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Review Article
The Older Worker: Identifying a Critical Research Agenda

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The roles that older workers play in labour markets has received a great deal of policy and academic scrutiny in response to economic crises and demographic change. As a starting point, this focus has paradoxically resulted in insufficient attention to older workers themselves. The article is thus concerned with refocusing the agenda for research onto the older worker. Building on an extensive literature review, four gaps in knowledge are identified: who might be researched; what the focus of that research might be; the role of theory informing the research; and how the research might be conducted. The article identifies a particular need for research on 'work' as opposed to 'retirement' and how the changing nature of work may influence future patterns of later life labour market engagement and retirement. It is argued that better public policy will result from more critical and socially embedded research that recognises the heterogeneity of 'older workers' and their motivations.

Key words: older workers, human resource management, public policy, theories of ageing.

Introduction

Ageing societies will almost certainly lead to ageing workforces. In almost every industrialised country, fewer children are being born and people are living longer, albeit with marked class-related inequalities. Early retirement is now viewed as being at odds with increased life expectancy, labour shortages and the drive to contain pension costs. This change in the age profile of industrialised societies has major implications for policies on employment, training and education, retirement and the overall economy. Until recently, labour market policies towards older people were overwhelmingly concerned with encouraging or facilitating early retirement, aided by support from employer organisations and trade unions. With the reduction of young people now entering the labour force, there are likely to be correspondingly fewer younger people supporting,

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through state contributions as well as their contributions to economic productivity, the growing number of older people in retirement or out of work. These demographic changes have been met by a shift in policies and attitudes favouring extending working life.

This article has three main objectives: first, to outline the scope of research in the field; second, to outline workforce age management issues; third, to identify critical policy and research agendas. While older workers are a well-established and high profile public policy target in many countries, it is argued that there has been insufficient research into their behaviours, expectations and motivations for engaging in paid work. Specifically, there has been a lack of critical attention to the heterogeneity of an older workforce, along with limited theorising about the issue, leaving significant gaps in knowledge about an important group within the labour force. This paper aims to help establish a new agenda for researching ageing and work, and, in so doing, challenges accepted assumptions underpinning mainstream management and social policy research.

Societal and demographic changes and the older worker: an historical perspective

Public policy makers have focused on the management of older workers and the ageing workforce for almost a century, their interest triggered by demographic challenges after wars and global economic crises. The research literature on older workers has dealt with issues such as: increasing or decreasing labour participation; workplace management practices; conditions of working; discrimination against older workers; unemployment and under-employment of older workers; skills development; gender and racial differences in the employment of older workers; and the nature and timing of retirement (e.g. Bancroft, 1952; Belbin, 1953; Welford, 1958; von Haller Gilmer, 1961). These concerns have themselves been interpreted within a framework focused on questions relating to productivity, competitiveness and the sustainability of welfare systems.

From the late-1970s through to the 1990s, the dominant policy discourse across much of the industrialised world concerned what came to be termed 'early exit', with those aged in their fifties and early sixties leaving employment by a variety of routes such as early retirement, disability benefits and unemployment. This was a period of declining full-time employment, but with a large number of younger people entering the labour force in many industrialised countries – trends which resulted in a steep decline in labour force participation rates among older workers. Table 1 presents labour force participation rates among men and women separately and combined for OECD member countries and the OECD overall since 1980, and illustrates the decline (extensive in many countries) in terms of the participation of men aged fifty-five to sixty-four in some countries between 1980 and the mid-1990s. By contrast, the broad pattern of older women's participation is of an increase over time, especially in part-time employment in service-related occupations.

Demand-side factors have been put forward as one important explanation for the downward trend in economic activity among older men. Trinder (1990) suggests that economic restructuring in the 1970s and 1980s, especially in core manufacturing industries, was a key factor in removing large numbers of older men from the labour force for three main reasons. First, they were over-represented in industries that suffered the largest decline in employment over these decades. Second, they were more likely to be made redundant than younger workers and tended to experience long-term unemployment as a result (Bytheway, 1986). Third, for firms needing to shed staff it was easy to negotiate early retirement arrangements (see also Laczko and Phillipson, 1991).

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Table 1 Labour force participation rates over time among men and women aged 55-64 in selected countries and overall OECD rates

Country	Sex	1980	1985	1990	1995	2000	2005	2010	2014
Australia	Men	69.0	61.4	62.8	61.4	60.9	66.2	71.2	72.2
	Women	21.8	20.2	24.8	28.5	35.3	44.4	54.1	56.2
Austria	Men	–	–	–	44.7	42.8	40.4	51.4	56.8
	Women	–	–	–	19.1	17.6	22.5	33.6	37.5
Belgium	Men	–	45.1	35.4	35.9	37.5	43.4	47.6	51.3
	Women	–	11.0	9.9	13.3	17.1	23.4	30.9	39.0
Canada	Men	74.5	68.8	64.0	58.3	60.7	66.7	68.0	69.7
	Women	32.6	33.4	34.9	36.2	41.4	49.4	56.5	59.2
Chile	Men	–	–	–	–	76.5	77.1	82.2	85.8
	Women	–	–	–	–	25.5	30.9	40.8	48.4
Czech Republic	Men	–	–	–	52.4	54.5	62.2	62.5	67.9
	Women	–	–	–	21.4	23.7	33.1	38.0	46.3
Denmark	Men	–	65.8	69.1	67.9	66.7	68.7	67.8	72.6
	Women	–	42.4	45.9	40.1	49.0	56.8	55.9	60.3
Estonia	Men	–	–	75.2	60.1	60.0	59.4	64.3	69.1
	Women	–	–	49.7	33.7	39.4	57.3	64.3	66.5
Finland	Men	56.9	51.7	47.1	44.6	48.1	56.5	60.0	61.9
	Women	43.8	46.2	40.8	41.9	45.2	56.4	60.3	65.8
France	Men	–	44.3	39.3	36.1	35.5	43.8	45.3	53.1
	Women	–	27.7	26.9	27.1	28.2	37.7	40.0	48.6
Germany	Men	67.3	57.9	55.9	53.9	52.4	61.3	70.7	75.5
	Women	28.9	22.7	24.7	31.1	33.5	43.2	54.5	62.9
Greece	Men	–	67.3	59.5	61.1	57.3	60.8	60.2	53.4
	Women	–	26.4	24.3	24.5	25.4	27.1	31.1	29.9
Hungary	Men	–	–	–	28.6	34.1	42.4	42.2	53.2
	Women	–	–	–	9.7	13.3	27.7	31.7	37.4
Iceland	Men	–	–	–	92.7	94.7	90.1	88.4	90.3
	Women	–	–	–	84.8	76.8	81.9	79.8	83.3
Ireland	Men	–	71.5	65.0	64.1	65.2	67.8	65.2	68.3
	Women	–	19.9	19.9	21.3	27.6	38.4	45.4	48.1
Israel	Men	–	74.0	72.0	67.8	63.5	67.9	71.3	76.2
	Women	–	25.8	31.3	34.6	39.1	47.3	56.4	60.3
Italy	Men	39.6	54.8	53.0	46.5	42.7	44.3	49.5	60.2
	Women	11.0	15.1	15.5	14.1	16.1	21.5	26.9	38.3
Japan	Men	85.4	83.0	83.3	84.8	84.1	83.1	83.9	84.8
	Women	45.3	45.3	47.2	48.5	49.7	50.8	53.9	57.5
Korea	Men	80.0	77.3	77.2	79.6	71.3	74.5	77.7	82.0
	Women	46.2	47.3	49.6	50.4	48.8	46.5	48.1	53.0
Luxembourg	Men	–	40.0	43.2	35.1	38.6	39.4	48.8	52.1
	Women	–	13.6	13.8	13.3	16.8	25.1	32.0	36.5
Mexico	Men	–	–	–	78.8	79.3	79.3	78.9	78.7
	Women	–	–	–	26.7	28.0	30.7	35.9	36.9
Netherlands	Men	63.2	47.0	45.7	42.3	50.9	58.8	67.6	75.5
	Women	14.4	12.3	16.7	18.6	25.9	34.8	44.9	54.3
New Zealand	Men	–	–	56.6	65.0	71.9	79.5	82.7	83.6
	Women	–	–	30.6	39.0	47.8	62.4	69.2	74.2
Norway	Men	79.5	79.9	72.8	72.3	74.4	74.6	73.5	77.0
	Women	49.8	53.2	53.9	57.4	61.6	62.9	65.6	69.2

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Table 1 (Continued.)

Country	Sex	1980	1985	1990	1995	2000	2005	2010	2014
Poland	Men	–	–	–	45.5	40.4	43.4	48.9	57.2
	Women	–	–	–	27.6	23.7	23.5	25.9	35.2
Portugal	Men	74.6	66.0	66.9	61.2	64.5	62.4	62.0	64.0
	Women	31.5	31.2	32.5	34.6	42.0	46.0	47.4	47.5
Slovak Republic	Men	–	–	–	40.7	41.0	55.1	59.9	58.9
	Women	–	–	–	9.3	10.7	18.2	32.4	42.1
Slovenia	Men	–	–	–	–	34.6	45.4	47.5	45.7
	Women	–	–	–	–	14.1	18.9	25.5	31.1
Spain	Men	75.9	67.4	62.5	55.4	60.5	62.9	63.7	64.3
	Women	21.1	19.9	19.4	19.8	22.6	29.9	38.4	46.9
Sweden	Men	78.8	76.0	75.5	70.9	72.6	76.4	79.4	81.7
	Women	55.4	60.0	65.8	63.9	65.9	69.2	70.4	75.2
Switzerland	Men	–	–	–	82.3	79.3	77.8	80.5	81.4
	Women	–	–	–	47.2	51.3	57.7	60.6	66.5
Turkey	Men	–	–	61.3	61.0	53.4	44.8	46.1	49.3
	Women	–	–	26.6	25.1	21.6	14.8	17.3	17.9
United Kingdom	Men	–	69.0	68.1	62.5	63.2	67.8	69.3	70.9
	Women	–	35.0	38.7	40.8	42.5	48.9	50.6	56.4
United States	Men	72.1	67.9	67.8	66.0	67.3	69.3	70.0	69.9
	Women	41.3	42.0	45.2	49.2	51.9	57.0	60.2	58.8
OECD countries	Men	73.0	65.9	64.8	62.3	62.5	65.6	67.6	70.0
	Women	36.8	33.8	35.6	36.0	38.3	43.5	47.9	51.5

Source: OECD.Stat

Casey and Laczko (1989) argue that it is misleading to suggest that the fall in economic activity rates among older workers was indicative of a trend towards early retirement. An alternative explanation is that it was better understood as a form of *unemployment* than a form of retirement.

Solving the problem of youth unemployment was also given higher priority by governments in the 1970s and 1980s. As unemployment rose rapidly towards the end of the 1970s, a range of official and independent bodies advocated early retirement as the best approach for taking older people out of the labour market and allowing younger people back in (Kohli *et al*., 1991). It was facilitated by the use of a range of institutional arrangements for aggregate labour market management and was presented, according to Kohli and Rein (1991: 11), as a '"bloodless" ways of coping with unemployment'. This policy was given further impetus by 'cultural norms and public opinion stressing both the responsibility for full employment in society and the belief that, given a scarcity of jobs, priority should be given to younger workers' (Kohli and Rein, 1991: 13). In this context, the pressure on older workers, exerted through the policies of employers, trade unions and government, was generally in the direction of their exclusion from the labour market in preference for employing younger workers (Kieffer, 1986; Walker, 1982, 1985).

However, within a brief period attitudes were transformed, with bodies such as the Organisation for Economic Cooperation and Development (OECD, 1998, 2006) arguing that early retirement was unsustainable with an ageing population. Consequently, the thrust of public policy changed from targeting the removal of older workers from the

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labour market, to encouraging their continued participation (Loretto and Vickerstaff, 2015; Phillipson, 2009). Referring to Table 1, it can be observed that since the mid-1990s there has been a broad increase in the labour force participation of older men, although levels for most countries remain well below those achieved in the period up to the early 1970s. This shift in patterns of participation in the labour market coincided with the implementation of a range of policy measures aimed at extending working life (Vargas *et al*., 2013).

Proposing an agenda for research on ageing and work

In this changing context, it is important to take a fresh look at the labour market experiences of older workers and the factors influencing their attachment to employment and their movement into or out of the labour force. In considering an agenda for research on older workers, our starting point is a 2014 editorial in the *Academy of Management Journal* (AMJ), a leading journal in its field, that makes claims that seem to imply that workforce age management is a 'new' field and, on that basis, asserts the need for a 'new' research agenda. However, it is unclear what is 'new' about many of the issues that are raised in the editorial, in particular issues such as the problem of the early exit of older workers, the 'lump of labour' fallacy, the removal of a 'retirement age' and the existence of media stereotypes of older people (Kulick *et al*., 2014).

Amongst the research findings about the above topics, the notion that older workers might crowd out younger ones, once advanced as an argument for early retirement, has long since been rejected, with evidence indicating that, on the contrary, higher rates of labour force participation at older ages are associated with higher rates at younger ages (OECD, 2006; Sonnet *et al*., 2014). The editorial is also confused in terms of the terminology it deploys. For instance, it appears to conflate retirement and pension ages. Noting this is more than mere academic pedantry, given that the gap between pension ages and effective ages of retirement internationally has long been a topic of scholarly enquiry and policy interest (for example, Kohli *et al*., 1991; OECD, 2015). Additionally, Kulick *et al*. (2014: 931) state that in 'many developed countries, unemployed people aged between fifty-five and seventy constitute a huge untapped resource'. Here again, a lack of specificity in the terminology used in the editorial raises difficulties. Their description is reminiscent of post-war interest in encouraging the employment of older workers, reflecting concerns about labour shortages during the economic boom of the 1950s and 1960s (Laczko and Phillipson, 1991). However, the data on unemployment rates among older workers are unequivocal. In most countries, they are rather less likely to experience unemployment than younger workers, but when they do it is likely to be for a much longer period (OECD, 2006). In this regard, it is also notable that the article ignores the phenomenon of under-employment among older workers, which they are also more likely to experience for longer than younger workers (Taylor and Earl, 2016). Here, the considerable literature concerned with the early exit of older workers is instructive in mapping the changing contours of later working lives. For instance, research has shown that older workers not in paid employment may prefer to define themselves as disabled or early retired as they seek refuge from the labour market (Bytheway, 1986; Laczko, 1987; Piachaud, 1986; Rosenblum, 1975; Walker, 1985). This body of work makes clear that official unemployment statistics do not reflect the untapped economic potential of non-employed older workers.

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Arguably, Kulick *et al.* (2014) are also overly optimistic about the potential for what they describe as 'encore careers', given what is known, for instance, about the limited employment prospects of those from lower socio-economic groups at older ages. Moreover, while Kulick *et al.* (2014) refer to the potential benefits of flexible working practices for older workers, they ignore the potential for adverse consequences of older workers' over-representation in precarious work (Taylor and Earl, 2016) and appear to assume that 'flexibility' is necessarily beneficial, which has also been questioned (Earl and Taylor, 2015). Their discussion of flexible work options and phased retirement also appears to assume that workers will be in permanent, continuing roles where there may be some potential to negotiate such transitions with employers. This is increasingly less likely to be the case for many workers, given the increasing casualisation of work (Cappelli, 1999; Standing, 2011).

Furthermore, Kulick *et al.* (2014) refer to organisational challenges in the form of ageism and age discrimination in the labour market. Once again, such issues have been the subject of significant research over several decades (see, especially, Macnicol, 2006; Hedge *et al.*, 2006; Slater and Kingsley, 1976; Taylor and Walker, 1998). The editorial also considers the prospects for overcoming workplace age barriers, referring to the potential of wage subsidy schemes aimed at overcoming the apparent disinclination of some employers to hire older workers and suggesting that: 'Management scholars could examine if such financial incentives make a difference to firms, or if these incentive schemes become viewed as a new form of affirmative action that stigmatises older workers' (Kulick *et al.*, 2014: 932). However, once again, this is hardly a new area of enquiry. The utility of wage subsidies has been questioned previously on the grounds that older workers are a highly diverse group, and that such instruments may stigmatise and reinforce negative attitudes on the part of employers to hiring and retaining older workers, signalling that they 'are generally less productive than younger workers' (OECD, 2006: 135). In fact, the editorial makes contentious statements about the utility of older workers, drawing on age stereotypes to make its arguments: 'Given the impending skills shortage that will affect many OECD countries, employers will be increasingly reliant on older workers' expertise and experience' (Kulick *et al.*, 2014: 932). However, importantly, the evidence indicates that older workers frequently lack the levels of educational attainment that could make them competitive in the labour market (OECD, 2012) and may be unable to access the learning opportunities that could help them overcome such barriers (Vickerstaff *et al.*, 2015).

In addition, the review of Kulick *et al.* (2014) largely overlooks key areas of the empirical, theoretical and policy literature concerned with older workers that have emerged over the last two decades. Notably, this includes that relating to attitudes towards extending working life, training and education, and the nature and effectiveness of public policy targeting older workers (see, for example, Dychtwald *et al.*, 2004; Field *et al.*, 2013; Loretto *et al.*, 2007; Scherger, 2015; OECD, 2006).

Offering an alternative agenda for research on the older worker

In offering an alternative agenda for research, we build on the assertion that, in contrast to 'retirement', later-life working has received insufficient attention from scholarly research in management and related fields, such as work and occupational psychology. Undoubtedly, while there is an eminent and growing body of work on age and employment or older

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workers, we argue that the main research focus to date tells us relatively little about the attitudes, motivations and behaviours of older people at work. The lack of in-depth knowledge arises from several inter-related shortcomings:

- Varying and imprecise definitions of 'older' workers
- Limited consideration of people aged over sixty-five
- Little disaggregation of age – 'older workers' treated as an homogeneous group (with the associated issue of relatively little attention to gender, socio-economic status, etc.)
- A focus on the end of working life (retirement) rather than on later-life working itself
- Attention to 'bridge employment', despite evidence that retention of mainly long-serving older workers may be the main issue for HR managers and employers.

The following discussion will outline the gaps and suggest how they can be addressed through a new research agenda for older workers. We will consider: Who might be researched? What the focus of the research might be? What theories might inform the research? How the research might be conducted?

The first issue of 'who might be researched' is of concern to many researching issues of ageing and work, with unease at reliance upon the use of chronological age, despite its heuristic value (see, for example, Kooij *et al.*, 2008). However, the use of chronological age leads to two further considerations: what age constitutes the entry threshold to the category of 'older worker', and where does the upper threshold sit? The former attracts much more explicit debate and attention, and varies substantially, from taking its authority in legal definitions, especially the following: the USA's Age Discrimination in Employment Act (ADEA) threshold of age forty, which has been adopted in some key meta-analyses (Kooij *et al.*, 2011; Ng and Feldman, 2008, 2012); the OECD convention of ages fifty to sixty-four (OECD, 2006); the European Union convention of ages fifty-five to sixty-four (European Commission, 2003); or other policy thresholds of ages forty-five, fifty or sixty (OECD, 2006). At the top end, mainly reflecting state or official retirement ages, age sixty-five has been the most common cut-off, with relatively little attention paid to people working beyond this age, partly because until recently there had been relatively few of them. However, as Table 2 demonstrates, rates of labour force participation among those aged sixty-five or over are on the rise in many countries, and other data from the OECD covering member nations illustrate an overall rise in effective retirement age, with the average retirement age in 2012 reaching sixty-five or over in thirteen countries, compared to ten countries in 2000 (OECD, 2015). Thus, there is a need for more information about workers in this age group (Ng and Feldman, 2012).

A lack of precision in defining 'older workers' means we are not comparing like-with-like across studies. By implication, this means that, despite evidence to the contrary (Warr, 1994), 'older' workers are often considered a homogeneous category irrespective of their age (or gender, ethnicity, socio-economic status, employment status, migration status, etc.). The blunt delineation of this category obscures the qualitatively different needs, motivations and desires of older workers themselves. Moreover, given that this 'older' category can span some twenty-five years or more, it fails to acknowledge the extent to which older workers' circumstances can undergo change. How realistic is it to assume that people's work attitudes, needs and behaviours will not change over a quarter of a century, and that the responses of employers and public policy makers will not need to either?

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Table 2 Labour force participation rates over time among men and women aged 65+ in selected countries and overall OECD rates

Country	Sex	1980	1985	1990	1995	2000	2005	2010	2014
Australia	Men	11.2	9.1	9.2	9.4	9.9	11.3	15.4	16.9
	Women	2.8	2.1	2.4	2.6	3.0	4.2	6.8	8.3
Austria	Men	–	–	–	5.6	4.4	4.7	7.5	7.6
	Women	–	–	–	2.4	1.7	1.6	3.5	3.5
Belgium	Men	–	2.6	1.9	2.3	2.4	3.4	3.2	3.8
	Women	–	0.9	0.6	1.0	0.8	1.0	1.2	1.2
Canada	Men	13.2	11.8	10.8	9.9	9.4	12.1	16.0	18.2
	Women	3.9	4.1	3.6	3.4	3.3	5.0	7.4	9.4
Chile	Men	–	–	–	–	24.8	25.5	32.9	35.8
	Women	–	–	–	–	6.2	6.7	10.1	13.4
Czech Republic	Men	–	–	–	9.1	6.8	6.3	7.1	7.1
	Women	–	–	–	3.4	2.4	2.3	3.2	3.5
Denmark	Men	–	13.2	13.0	4.7	4.0	9.2	9.0	10.2
	Women	–	3.2	3.4	0.9	1.4	2.7	3.0	4.5
Estonia	Men	–	–	27.3	11.2	16.0	18.6	17.5	24.2
	Women	–	–	19.1	6.1	11.8	15.4	14.8	18.6
Finland	Men	17.0	10.6	9.2	5.6	6.3	7.3	11.0	13.7
	Women	5.6	4.8	3.4	2.0	1.6	3.2	5.0	6.9
France	Men	–	4.2	3.1	2.3	1.6	1.6	2.2	3.4
	Women	–	1.9	1.2	1.0	0.6	0.8	1.0	1.8
Germany	Men	6.8	5.1	4.7	4.2	4.4	5.1	5.7	8.2
	Women	3.2	2.3	2.2	1.6	1.5	2.2	2.8	3.9
Greece	Men	–	15.0	11.8	11.7	8.4	7.0	6.4	4.5
	Women	–	5.4	4.5	3.7	2.8	1.9	2.1	1.5
Hungary	Men	–	–	–	5.4	3.9	4.2	4.7	4.5
	Women	–	–	–	2.7	1.8	1.5	2.4	2.3
Iceland	Men	–	–	–	56.5	48.3	45.3	45.0	46.5
	Women	–	–	–	31.8	22.6	22.2	27.8	27.5
Ireland	Men	–	16.3	16.4	15.3	13.8	13.9	13.9	15.6
	Women	–	3.9	3.4	3.0	2.9	3.1	4.6	5.2
Israel	Men	–	23.4	21.8	19.7	15.8	17.8	21.1	27.0
	Women	–	6.3	6.9	6.4	4.3	6.0	7.2	11.9
Italy	Men	12.6	8.4	7.1	6.4	5.8	6.0	5.7	6.5
	Women	3.5	2.1	2.2	1.8	1.6	1.1	1.3	1.6
Japan	Men	41.0	37.0	36.5	37.3	34.1	29.4	28.8	30.2
	Women	15.5	15.5	16.2	15.6	14.4	12.7	13.3	14.5
Korea	Men	45.2	44.2	39.3	40.9	40.6	41.2	40.6	43.0
	Women	16.9	19.2	18.4	20.2	22.8	22.5	21.7	24.0
Luxembourg	Men	–	5.3	3.5	2.6	2.3	1.0	5.4	6.4
	Women	–	2.0	1.1	1.1	1.2	0.4	1.9	2.2
Mexico	Men	–	–	–	51.2	48.5	46.2	44.5	42.4
	Women	–	–	–	15.2	14.2	14.4	15.2	14.0
Netherlands	Men	4.8	3.5	–	5.4	5.5	7.0	9.2	12.7
	Women	0.9	0.6	–	0.9	1.5	1.8	3.2	3.5
New Zealand	Men	–	–	10.3	9.8	11.8	16.3	22.6	27.4
	Women	–	–	3.6	2.9	4.4	8.0	12.4	16.0
Norway	Men	34.3	26.4	25.0	15.3	14.2	17.4	23.2	24.4
	Women	12.7	13.6	12.0	9.0	8.5	11.5	13.7	14.5

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Table 2 (Continued.)

Country	Sex	1980	1985	1990	1995	2000	2005	2010	2014
Poland	Men	–	–	–	16.1	12.4	9.3	7.7	7.9
	Women	–	–	–	8.5	5.2	3.9	3.0	2.9
Portugal	Men	28.1	21.0	20.0	21.2	25.2	24.6	22.3	18.3
	Women	8.6	7.2	7.8	9.4	13.0	13.2	12.5	7.4
Slovak Republic	Men	–	–	–	3.0	2.0	2.3	2.8	3.3
	Women	–	–	–	0.9	0.6	0.9	1.2	1.2
Slovenia	Men	–	–	–	–	11.5	11.5	10.4	9.1
	Women	–	–	–	–	6.5	5.5	5.2	5.1
Spain	Men	12.7	6.1	3.8	3.0	2.6	3.2	2.7	2.3
	Women	4.0	2.3	1.7	1.4	1.0	1.1	1.5	1.3
Sweden	Men	14.3	11.2	12.6	13.9	15.0	14.6	18.7	21.9
	Women	3.8	2.9	5.1	5.3	6.3	5.9	8.6	12.3
Switzerland	Men	–	–	–	14.9	14.3	11.2	13.5	16.3
	Women	–	–	–	5.8	6.2	4.9	6.2	8.2
Turkey	Men	–	–	30.9	33.0	32.5	22.1	19.9	19.3
	Women	–	–	9.3	11.0	11.3	6.6	5.9	5.4
United Kingdom	Men	–	8.5	8.8	8.2	7.8	9.0	11.3	13.3
	Women	–	3.0	3.4	3.2	3.4	4.4	6.3	7.7
United States	Men	19.0	15.8	16.3	16.8	17.7	19.8	22.1	23.0
	Women	8.1	7.3	8.6	8.8	9.4	11.5	13.8	15.1
OECD countries	Men	20.4	15.5	15.6	16.6	16.6	16.7	17.8	19.1
	Women	7.7	6.3	6.9	6.9	7.0	7.4	8.6	9.6

Source: OECD.Stat

Second, the main focus over the past decade or longer has been on transitions between work and retirement, that is, a focus on end of working life, rather than on later-life working in itself. As Shacklock and Brunetto (2011) note, the majority of research focuses on decisions to retire, not on continuing working (see also Armstrong-Stassen and Schlosser, 2011; but for some attention to the issue of working, see Scherger, 2015). This is illustrated by the comprehensive review of retirement research carried out by Wang and Shultz (2010); in comparison, later-life working has received much less treatment. Where working in later life has been considered, the key focus is on *continuing* to work, that is, on considering work relative to retirement, but not the work itself. For example, Kooij *et al.*'s (2008: 367) study focused on the motivation of older workers to *continue* working, not on their motivation to work, based on the argument that with ageing the former becomes more relevant than, and starts to supersede, the latter. This gives rise to two limitations to our knowledge. The first is that with longer working lives, people are likely to be delaying decisions around retirement, and, as such, many more 'older workers' are focusing on work and their careers rather than on transitions to retirement. If their motivations to work are neglected, it not only does them a disservice, but also ignores a substantial, and arguably growing, section of the workforce.

The second limitation is that research has tended to focus on transitions to retirement including, for example, research on 'delaying retirement' (Flynn, 2010) or ways of making that transition via 'downshifting' or 'bridge employment' (Alcover *et al.*, 2014; Ruhm, 1990, 1991). While these are important issues, it is clear that in some countries the

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over-sixty-five workforce is constituted predominantly of longer-serving employees who have remained with their main employer, most often on the same basis of employment (Vickerstaff *et al*., 2015). As noted earlier, a focus on 'flexible working' as an approach to easing the transition to retirement also overlooks issues of the increasing casualisation of the workforce and long-term under-employment and, in particular, how these phenomena might influence patterns of later life working and retirement transitions (Taylor and Earl, 2016).

A third issue concerns the role of theory in research on older workers. Much research into the older workforce has been criticised for being 'atheoretical and prescriptive in nature' (Armstrong-Stassen and Schlosser, 2011: 320). However, the past decade has seen a resurgence in theorising the relationships between age and work. The most commonly used theories in the human resource/organisational behaviour (HR/OB) research are selection, optimisation and compensation (SOC) theory and regulatory focus theory (e.g. Kooij *et al*., 2010; Kooij *et al*., 2011), and socio-emotional theory (Kanfer and Ackerman, 2004). Implicit in these is the notion of older age as a time of loss, decline and disengagement from work. This last point also draws on Super's (1957) career stage model of trial, establishment, maintenance and disengagement. The shortcomings of these theories are that they: rest on outdated age stereotypes (Ng and Feldman, 2012); do not reflect the contemporary nature of careers; and are predicated on the stereotypical and outdated male model of continuous labour market participation across the life course.

In addition to the above three approaches that are rooted in the human relations tradition are more general theoretical perspectives that are helpful in addressing the concerns of this article, with the political economy and life course perspectives two such examples. *The political economy perspective* is relevant in explaining how social and political power groups use the reification of age categories to advance their own interests. An important contribution here is Townsend's (1981) argument that old-age dependency is socially created, and that the social institution of retirement is a contributory factor in this development.

Estes (1979) has also linked the 'social construction of reality' with a 'political economy perspective' to call attention to the way in which social policies and programmes bolster existing power arrangements in society. Writing in an era when 'adjustment to old age' was a prominent research area, she argued that gerontological theories at that time (for example, both the disengagement and activity theories of ageing) supported the status quo by locating 'the problem' within the older individual rather than the socio-political production of the problem.

A further approach can be drawn from the life course perspective, one which has been embedded within the sociology and social psychology of work and retirement since its early formulation by Cain (1964), and subsequent conceptual development by European researchers. These include, Guillemard (2000, 2013) in France and Heinz *et al.* at the Status Passages and Risks in the Life Course research centre (for example, Heinz, 2001; Leisering and Schumann, 2003). According to Guillemard, 'a finding of the sociology of the life-course is that the institutionalisation of welfare systems has been a powerful factor that formatted the life-course into three periods by using age as a chronological marker for setting the thresholds for passing from one age of life to the next' (2013: 64). Yet, she notes that the standardised biographical pattern that once organised the life course in industrialised society into periods of education, work and leisure has come under

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recent pressure and argues that flexible work, flexible life courses and, as a consequence, uncertain biographical pathways, are multiplying.

The reification of age categories has consequences for people's lives, as Townsend (1981) and Walker (1981) have noted. This calls for a nuanced approach that never takes for granted that all people in a given age category are alike, while recognising that to the extent they are, this categorical similarity or likeness is a socially constructed product and not something inherent in the ageing individual. Outdated age stereotypes include the assumption of a specific age, usually sixty or sixty-five, as the 'time for retirement'.

Turning, fourthly, to how older workers' relationship with the labour market has been researched, there has been a recent dominance of quantitative approaches and especially meta-analyses. While helpful in developing theory, meta-analyses are a blunt instrument as regards disaggregation of age. One of their key strengths is high statistical power, which is also one of their key weaknesses, as it may lead to statistically significant but substantively small correlations (of 0.02 or thereabouts) between age and work-related motives – attitudes and outcomes being accepted as an absolute truth. Moreover, the measure of age considered is mean age of sample, not age of individual workers. This severely limits our understanding of how age (and ageing) is related to key work variables. More broadly, quantitative approaches struggle to attribute meaning to the sometimes counter-intuitive and contradictory findings they elicit. An example of the latter point is the question of whether human resource policies and practices should be contingent upon age. While work undertaken by Kooij *et al*. (2014) in the public sector in the Netherlands supports age-tailoring, research amongst managers in France cautions against this as older workers 'do not want to be treated according to their presumptive unique needs' (Herrbach *et al*., 2009: 907). The key issue here is the lack of attention to older workers as people, situated within particular work, personal/domestic and employment contexts (Loretto and Vickerstaff, 2013). We need more qualitative approaches to test, explore and interpret the quantitative findings. Relating back to our other questions of 'who might be researched', 'what might the research focus on' and 'which theories are helpful', qualitative methods can be used to more fully understand how and why work attitudes and behaviours may change with age. Crucially, they can facilitate appreciation of the ways in which relationships between age and work are shaped by gender, previous work experience, life circumstances and choices, and constraints and opportunities posed by national characteristics of legal regulation or welfare regimes.

Also needed is more explicitly comparative research at the societal level and at the firm level, along the lines of the pioneering comparative collection of studies, *Time for retirement* (Kohli *et al*., 1991). That volume focused on how various public policies in Europe and the USA supported people leaving work ahead of normal pension age. A subsequent collection of articles published in *The Geneva Papers on Risk and Insurance* under the title, *Age and Employment: The Firm and the State* (Taylor, 2003; Guillemard, 2003) provided an evidential base for a comparison of firm policies in France, Germany, the UK, Japan, Canada and the USA. Recently, major international programmes of comparative research concerned with exploring employer behaviours across countries have begun to emerge (Conen *et al*., 2012). Also valuable would be studies comparing industry sectors and occupational groups in order that policy responses may be refined.

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Conclusions

This article aimed to assist with establishing a new, critical agenda for research into the older worker. The issue of their continued employment can be expected to remain high on the political agenda over the course of the first half of this century given ongoing concerns about the sustainability of social welfare systems against a background of population ageing. It seems likely that workers will come under increasing pressure to work beyond the age of sixty-five. Here we agree with Kulick *et al*. (2014: 934) that 'It would, indeed, be useful if management research can shed light on the future workplace and show how changes in the demographic profile will affect work and life'. However, where we diverge from them is in attempting to draw on the already extensive literature to map an agenda for research that looks beyond the present, narrow, economic imperative of prolonging working lives in order to provide deeper insights into changing patterns of work and retirement. Open to debate is who will benefit from working longer. In particular, with the benefit of a long view we may conclude that older workers could be forgiven for being sceptical about the motivations behind the latest interest among policy makers in later retirement, if this means its transformation from a reward bestowed on those ending their careers into a kind of unemployment as they face an obligation to remain economically active as the ages at which they can retire are pushed out by governments. While working longer has often recently been characterised as being both an individual and social good, this is questionable and perhaps the issue of greatest significance of all as tomorrow's older workers enter the uncharted territory of spending five decades or more in the labour force.

A more realistic appraisal of older workers will lead to a better foundation for policies. An appreciation of heterogeneity leads to differentiated policies and practices. For instance, research points to the absence of organisational policy making that considers the intersection of age and gender (Earl *et al.*, 2015), with the consequence that the ongoing labour force participation of women may be jeopardised. Also, for some older people, working may be considered impractical due, for instance, to serious illness or injury or marked skills deficits. There is, thus, a need for a reappraisal of public policy that has, recently, been couched primarily in terms of the need for older people's continued labour force participation, with the role of early retirement a neglected topic of recent inquiry (Taylor and Earl, 2016).

Considering the development of public policy from a theoretical perspective, present proposals, in the United Kingdom, for instance, to allow grandparents to be allocated a share of parental leave align with an intergenerational perspective arising from a life course approach. From this perspective, it is also apparent that as the nature of work and the characteristics of workers change there is an ongoing need for consideration of the long-run effects of this on the ability of workers to remain economically engaged at older ages and to achieve income security in retirement. This leads to a recognition that the parameters of older workers' participation need to be continuously reassessed and policy responses adjusted accordingly. Finally, drawing on a political economy perspective might come the conclusion that currently popular policy approaches, such as offering wage subsidies to employers who hire older workers (Vargas *et al.*, 2013), are firmly rooted in notions of older people as dependent. They are considered to have deficiencies that necessitate ongoing support from the state in order that they may maintain a foothold in the labour market instead of it being recognised that structural disadvantages such as a lack of careers advice and educational opportunities as people age may restrict choice in a rapidly changing economy.

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References

Alcover, C. M., Topa, G., Depolo, M., Fraccaroli, F. and Parry, E. (eds.) (2014) *Bridge Employment: A Research Handbook*, Abingdon, Oxford: Routledge.

Armstrong-Stassen, M. and Schlosser, F. (2011) 'Perceived organizational membership and the retention of older workers', *Journal of Organizational Behavior*, 31, 2, 319–44.

Bancroft, G. (1952) 'Older persons in the labor force', *Annals of the American Academy of Political and Social Science*, 279, 52–61.

Belbin, R. M. (1953) 'Difficulties of older people in industry', *Occupational Psychology*, 27, 177–90.

Bytheway, B. (1986) 'Redundancy and the older worker', in R. M. Lee (ed.), *Redundancy, Layoffs and Plant Closures*, Beckenham: Croom Helm, 84–115.

Cain, L. (1964) 'The life course and social change', in R. E. L. Faris (ed.), *Handbook of Modern Sociology*, Chicago: Rand McNally, 272–309.

Cappelli, P. (1999) 'Career jobs are dead', *California Management Review*, 42, 1, 146–67.

Casey, B. and Laczko, F. (1989) 'Early retired or long-term unemployed? The situation of non-working men aged 55–64 from 1976 to 1986', *Work, Employment and Society*, 1, 4, 509–26.

Conen, W., Henkens, K. and Schippers, J. (2012) 'Employers' attitudes and actions towards the extension of working lives in Europe', *International Journal of Manpower*, 33, 6, 648–65.

Dychtwald, K., Erickson, T. and Morison, B. (2004) 'It's time to retire retirement', *Harvard Business Review*, March, 49–57.

Earl, C. and Taylor, P. (2015) 'Is workplace flexibility good policy? Evaluating the efficacy of age management strategies for older women workers', *Work, Aging and Retirement*, 1, 2, 214–26.

Earl, C., Taylor, P., Williams, R. and Brooke, E. (2015) 'Falling between the cracks: older women and organizational policy-making', in J. Bimrose, M. McMahon and M. Watson (eds.), *Women's Career Development Throughout the Lifespan: An International Exploration*, Abingdon, Oxford: Routledge.

Estes, Carroll L. (1979) *The Aging Enterprise: A Critical Examination of Social Policies and Services for the Aged*, San Francisco, Washington, DC and London: Jossey-Bass.

European Commission (2003) *Employment in Europe 2003: Recent Trends and Prospects*, Luxembourg: Office for Official Publications of the European Communities.

Field, J., Burke, R. J. and Cooper, C. L. (eds.) (2013), *The Sage Handbook of Aging, Work and Society*, London: Sage.

Flynn, M. (2010) 'Who would delay retirement? Typologies of older workers', *Personnel Review*, 39, 3, 308–24.

Guillemard, A.-M. (2000) *Aging and the Welfare-State Crisis*, Newark: University of Delaware Press, and London: Associated University Presses.

Guillemard, A.-M. (2003) 'Concluding remarks – company practices and public policies regarding age: lessons drawn from comparisons', *The Geneva Papers on Risk and Insurance*, 28, 4, 673–76.

Guillemard, A.-M. (2013) 'Prolonging working life in an aging world: a cross-national perspective on labor market and welfare policies toward active aging', in J. Field, R. J. Burke and C. L. Cooper (eds.), *The Sage Handbook of Aging, Work and Society*, London: Sage, 60–74.

Hedge, J. W., Borman, W. C. and Lammlein, S. E. (2006) *The Aging Workforce: Realities, Myths, and Implications for Organizations*, Washington, DC: American Psychological Association.

Heinz, W. R. (2001) 'Work and the life course: a cosmopolitan-local perspective', in V. W. Marshall, W. R. Heinz, H. Kruger and A. Verma (eds.), *Restructuring Work and the Life Course*, Toronto: University of Toronto Press, 3–22.

Herrbach, O., Mignonac, K., Vandenberghe, C. and Negrini, A. (2009) 'Perceived HRM practices, organizational commitment and voluntary early retirement among late-career managers', *Human Resource Management*, 48, 6, 895–915.

Kanfer, R. and Ackerman, P. (2004) 'Aging, adult development, and work motivation', *Academy of Management Review*, 29, 3, 440–58.

Kieffer, J. A. (1986) 'Kicking the premature retirement habit', *Journal of Career Development*, 13, 2, 39–51.

https://doi.org/10.1017/S1474746416000221 Published online by Cambridge University Press

Kohli, M., Rein, M., Guillemard, A.-M. and van Gunsteren, H. (1991). *Time for Retirement: Comparative Studies of Early Exit from the Labor Force*, Cambridge: Cambridge University Press.

Kohli, M. and Rein, M. (1991) 'The changing balance of work and retirement', in M. Kohli, M. Rein, A.-M. Guillemard and H. van Gunsteren (eds.), *Time for Retirement: Comparative Studies of Early Exit from the Labor Force*, Cambridge: Cambridge University Press, 1–35.

Kooij, D., de Lange, A., Jansen, P. and Dikkers, J. (2008) 'Older workers' motivation to continue to work: five meanings of age', *Journal of Managerial Psychology*, 23, 4, 364–94.

Kooij, D., de Lange, A., Jansen, P., Kanfer, R. and Dikkers, J. (2011) 'Age and work-related motives: results of a meta-analysis', *Journal of Organizational Behaviour*, 32, 197–225.

Kooij, D., Jansen, P., Dikkers, J. and de Lange, A. (2010) 'The influence of age on the associations between HR practices and both affective commitment and job satisfaction: a meta-analysis', *Journal of Organizational Behavior*, 31, 8, 1111–36.

Kooij, D., Jansen, P., Dikkers, J. and de Lange, A. (2014) 'Managing aging workers: a mixed methods study on bundles of HRM practices for aging workers', *International Journal of Human Resource Management*, 25, 15, 2192–212.

Kulick, C., Ryan, S., Harper, S. and George, G. (2014) 'From the editors: aging population and management', *Academy of Management Journal*, 57, 4, 929–35.

Laczko, F. (1987) 'Older workers, unemployment, and the discouraged worker effect', in S. Di Gregoria (ed.), *Social Gerontology: New Directions*, London: Croom Helm, 239–51.

Laczko, F. and Phillipson, C. (1991) 'Great Britain, the contradictions of early exit', in M. Kohli, M. Rein, A.-M. Guillemard and H. van Gunsteren (eds.), *Time for Retirement: Comparative Studies of Early Exit from the Labor Force*, Cambridge: Cambridge University Press, 222–51.

Leisering, L. and K. F. Schumann (2003) 'How institutions shape the German life course', in W. R. Heinz and V. W. Marshall (eds.), *Social Dynamics of the Life Course: Transitions, Institutions, and Interrelations*, New York: Aldine de Gruyter, 193–209.

Loretto, W. and Vickerstaff, S. (2013) 'The domestic and gendered context for retirement', *Human Relations*, 66, 1, 65–86.

Loretto, W. and Vickerstaff, S. (2015) 'Gender, age and flexible working in later life', *Work, Employment and Society*, 29, 2, 233–49.

Loretto, W., Vickerstaff, S. and White, P. (eds.), (2007) *The Future for Older Workers*, Bristol: Policy Press.

Macnicol, J. (2006) *Age Discrimination: An Historical and Contemporary Analysis*, Cambridge: Cambridge University Press.

Ng, T. and Feldman, D. (2008) 'The relationship of age to ten dimensions of job performance', *Journal of Applied Psychology*, 93, 2, 392–423.

Ng, T. and Feldman, D. (2012) 'Evaluating six common stereotypes about older workers with meta-analytical data', *Personnel Psychology*, 65, 4, 821–58.

OECD (1998) *Maintaining Prosperity in an Ageing Society*, Paris: OECD.

OECD (2006) *Live Longer, Work Longer*, Paris: OECD.

OECD (2012) *Education at a Glance*, Paris: OECD.

OECD (2015) *Ageing and Employment Policies: Statistics on Average Effective Age of Retirement*, http://www.oecd.org/els/emp/ageingandemploymentpoliciesstatisticsonaverageeffectiveageofretirement.htm [accessed 18.10.2015].

Phillipson, C. (2009) 'Changing life course transitions: implications for work and lifelong learning', in A. Chiva and J. Manthorpe (eds.), *Older Workers in Europe*, Maidenhead: Open University Press, 110–27.

Piachaud, D. (1986) 'Disability, retirement and unemployment of older men', *Journal of Social Policy*, 15, 2, 145–62.

Ruhm, C. (1990) 'Bridge jobs and partial retirement', *Journal of Labour Economics*, 8, 4, 482–501.

Ruhm, C. (1991) 'Career employment and job stopping', *Industrial Relations*, 30, 2, 193–208.

Rosenblum, M. (1975) 'The last push: from discouraged worker to involuntary retirement', *Industrial Gerontology*, 2, 14–22.

https://doi.org/10.1017/S1474746416000221 Published online by Cambridge University Press

Scherger, S. (ed.), (2015) *Paid Work beyond Pension Age*, Basingstoke: Palgrave Macmillan.

Shacklock, K. and Brunetto, Y. (2011) 'A model of older worker's intentions to continue working', *Personnel Review*, 40, 2, 252–74.

Slater, R. and Kingsley, S. (1976) 'Predicting age-prejudiced employers: a British pilot study', *Industrial Gerontology*, 3, 2, 121–8.

Sonnet, A., Olsen, H. and Manfredi, T. (2014) 'Towards more inclusive ageing and employment policies: the lessons from France, The Netherlands, Norway and Switzerland', *De Economist*, 162, 315–39.

Standing, G. (2011) *The Precariat*, London: Bloomsbury Academic.

Super, D. E. (1957) *The Psychology of Careers*, New York: Harper.

Taylor, P. (2003) 'Older workers, employer behaviour and public policy', *The Geneva Papers on Risk and Insurance*, 28, 4, 553–7.

Taylor, P. and Earl, C. (2016) 'The social construction of retirement and evolving policy discourse of working longer', *Journal of Social Policy*, 45, 2, 251–68.

Taylor, P. and Walker, A. (1998) 'Employers and older workers: attitudes and employment practices', *Ageing and Society*, 18, 6, 641–58.

Townsend, P. (1981) 'The structured dependency of the elderly: creation of social policy in the twentieth century', *Ageing and Society*, 1, 1, 5–28.

Trinder, C. (1990) *Employment after 55*, London: National Institute for Economic and Social Research Discussion Paper no. 166.

Vargas, O., Fric, K., Curtarelli, M., Feifs, T. and Weber, T. (2013), *Role of Governments and Social Partners in Keeping Older Workers in the Labour Market*, Dublin: Eurofound, http://eurofound.europa.eu/publications/report/2013/working-conditions-labour-market-social-policies/role-of-governments-and-social-partners-in-keeping-older-workers-in-the-labour-market [accessed 15.12.2015].

Vickerstaff, S., Phillipson, C. and Loretto, W. (2015) 'Training and development: the missing part of the extending working life agenda?', *Public Policy and Aging Report*, 25, 4, 139–42.

von Haller Gilmer, B. (1961) 'The handicapped, unemployed, and aging worker', *Industrial Psychology*, New York: McGraw Hill, 242–65.

Walker, A. (1981) 'Towards a political economy of old age', *Ageing and Society*, 1, 1, 73–94.

Walker, A. (1982) 'The social consequences of early retirement', *The Political Quarterly*, 53, 1, 61–72.

Walker, A. (1985) 'Early retirement: release or refuge from the labour market?', *The Quarterly Journal of Social Affairs*, 1, 3, 211–29.

Wang, M. and Shultz, K. S. (2010) 'Employee retirement: a review and recommendations for future investigation', *Journal of Management*, 36, 1, 172–206.

Warr, P. (1994) 'Age and job performance', in J. Snel and R. Cremer (eds.), *Work and Aging: A European Perspective*, London and Bristol, PA: Taylor & Francis, 309–22.

Welford, A. (1958) *Ageing and Human Skill*, Centre on Work of Nuffield Unit for Research into Problems of Ageing, London: Oxford University Press.

https://doi.org/10.1017/S1474746416000221 Published online by Cambridge University Press