

# When Age Stereotypes are Employment Barriers: a Conceptual Analysis and a Literature Review on Older Workers Stereotypes

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Published online: 2 August 2015

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**Abstract** Literature has shown that age stereotypes are contextual barriers for workers' occupational wellbeing. The current paper provides a conceptual analysis and a systematic review of research literature on age stereotypes toward older workers and it highlights how age stereotypes represent possible employment barriers into the ongoing aging workforce. Using a systematic review methodology, 18 publications were identified (published in English language since 2000 to 2014 in relevant peer-reviewed journals). The main findings of selected empirical studies indicated that: a) there is the need to focus HR management policies on older workers; b) age stereotypes toward older workers are multidimensional and there is the simultaneous existence of both positive and negative stereotypical beliefs; c) managers' age stereotypes can affect several organizational outcomes. Self-categorization theory and intergroup bias are recommended as promising theoretical approaches for studying age stereotypes toward older workers and their cognitive identification with the age group.

**Keywords** Age stereotypes · Older workers · Employment barriers · Ageing

## Introduction

Population aging is taking place in nearly all the countries of the world. Aging is the effect of the demographic transition and the main causes of this phenomenon are the reduction of the mortality rate and the declining of fertility (Phillips and Siu 2012; Vaupel 2010). In the last decades, an increase in life expectancy has been registered: the shift of mortality at advanced age is the result of a process of improving health.

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Additionally, it is estimated that the number of the elderly will increase rapidly in most developed and many developing countries and the aging population will have an unexpected impact (Kinsella and Wan He 2009).

The extension of the average age can be considered one of the greatest achievements of the human being, but it could bring several consequences, mainly in terms of the growing claims on the public purse in term of state pensions, the rising request of health services costs and the increase of age retirement by government (Gavrilov and Heuveline 2003; Toossi 2012). Furthermore, this demographic trend is projected to lead to an imbalance among age groups. In particular, there will be a smaller proportion of children and larger increase the number of older people (United Nations, Department of Economic and Social Affairs, Population Division 2013; Kinsella and Velkoff 2001). Most people born at the end of the XIX century will experience a radical revision of employment, retirement, health, education and other processes (Vaupel 2010). Due to this challenge, specifically attention should be paid on old age dependency ratio (the ratio between persons economically inactive -aged 65 and over- and persons of working age -aged between 15 and 64). This indicator is expected to rise to 58 % in 2050 (values over 50 % represent a generational imbalance) and to grow again, leading to a more age-diverse workforce into several organizations (Christensen et al. 2009; McDonald and Kippen 2001).

One solution to the financial, social and economical difficulties related to population aging is for older people to keep in paid employment longer (D'Addio et al. 2010; Holzman 2002; House of Representatives Standing Committee on Employment, Education, and Workplace Relations [HRSCE] 2000; Szinovacz et al. 2014; Walker 2007). Many countries have begun to raise retirement ages and a recent survey (AARP 2013) revealed that an increasing percentage of older workers are still working primarily because of financial need. Even though literature and HR policies are aligned to the essential role of older workers into organizations, scholarly research reveals that older applicants are discriminated against in favor of younger ones, and there are many HR decisions supporting younger workers (Gringart and Helmes 2001; HRSCE 2000). Great scholarly attention should be given to the process through which age stereotypes toward older workers became barriers to their employment (Gordon and Arvey 2004). Literature analyzed, for instance, how age stereotypes may be affecting age discrimination in the workplace (Posthuma and Campion 2008). In fact, findings suggest a most likely trend for hiring discrimination against older adults, and support the stereotyping–discrimination relationship, that was earlier discussed in literature (Gordon and Arvey 2004; Finkelstein and Farrell 2007). In line with this, courts have recognized that, unlike other form of stereotypes (such as race and sex), age stereotypes can operate at a unconscious level, even without the intention to discriminate (Krieger 1995). This more liberal source of employment barriers could put employers at risk for legal responsibility in case age stereotypes result in age discrimination (Posthuma and Campion 2008).

In view of the account above, the present study aims to contribute to the debate on older workers age stereotypes by addressing the following research question: Do age stereotypes toward older workers represent employment barriers? Through a critical review of the literature and an in-depth analysis of major theoretical frameworks, we aim to conceptualize age stereotypes in the work setting and, in particular, to categorize of some empirical studies. In the present review, we contribute to the existing literature

by showing possible ways in which age stereotypes in the workplace can lead to unemployment. We decided to conduct an exam on papers that specifically refer to “age stereotypes” mainly because they may impact on major individual and organizational outcomes, they are found to be resistant to change and they represent huge employment barriers (Falkenberg 1990; Posthuma and Campion 2008).

## The Conceptualization of Age Stereotypes

Stereotypes are defined as schemas or cognitive categories that people use to process information (Cuddy and Fiske 2002). Individuals use these categorical schemas in order to understand others and to answer them more quickly (especially when information are unavailable or ambiguous). Stereotypes develop over time as people perceive environment and guide beliefs and expectations about members of a social group. In doing so, these schema are used for interpreting social information, directing our behaviors and social interactions (Avolio and Barrett 1987; Chao and Willaby 2007). Indeed, in line with social identity theory, stereotyping implies that people tend to attribute more negative characteristics to members of other groups (out-group bias) (Lalonde and Gardner 1989; Tajfel and Turner 1979). In particular, an age stereotype is defined “*a simplified, undifferentiated portrayal of an age group that is often erroneous, unrepresentative of reality, and resistant to modification*” (Schulz et al. 2006, p.43). In consideration of the changing composition of the workforce, age stereotypes are a relevant phenomenon that could impact on both younger and older workers. Previous scholars have demonstrated that people often hold age stereotypes in work settings, especially toward older workers (Chiu et al. 2001; Kite and Wagner 2002).

**Age Stereotypes and Older Workers** Who is an older worker? Can we choose a cutoff in order to identify her/him? According to the ADEA (U.S. Age Discrimination in Employment Act of 1967) 40 years old seems to be an acceptable cut off to distinguish between younger and older workers. However, we are in line with several recent studies in which there is not a single worldwide cut off of age to identify an older worker. Indeed, the definition of an older worker can change over time and fast demographic changes cannot consent to identify a threshold (Ng and Feldman 2008; Shultz and Adams 2007). The concept varies across contexts and it could be also influenced by number of factors (i.e., cultural dimensions, such as the country of origin of the samples) (Chiu et al. 2001; Hofstede 1980; Segalla et al. 2001). Furthermore, there is also worldwide variability in terms of retirement ages and legal protections (McCarthy et al. 2014).

Sterns and Doverspike (1989) distinguished five approaches to conceptualizing the aging of a worker: 1) Chronological age: it refers to the worker’s calendar age, 2) Functional or performance-based age: it represents the worker’s performance (it considers that there could be variation between individual capacity and functioning), 3) Psychosocial or subjective age: it is based on the self and the social perception of age, 4) Organizational age: it represents the work seniority, 5) Lifespan age: it considers changes at any points of life and emphasizes that many variables may impact the aging process. In an organizational context, age should not be a criteria by reference to which a worker is categorized, indeed he/she could perceive age stereotypes and age discrimination (Claes and Heymans 2008). Age stereotypes in the workplace can be both positive and negative and they are associated with some personal and organizational

indicators, as most common: health (Palacios et al. 2009), employability (Gordon and Arvey 2004), age discrimination (Finkelstein et al. 2013), and intention to retire (Gaillard and Desmette 2010).

**Theoretical Framework** The social identity theory (Tajfel and Turner 1979) and the self-categorization theory (Oakes et al. 1994) assume that people activate a prior schema when creating an opinion based on one's impressions (Macrae and Bodenhausen 2001). Social Identity Theory and Self-Categorization Theory constitute the Social Identity Approach (Turner et al. 1987). These theories are concerned with the processes which surround the way that people define themselves as members of a social group; this approach evidences that people tend to identify themselves with groups in which members are similar (Bal et al. 2011; Finkelstein et al. 1995; Lalonde and Gardner 1989). When acting in terms of social identity people view and value others in terms of their group memberships. In particular, people tend to value members of the same group as similar to each other (Haslam et al. 1998). In doing so, people perceive individuals in terms of the characteristics that are associated with the groups to which they belong. This is the process of stereotyping (Lalonde and Gardner 1989; Tajfel and Turner 1979).

A second framework that can be used to understand the nature of stereotypes in the workplace is the Intergroup Contact Theory (Allport 1954; Pettigrew 1998). This theory refers to the reduction of prejudice among groups. One of the major contents of this theory is that the interaction encourages behaviors that disconfirm stereotypes that a group hold about one other. By viewing the inclusive workplace as an intergroup contact situation, it can be assumed that coworkers with the same chronological age will be more accepting and open minded if coworkers have the opportunity to get to know different age groups of workers as individuals rather than as stereotypes or labels (stereotype disconfirmation) (Mohaupt et al. 2012; Novak et al. 2011). Moreover, as the cognitive functional approach explains (Hamilton and Troler 1986; Weber and Crocker 1983), people activate a categorical information because it is easier than forming an opinion about experience. In this view, interactions between different age groups could favor correct impressions and limit negative age stereotypes, also in work setting. In particular, younger workers perceive and evaluate older workers as members of an out-group; in this process, they predict older workers behaviors based on an earlier assignment of negative characteristics (Bal et al. 2011).

## Evidences

Rosen and Jerdee (1976a, b) examined common beliefs toward older workers and found a number of negative stereotypes associated with them. More recently, Posthuma and Campion (2008) revealed that most stereotypes against older workers were on their lower performance, their lower ability to learn, their resistance to change, they tend to have shorter tenure and they were more costly. Concerning being less interest in training, based on a recent meta-analysis (Ng and Feldman 2012), it was highlighted that this was the only stereotype empirically supported. Furthermore, studies examining common age stereotypes concluded that some of them might be exaggerated (McEvoy and Cascio 1989; Ng and Feldman 2012). Recent scholars examined stereotypes

toward older workers investing younger coworkers (Finkelstein et al. 2013). They found that the major portion of younger colleagues hold positive age stereotypes toward older workers. Additionally, Ng and Feldman (2008, 2010) demonstrated that older workers generally have more positive job attitudes and higher levels of organizational citizenship behaviors.

Literature evidenced that several industrial sectors, such as financial, may reveal stronger age stereotypes (Broadbridge 2001; Chiu et al. 2001; McGoldrick and Arrowsmith 2001; Perry and Finkelstein 1999; Posthuma and Campion 2008). Furthermore, it is known that age is perceived more negatively in sectors such as fashion/luxury, consulting and hospitality, where older workers were identified about 35 years old (Bombelli and Finzi 2006; Furunes and Mykletun 2007).

As it has been already discussed, older workers represent the target category mainly set to increase in the future. Therefore, HR management needs to rethink their human resource policies right now (Hedge and Borman 2012; Schalk et al. 2010; Shultz and Adams 2007; Truxillo and Fraccaroli 2013). In fact, through age management interventions, employers support older workers' occupational wellbeing and sustain their health during the later employment years (Auer and Fortuny 2000; Damman et al. 2013; Ilmarinen 2007). In such an economic decline in which older workers are required to remain in the workforce, age stereotypes are possible barriers to employment (Brooke and Taylor 2005). Studies evidenced that negative age stereotypes toward older workers were prevalent in personnel decision (Hirschfeld and Thomas 2011). Indeed, Bal et al. (2011) showed that although the organizational context held positive stereotypes associated to older workers (e.g., their reliability), older workers received more negative organizational decisions compared to younger workers.

As results of these growing issues around age in the workplace, workplace age stereotypes may become more common in any organizations and could have effects on some portions of workers. Indeed, a worker should be considered an "aging worker" from the moment in which she/he enters into organization and starts to work. In this view, age stereotyping should be studied as a phenomenon that can affects every worker and that should be managed in order to lead to negative outcomes.

## Method

To analyze the literature on workplace age stereotypes we conducted a multiple keyword searches in two main electronic databases used in psychosocial disciplines: Psycinfo and Scopus. We performed a search for those studies that examined specifically the phenomenon of age stereotypes in the workplace and the relationship between them and other key variables. Multiple inclusion criteria were set prior to the start. We choose to search for all relevant peer-reviewed journals, in English language from 2000 to 2014 (we chose to analyze this time period in order to offer a recent and complete review on the theme). Field keyword was used: 1) key term "age stereotypes" was combined with the following keywords "older workers", "work", "aging", "workplace", "employee attitudes", "stereotyped attitudes", "working condition", "negative stereotypes", "positive stereotypes", "aging workforce"; and 2) the stand-alone terms: "age stereotypes", "stereotypes", "stereotyping" and "older workers perceptions". The abstracts of the extracted articles were scanned by the

authors. Some articles were excluded due to misfit. The main reason for the exclusion was that studies do not discuss a field research into a work setting (i.e., laboratory experiments were left out). This procedure led to identify nearly 51 potentially pertinent papers. All empirical studies and review were included, but we chose to not include book chapters because of we were interested only in evidence-based researches. Where the full text was not retrievable the study was not involved. Results were narrowed based on abstract and relevant indicators (i.e., research was limit to work setting studies in which data were collected in field). This process yielded about 25 citations, then were reviewed individually again. Finally, four papers were excluded because they did not expose empirical results.

This review for relevance discovered few significant synonymous of age stereotypes (as attitudes toward employee, age norms and age perception) that are not the main focus of the present paper (our aim was to focus only on research which specifically talk about age stereotypes and their impact on workers and organizations).

## Results

Selected papers have been divided into 3 groups: 1) systematic review, 2) meta-analysis, 3) empirical studies. Here we present all results, but for the objects of this review, we focused mainly on the findings of the third group. In Table 1 results of the empirical studies are summarized.

**Systematic Review** One systematic review reflected the selection criteria we chose (Posthuma and Campion 2008). This relevant paper, recently published, considered 117 articles and books and represents a framework for future research. Main age stereotypes that could occur in work settings are described and, moreover, some evidences refuting age stereotypes were posed. It has been demonstrated that age stereotypes could moderate the relationship between age and several outcomes.

**Meta-analysis** Our results also involved two meta-analysis (Bal et al. 2011; Ng and Feldman 2012) respectively based on 37 and 418 empirical studies. Researches aimed to examine positive and negative age stereotypes through the evaluation of several common beliefs (i.e., reliability, motivation, willing to be trained) and their effects on major work outcomes (i.e., advancement, selection, general evaluations). Age was revealed as a factor that could have a medium-sized effect on both negative and positive outcomes and perceptions. An interesting result, moreover, was that the only stereotype consistent with empirical evidence was that older workers are less willing to participate in training and career development activities (Ng and Feldman 2012).

**Empirical Studies** Finally, the last type of documents results in our review were the empirical studies, which represent the focus of our review. A total of 18 researches, published mostly during 2013, were found (see Table 1). Most studies of this category used mixed samples (Gray and McGregor 2003; Fuertes et al. 2013; Gringart et al. 2013; Kunze et al. 2013b) and, in particular, managers/employers and workers were involved in the majority of groups. Nevertheless, regarding the source of age stereotypes, the present review showed that few studies have explored the older workers'

**Table 1** Selected empirical studies

No	Authors	Cutoff for “older worker”	Sample	Type of measurements	Variables	Main results
1	Chiu et al. 2001	no age cut off was explicitly specified	UK (N=265) and Hong Kong (N=302); Average age UK=33 and HK=31; Student workers;	Questionnaire	Organizational variables; Individual variable; Age stereotypes (adaptability and work effectiveness); Discriminatory attitudes on employment practices	UK respondents saw older workers as more effective at work, but less adaptable to change; respondents’ age was predictive of positive age stereotypes. Respondents’ stereotypical beliefs about older workers were found to predict their discriminatory attitudes.
2	Gray and McGregor 2003	55 and over	N=3149; Average age of employee group=59; Employees and employers;	Questionnaire	Age stereotypes (i.e., reliability, loyalty, productivity); age discrimination; HRD	Negative HRD stereotypes held by employers and employees. Employers aligned with employees on older workers difficulty to train and willing to be trained.
3	Henkens 2005	50 and over	N=796; Average age=45; managers;	Questionnaire	Age stereotypes (productivity, reliability, adaptability); attitudes toward older worker’s retirement	Younger workers have more negative views on older workers productivity and reliability. Results are discussed referring to the importance of different organizational context.
4	Furunes and Mykletun 2007	35–40 and over	N=20; managers;	Interviews	Recruitment; training; flexible working practice; job design; relationship between older and younger workers	Both positive and negative attitudes toward older workers were evidenced and the most used metaphors regarding workforce were: machine, sport, family, drama and gap metaphors.
5	Gringart et al. 2008	no age cut off was explicitly specified	N=267; average age=45/50; employers	Questionnaire	3 intervention conditions; age preference in hiring; age stereotypes (i.e., adaptability, interest, trainable); age relevant in making hiring decisions; likelihood to hire older workers	The combination of two intervention conditions enhance the intervention’s effectiveness: participants were more than likely to hire older workers, compared to all other groups.
6	Van Dalen et al. 2009	50 and over	N=1,855; Employers;	Questionnaire	Age stereotypes toward older and younger workers (i.e., social skills, reliability, commitment); Expectations and behaviors regarding older workers	Results indicated that older workers are considered, in general, to be more reliable, more committed and have better social skills. Moreover, older workers are rated most negatively with respect to their willingness to be trained and the capacity to deal with new technologies.



**Table 1** (continued)

No	Authors	Cutoff for “older worker”	Sample	Type of measurements	Variables	Main results
7	Gaillard and Desmette 2010	45 and over	Study 1: N=78; Average age=50; Employee; Study 2: N=60; Average age=52;	Questionnaire	Positive stereotypic information (PSI) (i.e., ability to solve problems with experience); negative stereotypic information (NSI) (i.e., slowness to process informations); preferences and intention to retire interest for learning and developing at work	Early retirement intentions were significantly lower in the PSI condition than in both the NSI condition and the control condition. Positive communication results leading to older workers motivation and aspiration.
8	Zacher and Bal 2011	no age cut off was explicitly specified	N=128; Professor (average age=50) and assistant (average age=32)	Questionnaire	Professor's age; age-related work concerns; age stereotypes (wisdom, dependability, supervisory); Research assistant ratings of passive-avoidant and proactive leadership	Older professors are perceived as more passive-avoidant leaders than younger professors by their research assistants. Research assistants' age stereotypes influence the assessments they make of younger and older professors.
9	Dixon 2012	no age cut off was explicitly specified	N=60; average age=34; employees	Interviews	Friendliness; cheerfully/openness to diverse sexual identities; asexual workplaces; communication about age; responding to (st)ageism; age; sexuality	Younger employees would be “friendlier” and more tolerant of the communication of sexual identities than older employees. Older coworkers results largely asexual.
10	Bertolino et al. 2013	55 and over	N=155; Average age=44; Employees;	Questionnaire	Age; Five factors model perception; job performance perception	Different perceived in terms of the five factors model (FFM) and job performance between age groups. Overall results are moderated by age.
11	Boone James et al. 2013	55 and over	N=4, 713; average age=34; employees;	Questionnaire	Unlikelihood for promotion; unfitness for promotion; work engagement	Perceived discrimination is related to lower levels of employee engagement toward workers of all ages. There is a more negative relationship between unintentional discrimination and employee engagement.
12	Bowen and Staudinger 2012	45 and over	N=337; average age=39; employees;	Questionnaire	Age; perceived older worker stereotype; psychological age climate; promotion orientation	Negative relationship between age and promotion orientation when perceived older workers stereotypes was less positive.
13	Fuertes et al. 2013	50 and over	N=27;	Interviews	Job suitability for age;	Study discuss the potential benefits of age management awareness and evidence the



**Table 1** (continued)

No	Authors	Cutoff for “older worker”	Sample	Type of measurements	Variables	Main results
14	Gringart et al. 2013	no age cut off was explicitly specified	<p><i>N</i>=6 senior managers, <i>N</i>=7 line managers, <i>N</i>=2 HR personnel, <i>N</i>=12 employees</p> <p>Field Study: two sample of undergraduate students: <i>N</i>=187 (average age=27), <i>N</i>=32 (average age=29); two sample of hiring decision makers: <i>N</i>=128 (average age=45), <i>N</i>=118 (average age=47).</p>	Questionnaire	<p>Age stereotypes (i.e., reliability, maturity, enthusiasm)</p> <p>Age stereotypes (i.e., trainable, willingness to work, cautiousness); applicant's age when making hiring decisions; likelihood to hire older workers</p>	<p>influence of attitudes and practices toward older workers. Managers held several preconceptions and stereotypes regarding older workers.</p> <p>The present study represents the initial development of the AOWS, a measure of stereotypical attitudes toward older workers.</p>
15	Kapinska et al. 2013	60 and over	<i>N</i> =238; average age=45; manager	Questionnaire and vignette	Age norms; age stereotypes: soft skills (i.e., job performance, commitment, reliability) and hard skills (i.e., mental capacity, physical capacity, willingness to learn new skills)	Results indicated that managers with higher age norms were more inclined to hire early retirees. It could be suggested that stereotypes, by contrast, do not influence managers' decisions.
16	Kunze et al. (2013a)	no age cut off was explicitly specified	<i>N</i> =2981; average age=39; employees;	Questionnaire	Age and tenure; occupational status; resistance to change; goal accomplishment	Employee age is negatively related to resistance to change (RTC). Tenure and occupational status are further identified as boundary conditions for this relationship.
17	Kunze et al. (2013b)	no age cut off was explicitly specified	<i>N</i> =30,739; Employee ( <i>N</i> =30,101, average age=38), top management ( <i>N</i> =491, average age=47), the head of HR ( <i>N</i> =147, average age=44)	Questionnaire	Age diversity; negative age discrimination climate; negative top managers' age stereotypes (interested in learning new skills, hard work, keep up with the speed of modern industries); diversity-friendly HR policies; organizational performance	Results indicates that higher levels of age diversity were positively related to higher levels of perceived negative age-discrimination climate, which in turn negatively affected company performance.
18	McCann and Keaton 2013	50 and over	USA ( <i>N</i> =142) and Thailand ( <i>N</i> =125); Average age =22; Student workers	Questionnaire	Age stereotypes (memory skills, adapt to new technology, physical skills); communication	Older workers were generally seen by young workers as more negatively (exception for performance and mental abilities). Both negative and positive age stereotypes were accentuated in the Thai sample.

point of view and perceptions. Several studies examined different age groups (Zacher and Bal 2011; Gringart et al. 2013; Kunze et al. 2013b) and results evidence that most studies involved samples with an average age about 44/50 years old (Henkens 2005; Gringart et al. 2008, 2013; Gaillard and Desmette 2010; Bertolino et al. 2013; Karpinska et al. 2013; Kunze et al. 2013b) (where the average age was explicitly specified). Several sectors were used to collect data, even if it was not explicitly specified in all studies. Most researches involved more than one work setting. Results indicate that sectors mostly examined were: health, manufactories, financial/bank. Three researches aimed to compared results from different countries: 1) UK and China (Chiu et al. 2001), 2) Greece, Spain, UK and Netherlands (Van Dalen et al. 2009) and 3) USA and Thailand (McCann and Keaton 2013). The majority of researches used 55 and 50 years old as cutoff in order to identify older workers. The thresholds of 60 and 35/40 were used only once, instead 45 twice (age cut off was not explicitly specified in all studies). Main measurements utilized in papers selected were questionnaires ( $N=15$ ); only three researches used face-to-face interviews.

In order to present results of empirical researches, they were divided into 2 sections: 1) age stereotypes were examined, 2) main issues and variables were associated to age stereotypes.

### Age Stereotypes

Age stereotypes examined in empirical studies were listed and summarized. Studies proposed a general description of older workers, and compared them to younger colleagues. A first study by Van Dalen et al. (2009) gave an overall description of employers' point of view on age stereotypes in four European countries. Older workers were considered to be more reliable, more committed and better socially skilled, but were rated most negatively with respect to their willingness to be trained and to deal with new technologies. In this line, Bertolino et al. (2013) showed that older and younger workers were perceived differently in terms of the personality and key job performance dimensions, may be due to real age-related differences.

**Common Findings** In the selected studies, some common findings were revealed. Several studies found that respondents' age may predict different attitudes toward older workers. People who were older, or in more frequent contact with older workers, tended to hold more positive views of them; moreover, younger workers rated older workers more negatively than themselves (Chiu et al. 2001; Gray and McGregor 2003; Bertolino et al. 2013; Henkens 2005). The main cause of a difficult age management was identified in several studies (Fuertes et al. 2013; Furunes and Mykletun 2007) as the coexistence of both positive and negative attitudes in work setting.

**Discordance Findings** Several researches found discordance results. Even though Dixon (2012) held evidence for age stereotypes in the workplace (older coworkers were thought to expose a more disciplined workplace ethic), by contrast, Karpinska et al. (2013) and Kunze et al. (2013a) highlighted that workplace age stereotypes did not confirm common beliefs toward older, and, unlike age norms, they did not influence managers' decisions.

**Productivity** With specific regard to overall productivity stereotypes, results are mixed. Indeed, in line with most earlier literature (Cuddy and Fiske 2002; Gordon and Arvey 2004; Posthuma and Campion 2008), younger workers were perceived to perform better than older (Chiu et al. 2001; Van Dalen et al. 2009), by contrast, McCann and Keaton (2013) refused the older workers poor performance stereotypes. It has been supposed that, in case of frequent contact between age groups, stereotypes toward older productivity decreased; moreover, older workers tended to have a more positive view of older workers' performance. It was showed the influence of work environment (i.e., occupational sector and age stereotypes) in perceiving older workers' productivity and the employers need of performance management (Henkens 2005; Fuertes et al. 2013).

**Training and Learning** Regarding stereotypical beliefs on training, promotion and retention the present review revealed that they significantly affect respondents' attitudes (Chiu et al. 2001; Kunze et al. 2013b). There are evidences for age discrimination toward older workers' training in different European countries (Van Dalen et al. 2009) and Gray and McGregor (2003) showed that employers are aligned with workers on the stereotypes among older workers's willingness to learn, reliability, loyalty and commitment to the job. As Bertolino et al. (2013) showed, different age groups were not perceived differently in terms of openness to experience (interest in new). This result may indicate that also compared to younger workers, the oldest are valued willing to learn and to experience. Gray and McGregor (2003) focused on HRD (Human Resource Development)' attitudes and suggested that a portion of older workers don't understand the reasons for did not receive any training. In this research older workers thought performance appraisal system was few effective, instead employers rated it a key HRD practice. These findings evidenced that older workers' interests in training are not well managed.

**Social Skills** Social skills stereotypes results were mixed. Indeed, Dixon (2012) examined "friendly" stereotypes and evidenced a negative view toward older workers; by contrast, results from Bertolino et al. (2013) found that there were no differences in term of extraversion between older and younger workers, and Van Dalen et al. (2009) revealed managers' positive perceptions among older workers' social statement. Only one study analyzed beliefs toward supervisors (Zacher and Bal 2011): favorable age stereotypes impacted on assistants' rate of leadership style.

**Workability** The most positive stereotype toward older workers concerned their reliability, accuracy, loyalty and commitment to the job, even if compared with younger coworkers (Gray and McGregor 2003; Gringart et al. 2008; Henkens 2005; McCann and Keaton 2013). In term of job suitability, results of this review (both by employers and younger workers) were aligned on older workers knowledge and competence; on the other hand, respondents in New Zeland and Australian context thought that older workers were few able to work long hours (Gray and McGregor 2003) and physically strong (Gringart et al. 2008). In Kunze et al. (2013b) negative managers' age stereotypes on older workers' ability to work hard, results correlated to negative job performance. Nevertheless, McCann and Keaton's (2013) results disagree: older workers were not thought to be physically weaker than younger workers in both UK

and Thai samples. Finally, the negative relationship between older workers and technology was discussed: older workers were aligned with employers especially in IT sectors (Fuertes et al. 2013; Gray and McGregor 2003; Karpinska et al. 2013; Van Dalen et al. 2009). Regarding the likelihood to be promoted, Boone James et al. (2013) found that whether senior workers perceived stereotypes on unfitness for promotion may tend to have a lower work engagement.

## Main Issues and Variables Associated with Age Stereotypes

**Impact on Employers' Attitudes and HR Policies** Van Dalen et al. (2009) revealed that several employers made no significant interventions to retain or recruit older workers or in order to develop their productivity, even though the aging workforce was perceived as a challenge for future labor market. Furunes and Mykletun (2007) examined the failure of age management and diversity management in Norwegian hospitality industry. Authors hypothesized that one of the reason why interventions failed was the presence of both positive and negative stereotypes toward older workers. Indeed, having experience with an age heterogeneous workforces may increase the likelihood of perceiving positive assets among senior workers. Fuertes et al. (2013), suggested the potential benefits of age management in SMEs (small and medium-size enterprises), through for example training programs, in attitudes and practices toward older workers and in the reduction of age stereotypes. Studies focused on managers' employment decisions (Henkens 2005; Karpinska et al. 2013) indicated that both managers' age norms (defined as "rules of behaviour coordinate interactions with others and are believed to guide individuals in social situations") and stereotypes were important barriers for early retirees in the labor market because they may affect employers' behaviors. In particular, managers with higher age norms and few age stereotypes were more inclined to hire early retirees and age bias lead managers to lower employ older workers. Analysis with regard to human resource policies related to training found negative HRD stereotypes held both by employers and workers (Gray and McGregor 2003). This agreement may affect managers' decisions and lead to senior workers' self evaluation. Moreover, results highlighted that age bias toward older workers brings to overall age discriminatory employment attitudes.

**Negative Impact on Older Workers' Outcomes** Results evidenced that variables as intention to retire, willingness to train, work engagement and orientation to promotion could be affected by age stereotypes (Boone James et al. 2013; Bowen and Staudinger 2012; Gaillard and Desmette 2010). In particular, it was discussed that different information on older workers' capacity brings to different behaviors; indeed, the research tested the influence of different age-related stereotypic information on older workers and it was revealed that a more positive stereotypic information support job motivation. Work engagement was explored to be negatively related to age discrimination, furthermore, for all age groups involved. Similarly, the perception of age stereotypes had an impact on older workers' promotion orientation (Bowen and Staudinger 2012), and authors suggested that older worker stereotypes can be a factor that may moderate the relationship between age and promotion orientation. Moreover, managers' stereotypes on productivity, adaptability and reliability of older workers

were resulted to affect older workers attitudes toward retirement (Henkens 2005; Karpinska et al. 2013). Finally, these findings provide that communicating positive information about older workers' ability may improve their occupational wellbeing.

**Negative Impact on Working Relationship** As discussed earlier, age stereotypes could affect both younger and older workers. This literature review found mixed results, even though an overall negative rate of older workers was highlighted. McCann and Keaton (2013) and Chiu et al. (2001) revealed that younger workers have many common age stereotypes toward older workers (i.e., mental skills, able to adapt to new technology, communicational skills). In particular, stereotypes on training, productivity and adaptability were strongly showed, even though results evidenced some cultural differences toward perceptions of older workers (such as country of origin). By contrast, in Boone James et al. (2013), workers did not rate younger workers more likely to be promoted than older workers, and Bowen and Staudinger (2012) found an average score rate of positive characteristics toward older workers (i.e., loyalty, reliable, creative). Dixon (2012) provides that age stereotypes on sexuality may have an impact on the distance between younger and older workers. For instance, younger workers showed the notion that older coworkers were largely asexual and less "friendlier", and stereotypical beliefs were found to affect younger willingness to work with older coworkers (Chiu et al. 2001). In terms of supervisions' style, Zacher and Bal (2011) evidenced that assistants favorable age stereotypes could enhance the relationship between professors' age and assistants' evaluation of leadership. Specifically, this study examined the relationship between professor age and leadership ratings. Results showed that whether research assistants held few favorable age stereotypes there was a stronger relationship between professor age and leadership rating. This finding provides that research assistants' age stereotypes affect the assessments they make of older professors.

**Moderating Role of Age Stereotypes** Negative managers' age stereotypes toward older workers were shown in the relationship between age diversity and performance (Kunze et al. 2013b). In a second research (Kunze et al. 2013a) a negative relationship between age and resistance to change was support by empirical data, and additionally, the correlation between age and goal accomplishment results completely mediated by resistance to change stereotype. In regards to perceptions of older workers' personality (Bertolino et al. 2013), results highlighted that older workers evaluated more positively workers of their age in overall dimensions of Big Five personality and task performance.

**Measurements and Interventions** Gringart et al. (2013) described the development of a questionnaire for the assessment of attitudes toward senior workers. Authors tested 3 versions of a questionnaire aimed to examine three areas toward older workers (attitudes, hiring decision, performance). The questionnaire was pilot tested, refined, and field tested, within the particular context of hiring decision. The questionnaire was used also in a second study, which aimed to test three different conditions (an information-based intervention in the form of a list of misconceptions about older workers, refuted by empirical data-, cognitive dissonance, combination of information-based intervention and cognitive dissonance) in order to promote attitude change and

modify stereotype-based behaviors toward older workers (Gringart et al. 2008). Data supported hypothesis that information-based intervention does not have impact on respondents' perception of older workers. The combination of the information-based intervention and cognitive dissonance conditions showed the main effectiveness: for instance, it has been examined to produce a significantly effect in the intention to hire an older workers compared to all others.

## Discussion

Earlier researches on aging and age stereotypes in work setting provide several stereotypical beliefs toward older workers and, in some cases, contrasting results. Our study attempts to conceptualize age stereotypes toward older workers and to present main results of an updated systematical review.

The evidence revealed that main researches focus on employers' and younger' stereotypical beliefs toward older workers and used mostly samples of middle-age workers. Few researches examined older workers' perceptions of age diversity climate and meta-stereotypes. Future studies are needed in order to analyze in depth the relationship between older workers perceptions and their employability (Finkelstein et al. 2013).

First, throughout the analysis of earlier reviews and meta-analyses, we examined the reason why an emergent attention should be posed to the organizational context (in terms of age stereotypes and age discrimination). Indeed, those organizational elements are showed to affect older workers occupational wellbeing and employment (Bal et al. 2011; Finkelstein et al. 1995; Ng and Feldman 2012; Posthuma and Campion 2008). In a context in which older workers groups have been the first to be unemployed (Encel 1998; Van Dalen et al. 2009), age stereotypes became a growing phenomenon and an HR challenge that should be managed (Walker 2005). Indeed, according to self-categorization theory (Turner 1999) and in line with social identity theory (Tajfel and Turner 1979), if a worker perceived himself/herself as an "older worker" they will tend to enhance the perception of group identity, to disengage in the job (e.g., early retirement), to feel low commitment (indeed, individuals tend to leave a groups they do not feel to belong) and to predict early retirement intention (Desmette et al. 2005; Desmette and Gaillard 2008). As it was overall found in our study, a self-categorization as an "older worker" could be related to negative attitudes toward work (for instance, stronger desire to retire early or bad cooperation between age groups) (Desmette and Gaillard 2008). Moreover, early retirement intentions seem to reflect organizational retirement norms associated with the fact of being an "older worker" (Desmette and Gaillard 2008; Guillemard 2003).

Secondly, we presented results of empirical studies and our main finding, in line with previous research (Gordon and Arvey 2004; Kite et al. 2005; Schalk et al. 2010), is that age stereotypes still exist into the workplace all over several sectors and countries. Age imbalance into organizations frequently leads to compare different age groups, which, consequently, could impact on both organizations and workers. An overall finding of researches included in our review is the multidimensional nature of age stereotypes and the simultaneous existence of both positive and negative

stereotypical beliefs toward older workers (Coutant et al. 2011; Chasteen et al. 2002; Hummert et al. 1994, 1997; Schmidt and Boland 1986). Cognitive categorization theories on the perceptions of age (Hummert 1999; Nelson 2002) suggested that individuals use an automatic schema when people come in the contact with an older person. Those schema can simultaneously hold to positive and negative impressions and attitudes. Nevertheless, younger people have implicitly negative associations regarding images of older person (Nosek et al. 2002), the “golden age” (the so-called last stage of the life cycle (see Toossi 2007) has been considered a synonymous of experience and wisdom in many fields (Kogan and Shelton 1960; Finkelstein et al. 2000). Furthermore, an explanation can be found in the literature (see i.e., Crawford et al. 2010; Giniger et al. 1983): as evidence suggests that older workers may compensate their physical and psychological decline through the use of several strategies developed by experiences. Those results evidences that, even though several abilities decline with age, they could be modifiable because they depend in a large part on the work context and job task (Bloom and van Reenen 2011).

Most review results found support in the intergroup contact theory (Allport 1954; Pettigrew 1998). Indeed, people who have positive relationships with other aged workers tend to better understand outgroup characteristics. In this line, another relevant finding of our review is that more contact between age groups may enhance positive age stereotypes and willingness to work with different age coworkers (Hassell and Perrewe 1995).

Even though our research analyzed limited literature because of the chosen selection criteria, this review examined different stereotypes toward older workers, and analyzed several samples and countries. This is an interesting advantage because it allows us to consider workers and employers’ point of views and, moreover, to control for possible cultural bias. Besides, we update recent review on this theme and require several future researches. For instance, little evidences was found regarding differences age cohorts (i.e., oldest workers) and there is the need to include more sectors and, finally, a comparison between cultures could explain different conceptualizations of age bias. Finally, in a continuous changing workplace, different age cut off should be used to identify older workers.

## Conclusion

Aging refers to changes that occur in biological, psychological, and social functioning over time which affects each individual on personal, organizational, and societal levels (De Lange et al. 2006). As workforce aged, organizations should sustain workers’ occupational wellbeing: countries need to care for the quality of the life of their population and employers need to maintain older workers’ health (Costanza et al. 2014). With the increasing mean age in the labor market and in response to recent retirement international policy, stereotypes regarding changes that occur in the life-span will become a more relevant barriers in HR management. Findings of our paper suggest that there is the need to focus HR management on older workers, in order to answer to a changing workforce, to extend their career and to improve their employment possibility. Indeed, it was discussed that older employers held a significantly more positive view of older workers and were more interested in hiring older workers than did



younger ones (Gringart et al. 2008; Henkens 2005; Karpinska et al. 2013). Even though managers' negative age stereotypes toward older workers were not always supported by empirical evidences, results showed that managers' age stereotypes could lead to several organizational outcomes (such as performance) and it was suggested that even unintentional discrimination could bring to employment barriers (Kunze et al. 2013a, b). Indeed, all of empirical studies involved in our review, discussed the huge risk for older workers to be discriminated in favor of younger. Literature evidence that age management interventions could reduce negative attitudes and beliefs toward older workers (Walker 1999). In this regards, only one of the researches exposed an intervention study, but results emphasized the advantage resources of psychological interventions (Gringart et al. 2008; Gaillard and Desmette 2010).

By analyzing the intergroup processes, we discussed that workers who categorized themselves as "older workers" and who perceived their employers/managers' make use of age for distinguishing between workers were more likely to show negative organizational outcomes.

Our review provides an in depth analysis of issue toward age stereotypes, examining a selected portion of literature in order to better understand empirical evidences and to guide future researches. Moreover, it serves to update existing literature review on age stereotypes toward older workers. Indeed, even though earlier studies examined this theme completely (Ng and Feldman 2008; Posthuma and Campion 2008), we seek to capitalize on an additional 6 years of research conducted in this field. This review's object was to shed light on the growing workforce and on interventions to carry out among older workers in order to understand potential barriers to continue to work. Additionally, only by improving knowledge on psychosocial dimensions of the workplace we can support and create positive work settings and limit negative stereotypical outcomes and employment barriers for older workers.

**Conflict of interest** Authors state that in the present paper there is no conflict of interest.

**Informed Consent** Obtained from all individual participants included in the study. For this type of study formal consent is not required.

**Ethical Treatment of Experimental Subjects (Animal and Human)** This article does not contain any studies with human or animal subjects performed by any of the authors.

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