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AM (Accepted Manuscript)

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Taneva, Stanimira, and John Arnold. 2019. "Hanging on or Bowling Along? Thriving, Surviving and Performing in Late Career". figshare. <https://hdl.handle.net/2134/19847>.

# **Hanging On or Bowling Along? Thriving, Surviving and Performing in Late Career**

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November 2015

Both the human resources (HR) and the traditional career development literatures tend to portray late career as a time of inertia, with policies being designed to enable people to survive in the workplace until they (and their employer) are rescued by retirement – a rescue service that arrives later than it once did. In this presentation we examine the approaches taken by older workers to their jobs and the factors that appear to help or hinder the extent to which they feel they are (i) surviving and (ii) thriving at work. We also comment on the generalizability or otherwise of our findings across sectors and countries. 698 older workers, mostly aged over 55, in the health and IT sectors in UK and Bulgaria completed an online questionnaire which included validated measures of a number of key constructs, as well as some newly-developed ones. We report on the strategies the older workers use to deal with their work, the job characteristics and HR policies they experience, the extent to which they feel they are thriving, surviving, and performing. Finally, we comment on the implications of our findings for the ways in which organizations, including universities, utilise and support their numerous older workers.

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*This is an adaptation of a paper presented at the inaugural Age-Friendly University conference, at Dublin City University, 2-3 November 2015.*

## **Introduction**

Population aging is occurring in almost all areas of the world with Japan, Germany and Italy being the most aging countries. It is expected that the number of people aged 60 years or over will at least double, and exceed the number of children by 2050 (United Nations, 2013). This is a result of two simultaneous developments - a steady increase in life expectancy and falling fertility rates. Thus, the aging population becomes a key challenge for society and an important social and economic responsibility (EEO Review, 2012; Harma, 2011). Furthermore, the aging of the population has led and will lead to significant changes in the workforce, particularly demonstrated by the rise of employment rates amongst older workers across Europe and beyond (Kooij et al., 2011; Robson & Hansson, 2007). In the last few years, the need to keep older workers in the workforce (despite high levels of unemployment amongst new entrants to the labor market) has been referred to as an “emergency” (CIPD & CMI, 2010).

There is no consensus in the literature about who is the “older worker.” According to James, McKechnie and Swanberg (2011, p. 176) “the idea that ‘50 is the new 40’ suggests a public perception that the subjective experience of age is changing.” Recently more researchers choose to define older workers as those who are at least 55 years old, partly because this is currently the fastest growing segment of the workforce. Another empirical study reports that when asked to suggest an age of an “older employee”, people in the United Kingdom on average refer to men at the age of 56 and over and women at the age of 55 and over (CIPD & CMI, 2010).

### ***Age-related Changes, Work-related Behaviours and Outcomes***

It has been well documented that people change physically and psychologically with age. Some of these changes are demonstrated through people’s behaviours at work. Most importantly, it has been acknowledged that there are big individual differences and these age-related changes may be substantial for some individuals and negligible for others (Kanfer & Ackerman, 2004; Salthouse, 2010; Warr, 2001). The degree of such changes is not just related to age, but also depends on many other factors such as an individual’s heredity, lifestyle, physical activity and environment. Most age effects are not great on average and can be reduced by a supportive environment (i.e. using new enabling technologies and adjusting time). In addition, declining cognitive abilities are usually compensated by workers’ knowledge and experience (Inder & Bryson, 2007; Wang et al., 2012).

As well as physical and cognitive changes, people may experience some personality changes when they grow older. For instance, studies demonstrate that older workers are on average less extraverted and open to change than younger workers, but at the same time more self-controlled, tolerant, modest and conscientious (Kanfer & Ackerman, 2004; Warr, 2001). Yet again, these changes are very

individual and do not apply to everyone. Further, it has consistently been reported that, despite what some people believe, work motivation does not decline at later ages. However, workers' priorities tend to change over time and with age. For instance, older workers (compared with younger workers) may tend to attribute more importance to intrinsically rewarding job features, some social aspects of work (such as supporting younger workers and transferring their experience), and to feeling valued and involved. In contrast, they may be less motivated by extrinsic awards, career advancement and striving for achievement (CEDEFOP, 2011; Inceoglu et al., 2009; Kanfer & Ackerman, 2004).

### ***Thriving, Surviving, and Performing in Later Career***

The concept of “successful aging” suggests an individual’s good health and energy over the life-span and, in this sense, is the individual’s capacity to thrive. One interpretation of successful aging is as a developmental process where growth is still possible (Zacher, 2015). Porath and colleagues (2012) introduce the construct of “thriving” in a work context as “...the psychological state in which individuals experience both a sense of vitality and learning” (Porath et al., 2012, p. 250). Theoretically, thriving implies the individual’s orientation towards growth and successful adaptation. Because of the nature of its two components, “thriving” is believed to decline at older ages (i.e. older workers would be expected to experience less learning and less vitality in the workplace compared with younger workers). However, no study on older workers’ experience of thriving in the workplace has been published so far.

We propose the notion of *surviving* as a complement to thriving. Our tentative definition of this has two parts: **Coping**: Being able to handle the demands and stresses of the job in a task- and/or emotion-oriented way, and **Comfort**: Having a physical and social work environment that is safe and congenial. A number of measures for helping older workers stay in the workforce are arguably focused on surviving more than thriving. These include flexible working arrangements, physical adjustments to the workplace, and phased retirement (Armstrong-Stassen, 2008). It is difficult to find fault with measures of this kind, but whilst they may help older workers to keep going, they may not do anything for learning or vitality.

Regarding work performance, it is well-documented that stereotypes of older workers tend to be negative (Posthuma & Campion, 2008). Although seen as more reliable and loyal, they are also viewed as less dynamic, motivated and productive than younger workers. More specifically, they are seen as not very enthusiastic about learning new things, or about being innovative (Ng & Feldman, 2012). In fact, many of these stereotypes appear not to be accurate (Ng & Feldman, 2012; Warr, 2001), and on the whole in most jobs there is no correlation between age and performance. Actually, the absence of a correlation might be considered mildly bad news for older

workers because one might expect their accumulated experience and expertise to lead to higher performance than achieved by younger workers.

### ***Three Potential Sources of Influence on Older Workers: HR Practices, Job Characteristics, and Individual Behavioural Strategies***

As organizations play a significant role in shaping one's skills, knowledge, motivation, and social relationships, they are an important social context for individuals. In particular, older workers are likely to prefer organizations which demonstrate their consideration of older workers through their human resource management (HRM) practices (c.f. Armstrong-Stassen, 2008; Barnes et al., 2009; Kooij et al., 2011; Wang et al., 2012). Fighting negative stereotypes and discrimination against older workers has become increasingly important for many organizations and is reflected in HRM strategies designed to promote positive aging and more particularly, the utilization and retention of older workers (Barnes et al., 2009).

However, the forms of "age-friendly" HRM strategies and the extent of their implementation vary significantly across countries, industrial sectors and organizations. Most examples of successful age-management are derived from Western countries. Some HRM practices associated with older workers may include reduced working hours, flexible work options, adjusting job roles, refresher training, and extra annual leave. They often aim to help older workers maintain their job performance at an acceptable level. Other HRM practices encourage older workers to undertake new projects, tasks, and job roles, learn new skills, and mentor/coach others on the job. These may have a developmental (i.e. associated with growth and learning) rather than maintenance (i.e. related to being able to soldier on at work) effect on older workers and, thus increase their work wellbeing and performance. Furthermore, good HRM practices may encourage some older workers to remain in the workforce longer and even return to work after retirement (Armstrong-Stassen, 2008; Bal et al., 2013; Barnes et al., 2009; Kooij et al., 2011). To date more research has focused on the role of the maintenance HRM practices, but not enough is known about the effects of the development practices on older workers (Veth et al., 2012).

Some job design features are considered better for older than younger workers. Warr (1993) emphasises the importance of identifying those jobs in which older age is either a benefit or a limitation and implementing procedures which could support adaptability among older workers. Truxillo and colleagues (2012) describe three clusters of job characteristics (task, knowledge, and social characteristics) and discuss how job design might affect people at different ages. Some job characteristics such as autonomy, task significance, skill variety, social support are considered as positively contributing to older workers' work satisfaction and performance. This is because older workers are thought to value highly the chance

to use their skills in their own way to make a contribution to the collective, whilst enjoying along the way the chance to support others and be supported by existing social contacts rather than developing new ones. Other work characteristics such as task variety, intense information processing and physically demanding work are hypothesized to have zero or possibly negative impacts on older workers in certain circumstances. This is because they stretch too far the older worker's declining fluid intelligence (i.e. rapid abstract problem-solving) and energy levels. Some of these theoretical assumptions are partly supported by empirical research (Zaniboni et al., 2014). However, still very little is known about the particular effects of job design characteristics on older workers.

Life-span theories suggest that adaptation is a proactive process which involves self-regulation, reflected in life management strategies applied by individuals in their attempts to cope with changes in their environment (such as loss and gain of resources, success and failure in the achievement of goals). The life-span theory of Selection, Optimization and Compensation (SOC) proposed originally by Baltes and Baltes (1990) is a leading model of successful aging and suggests that individuals can successfully adapt to age-related changes and changes in the workplace through using three types of personal strategies: selection, optimization and compensation (Abraham & Hansson, 1995; Hansson et al., 1997; Kooij et al., 2011). Selection refers to restricting the number of tasks one takes on at any given time in order to maintain competence, and can be considered either elective (where task choice is made on the basis of preference) or loss-based (where task choice is driven by limitations of capability). Optimization refers to strategies to preserve and mobilize one's resources, particularly regarding effort and concentration. Compensation includes pragmatic strategies to compensate for developmental losses. These include, for example, asking for help or delegating. There is good evidence that the use of SOC strategies can enhance workers' performance and well-being, and that it becomes particularly important with age (Abraham & Hansson, 1995; Müller et al., 2012; Ouwehand et al., 2007; Zacher & Frese, 2011).

### ***Aim of this Study***

In this study we examine the extent to which older workers appear to be thriving, surviving and performing in their workplaces. Are they "hanging on", or "bowling along"? Importantly, we also test the extent to which predictors at three decreasing levels of generality help to explain older workers' thriving, surviving and performing. As discussed above, these are Human Resource (HR) practices, work characteristics and older workers' behavioural (SOC) strategies. The extant literature does not examine these different levels simultaneously.

## Method

As part of the first author's Marie Curie Intra-European Fellowship project, older workers in the health and ICT sectors in ten organizations in the UK and Bulgaria were asked to complete online questionnaires about their experiences and perceptions at work (one Bulgarian organization used paper copies instead). The two sectors were chosen because of their contrasting activities, demographic profiles, and reputations as older-age friendly (health better than ICT). Two ICT organizations in each country participated, and two UK health and four Bulgarian health organizations did so. All organizations had at least a thousand employees in total.

Invitations to participate were sent by our contact people in the organization to employees aged over 55 in the health organizations and over 50 in the ICT organizations. The exact wording and method of approach varied between organizations, but in all cases participants were assured that their responses were confidential and that participation was voluntary. They were also promised general feedback about the findings. The difference in minimum age between sectors reflected the shortage of older people in ICT, but even so the difference between sectors in mean age of respondents was small (58.5 vs 57.1), albeit statistically significant.

A total of 698 people responded after a reminder. The majority (83%) were in the UK. Almost exactly half were in each sector, and almost exactly half were female. Mean age was 58 years. Nearly half (46%) had been in their jobs for at least 10 years, and 83% had been in their organization for at least that length of time.

## Instruments

*Thriving at work* was measured using Porath et al.'s (2012) instrument. Five items assessed *learning*, and five assessed *vitality*. Example items are "I am developing a lot as a person" and "I feel alert and awake". Alpha reliability coefficients are .86 for learning and .88 for vitality. Responses were recorded on a 7-point strongly disagree – strongly agree scale.

*Surviving at work* was assessed with seven items developed for this study, partly on the basis of content analysis of interviews with older workers in seven organizations (see Taneva & Arnold, 2015), five of which also provided questionnaire data. Exploratory factor analysis of the items revealed underlying dimensions. *Meeting job demands* reflects a perception of keeping up without being exhausted or over-stretched. It is measured with four items ( $\alpha = 0.73$ ). An example is "In the morning I am confident that my working day will not bring anything I cannot handle." Preserving the status quo is represented by three items ( $\alpha = 0.69$ ) which reflect an attempt to "dig in" and avoid change. An example item is "I am mostly interested

to learn only the things I need to know at work". Responses were recorded on a 5-point strongly disagree – strongly agree scale.

*Job performance* was self-rated, and therefore these data should be treated with caution. We do not know how closely other observers would agree. We assessed three elements of self-rated job performance. *In-role performance* reflects how well the person does the core tasks of the job. *Extra-role performance* refers to "good citizenship" beyond the core job duties. Both of these were measured using a modified version of Lynch et al.'s (1999) scales. Nine items ( $\alpha = .80$ ) assessed in-role performance, an example being "I adequately complete assigned duties." Seven items ( $\alpha = .85$ ) tapped extra-role performance, an example being "I offer my opinion when it might benefit the organization". *Task proactivity* concerns the extent to which the person seeks new and better ways of doing his or her work, and was assessed using three items developed by Griffin et al. (2007) ( $\alpha = .89$ ). One of these was "I initiate better ways of doing my core tasks". Responses were recorded on a 5-point strongly disagree – strongly agree scale.

*HRM practices* were assessed with a modified version of the instrument used by Armstrong-Stassen (2008). We asked respondents whether each of 16 HR practices were available to them, irrespective of whether they took advantage of them. We asked four additional questions about the general use of HR practices. Factor analyses of these 20 items led to four groupings, which together utilised 18 of them. These were as follows: *Flexible Working Options* (5 items,  $\alpha = .75$ , sample items "flexible work schedules" and "reduced work week"); *Recognition of Mature Workers* (5 items,  $\alpha = .91$ , sample items "Education of managers about effective utilisation of mature employees" and "Ensuring that mature employees are treated with respect"); *Development* (4 items,  $\alpha = .83$ , sample items "training to update current job skills" and "Challenging and meaningful tasks or assignments"); and *Late-Career Pathways* (4 items,  $\alpha = .73$ , sample items "phased-in retirement" and "Financial incentives to remain in the workforce instead of retiring"). Responses were recorded on a five-point strongly disagree – strongly agree scale.

*Work characteristics* measures were taken from the Work Design Questionnaire (WDS) developed by Morgeson and Humphrey (2006), and used extensively in research since then. The WDS is a comprehensive set of scales, and we used only those that appeared on the basis of the literature to have particular relevance to older workers. *Autonomy* was measured with three items ( $\alpha = .74$ , sample item "my job permits me to decide on my own how to go about doing my work"). *Task variety* was measured with four items ( $\alpha = .91$ , sample item "the job involves doing a number of different things"); *Task significance* was measured with four items ( $\alpha = .87$ , sample item "the job has a large impact on people outside the organization"); *Information processing* was measured with four items ( $\alpha = .88$ , sample item "the job requires me to monitor a great deal of information"); *Skill variety* was measured with four items ( $\alpha = .91$ , sample item "the job requires the use of a number of skills"); *Social support* was measured with five items ( $\alpha = .79$ ,



sample item “I have the chance I my job to get to know other people”); *Physical demands* was measured with two items (alpha = .88, sample item “the job requires a lot of physical effort”). Most of these scales were used as they appeared in the WDS, but our autonomy measure used one item from each of three WDS autonomy scales, and we dropped one item from the social support scale. Responses were recorded on a five-point strongly disagree – strongly agree scale.

*Individual SOC behaviours* were assessed using a modified version of the measure offered by Baltes et al. (1999). Elective selection, Loss-based selection, Optimization, and Compensation were each measured with three items. Factor analyses showed that the optimisation and compensation scales loaded onto the same factor, except for one compensation item, which was dropped. Reliability coefficients were .64, .70, and .84 respectively. Example items for these scales are: *elective selection* “I concentrate all my energy on few things”, *loss-based selection* “When I can’t do something important as well as I used to, I think about my priorities and what exactly is important to me”; *optimisation/compensation* “If something matters to me, I devote myself fully and completely to it”; and “When things don’t go as well as they used to, I keep trying other ways until I can achieve the same result I used to.” Respondents are asked to describe the degree of similarity between themselves and the behaviours described in a work context using a four-point scale from “A little” to “Exactly”.

## **Analyses**

Descriptive statistics were calculated in order to gain an overall sense of the experience of work for this large late-career sample. In order to examine statistical predictors of thriving, surviving and performing, seven multiple regressions were performed, one for each of the outcome variables Thriving (learning), Thriving (vitality), Surviving (meeting job demands), Surviving (preserving the status quo), In-role job performance; Extra-role job performance, and Task proactivity. Entered into the equation at step 1 were control variables country, sector, age, gender, tenure in the job and tenure in the organization. At step 2, the four HR practices were added. The seven work characteristics were added at step 3, and the three SOC strategy variables were entered at stage 4. Correlations between all these variables ranged from negligible to quite high, but overall the variance inflation factors (VIFs) rarely exceeded 2, and never approached the cut-off of 10 sometimes considered to be the danger level (though some argue that even then, it is more important to include all variables than seek to eliminate some to reduce VIF, see O’Brien, 2007).

## Results

Descriptive information about the variables is shown in Table 1. The mean score for thriving (learning) was well above the midpoint of the scale, and for thriving (vitality) it was also above the midpoint but slightly lower and with more variation. These older workers therefore on the whole felt that they were thriving, but a substantial minority reported a limited sense of energy. Surviving in the sense of meeting job demands was not especially high, with nearly 40% of respondents scoring below the midpoint on this scale i.e. being not sure or tending to disagree with statements like “the demands my job makes of me are manageable”. Scores for surviving (preserving the status quo) were almost the same as for meeting job demands. This indicates some tendency to adopt a “siege mentality,” but overall this was not a dominant way of being for most of the respondents. Perhaps not surprisingly, most thought they were performing well in the core demands of their job. To a somewhat lesser extent, respondents also felt they engaged in extra-role behaviours in their work, and to a lesser extent again (but still well above the midpoint on average) they saw themselves as proactive in their work.

In the perceptions of these older workers, the least available human resource practices in their workplace were those that affirmed the value of older workers. Flexible working options fared only a little better, with a mean score just under the midpoint of the scale. More optimistically, HR practices around development were perceived as somewhat more available, which suggests that, on the whole, older workers were not being excluded from challenging work roles, training opportunities or constructive feedback on their performance. Late career pathways such as phased in retirement were seen as moderately prevalent.

The scores for work characteristics present a somewhat more optimistic picture in some ways. Most scores were considerably higher than for the HR practices, particularly skill variety and information processing, though the latter in particular could be difficult at high levels for older workers facing some cognitive limitations. Task significance, autonomy, social support and task variety were all moderately high on average, though again the last of these might be expected to be potentially harmful at high levels for older workers. The lowest score on average was for physical demands, indicating that for most of these older workers the physical challenges were not a major problem. However, the high standard deviation indicates that this was an issue for a minority of respondents.

Finally, regarding behavioural strategies, the respondents in this study reported using optimisation/compensation considerably more than either form of selection. Although the mean scores shown in table 1 look low, this was a four-point scale and the mean score for optimisation/compensation was two thirds of the maximum possible. In contrast, the selection strategies had means around the midpoint of the scale. This may be because most jobs do not permit the selection of tasks by the job holder – the job is what it is, perhaps.

Table 1: Descriptive statistics for study variables

	Mean (Scale)	SD	Mean as % of max possible
<b><i>Outcome variables</i></b>			
Thriving (learning)	5.19 (1-7)	1.10	70
Thriving (vitality)	4.77 (1-7)	1.39	63
Surviving (meeting job demands)	3.35 (1-5)	0.91	59
Surviving (preserving the status quo)	3.37 (1-5)	0.86	59
In-role performance	4.29 (1-5)	0.53	82
Extra-role performance	3.91 (1-5)	0.62	73
Task proactivity	3.63 (1-5)	0.79	66
<b><i>Human resource practices</i></b>			
Flexible options	2.90 (1-5)	0.97	48
Recognition of mature workers	2.62 (1-5)	1.06	41
Development	3.54 (1-5)	0.91	64
Late career pathways	3.21 (1-5)	0.86	55
<b><i>Work characteristics</i></b>			
Autonomy	3.54 (1-5)	0.89	64
Task variety	3.89 (1-5)	0.80	72
Task significance	3.74 (1-5)	0.85	69
Information processing	4.09 (1-5)	0.74	77
Skill variety	4.06 (1-5)	0.73	77
Social support	3.61 (1-5)	0.73	65
Physical demands	2.37 (1-5)	1.11	34
<b><i>Behavioural strategies</i></b>			
Elective selection	2.53 (1-4)	0.65	51
Loss-based selection	2.34 (1-4)	0.70	45
Optimisation/compensation	3.01 (1-4)	0.63	67

Table 2 shows the results of multiple regressions. UK respondents were slightly higher on thriving (learning) and their self-rated in-role job performance, whilst respondents in Bulgaria scored higher on both types of surviving. Health sector respondents were more positive than IT sector respondents in the sense that they reported slightly more thriving (learning), in-role job performance, and surviving (meeting job demands), whilst being somewhat lower on surviving (preserving the status quo). Even within this narrow age range, there was a small tendency for older people to report *more* thriving and surviving than their slightly younger counterparts.

Table 2 also shows that all three types of predictor variables (HR practices, work characteristics and individual behavioural strategies) added significantly to the statistical prediction of thriving, surviving and performing. In general, they explained a quarter to a third of the variance in outcome variables except for surviving (preserving the status quo) for which only about one eighth of the variance was explained. For HR practices 13 out of 28 beta weights (46%) achieved statistical significance. For work characteristics the equivalent figures were 21 out of 49 (43%),

and for behavioural strategies 10 out of 21 (48%). So all three classes of predictor variable had approximately the same “hit rate”. However, as we will see in a moment, some specific variables were much more significant than others.

Amongst the HR practices, it is notable that some practices frequently suggested for older workers were not associated, or barely associated, with outcomes. Flexible options and late career pathways had almost no desirable associations with the outcome variables, and indeed had one or two undesirable ones, albeit not particularly strong. For example, the presence of pathways to retirement was associated with adopting a “preserving the status quo” approach to the job. Even if these HR practices cater largely for extrinsic or “hygiene” factors, one might expect them to make to help the more positive form of surviving (i.e. meeting job demands) and possible performance. Also, recognition of mature workers might have helped these respondents feel more valued, and indeed less likely to go into the “preserving the status quo” approach to work, but it appeared to be somewhat detrimental to work performance. Most notably, however, the development bundle of HR practices had consistently positive statistical relationships with the outcome variables. This was strongest for thriving, but also present for surviving (meeting job demands) and all three aspects of job performance, especially task proactivity. Development, in the form of training, challenge and performance feedback, still matter a lot in late career.

Overall, the results for work characteristics dispel any notion that older workers do not care very much about the work they do, given that retirement may not be too far away. Three work characteristics merit particular mention here. First, autonomy was positively associated with both aspects of thriving, and with the more positive aspect of surviving (meeting job demands) as well as extra-role performance and task proactivity. Second, social support was also positively associated with both forms of thriving and with surviving (meeting job demands), and well as in-role and extra-role performance. Third, physical work demands were consistently negatively associated with thriving and with surviving (meeting job demands), and with two of the three job performance measures. It was also positively associated with surviving (preserving the status quo). Earlier we noted that in general the physical demands of jobs were not rated particularly high by most respondents, so this suggests that even at relatively moderate levels such demands may make a difference.

Skill variety was positively associated only with thriving (learning). Although there have been suggestions that high task variety might over-stretch older workers, there was no sign of that in these findings – if anything, task variety was positive. On the other hand, information processing demands did seem to take something of a toll, evidenced by negative associations with thriving (vitality) and surviving (meeting job demands). Finally, task significance was not associated with any of the outcome variables. Given that older workers may be sensitive to being side-lined, this is perhaps a surprising finding.

Regarding the individual behavioural strategies, optimisation/compensation was associated in desirable ways with all forms of thriving, surviving and performing. It was the strongest performer of all the predictor variables, even more so than development HR practices, social support and physical demands. The strongest relationship was with in-role job performance. In contrast, the two selection strategies were much less strongly associated with outcomes, though loss-based selection did show low but statistically significant positive beta weights for extra-role job performance and task proactivity.

## **Discussion**

In this study we examined the experience of thriving, surviving and performing of workers in their 50s onwards (93% of whom were aged 55 or more), and what aspects of human resource practices, work characteristics and their own behavioural strategies appear to contribute to these outcomes. Referring back to the title of this paper, we found quite a mixture of “hanging on” and “bowling along”. The descriptive statistics for the thriving, surviving and performing variables suggest a reasonably positive picture, remembering of course that the performance variables were self-rated. However, substantial minorities of respondents reported low to moderate levels of these variables. For example, more than a quarter of them scored below the midpoint on thriving (vitality) and surviving (meeting job demands). Human resource policies that might generally be considered desirable were not seen as particularly prevalent on the whole. Their job characteristics tended to be positive, especially around variety and skill use. Most respondents seemed to be in a fairly positive social environment. Their jobs usually required quite a lot of (cognitive) information processing. Autonomy was reasonably high but again a quarter of respondents scored below the midpoint of the scale. Physical demands were generally moderate. Optimisation was the most used behavioural strategy, which is understandable because it involves mustering personal resources to deal with the tasks that face you, rather than the choosing what tasks to take on (selection) or finding ways around the trickiest bits of the job (compensation), which perhaps are not realistic options in most jobs. The broadly positive picture bears out previous evidence that later career sees a gentle rise in constructs like job satisfaction and well-being.

Our exploration of the notion of surviving led us to identify two elements of this construct. The one we called meeting job demands is broadly positive in connotation. It correlated positively with thriving, especially vitality, and Table 2 shows that many of the same variables predicted thriving (vitality) and surviving (meeting job demands). Although we intended them to be separate constructs, it may well be that feeling that you are surviving in the workplace in late career is largely about having sufficient energy levels. The other aspect of surviving (preserving the status quo) is

Table 2: Results of multiple regressions for thriving, surviving, and self-rated performance

	Thriving (learning)	Thriving (vitality)	Surviving (meeting job demands)	Surviving (preserving status quo)	In-role job performance	Extra-role job performance	Task proactivity
<b>Control variables<sup>a</sup></b>	$R^2$ ch .03*	$R^2$ ch .05***	$R^2$ ch .13***	$R^2$ ch .07***	$R^2$ ch .04**	$R^2$ ch .03*	$R^2$ ch .04***
Country (1=UK 2=Bulgaria)	-.13***		.21***	.27***	-.24***		
Sector (1=Health 2=IT)	-.07*		-.09*	.11**	-.15***	-.08*	
Age		.07*	.10**				
<b>Human resource practices</b>	$R^2$ ch .17***	$R^2$ ch .14***	$R^2$ ch .08***	$R^2$ ch .03***	$R^2$ ch .04***	$R^2$ ch .08***	$R^2$ ch .11***
Flexible options						-.10*	-.12**
Recognition of mature workers				-.17**	-.15*		-.15**
Development	.25***	.18***	.12**		.10*	.12**	.21***
Late career pathways				.15**			.12*
<b>Work characteristics</b>	$R^2$ ch .17***	$R^2$ ch .10***	$R^2$ ch .11***	$R^2$ ch .05***	$R^2$ ch .08***	$R^2$ ch .11***	$R^2$ ch .11***
Autonomy	.09*	.15***	.18***			.09*	.19***
Task variety	.14**						.17***
Task significance							
Information processing			-.18***				
Skill variety	.19***						
Social support	.13**	.21***	.21***		.20**	.15**	
Physical demands	-.11**	-.10**	-.12**	.18***	-.12**	-.09*	-.12**
<b>Behavioural strategies</b>	$R^2$ ch .04***	$R^2$ ch .03***	$R^2$ ch .02***	$R^2$ ch .01*	$R^2$ ch .09***	$R^2$ ch .07***	$R^2$ ch .04***
Elective selection				.11*			
Loss-based selection						.09*	.10*
Optimisation/Compensation	.16***	.19***	.14***	-.09*	.31***	.24***	.15***
<b>Adjusted % of variance explained</b>	38	31	32	14	22	26	29

Note: Figures shown are beta weights when all variables entered in the equation. \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

<sup>a</sup> Control variables also included gender, education, tenure in the organisation and tenure in the job. Collectively, these four variables contributed only two ( $p < .05$ ) significant beta weights between them across the seven outcome variables, and for clarity are not shown here.

Beta weights shown are those in final equation.

altogether more negative, and correlates mildly negatively with thriving. It has connotations of getting by, with an element of fear of the new, and an attempt to keep the job as constant as possible. This is, so to speak, hanging on rather than bowling along. It is perhaps the negative mind-set that Super's (1957) maintenance career stage can sink into if one is not careful, leading to negative outcomes (see also Arnold & Clark, 2015). There is a need to understand this form of surviving better because in the regressions a very small proportion of its variance was explained. The fact that mean scores for the two forms of surviving were almost identical suggests that hanging on and bowling along are both significant aspects of the late-career experience.

The regression results provide insights into what makes for an age-friendly work environment in terms of fostering thriving, surviving and performance. HR policies that encourage development via everyday work and formal training really do matter, even after taking into account work characteristics and behavioural strategies. The reluctance of some organizations to offer training to older workers is well documented in the literature (Loretto & White, 2006). Our findings emphasise that doing so can make a measurable contribution to a positive and effective workplace, and that growth and development is still on the personal agendas of many older workers (Clark & Arnold, 2008; Stein et al., 2000).

The finding that availability of HR practices signalling recognition of older workers is negatively associated with self-rated in-role performance and task proactivity reinforces the impression that it is important not to treat older workers with kid gloves. For this sample at least, flexible work arrangements, gradual retirement and options to come back after retirement seemed to be at best in the "nice to have" rather than "must have" category. That is not to say these practices should not be adopted, but on the basis of these data one should not expect an obvious benefit in terms of a happy and productive older workforce. Nevertheless, it is important to acknowledge a potential self-selection effect here. Perhaps workers who need flexibility and planned winding down to retirement have already left the workforce because these things are insufficiently available.

One of the most notable feature of these findings is the prominent role of certain work characteristics. It is sometimes argued that older workers want autonomy as a sign that they are trusted and an opportunity to use their accumulated skills and know-how to do things their way (Ng & Feldman, 2012). Our findings are certainly in line with that. Taken together with the findings for HR practices, this signals the need to give older workers freedom but also to hold them to account for what they do with it.

Social support was also consistently and strongly positively associated with outcomes. It is often argued that social integration becomes more important with age, as people seek support and closeness from existing social networks rather than acquiring new social contacts (Kanfer & Ackerman, 2004). Our findings strongly

support this, and it is notable that social support is not just a cosy thing that helps people struggle on. It also seems to invigorate older workers, contribute to their learning and performance, and stimulate them to do prosocial things at work. This is likely to be a two-way process. The social support questions were not only about receiving support, but also being part of a strong social structure to which it is possible to give, as well as from which it is possible to receive. This allows expression of generativity, where the older worker's experience and skills contribute to the well-being of the collective, particularly future generations (Zacher & Frese, 2011; Arnold & Clark, 2015). Of course, it is not easy to create a socially supportive environment through management action, but nevertheless encouragement of collegial respectful behaviour, helping each other out (and recognising this in performance evaluation) and the sharing of knowledge can all make a difference.

The role of physical demands is also noteworthy. Although in general the level of physical demands of the work was moderate to low, increasing physical demands still appeared to have negative effects on thriving, surviving, and performance. These effects were not enormous but they were not trivial either. For example, the 95 respondents who scored 4 or above on the physical demands scale reported about 15% lower thriving (energy) and surviving (meeting job demands) than those with lower physical demands. This supports initiatives developed by some employers and researchers to adjust the physical features of workplaces to fit the needs of older workers (e.g. Landau et al., 2008), and emphasises that heavy industrial work is not the only context in which this is relevant. Three quarters of the respondents with the highest physical demands were in the health sector, and were presumably required to lift patients and/or medical equipment as well as being on their feet a lot.

As well as physical demands, it seems that the cognitive load of a job could also have some negative implications for thriving and surviving. Information processing requirements of jobs were generally high, and the higher they were, the less likely our respondents were to feel they were meeting job demands. On the other hand there was no sign that task variety contributed to this undesirable load, as has been suggested it might (Truxillo et al., 2012). Indeed, task variety had a positive relationship with two of the seven outcome variables (see Table 2). Task variety may be welcome to older workers because it helps to stave off the potential boredom of doing the same old tasks again and again, having perhaps already done them for years. The trick is to ensure that variety in tasks and skills does not lead to information overload.

The findings for behavioural strategies lend further weight to the emerging evidence about the importance of using selection, optimisation and compensation strategies at work (e.g. Müller et al., 2012). In this study we show that this matters over and above the nature of the work and HR practices. In other words, individual action can make a difference. This is most notably the case for optimisation/compensation, which were used more than selection by the respondents. Training people in late career about how to foster their personal resources and deploy them effectively could pay



substantial dividends. It might also be worth having open discussions with older workers about what elements of their job they struggle with these days, and if training cannot put that right, what might be appropriate ways of getting round those limitations. For example, an older worker might, by agreement, delegate certain tasks to a colleague and take on other tasks instead. Nevertheless, given that optimisation is about deploying everything that one has to complete tasks well, it is important that employers do not exploit this by piling more and more tasks on older workers in the sure knowledge that they will do their very best to respond.

Not only were the elective and loss-based selection strategies not used very much, the extent of their use had only very weak relationships with thriving, surviving and performing. Indeed, the weak but positive relationship between elective selection and surviving (preserving the status quo) suggests that selection might be a rather desperate measure. Therefore it might be a good decision not to use this strategy much. As noted earlier, though, it may not really be a personal decision. There may be little scope to select parts of the job to do and not to do.

### ***Limitations and suggestions for future work***

The cross-sectional nature of the data collected in this study clearly limits the conclusions that can be drawn, particularly regarding causality. For example, it is possible that a feeling of thriving leads to the SOC strategy of optimisation rather than vice versa. The fact that it centred just two sectors and two countries (with one of them contributing the vast majority of respondents) may limit generalizability, although many other studies are narrower and smaller in terms of sample size than this one. Some of the measures, particularly HR practices, had low reliability. This is not surprising or even necessarily an inherent weakness of the data because some of the clusters of HR practices were broad, but lower reliability can reduce the robustness of the statistical techniques used. As in many studies, the job performance data were self-reported, so we cannot be sure that a supervisor would have the same opinion. We do not know the response rates because many of our organizations were unable or unwilling to tell us how many workers in the relevant age group they had. Finally, we have no comparison group of younger workers, so we cannot be sure that our findings are unique to older workers. On the other hand, it was not an aim of this study to make such a comparison, and our findings would not be invalidated if they were replicated in a younger sample.

This last point leads to an obvious suggestion for future research. To what extent are the predictors of thriving, surviving and performing the same for younger and older workers? Empirical studies and meta-analyses of ageing research (e.g. Kooij et al., 2011; Ng & Feldman, 2012) suggest some significant if not large changes of motives with age, but does this follow through into what helps older workers to be happy and productive in their work? Longitudinal data, even if only from older workers, would

also be useful to clarify cause and effect. Finally, we need a better picture of how thriving, surviving and performing differ between economic sectors and countries, so that any action can be targeted. We found that surviving (both forms) is more prevalent in Bulgaria than UK, whilst UK does slightly better on thriving (learning) and in-role performance. Extending the analysis to other countries and linking with other cultural and economic variables would be a helpful development.

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