2012: 410–419; Barr and Diamond, 2010: 38–44). This also means that they often only tend to plan for the short term or at maximum for the medium term both financially and in other regards (Rowlingson, 2002). While actuarial pension calculations are based on predictions of life expectancy for certain groups, these are only based on averages, and the length of their individual life (and that of their partners) is still unpredictable for individual actors. Faced with this uncertainty, long-term calculations and planning are difficult to realize. Thus most older workers will usually not calculate whether retiring gradually will lead to financial gains or losses in their lifetime. In many cases, individual actors will have no or very limited choice regarding their options of retiring and/or continuing work. In the case of a relatively high scope of action, people will tend to think counterfactually with regard to the short and perhaps the medium term; being able to keep a certain level of income (and thus living standard) will be more relevant than accumulated lifetime income. Being faced with long-term uncertainties also implies that more proximate factors may shape the decision on whether someone continues working or not: Health, labor-market or household-related circumstances, in particular limiting ones, will be important here, and unexpected events may make any plan obsolete (Burtless, 2006; Loretto and Vickerstaff, 2013).

While early pension receipt is nowadays connected to deductions in pension receipt, in order to make it actuarially neutral and less attractive, deferring pension receipt is rewarded because people pay contributions for a longer time and (or) later receive their pension for a shorter time. If done before reaching statutory pension age, retiring gradually and thus reducing working time is connected to considerable financial risks which can be attributed to different parties. The measures of wage subsidies or partial pensions described above are the prime institutionalized ways in which wage losses through reducing work hours can fully or partly be compensated. To which degree these costs are compensated and thus borne by the state (or employers) depends on the level of the wage subsidies or the partial pension, and also on the degree to which future pension payments are reduced because of lower pension contributions. When partial pensions are drawn early (i.e., before pension age), deductions will usually apply to the part of the pension that is drawn early, and they will very often be applied permanently. Such potential permanent deductions may be compensated in the long run if working is continued, possibly beyond pension age, and leads to the accrual of further pension claims. Drawing an occupational pension before pension age may also cushion a reduction in income, as might generous redundancy payments, but again the pension will be reduced. As this opportunity is distributed very unevenly across potential retirees, only those with good workplace pension schemes or/and higher wages can afford this form of gradual retirement before pension age without sizable losses in pension income.

Working hours can of course also be reduced without receiving a (partial) pension or a wage substitute—in this case, flexibilization is organized in a "DIY" way and without obstacles due to eligibility criteria, apart from the possibility to reduce work hours. However, the costs of this are solely borne by the individual, in the form of a lower current income, but also of lower later pension claims, depending on the pension system. In flat-rate pension systems such as the British one, reducing work hours may have no or only little effect on later pension claims in the first pillar, as long as the income is above a certain threshold, whereas in earnings-related systems such as the German one, the reduction in pension payments may be considerable. The same applies to most occupational or private pensions. This will be crucial for individual actors in their decisions as it impacts the retirement lifestyle they can afford.

With regard to the possibility to draw a partial pension *at or after* pension age, the risk of immediate income loss for the individual will be low. Vice versa, it can of course be asked who benefits from the additional pension contributions that are made through working. The individual financial consequences of flexible retirement transitions in the sense of prolonged careers depend on the possibility to accrue further pension claims through working (see also Latulippe and Turner, 2000: 186–187). If no pension is drawn, further pension accrual should be common, also beyond state pension ages. However, when working hours are reduced, pension contributions might be low in earnings-related pension schemes, or the employment may even be so marginal that no pension contributions are paid at all—leading to lower future pension payments. With regard to partial pensions, different rules apply in different countries.

Finally, rules for earning extra besides pension payments can be looked at in a similar way. They indirectly affect whether working is financially worthwhile. If, for example, strict earnings limitations[13] apply while receiving an early pension and the pension is tested against earnings, this might disincentivize work and thus gradual retirement, as the potential income from working is reduced (Latulippe and Turner, 2000: 184–186). In many European countries, rules for earning extra apply to the time before regular state pension age, i.e., when drawing a pension early, but not anymore after (Eurofound, 2012b: 51–52). The abolition of all earnings limits, which is often discussed as a measure to increase individual flexibility, is for example opposed by some German political actors, as this

[13]Strict earnings limits usually apply in the case of means-tested (old age) benefits, which disincentivizes working longer for those claiming these benefits. Vice versa, if continuing work is possible, this may also discourage from claiming the benefits. Applying for the benefits may be complicated and connected to the experience of stigma, and earning income through paid work can be experienced as staying financially independent and self-sufficient (for the United Kingdom see for example Radford et al., 2012).

would, in their eyes, undermine the wage-substituting function of pensions.[14]

CONTESTED ISSUES AROUND GRADUAL TRANSITIONS TO RETIREMENT

Despite the popularity of the general concept of flexibilization, it is not at all clear whether flexibilizing the retirement transition is generally beneficial—and if yes, for whom. The consequences of flexibilized retirement transitions are debated and their benefits questioned on several levels. These consequences need to be studied in more detail, differentiating different conditions and forms of flexibilization, kinds of outcomes and social groups affected.

First, on the *individual level*, access to a gradual retirement transition is unequally distributed. The concrete design of flexibility in the retirement transition, in terms of accessibility and eligibility and of financial costs and risks, determines who is able to realize flexible retirement transitions and then actually benefit from their advantages. If the related financial costs fall on the individual, partly or entirely, this limits their degree of choice with regard to realizing options of flexible retirement. These costs are thus another criterion of access to gradual or phased retirement transitions. Additionally, there may also be situations in which in particular women have to reduce their work hours because of private obligations to provide long-term care—and in which gradual retirement itself is based on constraints.

Financially, gradual retirement starting with part-time work before pension age can go together with serious consequences for individual old age income, in the form of permanent pension deductions, wage decreases, undesired dissaving for old age etc. This applies especially to "DIY"-flexibilization and flexibilization due to other constraints (for example care needs) which are not framed by supporting measures like wage subsidies or partial pensions. As poor incomes and insufficient provision for old age are closely related and often affect those in more strenuous jobs and in ill health, using possibilities to retire gradually may be connected to additional financial disadvantages for them, while continuing work full-time may affect their health adversely. On the other hand, the individual financial effects of working part-time may be beneficial if working part-time allows staying in employment for longer than working full-time would have done, at least under certain conditions—but so far there is little evidence of such a positive financial balance.

Of course, financial consequences should not be the only measure of evaluation, and perhaps not even the main one. However, *second*, it is also still an open question whether people transitioning to retirement flexibly benefit in terms of individual wellbeing. Reitzes and Mutran (2004) or de Vaus et al. (2007) do not find clear benefits in wellbeing (health, positive and negative affect, wellbeing, post-retirement attitudes) for people who transitioned gradually to retirement compared to those who underwent an abrupt transition. Similarly to the wellbeing effects of retirement in general (van Solinge, 2013) or the effects of employment past retirement age (Lux and Scherger, 2017), it is less the general temporal pattern of the transition than the further circumstances of retirement which determine its outcomes in terms of wellbeing: health, the control over the transition the individual has (de Vaus et al., 2007) or further circumstances of working and other life domains. Especially the third and fourth dimension of the design of flexibilized retirement transitions described above will thus moderate their impact on individual wellbeing; positive (or at least no negative) outcomes are most likely in cases in which a gradual transition, its exact shape and timing are the consequence of individual choice and do not go together with considerable income losses. By contrast, if gradual retirement means being forced to give up one's main career, taking on a part-time job that is not paid well or only offers mediocre or bad working conditions, and accepting downward mobility, the probability of unfavourable wellbeing outcomes is higher. Measures allowing partial retirement may thus imply "legitimating precarious conditions of employment for older workers" (Latulippe and Turner, 2000).

A *third* and connected critical issue on the individual level is the complexity and transparency of the transition of retirement. As discussed above, a fixed pension age (also) serves the cognitive function of enabling individuals to structure and plan their life courses. Offering measures to flexibilize retirement transitions increases the complexity of retirement transitions. In particular, the financial consequences of a flexibilized retirement transition can be highly opaque. Biographical planning with regard to the retirement transition is much less systematic and deliberate than the design of policies presupposes, and often follows, as in the case of unexpected events, an ad hoc logic. Biographical orientation may be further complicated by flexibilized pension transitions, and this applies even more to "DIY"-gradual transitions and those building on private pensions. The more steps a gradual retirement transition involves (with phased retirement in a strict sense meaning the "progressive limitation of hours of work for older workers", ILO, 2020), the more complicated it is to organize the transition, financially and otherwise. Thus, "phased" retirement transitions in a strict sense will only be realizable for few people, and probably not those who would benefit most. In a wider sense these potential negative side effects of flexibilizing the retirement transition chime with the general debate on flexibility and flexible lives (for examples from a life course perspective see Guillemard, 2005).

On a structural and systemic level, the benefits of flexibilized retirement transitions are not unambiguous either. *First*, the discussion so far shows that gradual retirement transitions bear the danger of increasing inequalities and cumulative (dis-) advantages in old age. Favourable arrangements are often only open to those who are in an advantaged position anyways (for the German example see the analysis of Kerschbaumer, 2009), who

[14]This was the position of the Confederation of German Trade Unions (DGB) and of an organization representing the rights of pensioners, disabled people, patients or those in need of care in the interviews reported in Hagemann and Scherger (2016).

probably benefit from existing measures more often (Latulippe and Turner, 2000: 183) or are able to organize flexible transitions for themselves more easily without supporting policies. Vice versa, potentially harmful forms of flexibilized transitions probably affect those more often who are in less favourable positions and have a lower life expectancy from the start. Just as prolonged employment careers in general bear the risk of rising inequalities (see for example Scherger, 2015b: 18–20), gradual transitions may add to this. Eligibility criteria connected to health have the potential to benefit those who are disadvantaged[15], and counteract such rising inequalities, if the resulting pensions are adequate. Thus flexible retirement arrangements cannot and should not replace early retirement opportunities for those in bad health (for a corresponding example of inequality-related consequences of tightened eligibility criteria for disability pensions in Sweden see Kadefors et al., 2019). At the same time, successful measures which enable gradual retirement for people with health limitations hinge on the availability of suitable part-time and less strenuous jobs, underlining the importance of employers' willingness to offer such jobs and related human resources practices.

Even from a purely economic viewpoint, *second*, the benefits of flexibilized retirement transitions in the form of a positive balance of financial costs and benefits is often not confirmed. Albanese et al. (2015) and Hermansen (2015), for example, show for the Belgian and the Norwegian contexts, respectively, that reduced work hours before full retirement do not have a significant (preventing) effect on the probability to take early full retirement, and thus do not save pension expenses (for an overview of similar studies with mixed and context-dependent results, see Eurofound, 2016: 27–34). For gradual retirement regulations, such as partial pensions, to contribute to saving money, they need to be offset by longer (part-time) careers of those who use such schemes—at least longer than in the counterfactual case without partial retirement. Or they need to be offset by others who prolong their career for example by working beyond pension age. The exact economic effects of working part-time before retirement depend on a whole range of factors, including the hours worked, and depend highly on (national) context (Eurofound, 2016: 31–34). Apart from the normative question of whether economic considerations should be the main measure for evaluating retirement arrangements, a desirable scenario without rising inequalities would probably imply a higher degree of redistribution from those privileged workers who can prolong their career considerably, be it by full-time or by part-time employment, to those whose early (partial) retirement can then be cross-financed by the resulting savings. Such a system, however, implies complex mechanisms of redistribution in a collectively organized pension system.

Third, labor market effects of gradual retirement especially when reaching beyond usual pension age can be debated in a similar way as effects of prolonging working lives in general. Some critics see the call for flexibilized transitions as part of a neo-liberal employer strategy to increase (cheap) labor supply and keep wages low, in particular in countries where labor shortages because of demographic ageing are looming (see Macnicol, 2015, especially chapter 2; Krekula and Vickerstaff 2017).

Fourth and finally, the wider consequences of a declining relevance of age boundaries and the ensuing decreasing significance of (workfree) retirement are subject of controversy. Retirement and the "right" to a workfree retirement are closely related to the legitimation of welfare states, although the exact shape of this connection depends on the concrete welfare tradition. While a carefully regulated window of flexibility may not imply questioning (mostly) workfree retirement as such—which has always been a normative ideal—critics of flexibilization see some of its forms as a first step of putting an end to the social achievement of retirement. Such a critique is more pronounced in countries whose pension system used to ensure the maintenance of living standards, such as the German one, and in the case of actors who favor a stronger welfare state, such as unions (see Hagemann and Scherger, 2016). These actors take particular issue with regulations which undermine the function of pensions to maintain achieved living standards, for example the loosening of rules for earning extra or rules for extra pension accrual; they fear that such measures lead to the expectation that everybody must work longer. In this perspective, such smaller rules are more than mere technical details. They take on a symbolic role, pointing to the intended meaning of pensions—as main income source securing one's living standard or as one source of income amongst several ones. Giving up these markers of pension age increases pressures to work longer and threatens the protective function of retirement and pension ages.

DISCUSSION AND CONCLUSIONS

This paper aimed at giving an overview of what it can mean to flexibilize the retirement transition, of different dimensions of the corresponding flexibilizing measures and strategies, and of their potential consequences. Focusing on conceptual issues, the examples given for flexibilization are necessarily fragmentary and incomplete. In order to evaluate measures to flexibilize the retirement transition, the institutional context in its entirety needs to be considered, in particular the whole package of regulations related to old age. This does not only encompass pensions and the concrete pension mix (including occupational and private pensions and other savings for old age), but also other old age related benefits, especially means-tested social assistance, health care and provisions for long-term care—as they all affect financial costs or risks of retirement transitions. For example, health care insurance through their employer plays an important role in work decisions of older Americans below the age of eligibility for Medicare. Additionally, home ownership impacts the financial needs of people in old age.

The design of measures flexibilizing the retirement transition and thus their consequences will cluster along the lines of welfare regimes or varieties of capitalism; this assumption could inspire empirical research on flexibilizing measures and on their

[15]See also Haan et al. (2020) who show that the German public pension insurance (over time increasingly) benefits those with higher incomes if their higher life expectancy is considered in the underlying calculations.

individual and structural consequences. Studying these consequences is, however, methodologically challenging, as, for example, selection into flexibilized transitions needs to be disentangled carefully from their effects in comparison to what would have been the case if these transitions had not been flexibilized.

A further complicating factor is the fact that the above deliberations (as many institutional regulations) had an idealized full-time career as their starting point, which does not apply to (most) women (and some men) whose careers are characterized by interruptions and shorter or longer spells of part-time employment. More or less discontinuous careers affect and probably relativize the meaning of full-time retirement and thus of a flexibilized retirement transition, and they also complicate the described aspects of flexibilization in their regulation and organization, in their subjective perception and in their analysis. To explore more deeply this relationship between earlier careers, flexible transition patterns and the surrounding regulations is a further important subject of future research.

The discussed measures of flexibilization and their expansion can be understood as part of more general developments in the realm of old age, pensions and welfare regimes: The shift of responsibility to individuals and the privatization and marketization of life course risks (see for example Meyer et al., 2007; Ebbinghaus, 2011) which is critically discussed in the broader frame of the "neo-liberalisation" (Macnicol, 2015) or "activation" of old age in "flexible capitalism" (van Dyk, 2014; Krekula and Vickerstaff 2017). In many of the politically pushed ways to design them, flexibilizing measures individualize and privatize the organization of the transition to retirement and also its risky consequences, implying a shift in responsibility towards the individual actor. This regards the financial, but also all other consequences of flexibilized transitions. At the same time, shifting ascriptions of responsibility ignore heterogeneity among workers and obscure the fact that individual choice with regard to the retirement transition is actually often (very) restricted, in particular because of individual health, (insufficient) economic resources and limited labor market opportunities. Replacing relatively fixed ages of first pension receipt with flexible rules regulating if, when and how much pension payments an older person receives, seems on the one hand to open up more possibilities and a higher degree of choice in the transition. On the other hand, these rules are usually tied to financial incentives and to eligibility criteria, so that flexible and gradual transitions are unequally accessible, which also pertains to the availability of appropriate, well-paid (part-time) jobs. Thus the seemingly higher degree of choice is in contrast to the actually very often limited scope of individual action. Just like flexibility with regard to working times or to careers, potential benefits and disadvantages depend very much on the design and conditions of flexibilized arrangements, on who determines them, and the surrounding context and institutions. Vulnerable individual actors will usually only have little power in these processes, unless they are well protected through according regulation. While flexibility is an enticing concept for all political actors, different actors tend to favor very different designs of measures to flexibilize the transition, with very diverse potential consequences.

If enforced perverse redistribution from those with low to those with high life expectancy (see Haan et al., 2020) and rising inequalities due to prolonged careers and flexible retirement transitions are to be prevented, a uni-directional shift of responsibility to individual actors should be avoided. More engagement from the state and from employers is needed to flexibilize the retirement transition in a way that is more likely to benefit not only a privileged group—although the latter outcome may be acceptable under circumstances when it is at least cost-neutral or even collectively beneficial. Collective bargaining and collective agreements may play a crucial role in negotiating good regulation. Employers need to facilitate a gradual retirement transition by allowing people to reduce their work hours when approaching retirement or by offering (more) part-time workplaces for older people. Measures like long-term working time accounts or job-sharing may further enhance actual possibilities of gradual retirement. The state can facilitate gradual transitions by offering transparent partial pensions and further rules that do not penalize working longer or in combination with pension receipt. To whom these possibilities should be open and which financial consequences they should have for later full pensions, are crucial questions with regard to the individual and collective outcomes of such rules. The answers to these questions need to balance flexibility and transparency as well as individual choice and collective responsibility in a way that takes into account the heterogeneity of workers and fits the surrounding regulations. Economic outcomes cannot be the only, and perhaps not even the main criterion by which to evaluate measures of flexibility—and strategies based on cost-saving only will probably fail.

While completely fixed pension ages may not always be adequate considering the heterogeneity of older people, their careers, their needs and family-related or other obligations, they nonetheless offer a stable frame of biographical orientation and social protection for those who cannot work any longer. Enabling everyone to work up to pension age, in good-quality work and in an occupation they trained for, is an important step in prolonging working lives. Flexibilizing the retirement transition can probably only be a complementary measure in this process. Evidence so far indicates that it cannot solve the underlying health- and labor-market related problems, and that reasonably generous early retirement arrangements for those in bad health continue to be highly relevant and legitimate. A completely flexibilized retirement transition may even threaten the protective and cognitive functions of pension ages and end up costing more in terms of means-tested benefits or of rising inequalities and old age poverty.

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Erratum: Flexibilizing the Retirement Transition: Why, How and for Whom? Conceptual Clarifications, Institutional Arrangements and Potential Consequences

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Resonant Retiring? Experiences of Resonance in the Transition to Retirement

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In the process of life course transitions, relations between the self and the world transform, which can according to Hartmut Rosa be framed as resonance. This article focuses on the retirement transition and thus on the exit from gainful employment as one of the central spheres of our world relationship in late modernity. It raises the following questions: How do experiences of resonance change in the course of the retirement transition? Does the loss of gainful employment lead to disruptions or even the absence of resonance in terms of alienation? And which role do dimensions of social inequality, such as gender, income, education or mental health status play for resonance transformations in the transition to retirement? In terms of a reflexive mixed-methods design, this article combines quantitative panel data from the German Ageing Survey (2008–17) with a qualitative longitudinal study from the project "Doing Retiring" (2017–21). Our results show that the transition from work to retirement entails a specific "resonance choreography" that comprises a phase of disaffection (lack of resonance) at the end of one's working life followed by a liminal phase in which people search for intensified experiences of resonance. We outline practices in which transitioning subjects seek out resonance, and the experiences they make within this process according to their social positions. We thereby find that the desire for resonance tends to be beyond intentional resonance management which manifests in products and services like coaching or wellness. In our conclusions, we discuss how resonance theory and retirement research/life course research can be fruitfully combined, but also highlight the methodological challenges the operationalization of resonance entails.

Keywords: resonance, transitions, retirement, world relationship, social inequality

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INTRODUCTION

Retiring remains one of the major transitions within an individuals' life course, and one that entails a variety of changes for the transiting individual: Income and occupational prestige may decrease, but so does work-related stress; similarly, work-related social networks may loosen, but private networks can be strengthened, and time is freed up for formerly neglected or new tasks and activities. The retirement transition is thus likely to initiate transformations of one's relationships to the social world.

In his "Sociology of Our Relationship to the World" (2019), Hartmut Rosa characterizes these relations on a continuum between *resonance* (*Resonanz*) and *alienation* (*Entfremdung*). As a

counter-term to alienation and a muted-unconnected interaction between world and subject, Rosa defines resonance as *a self-effective, uncontrollable mode of relation to the social, material, and transcendent world*: I allow myself to be touched and moved (by an encounter, a conversation, a nature experience etc.), I respond with my own voice (with an emotion, a bodily reaction like goosebumps), and within this process both I and the other one transform adaptively (through new insights, a new vividness).

Theoretically linking Rosa's conception of resonance to the transition into retirement, we ask: Does the transition to retirement appear as a resonance-sensitive and -evoking life event? Does the parting from employment as one of the axes of resonance in modernity lead to the absence of resonance in terms of alienation? What potentials does this theory offer for retirement research in particular, aging research in general and vice versa? We firstly approach these questions theoretically by outlining the concept of resonance as well as linking it to notions of transitions and the life course. Secondly, we generate empirical research questions from our theoretical considerations, among others: Do specific resonance trajectories or "melodies" emerge across a transition process? How do chrononorms shape experiences of resonance in the transition process to retirement? Do experiences of resonance in the retirement transition vary based on social position? Following a mixed-method design, data from the German Ageing Survey (DEAS, 2008–17) are circularly contrasted with in-depth findings from three qualitative case studies from the longitudinal project "Doing Retiring" (2017–21, Goethe University Frankfurt, Germany). Finally, we perform a critical discussion of our empirical results in order to emphasize possible heuristic linkages between the study of retirement transitions and Rosa's concept of resonance.

RESONANT RELATIONS AND THEIR TRANSFORMATIVE POWER

In his book "Resonance. A Sociology of Our Relationship to the World" (2019) Rosa aims to develop a "sociology of the good life", for which he states that "the quality of a human life (and of social conditions) cannot be measured simply according to available options and resources (. . .) Whether a life is successful or unsuccessful depends on the ways in which world is or can be passively experienced and actively appropriated or adapted" (ibid., 26 ff.). He therefor goes beyond subjective theories of social identity, but rather places the relation of subject and world in the center, which is moderated by sociocultural conditions. At the same time, self-efficacy and empathy are crucial for individual perspectives on the world (as challenging or promising).[1]

[1]In his work Rosa generally draws on a variety of socio-philosophical and sociological traditions, such as Karl Marx' early work, Erich Fromm, Theodor W. Adorno and Max Horkheimer from the Frankfurt School, Jürgen Habermas, Axel Honneth, Hannah Arendt, Bruno Latour, Charles Taylor, or Maurice Merleau-Ponty.

According to Rosa (2013), modern Western societies are shaped by a new zeitgeist of "acceleration" (*Beschleunigung*), e.g., of the pace of life (= increase and overlapping of actions and/or experiences per unit of time, as for example in multitasking). In addition, Rosa criticizes the hegemonic idea of modernity, namely the striving to expand the share of the world in terms of material goods, new technologies or life events (Baudrillard 1994). He especially highlights the paradox mechanism, that with seemingly fulfilling this striving – with every increase in time pressure, competition and mastery of the world –, the striving as well as the perspective on still unavailable parts grows and results in a loss of quality and disconnection in experiences (Rosa 2013). He describes the consequences of alienation as being social and individual issues at the same time such as the crisis of democracy, the environmental crisis and the psychological crisis (Rosa 2019). By interpretating depression and burn-out prevalence as individual effects of alienation, Rosa combines their occurrence with societal developments and prevents an individualized view on psychological phenomena (Ståhl 2020). Rosa criticizes the corrosive impact of acceleration toward *alienation* as a non-responsive, hostile relationship between subject and world.

He elaborates on Rahel Jaeggi's (2016) extensive analyses of alienation and her notion of a "relation of relationlessness" (ibid., 3). According to her, the human being is not detached from the world in an encapsulated relationlessness way but is rather related to it in a deficient bond as "a stranger in the world that he himself has made" (ibid., 21). As a constructive solution to alienation and "world-muting" (*Weltverstummen*), Rosa sketches *resonance* as an essential component of human beings. As alienation as a concept seems to be well described in former social theory, he now aims to establish "resonance as a normative and descriptive metacriterion of successful life" (Rosa 2019, 451), focussing on how resonance can be developed.

In Rosa's understanding the relationship between subject and world follows a dialectical arrangement of attraction and repulsion, within which human beings are situated between alienation anxiety and resonance desire. This spectrum of alienation entails dimensions of indifferent disengagement, where "nothing speaks to me", to a hostile-repulsive connection that appears aggressive toward me (**Figure 1**). Resonance as the counterpart represents a "vibrate wire" (*vibrierenden Draht*) between subject and the world, a momentary, processual emotional and affective experience of being overwhelmed, touched and transformed (Rosa 2019, 174) – eventually sensible in distinct ambiguous bodily experience like goosebumps or an increased pulse (Merleau-Ponty 1966). Furthermore, resonance implies more than just listening or echoing (this would be a "relation of relationlessness"), but rather emerges in a quadrature of *affecting* ("I let myself be touched by the Other"), *emotion* and *self-efficacy* ("We both actively respond with our own voices"), *mutual transformation* ("I and the Other are now no longer the same as before") and *unavailability* or "accommodating" *uncontrollability* ("This moment cannot be planned, replicated or accumulated") (Rosa 2020, 64).

Rosa conceptualizes resonance and alienation as co-constitutive: "resonance is only possible against the backdrop of a mute and unfamiliar Other, while, conversely, what is yet

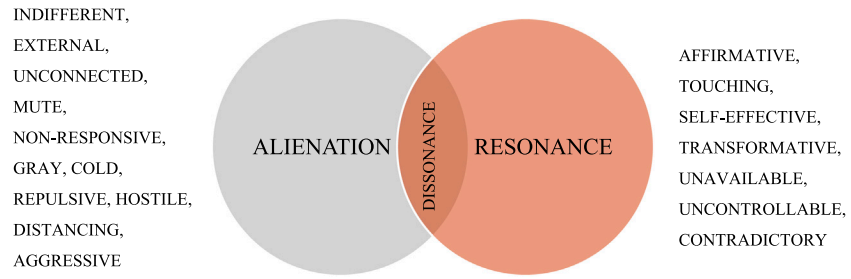

FIGURE 1 | Rosa's conception of alienation and resonance, own elaboration.

mute can only be affected or adaptively transformed on the basis of a prior or deep-seated, dispositional faith in resonance that feeds one's hopes and expectations of being able to make some segment of world speak" (Rosa 2019, 190). Without the experience of lengthy, unpersonal conversations, one doesn't feel the energetic impulse of a stimulating discussion. Using this example, we can describe Rosa's distinction between resonance, consonance, and dissonance: Resonance is namely – as Rosa clearly emphasizes – not to be confused with pure harmony (ibid., 184). According to his argumentation, this consonance or echoing would not be a response with a voice of its own, but an indifferent relationship like a conversation with an exhaustive nod of the head, which makes a transformative adaption impossible. Then again, dissonance is not to be understood as a simple counterpart to resonance. Rosa rather distinguishes a form of "contradiction" (in our example: a heated, albeit respectful, debate) as possibly resonance-enhancing, while radical dissonance as a hurtful repulsion does not allow for resonance to occur and leads to alienation (ibid., 447).

Rosa's idea of resonance goes beyond prominent sociological approaches focusing on subject-subject-interactions such as recognition (Honneth 1995) or collective excitement (Simmel 1976). Resonance represents a specific transformative mode of relation of the self to the world, as subject-subject relations, but also between human and non-human entities such as institutions, practices and objects (subject-object relations) (Latour 1996). Hence, Rosa describes the experiences of resonance on three durable resonance axes: horizontal (relationships with other human beings), diagonal (work, school, sports) and vertical (religion, art, music, nature). At the same time a guarantee or conscious production of resonance is – even within established resonance axes – hardly possible; the attempt is likely to be exposed as a reifying oasis or simulation of resonance (Rosa 2019, 186). However, with commercialized offers ranging from relaxing wellness experiences to adventurous extreme sports a market of resonance-promising "emodities"[2] has been formed (Hochschild 1983; Illouz 2007). Explaining this impossibility of forcing resonance to emerge, Rosa distinguishes between adaptive world transformation processes (*Weltanverwandlung*) and the escalation principle of expanding reach or mastery of the world (*Weltaneignung*).

For Rosa, capacity or responsivity for resonance are basic human needs, which are however stimulated or dampened within existing social and cultural contexts (Rosa 2019). For example the current educational system does not only (re-)produce social inequalities, but also mediates our access to resonance axes: for the privileged, schools are places, where they find their own voice and experience self-efficacy, whereas schools appear to be zones of alienation (*Entfremdungszonen*) for the less privileged, as they are less likely to establish vertical axes of resonance (making music, visiting museums, protecting the environment) (ibid., 454). Additionally, Rosa frames resonance responsivity to be a mostly "female" phenomenon, since in Western culture the traits, that go along with it, like empathy, emotionality, or sensitivity, are associated with being "female." But given that those cultures are being dominated by rationality and instrumentalization – mostly "male" traits – Rosa emphasizes, that resonance responsivity is being devalued, as are "female" traits (ibid.).

Despite a basic critical position toward escalation principles of capitalism Rosa does not describe his "sociology of the good life" as a political program but rather a "compass in contemporary political debates" (Rosa 2019, 458). He stresses the notion of resonance to question e.g., current standards of productivity (constant pressure, lack of self-efficacy) which are – considering the capitalist circumstances and a lack of basic income schemes – leading to increasing experiences of alienation (Lijster and Celikates 2019, 76). His critique is nevertheless understood to be an ethical – or even moralizing (Ståhl 2020) – critique of capitalism "and so, without an anchor in the present of class struggles, Rosa's analysis accelerates aimlessly" (Blumenfeld 2018, 210). It is likewise questionable, if a resonant being in the world might not be enough to cope with the substantial and pervasive power of acceleration and alienation (Lijster and Celikates 2019). This critical stance goes even further, since in the sociological discourse the concept is being confronted with the accusation that it – by offering a Western, middle-class-based and romanticizing life agenda (Costa 2020; Simoulin 2020; Susan 2020) – disregards not only the positive elements of

[2]This term was developed by Eva Illouz (2018) to describe how commodities are being emotionalized: they are solely developed to produce affects and thereby promise certain experiences, emotions and in the understanding of this paper, resonance.

innovation but also existing gender inequalities or social relations of power and thereby current (im)possibilities to experience self-efficacy (Haubner 2017; Masquelier 2019; Susan 2020). Additionally, the inherent emphasis on simple, substantial-material activities of being resonance-enhancing (e.g., in the metaphor of baking bread) have been discussed as being open for neoliberal approaches (Haubner 2017; Beck 2019). Confronted with this criticism Rosa (2017) claims "on no point do I feel as misunderstood as on this one" (325). He instead emphasizes the idea of resonance to be the basis for an "affirmative revolution" (ibid., 311), a radical new category, which goes beyond previous demands for a new economic and social order with inherent elements of empowerment and social inclusion: "Resonance theory therefor aims to restore self-efficacy to the powerless" (Rosa 2019, 456). While some do appreciate Rosa's optimistic perspective (Durou 2016; Masquelier 2019; Susan 2020), Micha Brumlik (2016) states, that this affirmative attitude, has abandoned the former irreconcilable but stimulating attitude of the Frankfurt School toward capitalism.

In light of this critique, the question arises as to how the descriptive-normative concept of resonance can be brought together with life course research and gerontological theories regarding retirement. In the following section, these approximations of the resonance concept to retirement research will be explored in more detail.

LINKING THE CONCEPT OF RESONANCE TO RETIREMENT TRANSITIONS

Although Rosa (2020) already explicitly addresses individual transitions, he has not (yet) systematically connected his conception of resonance to transitions in the life course. To get a deeper understanding of possible heuristic links, we discuss resonance theory in terms of conceptions of transitions in general and the retirement process in particular. From our perspective resonance represents a momentary but also *processual relation* mode, which can be linked to concepts of transitions and taking pathways in the life course. As moments of uncertainty, transitions may enhance resonance but may also lead to anxiety for the passengers, when leaving the labor force entirely. According to Rosa (2020), certain life course transitions are particularly receptive or *porous* to experiences of resonance, such as childhood or puberty. Thus, also transitions in older age – like the transition into retirement – bear potential for experiences of resonance but also repulsive or hostile confrontation. The *dialectical architecture* of the subject-world-relationship in terms of alienation and resonance can be linked to the traditional approach of push and pull factors for retirement decision making. In addition, Rosa describes the sociocultural embeddedness of subject-world-relationships whereas retirement research often underlines *social policy frameworks and normative implications* for "adequate" timings of retirement. *Socio*economic aspects, like education, and mental health factors like self-efficacy in the resonance theory, are shaping the preconditions and resources of retirees before, during and after retirement. To explore possible fruitful connections between resonance theory and retirement research, we are focusing on the following dimensions:

- resonance and the *processual nature* of the retirement transition, which comprises a specific *porosity* and uncertainty about retirement as source of alienation or resonance
- resonance and *normativity* in the retirement transition process
- resonance and the implications of *social inequality* in the retirement transition process

Resonance and the Processual Nature of the Retirement Transition

Anthropological transition research has long been concerned with how transitions are being structured as processes of status change. Arnold van Gennep (1909) formulated a chronological typology for transition processes: 1) Rites of separation ("Rites de Séparation"): individual's detachment from their current state. 2) Transition rites ("Rites de Marge"): individual's passing through a phase and 3) Rites of incorporation ("Rites d'Agrégation"): the durable position after a completed transition. Turner (1969) elaborated the phase of "transition rites" in his work as so-called "liminal phase" in which the individual can find itself to be ambiguous and disoriented. In this anti-structural "in-between world", the threshold individuals find themselves in a relational constellation, which goes beyond their previous differences like social status or gender. These "communitas" as formulated by Turner emerge immediately, spontaneously, ambiguously, indeterminately, enhancing the power of structural change, just like resonance does. Although these communitas are not enduring, since their members will reintegrate into society again after the transition process, the liminal phase has a transformative impact, tying the participants to each other (ibid.).

Whereas such anthropological models claim to comprise all kinds of transitions equally, specific phase models have been developed to grasp the specificities of the retirement transition. A prominent example is Atchley's (1971) phase model on retirement transition:

The first phase of "pre-retirement" starts about 3 years before the retirement with still vague ideas about exit the labor force. In this phase, the future time after retirement is perceived positively as a "remote phase". The "honeymoon phase" starts immediately after one stops working and comprises the first weeks in retirement. Depending on individual health and life situation, retirees enjoy the free time and relief from workload. In the "disenchantment phase", however, a short period of disillusion follows and first doubts arise about the legitimacy of retirement in everyday life. Depending on their resources, persons may become vulnerable for mental health impairments (e.g., depressions). Individuals then enter the next "phase of reorientation", where retirees start to cope with the situation. According to Atchley, the fourth phase can last a relatively long time, depending on

individual options and resources. A successful passing of the fourth phase leads over to the "phase of stability". Here individuals are heading into the longest and most endurable period of retirement. They are aware of their opportunities and limitations in retirement and develop adequate routines and activities, which provide them enjoyment and self-affirmation. In the last "phase of termination" their health decreases significantly and their need of help and care increases. As a result, the role as retirees recedes in the background and daily routines are primally linked to impaired health status and frailty.

Obviously, Atchley's phase model assumes a typical male working biography characterized by transitioning from traditional fulltime employment into retirement. However, in combination the models of van Gennep, Turner and Atchley point to retirement being a dynamic, ambiguous process framed by personal resources, which may entail resonance transformations. This transition requires awareness, reflexivity, evaluation and developing strategies to cope with new roles in order to obviate mental health concerns and social exclusion.

If we now combine this process ontology of retirement transitions with the theory of resonance, we can ask: How do experiences of resonance and alienation change during the process of transiting to retirement? Do specific resonance trajectories or "melodies" emerge empirically across a transition process?

Resonance and Normativity in the Retirement Transition Process

Regarding the normativity of transitions in general, Andreas Walther (2020) refers to different constellations of discourses, norms, and normalities, as well as to the social institutions in which they manifest themselves, as *transitional regimes*. They are based on an underlying normative time structure that orchestrates the life course in respective regimes. With Elizabeth Freeman (2010) this structure can be referred to as *chrononormativity*, which describes in particular (but not exclusively) perceptions about the "right" time for specific life stages and life course transitions, such as going to school, starting a family, or retiring. These perceptions manifest and stabilize themselves in legal regulations and executive organizations, such as the age-determined school system, the legal right to marry at a certain age, or the statutory retirement age. Identifying one's own position in this life course allows to ascribe biographical meaning to (life) events, to position oneself, and to construct identities. Despite an increasing de-standardization, such prepositions of an "adequate timing" in the life course hardly lose their individual and societal significance (Kohli 2007; Wanka 2020).

Specifically, in regard to retirement: Silke Van Dyk et al., 2013 traced significant changes in representations of a "good retirement life" in political and public media retirement discourses that took place in Germany (and most of the Western world) since the late 1980s. Their findings suggest that until the mid-1980s, these representations were dominated by notions of the "golden years" of retirement as a period of well-earned rest, followed by a notion of active, individualist, and consumerist aging in a silver economy, which, since the mid-1990s, has become contested by ideas cantering on productive aging. A 2009 campaign by the German Federal Ministry for Seniors called "Count deeds, not wrinkles" is illustrative of this discursive turn in productivity: Retirees are increasingly expected to give back to a society that pays their pensions, and they continue to work with or without pay (ibid.). Hence, the retirement transition may be normatively evaluated based on how active and productive everyday lives of transitional individuals are assessed to be.

If we now combine this sensitivity for normativity of retirement transitions with the theory of resonance, we can ask: How do chrononorms shape experiences of resonance in the transition process to retirement? How are individuals with non-normative retirement transitions confronted with "world-muting" and repulsive reactions from others and the world?

Resonance and the Implications of Social Inequality in the Retirement Transition Process

Another and closely related aspect to consider regrading successful or unsuccessful retirement transitions are questions of loneliness and social exclusion as well as social inequality (De Jong Gierveld 1998; Walsh et al., 2017; Segel-Karpas et al., 2018).

Regarding gendered retiring, Kim and Moen (2002) state, that male retires are less satisfied with the income changes resulting from retirement than women, who in turn are more sensitive to relationship conflict and retirement coping. From the perspective of financial resources, women are more in the risk of lower financial resources in old age, due to shorter, interrupted working biographies and less possibilities for financial assets (Lusardi and Mitchell 2018). Additionally, for women living the traditional male-breadwinner model retirement, in the sense of leaving paid employment does not appear at all, it rather takes place at an early stage, when children leave home, and they "retire" from reproductive work. However, they traditionally do not "retire" from unpaid household duties.

Scharf et al. (2001) revealed how social exclusion during the retirement process emerges in multiple dimensions: in terms of participation and integration, spatial segregation and institutional disengagement. Burgess (1960, 20–1) uses the term "role-less role" to describe older persons in retirement as individuals who have been sidelined by society because of negative stereotypes of old age. Furthermore, persons with low socio-economic status, fragile social networks, singles, or individuals, who exit the labor force involuntarily are more likely to experience retirement transition as critical life-event and have less possibilities to establish successful strategies as retirees (Ebbinghaus and Radl 2015; Segel-Karpas et al., 2018; König et al., 2019). Limited socioeconomic resources when retiring also have moderating effects with regard to mental health impairments such as stress and depression, lower levels of locus of control, self-efficacy and sense of coherence (Antonovsky and Sagy 1990; Kim and Moen 2002; Vo et al., 2015; Hessel 2016; Topa and Valero 2017). Thus, on the one hand mental health status influences the timing and probability of giving up gainful employment and on the other hand, the retirement transition shapes indicators of wellbeing in old age, especially for subjective health, health behavior and feelings of social exclusion and loneliness.

If we now combine this sensitivity for the (re-)production of social inequalities in retirement transitions with the theory of resonance, we can ask: Do experiences of resonance in the retirement transition vary based on social position, and (how) does this experience contribute to the (re-)production of social inequalities?

METHODOLOGICAL APPROACH: MIXED-METHODS RESEARCH

In order to empirically discuss the issues raised above, we use a mixed-methods research design (MMR) and can thereby consider both qualitative and quantitative data. Unlike classical data triangulation, which aims at describing phenomena with data – as diverse as possible – to validate results and minimize measurement errors (Denzin 1978), our approach aims at multi-perspectivity, which is likely (and should) lead to complementary or contradictory results (Flick 2011). Our approach to mixing methods and data can be understood as reflexive-dialectical (Hesse-Biber and Johnson 2015), whereby a dialogue between the method (ologies) used is sought so that the reflexivity of our own research is strengthened.

Quantitative Data From the German Ageing Survey

Quantitatively, we evaluate four waves (2008–17) of the nationwide representative German Ageing Survey (hereafter: DEAS), which evaluates the life situation of people in the second half of life (40+). Of all respondents who participated in at least two waves, 1.240 experience the transition into retirement during the observation period. In order to reflect the different facets of the transition, the analysis distinguishes between transitions to retirement from active employment (n = 632) and from a phase of non-employment (n = 497) as well as transitions from active or non-employment to a reduced-earning-capacity pension (n = 111).[3]

The operationalization is based on the core ideas of Rosa's resonance concept, but with the awareness that the complexity of the overall construct "resonance" can only approximately be grasped. The resonance as well as dissonance relations are based on the Positive and Negative Affect Schedule (in short: PANAS, after (Watson et al. 1988; Engstler et al., 2019), that queries the frequency of certain affects along positive (e.g., enthusiastic) or negative (e.g., angry) adjectives and respectively summarizes them into an index, which is higher the more positive or negative affects one experiences. For the present analysis, the index for positive affect is used to operationalize the experience of resonance and the index that maps negative affect experiences is used to operationalize dissonance. As the constitutive flip side of resonance, the experience of alienation is measured by the frequency of depressive symptoms, which include physical experience (e.g., quality of sleep) as well as indifference (e.g., lack of motivation) and a repulsive sense of the self and the world (e.g., rejection by others).[4] This operationalization is based on Rosa's assumption that "(a) theoretical analysis of alienation (...) can simply take as its starting point the already confirmed increase in burnout- and depression-related illnesses" (Rosa 2019, 181). The relatively strong correlations of the scales for resonance, dissonance and alienation (R and D: 0.299 ***; D and A: 0.451 ***; R and A: 0.371 ***) already indicate their co-constitutive relationship (see **Table 1**).[5] With operationalizing the frequency of negative affects as dissonance we aim to account for the productive possibility and openness of negative affects speaking to or touching an individual and leading to an answer, which can become a resonant or alienating experience – in opposition to nonproductive negative affects, which indifferently leave one untouched in the first place and result directly in alienating experiences. The dissonance scale displays the ambivalent in-betweens of resonance as a purely positive affective state – therefore the positive affects are operationalized as resonance – and alienation as a detached, indifferent state – which is indicated by depressive symptoms in our analysis. Here, we already see and will further discuss the challenge of empirically grasping the complex, ambivalent dimensions of resonance when operationalizing them.

Furthermore, we control for gender, education, chronological age, relationship status, net equivalent income, and subjective as well as functional health.[6] Hybrid panel models (Rabe-Hesketh

[3]The respective dummy variables contain information on the pre-employment situation (0) and the form of retirement (1). To test the validity of this operationalization, fixed effects regressions were modeled with the duration of retirement as an independent variable. Once age and functional health are included in the model, duration no longer measures changes of resonance. Also, the chosen variable – as the rest of the data – allows to capture the transitions and the associated resonance transformations prospectively.

[4]Short form (15 items) of the CES-D (Center for Epidemiologic Studies Depression) scale (Hautzinger and Bailer, 1993; Engstler et al., 2019).

[5]The criterion validity of the resonance, dissonance, and alienation experiences was tested by correlating them with variables for self-assessment of distress (D) and change (C) due to the transition into retirement. The correlation coefficients (Pearson's r) are low (resonance, D: −0.077***, C: −0.151***; dissonance, D: 0.166***, C: 0.085***; alienation, D: 0.198***, C: 0.203***) but operate in the same direction. Overall, the variables selected to measure resonance, dissonance and alienation appear to be quite independent of the self-assessment of the transition to retirement. Nevertheless, the variables for self-assessment itself are not as strongly correlated with each other as we expected (0.205 ***).

[6]The variable gender is coded binarily (0=male, 1=female) and education is categorized in three levels according to ISCED. Chronological age is included in the analysis in years, and the variable is metrically scaled. The dichotomous, nominally scaled variable on relationship status maps whether respondents are single (0) or living in a relationship (1). Monthly equivalized income is a metrically scaled variable that reflects the economic situation. It is based on a construct variable – need-weighted on the basis of the OECD equivalence scale – that contains the respective monthly income of all members of a household over the age of 15 (see Engstler et al., 2019). The ordinal variable for subjective health assessment was recoded and has the following expressions: 0 = very poor, 1 = poor, 2 = average, 3 = good, 4 = very good. For functional health, we relied on the metric variable that transforms physical functioning in ten activities based on SF-36 subscale (Bullinger and Kirchberger, 1998; Engstler et al., 2019) into the standard 100 score. The higher the scores on this scale indicate a better the functional health.

TABLE 1 | Correlation matrix (Pearson's r).

	Resonance	Dissonance	Alienation	A	N	R	Female	Education	Age	Income	Partnered	Health, subjective	Health, functional
Resonance	1												
Dissonance	−0.299***	1											
Alienation	−0.372***	0.451***	1										
A	−0.107***	−0.124***	0.028***	1									
N	−0.001	−0.114***	−0.065***	–	1								
R	−0.100***	0.063***	0.186***	–	–	1							
Female	0.052***	0.126***	0.098***	−0.054***	−0.153***	−0.001	1						
Education	0.158***	−0.062***	−0.126***	−0.117***	0.053***	−0.085***	−0.200***	1					
Age	−0.120***	−0.151***	0.014*	0.830***	0.583***	0.087***	−0.081***	−0.100***	1				
Income	0.143***	−0.050***	−0.119***	−0.160***	0.045***	−0.087***	−0.051***	0.231***	−0.066***	1			
Partnered	0.076***	0.002	−0.138***	−0.133***	−0.037***	−0.079***	−0.187***	0.130***	−0.166***	0.116***	1		
Health, subjective	0.322***	−0.199***	−0.455***	−0.158***	−0.008	−0.253***	0.017**	0.129***	−0.150***	0.142***	0.075***	1	
Health, functional	0.279***	−0.125***	−0.399***	−0.307***	−0.079***	−0.372***	−0.080***	0.190***	−0.336***	0.129***	0.160***	0.558***	1

*Notes: A = active employment versus old-age pension, N = non-employment versus old-age pension, R = active/ non-employment versus reduced-earnings capacity pension. Significant on a *5%-level, **1%-level ***0.1%-level; German Ageing Survey (DEAS)*

and Skrondal 2008) are used to examine inter-individual differences as well as intra-individual changes in the experience of resonance, dissonance and alienation during the transition to retirement. How different everyday practices, social relationships and loneliness[7] promote as well as prevent resonance, dissonance and alienation experiences is analyzed based on descriptive correlation coefficients for individuals who are in the post-acquisition phase.[8]

Qualitative Data From the "Doing Retiring" Project

Quantitative data is complemented with qualitative case studies from a qualitative longitudinal study, which is part of the project "Doing Retiring – The Social Practices of Transiting from Work to Retirement and the Distribution of Transitional Risks" at Goethe University Frankfurt (2017–21). The study follows 30 individuals between the employment and retirement over 3 years with episodic interviews according to Flick (2007), photo and activity diaries, and observations. Sampling was done through notices and display of flyers in public places (e.g., supermarkets), through businesses as well as social and recreational organizations (e.g., University of the Third Age), and through personal contacts. In this paper, we refer in particular to the episodic interviews collected during the first (2017–18) and second (2019) waves. The interviews began with a narrative-generating introduction, which in the first survey wave was biographically oriented and in the second focused on what had happened in the lives of the participants during the previous year. This introductory narrative was followed by an inquiry section with more specific questions that focused on the experience of the transition and the organization of everyday life in the employment and retirement. The interviews lasted between one and 3 hours. They were fully transcribed and coded using MAXQDA analysis software. The coding procedure was based on the social constructivist Grounded Theory (Charmaz 2006): In a first step, the transcripts were completely coded by initial coding; in a second step, central codes were identified by focused coding, and in a third step, these codes were related to each other in axial coding. In all three steps, a cross-case and comparative incident-by-incident approach was taken in order to highlight shared or divergent patterns of practice rather than individual trajectories.

For this paper, changes in resonance relations during the transition into retirement are highlighted on the basis of three non-linear but distinct transition processes that deviate from the

[7]The scale measuring loneliness contains the means of six items and is a short version of the loneliness scale from De Jong Gierveld and Van Tilburg (2006), see also Engstler et al. (2019), within which higher values indicate higher degrees of loneliness. Additionally, a measure to indicate social exclusion would have been interesting, from a theoretical point of view (*Resonance and Normativity in the Retirement Transition Process*), but indicators concerning this concept were only conducted in 2014 and 2017.

[8]The DEAS allows the measurement of the frequency of different everyday practices, which are listed in **Table 3**. The respective variables were standardized and coded as follows: 0 = Never, 1 = Rarely, 2 = 1 to 3 times a month/ Several times a year, 3 = 1 time a week, 4 = Several times a week, 5 = Daily.

chrononorms of institutionalized life courses: one transition from full-time employment to unemployment to reduced-earning-capacity pension, one transition from full-time employment to indefinite leave of absence, and one transition from long-term unemployment to reduced-earning-capacity pension. These three trajectories were chosen to highlight the complexities, nonlinearities, and fractures of transition processes that cannot be mapped in such depth from quantitative data. Moreover, transitions that deviate from norms, which could be discursively framed as "failed", are particularly suited to better understand those very norms and normalities.

The three case studies can be summarized as follows:

1. Richard,[9] born in 1954, is married, has no children, and lives together with his wife in a terraced housing estate on the outskirts of a large Western German city. He lost his job in his late 50s, after working as an unskilled laborer in a factory for many years, which severely affected his health. After 2 years of unemployment, he has recently started receiving a reduced-earning-capacity pension at the time of the first interview.
2. Mia, born in 1955, is married with no children and lives with her husband in a large city in Western Germany. She has a degree and holds a management position in a large, international organization. At the time of the first interview, she has been on leave of absence for about 5 years due to burnout.
3. Jan, born in 1965, is married with no children and lives in a small town in Western Germany with his wife. He has had a frail employment history and most recently worked as part of the security staff at a hospital. At the time of the first interview, he has been unemployed for more than 5 years, works in job creation measures, and also receives a reduced-earning-capacity pension due to mental illness, including severe depression.

RESULTS

Transformations of Resonance in Normative Transitions

The transition into old-age pension is being understood to be a normative transition into retirement. It can nevertheless make a difference if one retires from the status of being actively employed or non-employed. On average, these two groups show similar levels of resonance (active employment: 3.66; non-employment; 3.56) and dissonance (active employment: 2.06; non-employment; 2.06) prior to the transition to the retirement. However, individuals undergoing the transition from active employment to retirement show a lower average alienation (5.64) experience than individuals making the transition from non-employment (6.21).

For individuals who complete the transition into old-age pension from active employment during the observation period, resonant experiences become more frequent and dissonant as well as alienating experiences decrease significantly (see **Table 2**). With respect to the transition into old-age pension from non-employment, there is also an increase in resonant experiences and a decrease in dissonant experiences, although the alienation experience remains unchanged. These results retain their validity even when controlling for social differentiations – such as chronological age or functional health. Except for the ones transitioning from non-employment, where the effect of the experience of dissonance disappears. On the basis of these intra-individual developments, we can assume that the transition to old-age pension, opens up spaces – at least in the short term – that promote the emergence of resonance, the reduction of dissonance and alienation.

Regarding differences between groups, we find, that old-age pensioners do experience less resonance and dissonance as well as more alienation than actively employed individuals. But when controlling for social differentiations, the effect for dissonance and alienation become insignificant, leading to the assumption, that other factors of social differentiation are responsible for the univariately observed differences. The effect of resonance remains significant, but changes its direction, meaning that with controlling for other systematic differences, individuals in active employment do experience less resonance that those in old-age pension. Comparing the non-employed and old-age pensioned, the former seem to experience more dissonance and alienation – also when controlling for social differentiation. In the univariate models no influence of employment status on resonance is found, but with the control variables, it becomes apparent, that old-age pensioners do experience less resonance that the non-employed.

The transition into retirement can also be accompanied by other transitions or processes, which also reflect intra-individual transformations of dimensions of social inequalities. With regard to these parallel processes, it becomes apparent that an improvement in subjective or functional health promotes the experience of resonance and, at the same time, considerably weakens the experience of dissonance and alienation, irrespective of the employment situation prior to the transition.[10] In contrast, if a person becomes single during the same period, the experience of alienation is significantly strengthened, even though the experience of resonance and dissonance does not change. Increases in chronological age do not result in resonance-enhancing, dissonance-promoting or alienation-dynamizing moments for individuals transitioning out of active employment. The same holds for individuals who retire from non-employment, except their experience of resonance is becoming lower, the older they get. A change in income – in the regarded transition usually a reduction – does not alter resonance, dissonance, and alienation experiences. In summary, the analysis of the normative transition into old-age pension reveals transformations of resonance, dissonance, and alienation experiences, which, however, do not result

[9]All data that allow conclusions to be drawn about individuals have been anonymized. All names used are pseudonyms.

[10]We are concerned with an improvement in the individual's health status or health assessment, i.e., resonance improves regardless of how healthy a person is in relation to others. In comparison, however, a change in subjective health assessment has a significantly stronger effect on resonance relations, which could be related to the observation that subjective health has a stronger connection with the dimensions of resonance relations than functional health (see **Table 1**).

TABLE 2 | Results of the hybrid panel regression regarding transformations of resonance, dissonance and alienation.

Transition...	...from active employment into old age pension			...from non-employment into old age pension			...from active or non-employment into reduced-earnings capacity pension		
	Resonance	Dissonance	Alienation	Resonance	Dissonance	Alienation	Resonance	Dissonance	Alienation
Between									
Employment-phase	–0.141***	–0.144***	0.488***	–0.001	–0.223***	–1.629***	–0.271***	0.160***	5.621***
Employment-phase	0.067**	–0.035	–0.193	0.115***	–0.073**	–0.898***	0.019	–0.019	0.981**
Female	0.088***	0.107***	0.603***	0.100***	0.099***	0.655***	0.655***	0.135***	1.073***
Education	0.082***	–0.011	–0.163*	0.089***	–0.014	–0.239*	0.095***	–0.008	–0.189
Age, chronological	–0.004***	–0.008***	–0.056***	–0.005***	–0.008***	–0.053***	0.000***	–0.010***	–0.065***
Income	0.000***	–0.000*	–0.000***	0.000***	–0.000	–0.000**	0.000***	0.000	–0.000***
Partnered	0.037**	0.050***	–1.045***	0.054**	0.050**	–1.104***	0.045*	0.011	–1.269***
Health, subjective	0.176***	–0.153***	–2.562***	0.171***	–0.142***	–2.849***	0.200***	–0.178***	–2.886***
Health, functional	0.003***	–0.001**	–0.058***	0.003***	–0.000***	–0.054***	0.003***	–0.001*	–0.052***
Within									
Employment-phase	0.051**	–0.081***	–0.690***	0.046*	–0.036*	0.062	–0.015	0.004	0.275
Employment-phase	0.070***	–0.091***	–1.064***	0.068**	–0.034	–0.133	–0.005	–0.008	–0.501
Age, chronological	–0.000	–0.002	0.010	0.003*	–0.000	0.021	0.006***	–0.004**	–0.035*
Income	0.000	0.000	0.000	0.000	0.000	0.000	0.000	–0.000	–0.000
Partnered	0.019	–0.021	–1.369***	0.006	–0.007	–1.378***	0.019	–0.050	–1.879***
Health, subjective	0.057***	–0.041***	–1.569***	0.056***	–0.028***	–1.523***	0.083***	–0.070***	–1.773***
Health, functional	0.003***	–0.001***	–0.050***	0.002***	–0.001***	–0.049***	0.003***	–0.002***	–0.062***

*Notes: Significant on a *5%-level, **1%-level ***0.1%-level; German Ageing Survey (DEAS).*

solely from the transition itself, but rather from a mixture of parallel transitions (e.g., into singlehood) or processes (e.g., ageing).

As any other transition, the transition into retirement does emerge in the realm of social inequalities. With between estimators we can observe, if there are systematic advantages or disadvantages between social groups in experiencing resonance, dissonance, or alienation. Similar to the intra-individual changes, subjectively as well as functionally healthier individuals mostly tend to experience more resonance and less dissonance as well as alienation than those who are less healthy. Gender and age specific observations indicate that women and younger individuals compared to men and older individuals have a relationship to the world, which is more pronounced in general, meaning, that is at the same time more resonant, dissonant, and alienating. With regard to education we see, that the higher educated do not only experience more resonance, but also more less alienation, while dissonance does not vary with education. Comparing partnered and single individuals, we see, that the latter show lower degrees of resonance and dissonance, but higher degrees of alienation. Since these results are – in contrast to the intra-individual results – significant, we can assume that a relationship transition does affect resonance relations not in the short –, but in the long-term. We do not find any differences between income groups, which is in line with the finding, that also changes in individual income do not affect resonance, dissonance, or alienation. These inter-individual results are mostly the same for both normative transitions.

Transformations of Resonance in Non-Normative Transitions

The transition from active or non-employment to reduced-earning-capacity pension is understood to be a non-normative transition into retirement. For this transition, active and non-active employees are combined, even though – as we saw in 5.1 – the pre-transitional situation can make a considerable difference, but the small number of cases does not allow for further differentiation. Comparing the levels of resonance (3.31), dissonance (2.34) and alienation (11.78) of the non-normative transition to those of the normative transitions, we see, that the resonance level of the former is lower than that of the latter. The dissonance level is slightly and the alienation level is considerably higher for the non-normative transition (*Transformations of Resonance in Normative Transitions*).

Our results illustrate, how completing this transition does not affect any of the three dimensions of resonance, as the corresponding coefficients are not significant – not even when controlling for social differentiations (see **Table 2**). Therefore, the transition to a reduced-earning-capacity pension is, neither resonance-enhancing nor dissonance- or alienation-dynamizing; rather, no resonance transformation accompanies this transition.[11]

Regarding parallel transitions and processes, we find similar patterns as we found for normative transitions. It is nevertheless remarkable, that increasing age raises resonance and decreases dissonance as well as alienation in the transition to reduced-earning-capacity pension, because ageing does not influence resonance relations in the normative transition from active employment. Age specific differences do however not affect resonance, meaning, that the younger are not more or less resonant within the world than the older. This difference in inter- and intra-individual effects of the age points to the

[11]The chosen evaluation method only allows to analyze changing and no constant resonance relations, therefore this result does not mean that no resonance is experienced during transition 3, but only that the transition itself does not affect the (existing) resonance relations.

importance of how retirement is framed normatively, since age does not influence normative, but non-normative transitions. We find another notable difference in the observation, that – when regarding the transition into reduced-earning capacity pension – there are no differences between educational groups regarding alienation. The other group specific differences affect resonance, dissonance, and alienation in nearly the same way as they do in normative transitions.

How experiences of resonance transform (and are transformative) in the practical process of "doing transitions", however, remains invisible in the quantitative analysis. Looking at the resonance trajectories in the selected case studies, dissonances and/or losses of resonance at the end of working life are evident all three selected cases. The loss of resonance is often experienced and narrated through bodily affects by the research participants. Both Richard and Mia describe feeling "drained" and having "no energy left." They also observe a decreasing interest in their work and an increasing affective distancing. Richard describes this process as an "inner emigration", which he tells it as follows:

> "I still did my job well, I think, but, how shall I say, I didn't paint the town red anymore. I did what was necessary, what could be achieved, and I did that all steady. It didn't bother me as much anymore, the anger that had previously cost me a lot of nerves with the management. I always took it very much to heart. And took a lot of it personally. [...] the drive was missing in the end. It was no longer, "Yes, hurrah, we'll fight, we'll do, we'll do, yes!", but it was, "Yes, I'll do it." And I think that happens to every person who is already inwardly saying goodbye, to the profession."

While the process of affective disengagement, as Richard describes it, is gradual for some, others refer to specific triggers, often characterized by a lack of recognition, a reduction in skills, autonomy, or respect. Mia talks about the moment when her autonomy was curtailed by a new supervisor and she retrospectively "very likely should have made the break":

> "And then he said to me, you don't decide here, we decide when and where this takes place. And that was the first gut punch."

What is being experienced as recognition differs according to setting and social position. While it is painful for Mia as a project manager to be partially deprived of decision-making authority, Jan as a security guard emphasizes simple practices, such as being greeted, which shows him that he is being seen in his professional life and that something – or in this case, specifically, someone – speaks to him:

> "Good morning, Mr. Meier, have a nice weekend, Mr. Meier, (takes a breath). Where are you going today, well, have fun!' That does something, like for the psyche."

What is striking in all three cases is that the experienced transformations of resonance on their transitional paths are relatively similar, despite the different social situations and positions they depart from: Mia, the highly educated manager in an international organization, finds herself experiencing similar dissonance and alienation as Richard, the unskilled worker, and Jan in his precarious employment situation.

However, looking at the further development of experiences of resonance after the end of working life reveals major differences between the cases – which seem, however, again unrelated to socio-structural inequalities: While Richard very quickly finds a new sphere for experiencing resonance in care activities for others, Mia and Jan find themselves in a largely resonance-less but searching "state of uncertainty" for a longer time, which Mia describes as follows:

> "Sometimes I feel really good, full of energy, trying to take care of myself. Then sometimes I'm so full of energy that I think, I can still pull something off. (begins to cry; in a drained voice) So sometimes I think like that, I would just say lost in transition. That's kind of my state."

However, the fact that experiences of resonance are processual and changeable can be seen both in biographical narratives and also very clearly in the longitudinal monitoring of the study participants. At different points in the transition process, the interviewees report different experiences of resonance, dissonance, and alienation, and people who lack experiences of resonance at one point in time may find them at a later point in time. Thus, lack of resonance is not a "fate" but arises in the context of relationships as well as in the execution of social practices and is thus changeable in social practices. This is exemplified in Jan's narratives: while in the first interview he still describes his situation as "cruel", "hopeless", and "lonely", he has found a new source of resonance a year later. Together with his wife, he moves into a communal living project, where he feels comfortable and has arrived, "[...] because they all have the same goal: We want to grow older together, as confidants [...] to share life".

The Role of Everyday Practices in Transformations of Resonance

The participants in the qualitative study often experienced the first phase after the end of working life as a quest, which, from a resonance perspective, can be understood as a search for new axes of resonance. This search is not purely intrinsically motivated, but is also societally, hence discursively and normatively, shaped – the study participants, for example, emphasize that they "must" look for new tasks, activities or projects, otherwise they are afraid to fall into inactivity, listlessness and/or depression, which is sometimes captured in the discourse of the "retirement hole". Jan describes this experience as follows:

> "Now (A.N. after the end of working life) everything is threatened to go down the drain, all my competencies will dry up then, that's my feeling about it – and I do want to create."

Mia is also looking for such a creative task. She says about herself, "Actually, I'm looking for a project." But on the other hand, she is afraid of the obligations creative opportunities always comprise:

> "On the other hand, I'm incredibly afraid that I'll fall back into this rat race very quickly. I just don't want that."

Mia and Jan participate in a range of activities, which promise to enhance resonant relations: Jan talks about "individual therapy, psychosomatic clinics, pilgrimage, meditation, body therapy, choir singing – so you've got plenty of options there already" and, after losing his job, he goes directly to a monastery for 6 months. Mia says she, "does more sports, does an Ayurveda treatment, does yoga (. . .) does mindfulness exercises", has "hired a woman to coach (her) because (she) was just in such a bad place", and attends seminars on spirituality to "really engage more with (her)self". She also tells about singing in a choir:

> "(I) learned new things. I started singing, something I had totally neglected. So, making music, I'm doing that really intensively, being in the choir, taking singing lessons, that kind of thing. (. . .) I've learned a lot about my own psyche, how that works, about feelings."

However, they both do not find any sustainable experiences of resonance in these activities. Richard, on the contrary, describes himself as having "really arrived" in retirement shortly after the end of his working life. He has tried similar activities as Jan and Mia but has finally arrived at "shopping, doing laundry, writing poetry", which fills and fulfills his day. He experiences retirement as a phase of slowing down and turning towards the world, which enables him in the first place to reestablish meaningful self-world relationships. Richard recalls:

> "I thought at the beginning I'd fall into a big hole or something and really need to find new kinds of work. But I didn't fall into a hole, I went for a walk more often than usual. I enjoyed it."

Recognition for what he does remains important to him. He tells about writing poetry, "And I enjoy it, especially when other people like it too and say, 'That's really nice!'" He also places emphasis on the importance of "experiencing new things", reflecting on one's own biography, and doing things that were not possible (in terms of time or structure) in the past. Richard now dreams of studying in order to "learn to understand people further." In terms of the resonance concept, we similarly see a striving for expanding reach of the world: Richard not only wants to write poems, but he also wants other people to read and like them. But when asked about recognition, he responds that all he wants is respect – "not being cautious or anything, but just the normal respect that everyone deserves."

While the qualitative findings provide a detailed insight into the specific transition practices and their meanings for those who are transitioning, we can determine at the quantitative level how specific everyday practices correlate with the experience of resonance, dissonance or alienation, when one is in the phase of retirement. To analyze which everyday practices foster resonance relations, correlation tables[12] (see **Table 3**) – separated by the form of retirement: either old-age or reduced-earnings capacity pension – were calculated to indicate the relationship between the frequency of performing a practice and the intensity of the resonance dimensions. The results illustrate that the emergence of dissonant experiences does not relate to certain everyday practices, since the correlation coefficients are mostly non-significant as well as low in general and especially in comparison to those of resonant and alienating experiences.

The formation of resonant relationships in everyday practices, on the other hand, seems to be particularly enhancing for old-age pensioners by attending (cultural or political) events and courses, by using the computer in their free time, by body-related practices such as gardening or sports, by creative practices such as artistic activities or handicraft and DIY work. Most of the correlations between resonance and everyday practices are also found among pensioners with reduced-earning-capacity pension: For them creative practices and gardening do not promote resonance, whereas walking, housework, and crossword puzzles or mental exercises are found to be resonance-enhancing.

The extent to which alienation and resonance are interconnected is suggested by the similarity in everyday practices favoring them: the experience of alienation is attenuated by similar everyday practices as the experience of resonance is being enhanced. More precisely, handicrafts, gardening, sports, and attending cultural events are equally alienation-reducing, no matter which form of retirement. Differences between old-age and reduced-earning capacity pension show that the alienation experience of the former is reduced using the computer for leisure activities and of the latter by attending courses or lectures or political events.

The everyday practices promoting resonance can be assigned to different resonance axes: politics, art and nature, self-effective work, sports and consumption (Rosa 2019). It is particularly striking that practices such as church attendance – contrary to the theory-based expectation that religion can be a resonance-enhancing axis – seem to have a vanishingly low correlation with the three dimensions of resonance. We see however in the qualitative data, that spiritual or transcendent practices, like pilgrimage, meditation, or Ayurveda, are – at least an attempt – to experience resonance, which suggests, that maybe resonance and traditional or institutionalized religiousness are not closely tied to each other.

At the same time, none of the everyday practices turned out to be alienation-dynamizing, which could be related to the operationalization of alienation with depressive

[12]On the basis of these correlation coefficients, it is not possible to draw conclusions about causal relationships, but they do reveal tendencies in terms of how everyday practices and resonance, dissonance and alienation relate to one another. Also only those respondents who were receiving either reduced-earning-capacity pensions or old-age pensions at the respective time of the survey were considered.

TABLE 3 | Correlation matrix for all resonance dimensions and everyday practices (Pearson's r).

	Resonance		Dissonance		Alienation	
	O	R	O	R	O	R
Everyday						
Church attendance (also mosque, synagogue)	–0.007	0.038	0.070***	0.018	–0.029*	–0.043
Going for a walk	0.071***	0.111*	–0.010	–0.095	–0.081***	–0.084*
Crossword puzzles/Mental exercise	0.069***	0.177***	–0.019*	–0.080	–0.053***	–0.077
Attendance: sports events	0.073***	0.029	0.009	–0.055	–0.073***	–0.096*
Artistic activities	0.112***	0.053	0.013	0.075	–0.056***	0.020
Gardening (in the summertime)	0.116***	0.067	–0.013	–0.092*	–0.145***	–0.162***
Handicraft and DIY work	0.143***	0.099*	–0.044***	–0.062	–0.109***	–0.105**
Attendance: courses and lectures	0.133***	0.214***	0.025**	–0.046	–0.068***	–0.134**
Attendance: Political events	0.156***	0.158***	–0.013	–0.048	–0.082***	–0.137***
Using a computer	0.020***	0.114**	–0.030**	–0.006	–0.114***	–0.064
Sports	0.184***	0.163***	0.009	–0.031	–0.155***	–0.144***
Attendance: Cultural events	0.228***	0.195***	–0.009	–0.010	–0.182***	–0.133**
Housework	0.068***	0.111*	0.026**	0.013	–0.042***	–0.018
Social relationships						
Contact to own children	0.008	0.065	0.008	–0.055	–0.011	–0.060
Contact own grandchildren	0.039**	0.200	–0.006	–0.210	–0.056***	–0.009
Contact own parents	–0.001	0.129	0.026	–0.083	–0.030	0.000
Board or parlor games	0.079***	0.072	–0.019*	–0.000	–0.070***	–0.042
Attendance: senior groups	0.030	0.031	0.014	–0.090	–0.010	–0.070
Attendance: other groups	0.077***	0.038	0.021	–0.030	–0.073***	–0.057
Meeting with a steady group	0.114***	0.182***	–0.014	–0.091*	–0.106***	–0.150***
Visits from friends	0.146***	0.149***	–0.031**	–0.080	–0.115***	–0.164***
Loneliness	–0.357***	–0.436***	0.422***	0.533***	0.296***	0.389***

*Notes: O = Old-age pension, R = Reduced-earnings capacity pension; Significant on a * 5%-level, ** 1%-level *** 0.1%-level; German Ageing Survey (DEAS)*

symptomatology and the association of high depressive symptomatology with a less active everyday life.

The Role of Social Relationships in Transformations of Resonance

Social relationships constitute a crucial axis of resonance across the life course, and life course research has pointed to the relevance of "linked lives" (Elder et al., 2003) in the study of transitions. In particular, Mia and Jan lack a sense of community in their search for resonance. In this regard, both describe a sense of distancing from others that can be captured as alienation. As Jan puts it, "I think they're all somewhere completely different than where I am – we're all quite distant." He speaks much of his urgent desire "to belong, to have a group, a gang," and attributes the lack of such to the fact,

> "(. . .) that I'm retired so early because most men don't show up, or there aren't any, or they don't federalize. Most go the natural way and retire early at 60 (takes a breath) and there from is the way of division (. . .) and then I have to see here just as a man (takes a breath), early retiree, 52, where I stay (takes a breath) and that is already difficult, to be perceived and understood with like-minded people, that is incredibly (takes a breath) hopeless."

He nevertheless finds some kind of resonant relation with his new house mates in the collaborative living project who, unlike him, are not experiencing retirement transitions, but are just within very different transitions in the life course, e.g., starting a family or moving in together as a young couple.

> "They are enthusiastic young mothers, young fathers with 30, who simply want to create something. Just like me. I want to create something. For myself, my body, and with others and um with the housing project. Just in a different way with all of my experience."

Richard finds resonance in supporting his wife more than in searching and finding resonance in the form of a new job or an exploration of his self. Asked about changes in his marriage accompanied by his transition out of the workforce, he thus replies:

> "We treat each other even more appreciatively (. . .) since I retired and have more time to get things done on the side (. . .). So, I have the feeling that it has become even warmer than it already was. That is a positive side effect. Yes, I don't know what it is, but (takes a short breath) maybe because I have time to take care of things. (. . .) You didn't have that before at work, it was so stressful or you were stressed and didn't have time (. . .) instead to enjoy this free time COMPLETELY consciously. So that's really becoming aware of what kind of time you have at the moment, that's – I can't say it often enough, how happy I am."

In addition to caring for his wife, Richard, who is childless himself, also builds new intergenerational relationships with

other children and young people in transition, serving as a mentor for refugee minors and as a read-aloud grandpa. He thus feels as a part of a social community and has the feeling that he "has both feet on the ground" much more than he did during his working life.

The quantitative analysis of social relationships and loneliness is in line with the qualitative finding of searching for a community. As we already saw for the everyday practices, dissonance is also not attenuated by social relationships (see **Table 3**). Regarding resonance and alienation, meeting with friends or a fixed circle of people enhances resonance as well as reduces alienation for both forms of retirement. From a resonance-theoretical point of view, the family functions as a "harbor of resonance" (Rosa 2019, 341, 435f.). It is therefore rather surprising, that having contact to any family members is *not* tied to resonance transformations. Feeling lonely and experiencing resonance, dissonance, or alienation is interrelated as follows: the lonelier one feels, the lower the experienced resonance and the higher are dissonant and alienating experiences. We additionally see that the correlations of loneliness with resonance, dissonance, and alienation are stronger for reduced-earning capacity than for old-age pensioners, which strengthens our qualitative result, that finding (or not finding) a community is especially pivotal within non-normative transitions.

DISCUSSION

In this paper, we posed the question of whether, and if so, how, resonance experiences according to Rosa are transforming in retirement transitions. At the backdrop of our empirical analyses, we want to summarize the main results:

First, persons in transition to retirement seem particularly sensitive for unpredictable experiences of resonance and alienation characterized by a balance of fears and hopes for the future. Secondary data analysis of the DEAS suggests that the retirement transition *opens spaces of resonance* for many people, while at the same time spaces of radical dissonance and alienation – most often caused by work or the reconciliation of work and family/leisure – are closing. The qualitative case studies enrich this finding by suggesting a loss of resonance at the end of working life – illustrated, for example, in phenomena such as "internal resignation". This suggests a certain phase structure of resonance experiences or a "resonance choreography" throughout the retirement transition, namely a tendency toward losses of resonance at the end of the employment phase, followed by a gain in resonance in the early stages of retirement. This finding is both in line with studies that have hinted at different phases in the retirement transition like Turners (1969) differentiation of a separation, a liminal and an incorporation phase, where the strive for Communitas may represent desire for horizontal resonance axes. Combining Atchley (1971) phase model with resonance theory, we could interpret the pre-retirement phase as mode of desire for resonance, whereas "in the honeymoon phase" and "phase of reorientation" spheres and axes of resonance are explored and possibly established. However, it remains open how and for whom such spaces of resonance emerge at the transition from work to retirement.

Second, our quantitative results show – and thereby partly answer the question posed in the previous section – the importance of the timing of the retirement transition within the life course. Rosa (2019) understands such discursive constellation to be "moral roadmaps" (132) for experiences of resonance. The closer the transition happens around the statutory retirement age – the more "normal" or "right" it seems – the more resonance and the less dissonance and alienation do people experience in the course of it. This finding is in line with concepts like *chrononormativity* (Freeman 2010) as the norms around "right timings" in the transition from work to retirement (Wanka 2019a), and the institutional and discursive "transition regimes" (Walther 2020) that set such systems of chrononorms in place. Qualitative case studies increase our understanding of the importance of perceived normality for experiences of resonance even further: If a person retires at a similar age and in a similar life situation as others around them, they feel a connection to the world that is otherwise unavailable to them. Leaving, in contrast, the workforce well before statutory retirement age and thus "violating" not only transitional regimes but also the "chrononormative life course regime" (Kohli 2007; Freeman 2010) conditions experiences of dissonance and alienation rather than resonance, as we can see in the cases of Mia and Jan. This is due in significant part – and here we can again connect to anthropological transition research – to the absence of a community or "communitas" which experiences the transition together (Turner 1969).

Third, we find different resonance, dissonance and alienation transformations depending on the social position, specifically 1) whether a person transitions from active employment or non-employment to 2) old-age or reduced-earning-capacity pension, 3) when and in which life situation the transition occurs, 4) whether and how a person experiences recognition at the end of his or her working life, and 5) which opportunities to participate in resonant practices open up for him or her (or not). Even when our quantitative results show, that neither increases in income nor differences between income groups lead to more experiences of resonance. Disposition and spaces for resonance experiences are framed by contextual, sociostructural and cultural conditions such as connotations of masculinity and femininity or cohort-specific perceptions (Rosa 2019). In our data we found income-specific differences in resonance-enhancing and alienation-dynamizing everyday practices, e.g. going for a walk is for free, but for creative practices one needs to buy material. Thus, our results regarding health-, gender-, and education-specific differences are highly in line with known implications of these social inequalities, where subjects are differently able to experience, practice and express resonance.Whereas these three results are in line with existing concepts and results of aging, life course, and retirement research, the study also unveils two new pathways for further research: The *first* hints to a practice-theoretical expansion of the concept of resonance, the *second* to a relational expansion of retirement research.

1) Empirical results have shown that experiences of resonance do not just happen (or disappear) "naturally" in the

transition to retirement but emerge from people's engagement in *social practices*. Whereas Rosa assumes that the strive for resonant experiences and the aim to avoid alienation are basic human needs, our study shows the potential that lies in understanding resonance as *enacted* in social practices, and in asking which practices exactly open up spaces for experiences of resonance in the retirement transition, and for whom. As our results illustrate, this can be in ordinary everyday practices such as housework or taking a walk, as we see in Richard's case. However, quantitative analysis also makes it apparent that there are no universal practices that create experiences of resonance equally for all transiting individuals – rather, such resonant practices depend on socio-cultural milieus.

As the qualitative case studies indicate, the phase directly before and after the end of working life is marked by a search for constellations of practices in axes in which experiences of resonance emerge. This search leads the study participants to a "market" of resonance-promising oases, that has established itself around the transition to retirement – ranging from senior traveling over adult education centers, from (psycho)therapy or counseling to volunteering, choirs, hiking associations and mindfulness workshops. Speaking with resonance theory, participating in such commercialized practices can be understood as attempts to purposefully appropriate the social world and intentionally create experiences of resonance. However, such "simulations of resonance" are often doomed to fail, since resonance is characterized by unavailability – it cannot be purposefully planned or (commercially) organized, as we see in the cases of Mia and Jan. Where people experience resonance is thus partly arbitrary. What seems to be central for experiencing resonance, however – following both the theoretical assumptions as well as the empirical material – is deceleration with retirement: Slowing down allows for adaptive world transformation and thereby transcending the self.

2) Our results explicate the relationality of the retirement transition (and life course transitions in general). Transitions, it becomes apparent, are linked between people – for example, the retiring person and their employer or partner – but also among themselves: We can see this relationality both quantitatively and qualitatively, since resonance transformations rarely arise from one transition alone, but from an *arrangement of cumulated and clustered transitions* occurring in sequence or parallelly, hence in temporal and interpersonal relation to each other, for example the transition to grandparenthood, partnership transitions, or relocation. In terms of resonance theory, the observation of a single transition falls short of identifying any transformations of the relationship between subject and world. Hence, it is not enough to think relationality in the life course only between different people's lives, as in the life course research concept of "linked lives" (Elder et al., 2003), but also between different transitions occurring on one or more people's life courses as "linked transitions".

CONCLUSION

Based on the results outlined above, we want to call attention to the importance of Rosas concept of resonance and its transformation in transition to retirement. As "the sphere of work is thus multiply charged with resonance" (Rosa 2019, 236), the final exit from the labor market represents a specific moment of individual porosity, in which unpredictable experiences of resonance, radial dissonance or even alienation may occur. The interaction between subject and segments of world is the result of social practices and capacities for resonance. We thus argue for a relational as well as practice-theoretical perspective on resonance transformations in the retirement transition (Wanka 2019b). The combination of these three theoretical and conceptual angles – resonance theory, practice theories and relational approaches – allows for more sociologically informed perspectives aside traditional models of push and pull factors on the retirement transition that can be fruitful for societal diagnoses of our times.

Finally, however, we would also like to address some criticisms of the resonance concept and limitations of this paper. First, some difficulties arise in measuring resonance, or rather our attempt to operationalize Rosa's abstract resonance theory and thus make it fruitful for empirical retirement research. In our mixed-methods research design it becomes apparent that the operationalization and analysis of experiences of resonance differ between quantitative and qualitative data, each rendering different aspects of these experiences (in-)visible. The individual scales in the quantitative secondary data can only represent the complexity of the relationship to the world – if at all – in a fragmentary and thus highly abbreviated way. Moreover, it is hardly possible to adequately operationalize the ambivalence inherent to the concept – the dialectical relationship between resonance and alienation as well as their dissonant intermediate forms – with existing survey data, as we saw quite clearly in the results concerning dissonance, especially when analyzing everyday practices. Even though the detection of experiences of resonance seems easier in the qualitative data at first, the difficulty of translating, for example, bodily-affective experiences of resonance into linguistic articulations becomes apparent here. Interestingly, it is easier to verbalize aspects of alienation than experiences of resonance. Empirical research on resonance therefore arguably requires complementary other, non-linguistic methods, such as those used in ethnographic methodologies, visual procedures, and especially affect analyses. In this context, Robert Seyfert (2019) argues for an intensive sociology that – in contrast to an extensive sociology focused on social effects and causalities – is able to focus precisely on those processes. Altogether, we argue for systematic comparison and reflection of data generated with mixed and multi-method research to develop the concept of resonance further through its empirical investigation.

Second, even though Rosa hints towards questions of social inequalities – namely how the ability to experience resonance differs depending on one's social position and how it changes across the life course, he in large parts avoids a detailed

argumentation on the connection between resonance and social inequalities. This may in part be due to Rosa's rejection of the resource-orientation of the sociology of social inequalities. But he himself does not get out of this logic either, when stating, that the educational system – and thus higher education – promotes higher resonance capacities for privileged social groups (Rosa 2019, 453). We see however based on our quantitative and qualitative results, that the experiences of resonance – and the attempt to appropriate it – are highly biased by one's social position. For example, Jan and Mia try to appropriate resonance with consuming commercialized offers, and even though they partly fail to experience resonance, they can afford to try it.

Integrating the concept of resonance in the life course approach, we can on the one hand (re)negotiate successful aging, since resonance theory makes us sensitive to not solely regard the distribution of socio-economic resources but rather the distribution of resonance dispositions and capacities. With cumulative advantage/disadvantage theory (CAD; Dannefer 2003) we could argue that the ability to experience resonance depends on social status and cumulates – as other privileges – across the life course. As Rosa (2019) himself (albeit only marginally) mentions cultural gender or cohort-effects of resonance experiences, it could be fruitful, to further investigate how biographically and/or cohort-based inequalities and different life-course events and outcomes – ergo social stratification or the accumulation of opportunities and risks (Dannefer 2003) – relate to different dispositions and experiences of resonance. From this perspective we are able to evaluate resonance transformations without (re-)producing the detachedness of resonance theory and social inequalities ourselves.

Based on the results of the qualitative data, for example on everyday practices and the search movement for resonance, we can formulate further new questions for a theoretical and empirical approach to resonance: How, for example, is the social acceleration that Rosa proclaims related to a pluralization of transitions noted by reflexive transition research? Can we understand the design and ritualization of transitions as an expression of desire for resonance? What method (olog)ic approaches, such as ethnographic approaches, might help establish a "research architecture" related to resonance and transitions? If we operationalize resonance: does it represent a depended or independent variable and outcome for transition processes like retirement? How can we understand retirement decision-making and adjustment to retirement from the perspective of resonance theory? Which role plays voluntary of exit the labor force? How distinct is the theoretical differentiation between dissonant/resonant experiences and alienation? How can Rosas dialectical approach be linked to ambivalence or changing perceptions of resonance axes over time? Is it possible to state from a reflexive research perspective that resonance and the search for responsivity are basic human needs?

Concluding we would like to highlight, that resonance as a lifelong process offers the possibility to understand the transformational potential of transitions openly and in terms of a good life. It remains open, how resonance can be reflexively developed through its "empirical friction" on the phenomenon of transitions. The openness – e.g., towards temporal, material, and spatial dimensions of social life – inherent in resonance theory makes it appealing especially for reflexive transition research: A practice-theoretical and relational interpretation of the resonance concept in the sense of doing resonance by doing transitions, as we propose in this paper, opens up space – for resonant and dissonant discourses.

DATA AVAILABILITY STATEMENT

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

ETHICS STATEMENT

The studies involving human participants were reviewed and approved by Ethics Committee of Goethe University, Department of Educational Sciences. The patients/participants provided their written informed consent to participate in this study.

AUTHOR CONTRIBUTIONS

All authors listed have made a substantial, direct, and intellectual contribution to the work and approved it for publication.

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Women and Pensions in Italy: Gender Imbalances and the Equalization of Retirement Age

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This paper examines the age at retirement for men and women in Italy. Despite the expansion of women's educational attainments, they still display lower employment rates, are frequently engaged in involuntary part-time jobs and have more fragmented careers. As a consequence, the mean age at which women receive a pension is higher than that of men. Using Labour Force Survey (2006 and 2012), the authors test the hypothesis that women's higher age at retirement is determined by a selection bias towards more educated and work oriented women. A Heckman selection model has been developed. Results show that the main disadvantage is suffered by women with medium and low levels of education who show the highest estimated age at retirement, whereas higher educated women retire on average before men with the same level of education. The authors argue that pension policies, without interventions in the field of work-life balance policies, end up penalizing women with lower levels of education.

Keywords: age at retirement, heckman model, gender inequalities, educational levels, pension policies, EU-labour force survey

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INTRODUCTION

Pension reforms in nearly all industrialized countries in recent years, although principally aimed at ensuring financial sustainability, have also adopted rules aimed specifically at rebalancing gender differences, albeit in a non-uniform manner and producing outcomes that have not always been in line with expectations (Jefferson 2009; Natali and Stamati, 2013).

Pension systems are not only policy schemes with a decisive influence on intergenerational equity, but also represent intragenerational adjustment tools, especially with regard to gender relations (Casarico and Profeta, 2009).

From the early nineties, pension policies in Western countries, including Italy, introduced rules explicitly designed to counterbalance inequalities in working careers between men and women related to female disadvantages derived from discontinuous careers and prolonged periods of inactivity (Natali, 2015). These measures focused on the retirement age and the number of years of mandatory pension contributions, giving women preferential treatment. The logic followed was a 'posteriori compensation', offsetting the drawbacks that women accumulate during their working career, while leaving unchanged the gender imbalances relating to the division of labor within the household from which those disadvantages largely arise (Borella and Fornero, 2002).

In more recent years, however, this trend has been reversed, introducing a progressive equalization of the retirement age for men and women and, more generally, strongly limiting all the characteristics of the Italian pension system aimed at compensating the disadvantages suffered by

women in the field of employment. First of all, the pension reform of 2010, the so-called Sacconi law, led to an extension to 65 years of the statutory retirement age for women in the field of public employment, in order to equate their retirement age to that of their male colleagues. Secondly, the pension reform of 2011, the so-called Fornero law, led to a gradual extension from 60 to 65 years of the retirement age of women in the private sector.

These measures evoked different opinions. On the one hand, they were welcomed because, by affirming the principle of formal equality of treatment for all contributors, they were considered an obvious measure for overcoming the patronizing idea of 'a posteriori compensation' for the weaker segment of the workforce. However, on the other hand, they highlighted the risk of increasing the gender gap with respect to retirement benefits, since equalization of the retirement age between men and women was not followed by any serious attempt to tackle the disadvantages suffered by women in the labor market, which are very high in Italy (Bekhouche et al., 2013).

What is more, Eurostat data from the Labour Force Survey (LFS) show that, despite the latest reforms, in the population between 50 and 69 years of age, in both 2006 and 2012, the average age at which Italian women first received an old age pension was higher than that of men.

It is such considerations that have inspired this work, which aims to investigate the retirement age of women and men[1] in relation to their level of education.

As many scholars point out (Mäcken et al., 2021), education is a crucial variable in older workers' exit decisions, as it is linked to several individual-level factors such as workplace characteristics, income, and health. Thus, pension reforms aimed at extending working lives may affect workers differently depending on their level of education.

To shed light on the aspects highlighted, we will develop a Heckman selection model of data from the Labor Force Surveys of 2006 and 2012, which contained an ad hoc module on retirement. The aim is to observe the results of the age at retirement of men and women after correcting for self-selection and to interpret these in the light of two recent policy guidelines: the first, on a European level, focuses on the increase in female employment rates; the second, on a national level, seeks to equalize the age at retirement of men and women. Special attention will be paid to the consequences that such guidelines could have on the working career and pension of women with low human capital.

The paper is organized into five sections. The next section notes changes in Italian pension policies, paying particular attention to gender relations adjustment tools introduced recently. Section three describes recent changes in female employment rates and the relationship between such changes and education levels. Section four is dedicated to the description of data, variables and the method used for the empirical analysis. The fifth section sets out the main results. Finally, the last section proposes some considerations and conclusion.

WOMEN AND PENSION POLICIES IN ITALY

From a policy perspective, Italian pensions belong to a social insurance model in which the state provides the greater part of benefits through public earning-related schemes run on a pay-as-you-go basis. The development of the Italian pension system, notwithstanding the fact that it still absorbs more than 14 per cent of GDP (one of the highest percentages for any European country), has generated strong distortions of a distributive nature between diverse occupational categories. The very generous benefit formulas provided during the first phase of development (from World War II to around the 1980s) favored the main labor market categories (especially public employees and employees of large enterprises), whereas safeguards for the most peripheral categories (temporary and seasonal workers, the self-employed, and employees of small businesses) were much more modest.

From the mid-1970s onward, an important process of change in the pension system can be observed, in conjunction with other transformations that affected the economic-productive system, the labor market, and the demographic structure (Jessoula, 2009). From the mid-1970s and through the 1980s, Italy suffered greatly from the effects of the economic crisis following the oil shocks. These caused long-term stagflation, an increase in public debt and growing levels of unemployment arising from layoffs in large enterprises. Moreover, innovations in terms of work organization stood in contrast to the retention of older, less productive workers (Mingione and Pugliese, 2004). As a consequence, since the 1980s, measures were adopted in the form of early retirement that constituted part of a broader strategy to reduce the labor supply ("labor reduction route"), particularly of workers over the age of 50. This is a phenomenon that has, among other things, contributed to hindering the retraining and relocation of older workers, slowed the introduction of age management instruments, and more generally inhibited the implementation of active aging policies (Bertolini et al., 2016).

From the beginning of the 1990s, pension policies followed a new trend. Reforms were introduced to improve the financial sustainability and to initiate the harmonization of legislation dealing with the various professional categories (Jessoula and Hinrichs, 2012).

In this context, the retirement age for private sector employees was raised by 5 years (from 60 to 65 for men and from 55 to 60 for women) eliminating the so-called 'baby pensions' for public employees, along with their short contribution periods, and extending the minimum contribution period for access to old age pensions from 15 to 20 years. In addition, measures were approved that aimed to change benefits amounts, eliminate index-linked payments and extend the reference period for calculating pensionable

[1]Eurostat main indicator (average exit age from the labour force) is estimated with a probabilistic model based on LFS, but there "is no internationally harmonized statistical definition of retirement" (http://ec.europa.eu/eurostat/cache/metadata/en/lfsi_exi_a_esms.htm). In this paper we define age at retirement as the age at which a person (who self-perceives retired) first received a pension and is actually inactive.

earnings. Finally, a transition to a multi-pillar system was initiated with the introduction of the first regulatory framework for complementary 'funded' pensions, itself divided between Pillar II of occupational type ('closed' funds created through collective bargaining at a sector level) and Pillar III of 'open' funds managed by financial institutions such as banks, insurance companies, and financial advisors.

In subsequent years, the measures introduced were gradually strengthened through parametric adjustments designed to prolong the time spent by older workers in the labor market through an articulated series of measures that acted both on the minimum age of retirement and on benefit amounts, and a steady expansion of supplementary pensions.

In more recent years, following the recent economic and financial crisis, and as a result of international pressure on national policymaking processes, major new emergency measures were enacted in the field of social security policies. These followed the direction of increasing cuts in aiming to make cost reductions not only in the medium to long term but also in the short term.

When it comes to gender differences, pension policies have in the past recognized that women's participation in the labor market is weaker, establishing different criteria for men and women in terms of contribution requirements. The legal retirement age of women has always been lower than men, despite their higher life expectancy. It is clear that these differences were intended to balance out the unfavorable situation of women caused by their interrupted careers and periods of unemployment not covered by social security contributions, which penalized women as far as fulfilling pension requirements was concerned.

This situation has resulted in an Italian pension system that is geared more towards the family than towards the individual. Although, formally, the unit of reference was the employee and the contribution base was earned income, pension benefits have in fact historically been required to protect the needs of the household rather than those of the individual, reflecting the historical division of roles within the household and a family organization that envisages the economic dependence of some members, such as children, the elderly and women, on others with earning capacity (Borella and Fornero, 2009).

From this perspective, specific and favorable rules for women's pensions were introduced in order to offset gender disadvantages (Casarico and Profeta, 2009). The use of equal transformation coefficients for men and women, in the face of a higher life expectancy for women, can be regarded as an insurance premium that the system has loaded onto men, in order to finance the survivor's pension that husbands "buy" for their wives: a kind of "couples' insurance", rather than individual insurance (Borella and Fornero, 2002). These reforms have taken for granted an equal distribution of income within the household (Kabeer, 2015), and have underestimated the likelihood of separation and divorce (Vignoli and Ferro, 2009). Nonetheless, women's attitudes (Treas and Widemar, 2000) and the scarcity of pre-school services forced women to exit the labor market, at least for some years.

More recently, however, the trend has changed significantly, as previously mentioned. In a first phase, starting in 2009, the retirement age of women was changed to be the same as men in the public sector only; then the Fornero Reform extended this measure to the private sector (Bonardi, 2012). A recent report (McCracken et al., 2013) observed that the introduction of more restrictive requirements for old-age pensions and early retirement is particularly detrimental to women, whose careers are shorter and more fragmented than those of men. In fact, women spend less time in the labor market during their biographical cycle, often due to having to look after the family (Samek Lodovici et al., 2016). Therefore, stricter eligibility conditions for old-age pensions may not be met by a significant proportion of female workers, while the contribution requirements for early retirement seem to be out of reach for many women, at least in the short to medium term.

FEMALE EMPLOYMENT AND LEVEL OF EDUCATION IN ITALY

In Italy, since the mid-seventies, female employment rates have been growing consistently, confirming a model of female participation in the labor market that is more like that of men, although at lower levels and characterized by prolonged careers.

According to Scherer and Reyneri (2008), two-thirds of the increase in female employment in Italy can be attributed to higher levels of education. The cause of this, however, is not so much determined by an increase in the employment rate of graduates or diploma holders, which has always been high, as by the relative weight, within the female population, of women graduates and diploma holders, who, even after marriage and the birth of children, are more likely to enter the labor market and stay there until retirement. Conversely, the employment rate of the poorly educated has increased very little.

Another aspect related to the increase in female employment is the spread of part-time jobs (Pissarides et al., 2005), a phenomenon that, in Italy, does not have a linear trajectory. The increase in female participation in the labor market in the seventies and eighties occurred without a parallel increase in part-time work, whereas from 1995 to 2003 approximately 40% of new jobs for women were part-time.

Many studies have highlighted the particular exposure of women to part-time jobs, but also the greater fragmentation of their professional careers due to an unequal distribution of care activities within the family, resulting in marked gender differences, both in relation to the average value of their pension income in terms of contribution years and their average age at retirement (Scherer and Reyneri, 2008). This last aspect especially sees women retire, on average, at a higher age than men. Further studies show that Italian women pay the highest penalty in Europe in terms of retirement income due to motherhood (Möhring, 2017).

The uneven growth in female employment, linked with education levels, leads us to speculate that one of the reasons

why Italian women have a higher average age at retirement than men can be traced back to a positive self-selection phenomenon that push only work-oriented women to remain in the labor market. Studies highlighted that the Italian gender pay gap is one of the lowest with respect to other European countries and this is usually attributed to the Italian low level of female employment (Cutillo and Centra, 2017). Furthermore, women who enter in the labor market are usually better educated than men (Moncada, 2019; Barbieri et al., 2015). As far as occupational returns of education is concerned, Barbieri et al. (2015) argued that female prestige penalties are concentrated on low educated women and this could be due to a positive self-selection of women. Studies that take explicitly into account the self-selection in their analyses (Cutillo and Di Pietro, 2006) were mainly focused on occupational returns of the highest educated Italian workers, nonetheless they found that women are less likely to be overeducated then men. Authors explained this phenomenon with "a lower pressure to work among female in a traditional society as the Italian one" (*p*. 158). The expectation, therefore, is that by correcting the analysis to take account of such self-selection, the differences detected also in age at retirement will be mitigated. The high incidence of part-time work, by contrast, could be one of the reasons why women with low levels of qualification postpone their retirement longer than men with similar educational qualifications.

Further study into the relationship between retirement age and the level of education has two research objectives. We know that retirement age increases in proportion to the level of education (Hofäcker et al., 2015): on the one hand, staying in education delays the start of employment; on the other, high levels of education are generally associated with better jobs, thus motivating employees to remain in the labor market for as long as possible. In this regard, one of the assumptions of this research is that the retirement ages of men and women differ only among those who have low levels of education. With regard to the less educated, it is in fact reasonable to expect the retirement age for women to be higher than that of men, due of their higher number of career breaks. The second research objective concerns the specific composition of employed women in Italy. Scherer and Reyneri (2008) have shown that the increase in employment levels of women has been caused largely by the structural change in the composition of the female workforce in terms of level of education, following a considerable increase in the number of female diploma holders and university graduates. The assumption is that the average age at retirement for women is higher than that of men because there is a strong imbalance of employed women towards those with high levels of education and/or those with a greater attachment to work.

DATA AND METHODS

Analysis was performed on the two European Labour Force Surveys (EU-LFS) (2006 and 2012), which contain an ad hoc module on retirement ("Transition from work into retirement"). Despite some limitations, which will be set out below, the adoption of this specific database is not unusual in the study of retirement behaviour[2] (Radl, 2013). It will allow future comparisons with non-European countries that are not covered and not comparable by other datasets like SHARE. Furthermore, Italian statistics on pension age in the OECD datasets use exactly the European Labour Force Surveys. EU-LFS are developed quarterly on 35 countries and it is the largest European household sample survey, whose main objective is to classify the population of working age[3]. Our analysis focuses on retirement age: for this reason, it was necessary to take into consideration a sub-sample, consisting of subjects between 65 and 69 years of age. The in-depth section on retirement was intended for interviewees aged between 50 and 69 years who had worked until at least the age of 50 (**Table 1**). The decision to further reduce the age range was determined by methodological considerations: among individuals between 50 and 64 years of age, the percentage of employment is still very high; therefore, focusing only on those who have exited the labour market and have thus reached retirement age would have significantly distorted the analysis.

In the older age group, however, more than nine people out of 10 have already retired; we expect, therefore, a better balance between those who have accrued the necessary contribution years to retire and those who have reached the maximum age limit.

The sub-sample of retirees used is therefore composed of individuals who receive a pension, who call themselves pensioners, who had exited the labour market prior to the interview and who did not begin receiving a pension before the age of 50.

The dependent variable is the age at which a person first receives a pension. In the literature, there is not a clear definition of the concept of pensioner; nevertheless, it is customary to associate an exit from the labour market with respondents who perceive themselves to be pensioners (Denton and Spencer 2009). The available database, however, only provides the ages of individuals in 5-year bands. It would, therefore, have been very inaccurate to use this criterion, given it would not be possible to define accurately the age at which the interviewees left their last paid job. For this reason, we chose to associate the self-perception of being retired with the age at which a pension is received, while ensuring that the interviewee had actually exited the labour market and had not received a pension before the age of 50 (Damman et al., 2015).

Before turning to the description of the variables and the technique used, we need to further clarify the methodology: the data examined were not longitudinal, and therefore do not allow us to correlate the time of receipt of a pension with the meeting of the requirements and with the eventual choice to remain, nonetheless, in the labour market. Therefore, any empirical evidence that is encountered will not be interpreted in causal

[2]This paper originates from the author's participation in the research project "Determinants of Retirement Decisions in Europe and the United States: A Cross-National Comparison of Institutional, Firm-level and Individual Factors ", coordinated by Dirk Hofäcker and by Mannheimer Zentrum für Europäische Sozialforschung (Hofäcker et al., 2016).

[3]For further details visit: https://ec.europa.eu/eurostat/web/lfs.

TABLE 1 | Description of the dataset and sub-sample of 65–69 year olds.

	65–69 year olds	Not employed at 50 years of age (A)[a]	Employed at 50 years of age[b]		Sub-sample (A + B)
			Pensioners (B)	Working (employed or seeking work)	
2006	10,981	3,388	5,744	721	9,132
2012	9,159	2,816	5,136	685	7,952
Total	20,140	6,204	10,880	1,406	17,084

[a]*Individuals 65–69 year old that are in the dataset but not entitled to answer to ad hoc section on retirement because they left (or never entered) the labor market before 50 years of age.*
[b]*Individuals 65–69 year old entitled to enter the ad hoc section of the questionnaire on retirement because they were employed at least up to 50 years of age.*

terms, but will only indicate the existence of a relationship between certain variables and the retirement age.

The variables whose covariation with age at retirement we intend to investigate are, among socio-biographical variables, gender and level of education. The latter was recoded following the isced classification into three modalities: 0–2 low, 3–4 medium and 5–6 high. Note that, for those who are retired, information on the last job appears only for those who left the labour market in the 9 years preceding the interview. Therefore, taking the last job into account would have dramatically reduced the sample.

The geographical area of residence and year of the survey are control variables, organised in two modalities (centre-north, south and islands; 2006 and 2012 respectively). A final relevant control variable relates to the presence of a cohabiting partner (Blau and Riphahn, 1999) who might affect a coordinated decision of retirement within the couple.

Many scholars who have studied gender differences in retirement age have highlighted the importance of taking into account the different rates of male and female activity and employment. Despite the fact that legislation had, up until a few years ago, protected women, discrepancies (if any) could be traced back to the self-selection of the female sample, composed of subjects with a particular propensity to work (Radl, 2013), especially in countries where the percentage of working women is low. The use of the Heckman selection model (1979) with maximum likelihood estimates corrects the distortion of the sample (Hess, 2017). The procedure consists of two equations. The first is the selection model, a *probit* equation that estimates the probability of being employed at the age of 50, distinguishing between those who are retired and those who are not eligible for retirement (the disabled, housewives, and those not in employment)[4]. The second is a linear regression of age at retirement.

When estimating the selection equation, we need to introduce variables defined as instrumental. For this purpose, we introduced marital status, taking into account the interaction with gender. Married men, in fact, have a greater chance of being employed than men without their own family unit. For women, on the other hand, the probability of being employed is greater if they are not married (Lucchini eta al., 2007). An important control variable used is the presence of children. It is common knowledge that children influence the working choices of women, who tend to abandon the labour market when their first or, failing that, their second child is born. In both cases, the dataset provided by Eurostat offers partial information: both marital status and the presence of children living at home describe the situation of individuals at the time of the interview, which therefore cannot be correlated with the past, that is to say the moment when - for women typically in middle age groups - the decision to abandon the labour market was taken[5]. Nevertheless, as we shall see in the next paragraph, both variables show what we would expect. The area of residence and year of interview are the same control variables we also introduced in the *probit* equation[6].

Using the Heckman procedure, from the *probit* equation on the probability of being employed, we estimate the Inverse Mill's ratio which, if statistically significant, confirms the presence of self-selection of the sample and is used in the second equation to correct the estimates obtained by linear regression.

RESULTS

Descriptive Findings

Table 2 shows the average age at retirement, according to levels of education. At first, it appears that the average age at retirement of women increased between 2006 and 2012, while that of men decreased. This trend results in women entering retirement, on average, after their male colleagues in2012[7]. But a drill-down to analyze the data according to education level reveals some interesting peculiarities. Male and female university graduates, in fact, did not undergo any noteworthy changes between 2006 and 2012 and a higher average age at retirement was recorded among male graduates in both years. The decrease among men is

[4]Not having been employed until at least the age of 50 is, in fact, a proxy for exiting from - or a failure to enter - the labour market and, in fact, in 48 per cent of cases involves people–98% of whom are women - who have never worked, while the remaining percentage abandoned the labour market at 33–37 years of age on average.

[5]The variables that include children at home were constructed only in respect of the interviewee: the children of partners, if not their own, were not included. It is plausible to imagine that extended families were formed subsequent to the time when the decision to leave the labour market or remain there was taken.

[6]We control the assumption of normal form of covariates in the *probit* model.

[7]On the sample of 50–69 year olds, in 2006 too, women's average retirement age is higher than that of men, but restricting the sample to the percentage of older people does not allow for insightful analysis.

TABLE 2 | Average pension age (and *standard deviation*) by educational attainment and sex.

Level of qualification	Low	Medium	High	Total	Low	Medium	High	Total
	2006				2012			
Men	58.8	59.0	60.5	58.9	58.4	59.0	60.9	58.7
Standard Deviation	*4.41*	*4.21*	*3.85*	*4.37*	*4.53*	*4.30*	*4.12*	*4.49*
N	2,899	583	181	3,663	2,294	784	203	3,281
Women	57.7	58.6	59.0	57.9	59.1	59.6	59.0	59.2
Standard Deviation	*3.45*	*3.85*	*3.65*	*3.53*	*3.38*	*3.62*	*3.93*	*3.49*
N	1,671	294	116	2,081	1,296	364	195	1,855

TABLE 3 | Heckman selection model: *probit* on the probability of being employed until the age of 50 and linear regression on the age at retirement.

	Mod. 1	Mod. 2
	Age of retirement	Probability being employed
Sex (ref. men)		
Women	1.32***	−1.27***
Residence (ref. Centre/north)		
south and islands	2.35***	−0.25***
Educational attainment/education (ref. medium)		
Low	−0.16	−0.22***
High	1.58***	−0.12
Year of survey (ref. 2006)		
2012	0.33°	−0.10***
Year of surv. #educational attainment (ref. 2012#medium)		
2012#low	0.13	
2012#high	0.16	
Educational attainment/education (ref. medium#female)		
low#female	0.61***	−0.19***
high#female	−3.63***	0.90***
Presence of partner (ref. absent)		
Respondent has a partner	−1.17 ***	
Sex#presence of partner		
female# has a partner	1.58***	
Year of surv.#sex (ref. 2006#female)		
2012#female		0.20***
Marital status (ref. widowed, separated, divorced)		
Single		−0.29***
Married		0.17***
Sex#marital status (ref. woman#wid. div. sep)		
female#single		0.55***
female#married		−0.31**
Number of children (ref. 0)		
1	0.09**	
2+		−0.03
No. children#sex (ref. 0#female)		
female#1		−0.10**
female#2+		−0.15*
Constant	59.61***	1.52***
Inverse Mill's ratio	−4.26***	
Wald chi2 (11)	1501.48***	
N	10,880	17,084

attributable to the slight decrease in the average age at retirement of subjects without any diplomas.

The relationship between levels of education and retirement age assumes different characteristics in relation to gender. In the case of men, in 2012 we noted that an increase in the level of education also increases the age at which a pension is first received. The reasons are numerous and have been widely discussed in the previous paragraphs.

For women in 2006, the age at retirement of those with low levels of education is lower than that of women with medium or high levels of education, while in 2012 the situation is more complex: women holding a medium level of education have a higher average age at retirement than women with low and high levels of education. Between 2006 and 2012, the greatest increase in terms of age at retirement was related, however, to both women with low and medium levels of education. In 2012 these two social

categories retire, on average, after their male colleagues who have the same qualifications. Once again, the exception is high educated, who, on average, receive their pension before their male colleagues (up to around 2 years prior for retirees interviewed in 2012).

Selection Bias

The data thus presented reveals some irregularities. However, it is acceptable to assume that a positive selection mechanism is in place, whereby women who remain in employment up to the age of pension entitlement are a very special social category, characterized by a particularly pronounced attachment to work. The hypothesis that pensioners in the 65–69 year-old age range who receive a pension are selected rather than those who are not entitled to a pension is indeed confirmed in **Table 3** by the statistical significance of the *inverse Mill's ratio*. In fact, the *reverse Mill's negative ratio* shows that, in the absence of a correction factor, we would have underestimated the average age at retirement.

Proceeding by steps, the first equation on the probability of being employed at age 50 produced estimates fully in line with expectations: being a married woman with at least one child reduces the probability of remaining in the labor market up to 50 years of age, whereas being single increases it. Men, on the contrary, are more likely to be in work if married, and the presence of children does not seem to influence their level of employment. Not having one's own family increases the probability of being unemployed or of having career breaks prior to fifty years of age. For both men and women, being widowed, separated or divorced places them in an intermediate position: the likelihood of working is greater with reference to married women, and lower with reference to married men.

Over time, male employment rates have slightly reduced, but, as noted, this does not apply to women, whose employment rates are instead increasing. In fact, between 2006 and 2012, the probability of women having a job that entitles them to a pension increases. Considering that, in the 2006 data, we are observing women born between 1937 and 1941 and, in the 2012 data, those born between 1941 and 1947, data from the selection equation show a higher propensity for female employment in the younger cohorts.

The level of education correlates with participation in the labor market: the higher the cultural capital, the higher the probability of being employed and receiving an old-age pension. Women with a higher education have greater probability than man of being employed and of receiving an old-age pension. Moreover, from a geographical point of view, Italy is divided into two: the probability of being employed until at least fifty years of age is greater among those living in the center and north than in the south.

In summary, the selection equation results confirm what the literature already tells us: that female employment rates, while increasing over time and by birth cohorts, remain far below those of men and the probability of remaining in the labor market differs according to geographical area, level of education and marital status. The pensioner population is therefore, as expected, highly self-selected. Estimates of the second retirement age equation, when corrected for that distortion, provide, in other words, a framework of variables correlated to retirement ages, cleansed of this selection effect, which hides, obviously, other individual unobservable characteristics for which the database does not provide information, in terms of attachment to work, motivation, and so on.

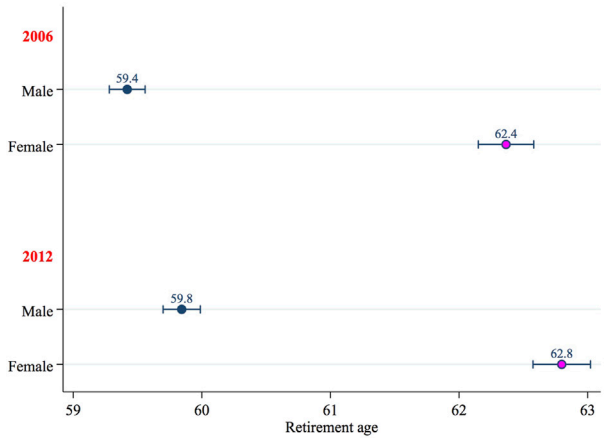

FIGURE 1 | Estimated age at retirement by sex and year: Predicted values and 95% confidence intervals.

Age at Retirement and Gender Differences

According to the main equation of the Heckman model, all other characteristics being equal, women, on average, retire about 3 years later than men (**Figure 1**). According to Radl (2013), something similar takes place in only four other countries: Spain, Finland, Ireland and France, where, in most cases, women's employment rates are lower than those of men[8].

We know, however, that female employment rates are highly influenced by the education levels. While it is true that the cost of leaving the labor market because of family responsibilities increases for women graduates, it is also true that their bargaining capacity within the couple increases (Brines, 1993; Lucchini et al., 2007). It follows that the female sample of retirees is strongly selected in favor of women with high levels of education.

Figure 2 illustrates even more concisely the predicted age at retirement by gender and level of education according to the year of the survey. The estimate is calculated by averaging every other variable in the regression. The predicted values were calculated considering men and women as though they were two separate samples.

For men, the age at retirement increases in line with the attainment of higher levels of education, while for women precisely the opposite is true. Men who have a degree or a high school diploma tend to remain in employment until reaching the maximum retirement age. People with low levels

[8]Please note that we are considering the age at which one has received a pension, not the age at which one has exited the labour market, which in Italy is higher for men than for women (Oecd, 2017).

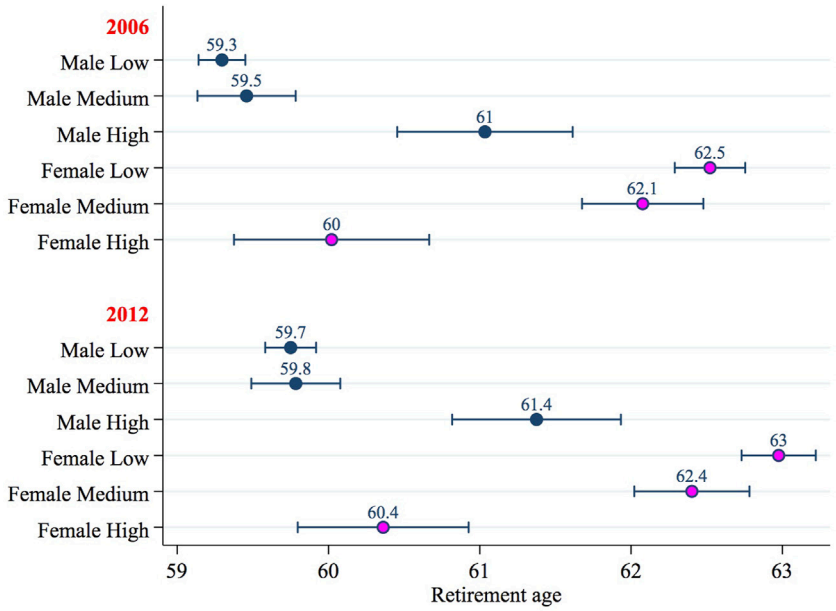

FIGURE 2 | Estimated age at retirement by sex, year and educational attainment: Predicted values and 95% confidence intervals.

of education, however, are likely to carry out less rewarding and often more arduous work. Accordingly, having attained the number of contributory years required to accrue a pension is often a sufficient reason for retirement.

Conversely, almost only one out of five women (compared with one out of two men)[9] manage to retire after meeting the contributory requirements, and among those with low levels of education, the high instability of their working careers requires that they prolong their number of working years compared with their male colleagues. Consequently, this appears to confirm the results that have emerged in other research: fragmented working careers, widespread part-time work, and the income gap between men and women for the same work all mean smaller pension *cheques* and longer careers for women than for men.

Female graduates, however, who retire almost a year before their male colleagues, can afford to exit the labor market at a younger age than women with lower qualifications (**Figure 2**). In fact, they usually have access to better protected jobs, for example in the public sector, and can more frequently negotiate flexible working hours at times when they need to tend to the family or children, instead of being forced to leave the labor market.

Turning to the comparison between 2006 and 2012, in the period observed, the age at retirement increased and the pre-existing gender differences were exacerbated to the detriment of women with low levels of education. In fact, gender equality in terms of retirement age, provided by the pension reforms, which will be visible in the next pensioner cohorts, if not accompanied by labor policies aimed at reducing gender differences (such as in income, access to management positions, distribution of part-time work, the burden of family duties, etc.), will only increase the existing gap in retirement age between men and women, to the detriment of women employed in low-skilled occupations in particular.

CONCLUSION

The many studies that have addressed the relationship between women and the labor market in Italy have focused on gender inequalities such as the lower rates of activity and employment of women, the inequality in the salaries men and women receive, and the difficulties faced by women in terms of work-life balance.

However, little has been done to investigate the gender differences relating to the conclusion of working life and retirement age. In most industrialized countries, women retire, on average, at a younger age than men (König, 2017). In Italy, however, women gain a pension, on average, after men. This phenomenon is related to two main factors: the self-selection of women reaching retirement and the fragmentation of women's working careers.

It was thought that, by raising the retirement age, recent reforms would increase people's age at retirement, involuntarily in the case of individuals with low levels of education, voluntarily in the case of those who are in well-remunerated and prestigious occupations. The data does not allow us to assess the impact of these reforms, whose effects will only begin to be evident in the coming years. However, the analysis has shown that the self-selection of women with high levels of education hides the big disadvantage faced by women with low and medium levels of education. In fact, if these women remained in the labor market until the age of fifty, there would be

[9]In 2012 respondents were asked on reasons for having left the labor market.

an increase of almost 3 years of the age at which they receive a pension, higher than that of men in the same situation. Furthermore, our results show that statistics on average age at retirement by sex must be considered carefully because of the selection bias of high educated women, particularly in countries with low level of female employment rates. Low educated women, in fact, are more prone to be inactive before the retirement age but when employed they are forced to cope to more uneven financial retirement options than their male counterparts. On the contrary, highly educated women – who are highly present among retired, and strongly affect statistics on retirement by sex – prefer to exit before men.

Investment in education has an undoubted advantage for female university graduates in terms of age at pension, since it is lower than for women with low levels of qualification and for men with the same qualifications. The first of the two factors considered (the self-selection of employed women) allows us, then, to grasp gender inequalities in terms of even higher ages at pension.

In general terms, we can also say that the pension age of women is higher than that of men with the same levels of education because of their shorter career path, their more frequent breaks due to care obligations, their higher number of part-time contracts and the reduced pay received by them for the same work. These elements end up having the effect of postponing the pension age due to lack of eligibility requirements, or because it is economically disadvantageous. The second factor (fragmented women's careers) considered in our assumptions therefore goes in the direction we would expect.

In conclusion, a further remark appears relevant. Some research has underlined the importance–and the widespread practice in Italy–of grandparents caring for their grandchildren, describing a potentially undesirable and unexpected effect on female employment of pension reforms aimed at increasing the retirement age (Bratti et al., 2016). The presence of grandparents–especially of grandmothers–who are eligible for retirement (Hank and Buber, 2009), increases the chances that daughters or daughters-in-law have to find or keep a job. The absence of grandparents willing to spend their own free time looking after their grandchildren, because they are still in employment, could therefore result in a reduction in female employment.

The contribution of this article is a further step towards understanding gender inequalities: pension policies aimed at pushing up the retirement age of women could further widen the gap between men and women, penalizing especially those who hold low or medium levels of qualification. Considering that female employment tends to consist primarily of highly educated women, the only way of getting close to the objective, defined by international institutions and widely accepted by the scientific community, of increasing women's participation in the labor market, is by promoting the employment of the less educated. The issue is that these women would persistently suffer from the social costs caused by fragmented and longer careers, due to the difficulty they have in achieving the eligibility criteria for retirement, on the one hand, and the postponement of the retirement age envisaged by the most recent guidelines, on the other.

Given this, the blanket affirmation of a principle of formal equality of treatment for all contributors and overcoming the paternalistic idea of 'a posteriori compensation' would conceal the perpetuation of gender inequalities produced by working careers. Therefore, pension measures that are not properly linked to policies aimed at mitigating the gender gap in the labor market would appear to contradict the aim of achieving equality (Heckman, 1979; Becker, 1996; Del Boca et al., 2005).

DATA AVAILABILITY STATEMENT

Publicly available datasets were analyzed in this study. This data can be found here: https://ec.europa.eu/eurostat/web/microdata/european-union-labour-force-survey.

AUTHOR CONTRIBUTIONS

NL wrote Introduction, RR Women and Pension policies in Italy and Female employment and level of education. FS wrote Data and Methods and Results, while Conclusions were written jointly.

SUPPLEMENTARY MATERIAL

The Supplementary Material for this article can be found online at: https://www.frontiersin.org/articles/10.3389/fsoc.2021.707591/full#supplementary-material

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Changes in Secondary Healthcare Use Over Retirement Transition: Examining Social Differences With Swedish Register Data

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Background: Despite its relevance for healthcare expenditures and public health, few studies have examined how secondary healthcare use changes during the retirement transition. We therefore use Swedish register data to examine whether retirement is associated with intensified secondary healthcare use overall and for specific subgroups based on gender and education.

Methods: The sample was all individuals registered in Sweden who retired from paid work in 2010. We used Generalised Estimating Equations models to analyse changes in two indicators of secondary healthcare use, namely specialist visits and hospitalisation, from 3 years prior to 5 years after retirement.

Results: Retirement is not associated with changes in specialist visits or hospitalisation *per se*. Three years before retirement, women were more likely to visit a specialist but less likely to be hospitalised than men; these gender differences disappeared approximately 1 year before retirement. Women with high education were more likely to visit a specialist than women with low education across the entire retirement transition, particularly post-retirement. Significant differences with regard to specialist visits between male educational groups only emerged 12 months after retirement. There were no educational differences with regard to hospitalisation.

Conclusions: We conclude that secondary healthcare use in Sweden does not generally change with retirement. However, over the course of retirement gender differences in secondary healthcare use tend to decrease and within-gender educational differences tend to increase. We interpret the results as reflecting the role of labour market institutions in contributing to gender differences but repressing educational differences in secondary healthcare use.

Keywords: retirement, secondary healthcare, socio-economic status, gender, Sweden, register data

INTRODUCTION

Research on how healthcare use changes during retirement—overall and for specific subgroups—has the potential to inform healthcare budgets, identify social inequalities and vulnerable groups, and contribute to a better understanding of how retirement affects individuals' wellbeing in later life. Little is, however, currently known about how secondary healthcare use changes during the retirement transition. In the current study we therefore use Swedish register data to examine how two indicators of secondary healthcare use, namely specialist visits and hospitalisation, change during retirement and how retirement is interrelated with differences between men and women with different educational backgrounds. We focus specifically on secondary healthcare use because it is associated with more serious health problems and is also often more expensive than primary healthcare (e.g., general practitioner visits).

There are several reasons why secondary healthcare use might change with retirement. For one, by freeing up time, retirement changes people's opportunity structures for health behaviour (Olds et al., 2018). For instance, with retirement, people seem to engage more often in physical activities (Stenholm et al., 2016). However, the effect is unequally distributed with people of higher socio-economic status (SES) engaging stronger in activities while those with lower SES tend to reduce their activities (Barnett et al., 2012). At the same time, retirement assumingly reduces work- and transport-related physical activity (Xue et al., 2020). For other health behaviours, as smoking, drinking and dietary behaviour, the findings are inconclusive (Helldán et al., 2012; Si Hassen et al., 2017; Xue et al., 2020). Another line of arguments why retirement might affect secondary healthcare use, is that retirement directly affect health (and thus on healthcare use). This has been long-time for debate with equally inconclusive results (for overviews, Gallo, 2013; van der Heide et al., 2013; Xue et al., 2020). Most recent studies suggest that health develops non-linearly during retirement with differences in the anticipatory, short- and long-term effects of retirement (Westerlund et al., 2009; Wetzel et al., 2016; Schmälzle et al., 2019) and that health develops differences over SES (Westerlund et al., 2009). In sum, there are reasons why retirement might increase secondary healthcare use (due to e.g., more time for doctoral visits), but also decrease (due to e.g., more time for healthy lifestyle), and also reason to believe that the pattern of change might depend on the SES and time frame.

So far, several studies have empirically examined how secondary healthcare use changes during retirement with inconclusive results. A Swedish study based on full population data found no evidence that hospitalisation changed with retirement (Hagen, 2018) and another Swedish study shows that over the course of retirement (age 62–70) secondary healthcare increases however depending on the pathway (e.g., early vs. late retirement, bridge employment) individuals follow (König et al., 2021). A Danish register-based study found that hospitalisation due to mental disorder increased before retirement but then decreased after retirement (Olesen et al., 2015) while another Danish study showed that statutory retirement had no effect on hospitalisation (Nielsen, 2019). Other studies from central Europe and the United States found that neither specialist visits (Bíró, 2016; Lucifora and Vigani, 2018) nor nights spent in hospital (Coe and Zamarro, 2015; Eibich, 2015; Grøtting and Lillebø, 2020) changed with retirement, and that doctor visits (all types) either decreased (Coe and Zamarro, 2015; Eibich, 2015; Frimmel and Pruckner, 2020) or increased (Bíró, 2016; Lucifora and Vigani, 2018). In China, doctor visits (all types) and hospitalisation both appear to increase with retirement (Zhang et al., 2018).

Summing up, the existing literature on secondary healthcare use during retirement is inconclusive. An important caveat of previous studies is, however, that most studies have assessed only the population average, while just a few have examined potential differences between social groups (e.g., Eibich, 2015; Olesen et al., 2015; Bíró, 2016; Bíró and Elek, 2018; Zhang et al., 2018; Grøtting and Lillebø, 2020; König et al., 2021). How secondary healthcare use changes during retirement might depend, however, on gender and/or SES. Many studies indicate that women use more healthcare than men, which seems to be at least partly explained by gender differences in health (Green and Pope, 1999). Even though women tend to live longer and have fewer life-threatening conditions (e.g., heart attacks), they also tend to have more non-fatal chronic conditions and mobility limitations than men which may increase their secondary healthcare use (Read and Gorman, 2010). Women also experience greater physiological and hormonal changes over the life course (e.g., menopause) than men. Whether the magnitude of gender differences in secondary healthcare use changes with retirement has not yet been answered. It is, however, widely acknowledged that men and women's experiences in the labour market differ dramatically, which seems likely to affect their experience of retirement in ways that are relevant for their secondary healthcare use (Moen, 1996). For instance, women tend to occupy fewer positions of power, receive less income, and are more likely to work part-time, and hence have less access to some health-related resources, more chronic stressors, and also more time to access healthcare relative to men (Read and Gorman, 2010). Retirement may at least partially level out any gender differences in secondary healthcare use stemming from gendered experiences in the labour market.

For both men and women, trajectories of secondary healthcare use during the retirement transition may also differ across SES groups. Lower SES groups typically have worse health than higher SES groups across the entire life course (Mirowsky and Ross, 2017), and there is some evidence that health disparities across SES groups increase after retirement (Schaap et al., 2018). The observed increase in health disparities suggests that SES-related differences in secondary healthcare use may likewise increase during the retirement transition. In studies that examined how retirement affected secondary healthcare use in different SES groups, one study found no difference between income groups in Sweden (Hagen, 2018), the other found that hospitalisation increased more for people with less education in China (Zhang et al., 2018) and the third found a decrease in hospital days only for male blue collar workers but not for white collar workers (Frimmel and Pruckner, 2020). Similarly, a forth study finds a

decrease in the likelihood for hospitalisation only for low SES groups (Grøtting and Lillebø, 2020).

In the current study we assess changes in specialist visits and hospitalisation across the retirement transition overall and separately for men and women with different educational backgrounds. Since selectivity is a problem in longitudinal studies on health (Lynch, 2003), the current study uses Swedish register data for an entire birth cohort and hence is based on a full, unselected data. Healthcare in Sweden is publicly funded and provided to all citizens for free (children) or at a regulated low cost (adults). Patients can access secondary healthcare through referral from a primary care provider, or they can contact specialists directly. To examine changes potentially preceding retirement as well as short- and long-term health trajectories during the retirement transition, we examine secondary healthcare use over the course of 3 years prior through 5 years after retirement. We focus on old-age retirees coming from work only. Although this is not the most often applied retirement pathway in Sweden representing only about 24% of all recent retirement transitions (König et al., 2021), at this pathway experienced changes in daily time structures and resources should be most pronounced (see Schmälzle et al., 2019 for a similar argument).

To sum up, our study contributes to previous research in five ways. First, our article focuses on different subgroups of individuals, rather than looking at a mean effect. Second, our study examines also long- and short-term changes across retirement, which is a benefit in contrast to rather direct effects measured by other approaches such as instrumental variable approaches or a regression discontinuity design. Looking at healthcare use on a monthly basis allows us to differentiate between changes that precede retirement and changes that follow the retirement transitions. Although this approach is descriptive in nature, insights about the succession of changes can be derived. Third, we apply a rather strict definition of retirement which provides a clearer picture compared to previous studies where phased retirement and stepwise reduction of work is mixed with transitions from work to full retirement. Fourth, we use two measures of healthcare use which allows us to detect potential differences between healthcare seeking behaviour and healthcare needs. Last, we use register data which has a clear advantage compared to survey data which may be limited by sample selection.

METHODS

Data Sources

Data on retirement, gender and education were from the Longitudinal Integration Database for Health Insurance and Labour Market Studies (LISA) database. LISA is a Swedish register including information on income from different sources and socio-demographic factors, collected and administered by Statistics Sweden. To identify the month of retirement, we used information from the "Activity Register" for 2010, a register also administered by Statistics Sweden which includes monthly information on employment status.

Data on specialist visits and hospitalisation were from the National Patient Register. Both registers are administrated by the Swedish National Board of Health and Welfare. The hospitalisation registry includes more than 99% of all inpatient hospital discharges (Ludvigsson et al., 2011).

Study Population and Sample

Our study population was all individuals registered in Sweden and born between 1943 and 1949 who were gainfully working in 2009 and retired in 2010 (the last year in our data that allows for 5 years follow-up)[1]. In 2009, a total of 963,030 individuals were aged between 60 and 66 years (inclusive) and thus eligible for pension payments in 2010. Of those, 843,212 were still alive in 2011, living in Sweden and registered in LISA.

Gainfully employed individuals include those on temporary sickness benefits (sjukpenning) but not those on disability pensions (sjukersättning). Sickness benefits can be received for a longer period of time. After 3 months, and then again after 6 months, a person's health is examined against their work ability. Since in most cases it is economically better to receive sickness benefits than to take out pensions, we expect to be able to detect decreasing health that leads to retirement when looking at a distance to retirement in 3 months steps. Hence, we can draw a clear timeline whether health shocks appear before retirement or after. Individuals on disability pensions were excluded.

We define retirement as the transition from being gainfully employed without pension benefits to receiving only retirement benefits. Thereby, we exclude those who receive pensions but continue working. In 2009, 281,450 individuals had income fully based on paid work (excluding self-employed and individuals with very low income below the "price base amount" (in 2009: 42.800 SEK $\sim$ 4.600 € p.a.); for a similar approach identifying different pathways into retirement (see König et al., 2021). While most of them (50.8%) were still fully working in 2011, 29,090 individuals (10.3%) reported that their entire income in 2011 was from pension payments. Precise information on the month of first pension receipt in 2010 was available for 25,133 individuals. Of these individuals, data on specialist visits was available for $N = 25{,}122$ and data on hospitalisation was available for all $N = 25{,}133$.

We clustered secondary healthcare use data into 3-month periods centred around the month of retirement [T0 = 0 ($\pm$1) month of retirement] to reduce empty cells without losing to much details in the temporal dynamics of the developments. In sum, we observed a period from 3 years and 1 month prior to 5 years and 1 month after retirement for a total of 33 observation points. As full-information was available, a balanced panel design with 829,026 observations on specialist visits and 829,389 observations for hospitalisation was built.

[1]We decided to keep the retirement period (P) fixed to focus on similar living conditions and retirement regulations for the observed individuals. Although the retirement age (A) range seems to vary significantly, statistics Sweden showed that retirement age does differ only marginally between gender and educational groups (Statistics Sweden, 2013).

Gender and Education

Gender was coded as either 0 = "male" or 1 = "female". We defined three educational groups similar to a three-step ISCED: −1 = "low education" (elementary or less), 0 = "middle education" (middle vocational and vocational with A-level), and 1 = "high education" (higher vocational or tertiary education).

Statistical Analyses

We conducted all analyses with Stata14. First, we compare mean levels using one-way analysis of variance to assess gender differences in education and secondary healthcare use at retirement (T0). We then apply Generalised Estimating Equations models (Liang and Zeger, 1986) with repeated measurements and autoregressive correlation structure. This type of multilevel model separates the variances within the individuals from the variance between individuals and therewith acknowledges that observations within an individual are more similar than those between individuals. As the outcome variables are binary, we apply a logistic distribution function to analyse secondary healthcare use during the retirement transition. The results are displayed as odds ratios (OR) with 95% confidence intervals (CI).

TABLE 1 | Sample characteristics and secondary healthcare use at retirement in total numbers (and percent).

	Total	Male	Female	*p-value*
	25,133 (100.0)	11,488 (45.7)	13,645 (54.3)	
Education				
1. Low	7,272 (28.9)	3,890 (33.9)	3,382 (24.8)	
2. Middle	12,007 (47.8)	5,519 (48.0)	6,488 (47.5)	
3. High	5,854 (23.3)	2,079 (18.1)	3,775 (27.7)	0.00
Specialist visits at T0 (N = 25,122)				
Specialist visit (yes)	4,113 (16.4)	1,879 (16.4)	2,234 (16.4)	0.98
Hospitalisation at T0 (N = 25,133)				
Hospitalisation (yes)	215 (0.09)	104 (0.09)	101 (0.09)	0.43

T0 represents the time of retirement transition. Gender differences were tested using one-way ANOVA.

RESULTS

Sample Characteristics and Gender Differences at Retirement

Just over half (54.3%) of the sample were women and 23.3% had a tertiary degree. The educational distribution differed significantly between men and women: 27.7% of the women vs. 18.1% of the men were highly educated. This is consistent with public statistics (OECD, 2019). Around the time of retirement, 16.4% of the sample visited a specialist and 0.9% spent at least 1 day in a hospital over a 3 months period. There were no gender differences in secondary healthcare use at retirement. Further sample characteristics and secondary healthcare use at retirement, overall and split by gender are provided in **Table 1**.

Specialist Visits During the Retirement Transition

Figure 1A shows the OR for a specialist visit separately for men and women from 36 (±1) months before through 60 (±1) months after retirement. The odds ratio indicates the risk for a visit a specialist in a particular 3 months period compared to risk at the time of retirement for men. For instance, 36 months before retirement, the OR of 0.75 indicates that at that time men had a 25 percent lower risk of visiting a specialist than at the moment of retirement. For men, the OR for specialist visits increased more or less linearly from 0.75 (CI: 0.69–0.80) to 1.42 (at 57 months, CI: 1.33–1.51). For women, also a highly linear increase from 0.83 (CI: 0.78–0.89) to 1.37 (at 57 months, CI: 1.29–1.46) can be found. There was a small decline in the OR at the last observation [e.g., at 60 months men had an OR of 1.30 (CI: 1.22–1.39)]. There were no significant short-term changes in specialist visits either in the months before or after retirement.

In the years before retirement, women were more likely to visit a specialist than men [e.g., at −24 months, women had an OR of 0.90 (CI: 0.84–0.96) while men had an OR of 0.83 (CI: 0.77–0.89)]. The OR for specialist visits for women converged with the OR for men around 2 years before retirement, after which no significant gender differences were observed.

Figure 1B displays the change in OR for specialist visits for men and women split by educational level. The reference category is the higher educated again at time of retirement. To reduce complexity, we display only every second measurement occasion and only the OR for people with high and low education. The OR for people with middle education was always between the OR for people with high and low education. For men, there were no significant differences in the OR for specialist visits across educational groups until 12 months after retirement [low education: 1.00 (CI: 0.86–1.15); high education: 1.18 (CI: 1.01–1.39)]. In the 2 years following retirement, the differences between male educational groups increased 24 percentage points [low education: 0.95 (CI: 0.82–1.10) at T0 to 1.02 (CI: 0.89–1.33) at 24 months; high education: 1.00 (CI: not available because reference point) at T0 to 1.31 (CI: 1.12–1.53) at 24 months]. The increasing educational difference was primarily driven by a much larger increase in specialist visits among men with high education and a slower increase among men with low education.

In contrast to men, women with high education consistently had a higher OR for specialist visits than women with low education across the entire retirement transition. The difference between women with low and high education increased from 18 percentage points around the time of retirement to 28 percentage points at 24 months after retirement (low education: 0.82 (CI: 0.72–0.93) at T0 to 0.98 (CI: 0.87–1.11) at 24 months, high education: 1.00 (CI: not available because it is a reference point) at T0 to 1.26 (CI: 1.12–1.40) at 24 months). Hence, 2 years after retirement, the educational differences observed among men and women were of similar magnitude.

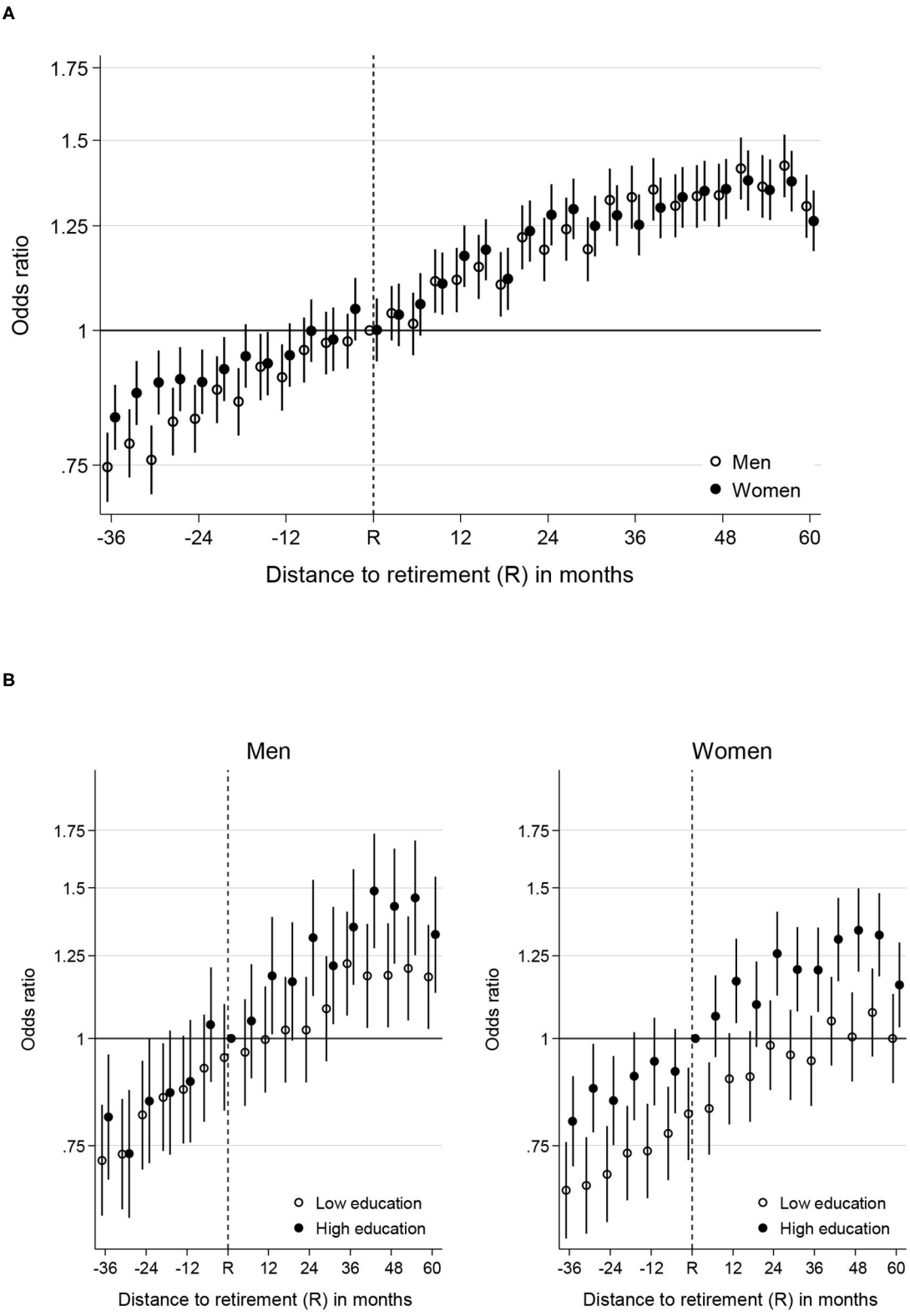

FIGURE 1 | (A) Likelihood of specialist visit (expressed as odds ratio) during the retirement transition for men and women. Reference category is recently retired men. **(B)** Likelihood of specialist visit (expressed as odds ratio) during the retirement transition by gender and education. Reference category is recently retired high educated men or women. Only data from the low and high education groups and every second measurement occasion are displayed.

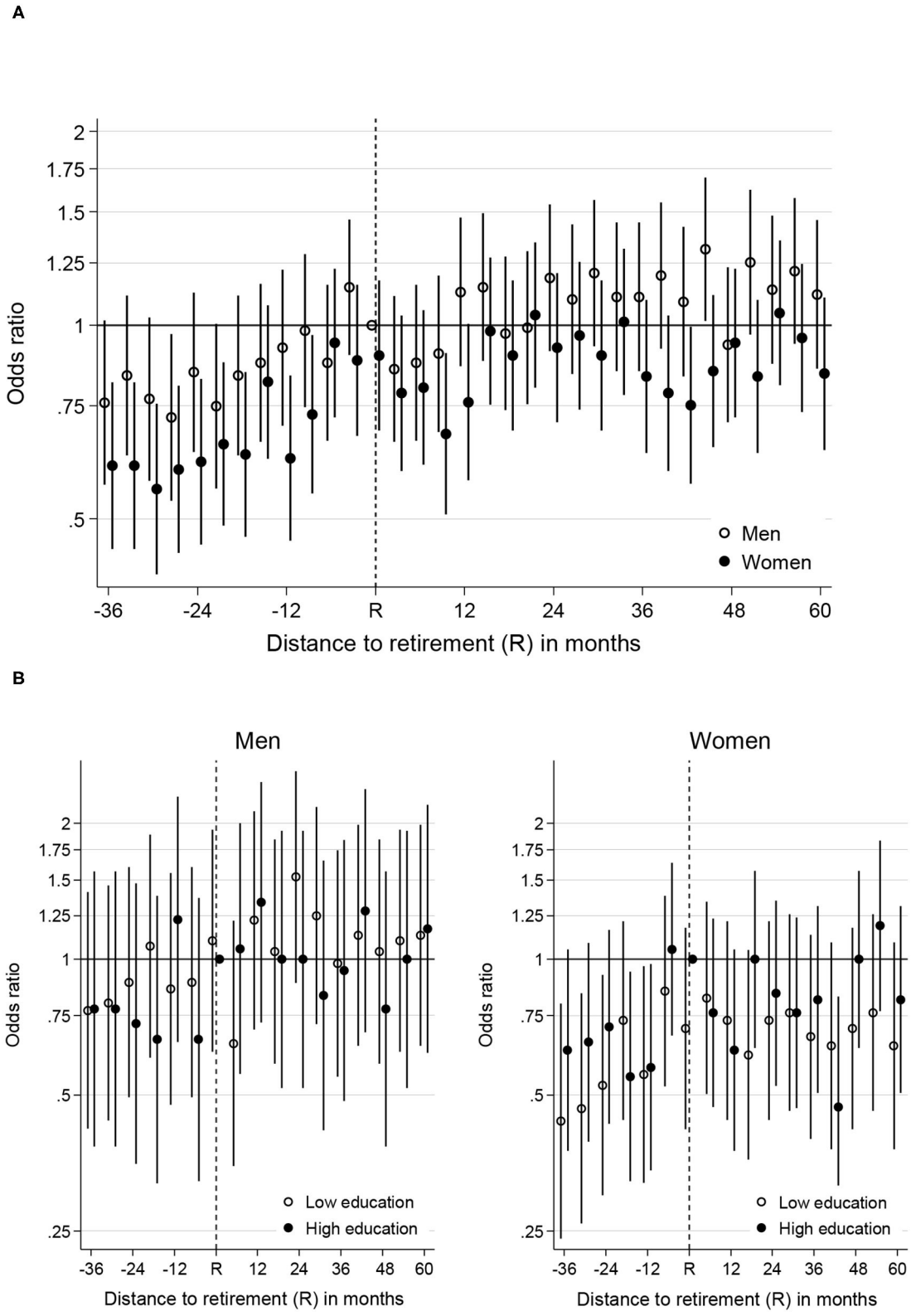

FIGURE 2 | (A) Likelihood of hospitalisation (expressed as odds ratio) during the retirement transition for men and women. Reference category is recently retired men. **(B)** Likelihood of hospitalisation (expressed as odds ratio) over the retirement transition by gender and education. Reference category is recently retired high educated men or women. Only data from the low and high education groups and every second measurement occasion are displayed.

Hospitalisation During the Retirement Transition

Figure 2A displays the OR for hospitalisation for men and women from 36 months before to 60 months after retirement. The OR for hospitalisation increased for both men [0.76 (CI: 0.57–1.02) to 1.21 at 57 months after retirement (CI: 0.94–1.58)] and women [0.60 (CI: 0.45–0.81) to 0.95 at 57 months (CI: 0.64–1.10)]. The OR at the last observation (60 months after retirement) was a bit lower than the previous observation but the difference was not statistically significant. For women, the OR for hospitalisation was lower 3 years to 1 year before retirement [−12 months: 0.62 (CI: 0.46–0.83)] than at retirement [0.90 (CI: 0.68–1.17)]. After retirement, the trend was less clear. For men, retirement did not seem to be associated with any changes in the OR for hospitalisation. Due to the increasing hospitalisation in the year before retirement for women, previously existing gender differences levelled out around retirement and there was no clear pattern after retirement. There were also no significant differences between educational groups among either men or women (see **Figure 2B**).

DISCUSSION

The current study uses Swedish register data and Generalised Estimating Equations models to estimate two types of secondary healthcare use during the retirement process for all individuals registered in Sweden born between 1943 and 1949 and retiring fully in 2010. Our main result is that we found no evidence that secondary healthcare use changed as in the short-term after retirement *per se* and is therewith in line with a list of previous studies on specialist visits (Bíró, 2016; Lucifora and Vigani, 2018; Nielsen, 2019) and hospitalisation (Coe and Zamarro, 2015; Eibich, 2015; Grøtting and Lillebø, 2020). We found that specialist visits increased gradually across the observation period, indicating an age as opposed to a retirement effect. We did not observe any overall changes in hospitalisation, nor did we find any gender and/or educational differences. Generally, the low prevalence of hospitalisation resulted in large CI and hence no statistically significant differences based on either gender or educational level.

Importantly, the current study found that gender differences in secondary healthcare use were most present in the years before retirement (i.e., while in paid work). Before retirement, women were more likely to visit a specialist and less likely to be hospitalised than men. This may be related to labour market stratified stressors and resources which are associated with jobs that typically men and women possess. The gender differences decreased (and disappeared) already in the last year. We therefore assume that labour market institutions lead to gendered health(care) risks and resources and that labour market institutions begin to lose their structuring power already in the year leading up to retirement, which might be due to anticipation. For instance, some individuals may delay non-critical specialists visits in anticipation of more flexibility in times of retirement. We observe this mainly among women. Three years prior to retirement, women might have better opportunities to visit specialists due to part-time work, compared to men. That might explain gender differences before retirement. One year prior to retirement, we observe this anticipation effect, where working hours may not be related to healthcare seeking behaviour. Since we do not observe this pattern for acute treatment in hospitals, we argue that the anticipation effect mainly concerns healthcare seeking behaviour, and not necessarily healthcare needs. This pattern might be specific to Sweden and countries with similar welfare regimes. In liberal countries, where healthcare provision is more closely linked to employment status, individuals might want to visit specialists before retirement.

Examining the intersection of gender and education revealed an interesting pattern with regard to specialist visits. Namely, women with high education were more likely to visit a specialist compared to women with low education over the entire period. The female educational difference increased after retirement. A difference in specialist visits between men with low and high education appeared only after retirement. Male and female educational differences were of similar magnitude after retirement. Taking these results together, education-based inequalities in secondary healthcare use seem to become more important after retirement. Education-based inequalities in a number of individual resources [e.g., income, leisure activities, social support (Wetzel et al., 2019), and subjective wellbeing (Wetzel et al., 2016)] also tend to increase after retirement.

The findings contribute to research regarding consequences of retirement and social policy research. They can be interpreted as indicator that retirement affects healthcare only little on average but that particular groups could profit from special attention. In the current study, lower SES was related with less advantageous changes with retirement. On the other side, gender differences declined with retirement. This might indicate that the labour market enforces gender differences while at the same time level-out SES differences (at least for those previously working). Moreover, this study contributes not only to the Swedish case but conclusion for other countries can be drawn. The Scandinavian Welfare state regime is known for their high level of redistribution aiming to reduce social inequalities—in particular between genders. Accordingly, in countries in which inequality receives less socio-political attention, both even larger educational and gender differences can be expected. With retirement transition, the current study would suggest that gender differences would decline also in mid- and larger inequality countries while educational differences might increase. While this generally points to an interesting research question, future research might want to address educational and gender-differences more explicitly. For example, Wetzel et al. (2019) found that inequality in number of chronic conditions increases by SES and gender without finding inequality in both dimensions before retirement—however only for those who have been previously unemployed. The current study would argue that declines in gender differences could be attributed to gender-segmentation of the labour market (e.g., positions of power, income, part-time) which become levelled out with retirement. For SES differences, retirement seems to be a life event leading to more (dis)advantageous developments, as previous research has

found for other outcomes (e.g., Westerlund et al., 2009; Wetzel et al., 2016).

The current study has several strengths. We used detailed observational data from an entire birth cohort covering several years before and after retirement. We were therefore able to avoid problems associated with selectivity and observe anticipatory, short- and long-term effects of retirement. We used a precise definition of retirement as the end of gainful work and hence the time point at which, in particular, daily life routines and time structure drastically change. One reason why the literature on secondary healthcare use during retirement has been inconclusive may be because studies have considered many different retirement pathways [e.g., retirement from unemployment or disability pensions, bridge employment (Schmälzle et al., 2019; König et al., 2021)]. Finally, considering two indicators of secondary healthcare use, namely specialist visits and hospitalisation, allowed us to reveal how retirement affects different types of secondary healthcare.

Future research should address some of the limitations of the current study. We focused only on the secondary healthcare use of people retiring from paid work. Future research that considers primary and secondary healthcare as well as other pathways to retirement would contribute to a more comprehensive understanding. We did not differentiate the purpose of specialist visits (e.g., prevention vs. treatment), nor between different kinds of specialists, a limitation future research could address. Also, a comparison of several social inequality indicators might help to better the social stratification of (changes in) healthcare use. Finally, future research should examine the mechanisms by which the labour market affects social differences in secondary healthcare use.

CONCLUSION

Our findings have important implications for individuals and societies. First, retirement *per se* does not appear to be a cause for concern with regard to secondary healthcare expenditures in Sweden. Second, how secondary healthcare use changes with retirement depends on gender and education: gender differences become smaller while educational differences become bigger post-retirement. These findings may indicate that the labour market institutions contribute to gender differences and partially suppress educational differences, effects which lose their power with retirement.

DATA AVAILABILITY STATEMENT

The used datasets are available for research purposes after ethical approval. Both applied registries are administered by Statistics Sweden. The database was conceived, compiled and made available by the Division Ageing and Social Change (ASC) at Linköping University, Sweden, within the project Ageing in a Changing Society (PI: Prof. Andreas Motel-Klingebiel). Code for data handling and statistical analysis is available on OSF [https://osf.io/ax3ec/?view_only=f549aa85424244529e2bbfea4e577212 (This is link is anonymized for review process)].

ETHICS STATEMENT

Ethical approval for record-linkage of the register data was obtained from Linköping Regional Ethical Review Board (Dnr 2016/293-31).

AUTHOR CONTRIBUTIONS

MW had the initial idea, did the data management with support by SKe, performed the statistical analysis, and wrote the first draft of the manuscript. SKö and SKe revised the first draft. All authors contributed to conception and design of the study. All authors contributed to manuscript revision, read, and approved the submitted version.

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