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Interpersonal work context as a possible buffer against age-related stereotyping

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ABSTRACT
This study deals with the impact of relational demography upon occupational expertise ratings, and possible moderating effects of interpersonal work context factors. The results revealed support for a decrease in supervisor ratings of occupational expertise of their subordinates as an effect of directional age difference (status-incongruence: a situation wherein a supervisor is younger than his or her subordinate). Moreover, it appeared that transformational leadership style could not moderate this effect. Dyadic tenure appeared to strengthen the negative effect of status-incongruence, yet, only in the case of a longer duration of the relationship between employee and supervisor. Both theoretical and practical implications of these outcomes are discussed.

KEY WORDS – relational demography, occupational expertise ratings, age-related stereotyping, interpersonal work context, employee, supervisor.

Introduction

The ageing workforce is a major issue for many countries (Bloom, Canning and Sevilla 2003; Shultz and Adams 2007), and unfortunately many countries are generally not well prepared for the current demographic changes (Field, Burke and Cooper 2013). Therefore, one of the main aims of career scholars is to detect age-aware human resource (HR) policies (Baltes and Carstensen 1996; Boudiny 2013), and preventive and pro-active measures/practices to preserve career potential or employability (Forrier and Sels 2003; Fugate, Kinicki and Ashforth 2004; Rothwell and Arnold 2007; Van der Heijde and Van der Heijden 2006) throughout age and career stages (Briscoe and Hall 2006; DeFillippi and Arthur 1996; Shultz and Adams 2007; Stroh and Greller 1995; Van der Heijden, De Lange,

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Demerouti and Van der Heijde 2009). However, it might be conceivable that these policies and measures/practices are more driven by the necessity to act with regard to the ageing workforce and the desire to increase the numbers at work (Sargeant 2013) instead of stemming from a true belief in the 'power of seniority'.

Age discrimination in the workplace is a very complicated issue given the fact that age is treated differently than other grounds of discrimination, such as disability, race or sex, because there are still an important number of age-related policies and practices that are considered legitimate. More concretely, as there are manifestations of discrimination based upon age and as there continues to be stereotyping of the relative competencies of different groups of workers based on age (Malinen and Johnston 2013), one might conclude that there is a case for treating such discrimination in the same way as governments have tackled discriminations based upon other grounds (Sargeant 2013). This study is meant to add to our knowledge on the role the employee's interpersonal work context may play in combating the negative effect of age-related stereotyping.

First, this contribution aims to investigate how the concept of age can impact upon performance ratings by studying directional age difference (a situation wherein a supervisor is younger than his or her subordinate). Given the profound demographic shifts in the labour market, far-reaching changes in the composition of the labour force are detectable (Shultz and Adams 2007; Van der Heijden, Schalk and Van Veldhoven 2008). On many occasions, older subordinates have to report to younger managers, herewith stressing the need for more research on employee appraisal practices comparing different types of supervisor–subordinate dyads.

Traditionally, psychological research has examined *independent effects* of employees' demographic characteristics, such as age, gender, race, tenure and education, on outcomes such as performance, satisfaction, selection, turnover and leadership (*see e.g.* Blau 1985; Mitchel 1981; Steckler and Rosenthal 1985; Waldman and Avolio 1986; to mention but a few). However, in their exemplary article, Tsui and O'Reilly (1989) introduced the term *relational demography* ('the comparative demographic characteristics of members of dyads or groups who are in a position to engage in regular interactions'), and proposed that knowing the comparative (dis) similarity in given demographic attributes of a superior and a subordinate, or of the members of an interacting work team, may provide additional information about the members' characteristic attitudes and behaviours and, more important, insight into the processes through which demography affects work outcomes (*see also* Tsui, Porter and Egan 2002).

Cleveland and Landy (1983) have already stated that research on age stereotypes is limited and superficial if it is restricted to simply considering

discrimination as the correlation between chronological age of the employee and a certain criterion. They stressed the need for more research including possible correlates of age. Directional age difference comprises a broader operationalisation than employee's chronological or calendar age only, and investigating its impact will add to our understanding of the role of age in performance appraisal.

The second objective of this contribution is to add to the discussion regarding the value of relational demography in performance appraisal research by moving beyond the signalling function of directional age difference only (for excellent examples of the advocated approach, *see also* the meta-analyses by Finkelstein, Burke and Raju 1995 and by Gordon and Arvey 2004), and focusing on better understanding its mechanisms and processes.

Third, although substantial numbers of studies have examined the importance of age for job performance (Ferris *et al.* 1991; Giniger, Dispenzieri and Eisenberg 1983; Ng and Feldman 2008; Ostroff, Atwater and Feinberg 2004; Waldman and Avolio 1986), researchers have not typically investigated *how* variations in age, in either its simple or its relational form, affect *specific* ratings of performance outcomes such as occupational expertise. For instance, Judge and Ferris (1993), Ferris *et al.* (1991) and Schaubroeck and Lam (2002) have already called for more research using broader operationalisations of performance instead of a single-item approach for regular work evaluations, such as hiring recommendations, promotions and salary increases. The *competence-based approach to performance measurement* that is used in this contribution incorporates the wider spectrum of knowledge and skills that are necessary for workers to perform qualitatively well (Van der Heijde and Van der Heijden 2006). Van der Heijde and Van der Heijden (2006) came up with a competence-based domain-independent operationalisation of employability or career potential (consisting of an employee self-perceptions version and a supervisor version) (*see also* Van der Heijden *et al.* 2009), of which occupational expertise is a core ingredient (*see also* Bereiter and Scardamalia 1993; Chi, Glaser and Farr 1988; Ericsson 2002; Van der Heijden 2000). Occupational expertise comprises both occupational knowledge and skills, meta-cognitive knowledge, *i.e.* 'knowing about knowing' or 'knowing that one knows', and social recognition by important key figures (for a detailed explanation of the ingredients of the occupational expertise dimension, *see* Van der Heijden 2000). In this empirical work, supervisor's perceptions regarding the competencies (knowledge and skills) of their subordinates have been used as these are considered to be a key factor in the light of their willingness to stimulate and enhance employee's career potential or employability further (Van der Heijde and Van der Heijden 2006; Van der Heijden *et al.* 2009).

Because of the fact that most expertise researchers restricted themselves to one domain of expertise and tried to examine outstanding behaviour in that particular domain (Chi, Glaser and Farr 1988; Ericsson and Smith 1991), research using a domain-independent operationalisation of the concept is greatly needed (*see also* Van der Heijden *et al.* 2010) also in order to understand better the generalisability of age effects across occupational sectors (as already advocated by Perry, Kulik and Zhou 1999).

Finally, the fourth objective of this study is to find out whether age-related stereotyping in the performance appraisals can be buffered by interpersonal work context factors. Concretely, this article goes into the issue of whether dyadic tenure and transformational leadership style might moderate the impact of directional age difference upon occupational expertise ratings. The inclusion of possible moderators in the age–performance relationship deserves more attention, and taking an interactive perspective responds to the call for research in this field (Griffeth and Bedeian 1989; Liden, Stilwell and Ferris 1996).

To summarise, this empirical study has four objectives. First, the impact of directional age difference (between supervisor and subordinate) on occupational expertise ratings will be examined. Second, this study is meant to add to the discussion about the value of relational demography in performance appraisal research. Third, this research is intended to contribute to the knowledge in this scholarly domain by investigating *how* variations in age, in both its simple and relational form, influence specific ratings of performance, in our case, occupational expertise. Finally, the fourth objective is to examine whether interpersonal work context factors can buffer or combat the negative effect of age-related stereotyping. In the next section of the article, the theoretical framework will be outlined.

Theoretical framework

Age and supervisor ratings of occupational expertise

Many studies spanning the last decades have revealed that a person's age forms one of the principal bases for stereotypical categorisations (*see e.g.* Boerlijst, Munnichs and Van der Heijden 1998; Chiu *et al.* 2001; Dittmann-Kohli and Van der Heijden 1996; Finkelstein and Burke 1998; Finkelstein and Farrell 2007; Gray and McGregor 2003; Hedge, Bormann and Lammlein 2006; Kite and Johnson 1988; Malinen and Johnston 2013; Maurer, Wrenn and Weiss 2003; Posthuma and Campion 2009; Posthuma and Guerrero 2013; Rosen and Jerdee 1976; Tuchman and Lorge 1952; Von Hippel, Kalokerinos and Henry 2013; Warr 1994). Moreover, Stagner (1985) pointed out that stereotyping of the young

versus the old is also encouraged by some researchers. In particular, many of them frequently make suggestive generalisations about observed significant differences, even if these are very slight, and the groups overlap to a great extent, herewith supporting negative views about older employees instead of drawing cautious conclusions. What is more, their overall conclusions often cannot hide the fact that they do not doubt the correctness of such stereotypes.

More specifically, among supervisors, both in multinationals and in small and medium-sized enterprises, there is a broadly held view that older workers are less able to cope with the demands of a modern, complex and competitive organisation compared with younger subordinates, and that older workers' ability or motivation to change jobs or to learn new skills and expertise has deteriorated (*see* Boerlijst 1994; Boerlijst, Van der Heijden and Van Assen 1993; Van der Heijden 2000, 2002).

Equally distressing, just as the immediate supervisor makes an assessment of the 'pay-off' period for career activities, the employee him- or herself also deliberately takes into account whether the investments are worth the effort. A decline in workers' self-confidence (or self-efficacy) for career-relevant learning and expertise development with age has been demonstrated as well (Maurer 2001; Maurer, Weiss and Barbeite 2003). In other words, a decrease in the extent to which both supervisors and their subordinates are actively engaged in furtherance of the subordinate's professional career is noticeable with ageing of the latter (*see also* Simpson, Greller and Stroh 2002). As a consequence, most employees develop expertise in too narrow a field to stay employable in the long run (Van der Heijden *et al.* 2009). Obviously, the latter might lead to a self-fulfilling prophecy (Boerlijst 1994; Boerlijst, Van der Heijden and Van Assen 1993), implying an even more negative evaluation of the value of investments in an employee's career furtherance by the supervisor. Even worse, stereotype threat, or the belief that one may be the target of demeaning stereotypes, appears to be already associated with acute performance declines and reduced psychological wellbeing among older workers (Von Hippel, Kalokerinos and Henry 2013).

To conclude, age bias may lead to the social exclusion of older workers, not only because superiors may evaluate them more negatively on the basis of their age, but also because stereotypes may lead to self-fulfilling prophecies when those who are subject to negative stereotypes start behaving accordingly (Hilton and Von Hippel 1996; Kogan and Wallach 1961; Van der Heijden *et al.* 2009). Moreover, two other possible biases are worth mentioning here. First, a so-called 'leniency effect' (Tsui and Ohlott 1988), referring to the tendency to present oneself positively, or at any rate, to give a rosier image, might bias employee self-ratings on

occupational expertise (*see also* Van der Heijden 2000). Second, possibly, supervisor ratings on occupational expertise are strongly influenced by a response set, for instance the degree to which they like or dislike the employee in question as a person. It is well known that such liking–disliking factors, or the 'halo effect' (Nisbett and Wilson 1977), can have a strong effect where persons are required to give valid and dependable judgements of other persons, but are not well informed enough to base their judgement on observations of real-life behaviour of these people or on relevant real-life events in which they are involved. Ratings by supervisors are based on a much smaller amount of information, leading to the so-called 'effect of under-sampling'.

Whether true performance shortcomings or biases, *e.g.* due to age-related stereotyping, are responsible, the effects are equally important as they influence the career perspectives and chances of older workers (Hair Collins, Hair and Rocco 2009; Henkens 2005; Kearney 2008).

The similarity–attraction paradigm, the social competition perspective and the concept of status-incongruence

In this section, the similarity–attraction paradigm and the social competition perspective are critically reflected on, and the concept of status-incongruence is used to support our first hypothesis on *age effects* that was tested in this empirical study. Next, *dyadic tenure* (Hypothesis 2) and *transformational leadership style* (Hypothesis 3), being important interpersonal work context factors that might moderate the negative effects of age-related bias, will be dealt with.

Although originally the *similarity–attraction paradigm* (Byrne 1971) focused on similarity of attitudes as the basis for positive evaluations, it has been extended to include demographic variables as well (Riordan 2000; Riordan, Schaffer and Stewart 2005). As regards the impact of demographic characteristics in superior–subordinate dyads, performance evaluation has been the most frequently studied (Kraiger and Ford 1985; Mobley 1982; Pulakos and Wexley 1983). Previous research has indicated that supervisors' age may interact with employees' age to affect supervisory ratings (Cleveland and Landy 1981; Schwab and Heneman 1978; Shore, Cleveland and Goldberg 2003). Relational demography research takes this approach one step further by directly exploring the extent to which the comparative demographic characteristic in supervisor–subordinate dyads influences work outcomes, such as performance ratings (O'Reilly, Caldwell and Barnett 1989). For instance, as regards age, being the variable of attention in this study, Wagner, Pfeffer and O'Reilly (1984) found that larger non-directional age differences were associated with higher turnover.

It appears that relational demography can affect perceptions of work outcomes and attitudes through both interpersonal attraction, based upon similarity in attitudes, values and experiences (Byrne 1971; Byrne, Clore and Smeaton 1986), through strong communication (Byrne 1969, 1971) and through the frequency of interactions (Roberts and O'Reilly 1979). In line with Tsui and O'Reilly (1989), it is assumed that these effects account for variance beyond that accounted for by simple demographic attributes.

Directional age difference (between supervisor and subordinate) comprises a broader operationalisation than employee's chronological or calendar age only, and touches upon different approaches to age conceptualisation as proposed by Sterns and Doverspike (1989): psycho-social or subjective age, organisational age and the life-span concept of age, over and above calendar age. *Psycho-social or subjective definitions* have focused on the age at which society perceives an individual to be older, the social attitudes that are held towards an older worker (or the perceived attributes and stereotypes of an older worker) and the implications for personnel decisions of labelling a worker as older. *Organisational age* refers to the ageing of individuals in jobs and organisations. *The life-span concept of age* borrows from a number of the above-mentioned approaches, but advances the possibility for behavioural change (normative, age-graded biological and/or environmental determinants) at any point in the lifecycle (for more elaborate explanations, *see* Kooij, De Lange, Jansen and Dikkers 2008).

Concretely, supervisors and subordinates in the same age cohort tend to have common experiences (Lawrence 1980; Ryder 1965), and these experiences forge common values. For example, being both in the mid-career stage, the two parties might experience similar health problems, or other age-related experiences, such as taking care of needy parents or losing close friends that passed away. People who are close in age may feel more comfortable with each other compared to people belonging to (very) different age groups, assuming that they have similar values and attitudes, and/or because of their 'common language' (Webber and Donahue 2001; Zenger and Lawrence 1989), implying smoother interactions (*see also* Geddes and Konrad 2003).

A second approach to examine reactions to differences in age concern *social comparison processes* (Goodman 1976; Jones and Regan 1974). Within the present study, one would expect that, because of professional competition within a generational cohort, supervisors would provide relatively lower evaluations to subordinates that are relatively close in age (*see also* Vecchio 1993). The predicted pattern of outcomes building upon this approach is the inverse of the pattern that is predicted by the similarity–attraction paradigm; that is, the age-equivalent group of subordinates would manifest lower

values for occupational expertise ratings compared to the older and younger groups of subordinates.

As previous studies exploring age demographic effects at the dyad (superior–subordinate) level, using objective and subjective performance ratings, have failed to find an effect for *non-directional* age difference (*e.g.* Liden, Stilwell and Ferris 1996; Tsui and O'Reilly 1989), following Vecchio (1993) and Perry, Kulik and Zhou (1999), in this contribution, effects of *directional* age difference were tested (*see also* Pfeffer 1985) as well. Findings of previous studies on occupational expertise among employees working at middle and higher levels of functioning indicate that employees rate themselves higher than their supervisors do, which Van der Heijden *et al.* (2009) attributed to response sets, such as stereotyping on account of age (*see also* Hedge, Bormann and Lammlein 2006; Maurer, Wrenn and Weiss 2003). It is important to investigate further whether the age gap between a superior and his or her subordinate may be more problematic (leading to lower evaluations about the subordinate) in one direction (in case the superior is younger than his or her subordinate, that is, in case of status-incongruence) than in the other direction (Tsui, Yin and Egan 1995).

More specifically, inconsistencies between a person's relative status ranking on different status dimensions (*e.g.* organisational position and age), or so-called perceived violation of the career timetable associated with supervisory positions (Perry, Kulik and Zhou 1999; Shore and Goldberg 2005), may, next to perceptions as regards (dis)similarities, affect that person's attitudes and behaviours as well (Bacharach, Bamberger and Mundell 1993). Concretely, employees that have to report to a younger supervisor may experience status-incongruence, and, subsequently, respond negatively, for instance, because of a lack of trust in their supervisor's capacity to lead them adequately (Perry, Kulik and Zhou 1999). These employees might also believe that they possess both a higher amount of domain-specific competencies (knowledge and skills within their occupational field) as well as more emotional maturity, coping strategies and problem-solving strategies, to mention but a few. Apparently, the negative responses of subordinates that are due to the perceived status-incongruence might be 'translated' into negative behaviours and attitudes, which, as a result, might lead to a lower quality of the interaction between the two parties (*i.e.* supervisor and subordinate). Subsequently, the latter may result in lower performance ratings, herewith creating a vicious circle or a self-fulfilling prophecy (*see also* Walton, Murphy and Ryan 2015).

To conclude, the similarity–attraction paradigm and the social competition approach may provide a relevant, but incomplete, explanation for

relational demography effects in working organisations. Therefore, we hypothesised the following:

- Hypothesis 1: The greater the directional age difference (status-incongruence) between a supervisor and his or her subordinate, the lower will be the supervisor ratings of subordinate occupational expertise.

Looking at some interesting meta-analytic approaches, it may be concluded that the effects of directional age difference are highly complex, and that more empirical research using additional model variables is needed. For instance, Kite and Johnson (1988) revealed that, overall, older workers were evaluated less positively than were younger workers, yet, only in real-life work settings. However, smaller differences between evaluations of elderly and younger targets were found in the cases where (a) personality traits were used (compared with measures of competence), (b) there were a larger number of dependent measures included in the effect size, (c) specific information about the target person was provided (compared with when a general target, such as 'old person', was used), and (d) a between-subject design was used (a participant evaluates either a younger or an older worker).

Finkelstein, Burke and Raju (1995), in their meta-analysis based upon simulated employment contexts, found that younger participants tended to give less favourable ratings to older workers when they were not provided with job-relevant information about them, and when they concurrently rated older and younger workers. Gordon and Arvey (2004), in their meta-analytic review of age discrimination research, in laboratory and field settings, revealed that, overall, younger workers were evaluated more positively compared with older ones. All in all, it is concluded that age in itself is not sufficient in determining attitudes towards older workers. Other factors, such as the direction of the age difference between supervisor and subordinate, the amount of information they have about each other (familiarity) and other interpersonal work context factors might be important as well, and should be taken into account in empirical approaches dealing with age bias.

Dyadic tenure as a moderator

When supervisors make evaluations or even decisions about their employees, it would be appropriate that they base their assessment with relative thoroughness upon relevant information, that they combine the information appropriately and that they arrive at a reasoned evaluation. Thoughtful information processing takes place when people possess both high ability (*e.g.* adequate information, freedom from distraction) and

high motivation to work carefully. However, on many occasions, including in workplace settings, people often engage in a much less effortful style of processing, and make their evaluation with a minimum of time and thought (*see e.g.* Chaiken and Trope 1999; Sloman 1996; Smith and DeCoster 2000), which might evoke stereotyping, for instance based upon age. More specifically, in the case where a supervisor has a lack of prior experience with a certain employee, individuated information does not exist, thus reliance on stereotypes is cognitively efficient (and sometimes may be the only practical resource). In the case where a supervisor has sufficient or ample prior experience with a certain employee, there will still be motivation to be cognitively efficient (within the constraints of time pressures and other task demands) but less need to rely on stereotypes to 'fill in the blanks'.

A higher amount of interaction between a superior and his or her employee, generally, leads to a higher amount of individuated knowledge (Finkelstein and Burke 1998; Gordon and Arvey 2004; Kite *et al.* 2005), and to a favourable social context (Vecchio 1998; Waldron and Hunt 1992). Moreover, increased opportunities to observe behaviour has been shown to enhance the reliability and validity of performance ratings (Lefkowitz 2000; Rothstein 1990). From previous empirical research (*see* Gordon and Arvey 2004: 485), it is also known that the degree of age bias is likely to be dependent on the amount of job-relevant information that a rater possesses, and subsequently utilises in forming judgements and evaluations. That is, greater and more relevant information about and experience with subordinates among supervisors (which a longer dyadic tenure or duration of the relationship entails) leads to less age-related stereotyping.

In a similar vein, Kingstrom and Mainstone (1985) reported more favourable overall performance ratings, and higher chances for promotion for subordinates with whom supervisors had established relatively high task and personal acquaintance (for their research on the acquaintanceship effect in multi-source ratings, *see also* Strauss 2005; Van Hooft, Van der Flier and Minne 2006). Wieseke *et al.* (2009) referred to a moderation effect of the leader–follower dyadic tenure, and found that the transfer from organisational identification from leader to follower is stronger in the case of a longer dyadic tenure. Moreover, they found that a higher amount of organisational identification is associated with a higher performance. Obviously, the latter is a determinant for supervisor ratings, and in this regard the duration of the relationship is an important factor to consider in relational demography research.

Moreover, since the time that careers consisted of upward moves within a framework of long-term employment relations has passed, and that herewith the average dyadic tenure between supervisor and his or her

subordinate has decreased considerably (*see* Chudzikowski 2012; Colakoglu 2011; DeFillippi and Arthur 1994; Hall and Mirvis 1995; Sullivan 1999), it is important to understand better its consequences for performance appraisals. Several scholars have suggested that the duration of superior–subordinate interaction moderates the effects of demographic dissimilarity (*e.g.* Avery *et al.* 2012; Bauer and Green 1996; Dienesch and Liden 1986; Mayer, Davis and Schoorman 1995; Turban, Dougherty and Lee 2002). Correspondingly, it was proposed that 'early in the relationship, demographic factors are salient and set the stage for later interactions. But as time goes on leaders may begin to evaluate and test members rather than simply rely on stereotypes and biases' (Somech 2003: 1006).

Therefore, the following hypothesis was developed:

- Hypothesis 2: A longer working relationship (tenure) between a supervisor and his or her subordinate decreases the strength of the negative relationship between directional age difference and supervisor ratings of subordinate occupational expertise.

Transformational leadership style as a moderator

Transformational leadership is characterised by a high level of interaction between leader and follower because leaders seek to provide vision and empower employees. Through clear communication, transformational leader behaviours make subordinates aware of the special role they play in the 'big picture'; they set goals, inspire and motivate their employees, and individually guide them in playing their role (Douglas 2012).

Still today, many researchers and practitioners alike consider transformational leadership suitable in an era wherein key representatives in a working organisation should take into account moral and ethical implications of their business-related decisions (Jung, Yammarino and Lee 2009). Given the changing nature of employment conditions, employees are required to update their occupational knowledge and skills continuously and to invest in career development, while supervisors must provide ample opportunities to do so (Waterman, Waterman and Collard 2000). Previous research has shown that transformational leadership, especially reflected in developmental behaviours (such as career counselling, careful observation of one's subordinates, recording their progress, and encouraging training and development) (Bass 1985), is an important way to help employees to succeed in today's business environment (Rafferty and Griffin 2006; Thite 2001). Within work units, different types of relationship develop between leaders and their subordinates. Subordinates who receive more information and support from the leader, and who engage in

challenging tasks that require responsibility, are expected to have more positive work attitudes and engage in more positive work behaviours compared with subordinates who receive less support (*see also* Bakker and Demerouti 2007; Basu and Green 1995; Graen and Uhl-Bien 1995; Liden, Sparrowe and Wayne 1997; Van der Heijden and Bakker 2011).

Indeed, transformational leadership behaviours appear to have a strong positive relationship with a range of outcome variables such as organisational productivity, effectiveness, employee job satisfaction, commitment and performance (Bass 1985; Eagly, Johannesen-Schmidt and Van Engen 2003; Fuller *et al.* 1996; Gasper 1992; Lowe, Kroeck and Sivasubramaniam 1996; Patterson *et al.* 1995; Walumbwa and Hartnell 2011). By providing a clear vision, by enhancing followers' capacity and potential, and by expressing high expectations and confidence in subordinates' capabilities to meet these expectations (Day 2000; Eden 1992), transformational leaders increase followers' self-esteem (Bass *et al.* 2003; Kark, Shamir and Chen 2003) and creativity (Shin and Zhou 2003; Vera and Crossan 2004), resulting in higher ratings on followers' performance (Bono and Judge 2003; Nemanich and Keller 2007).

As indicated above, previous research has already shown the positive effect of transformational leadership behaviours in the light of individual employee outcomes. Following this line of thought, it is conceivable that transformational leadership behaviours that are reflected in constructive, solid interaction patterns with subordinates, that is, individualised consideration, might play a role in the performance appraisal process as well, by moderating the negative impact of directional age difference upon occupational expertise ratings. Moreover, the mere fact that transformational leaders have a genuine concern in the personal growth and development of their subordinates, and have a high amount of social interactions through coaching or mentoring, implies that there is a higher amount of individuated knowledge, which is expected to lead to less age-related stereotyping (Finkelstein and Burke 1998; Gordon and Arvey 2004; Kite *et al.* 2005).

Notwithstanding the support as regards the validity of transformational leadership in predicting positive work outcomes, more research is needed to understand better the *processes* by which transformational leaders have their effect upon employees (*see also* House and Aditya 1997; Piccolo and Colquitt 2006; Yukl 2002), for instance, by extending the, up to now, relatively scarce research using moderation models. Especially the individual concern, support and empowerment dimensions of transformational leadership are assumed to be of importance given their predictive validity for employee achievement (Alban-Metcalfe and Alimo-Metcalfe 2000*a*, 2000*b*) (for more specific information, *see* the 'Measures' section). Therefore, the following hypothesis was developed:

- Hypothesis 3: A higher score for transformational leadership decreases the strength of the negative relationship between directional age difference and supervisor ratings of subordinate occupational expertise.

Methodology

Participants and procedure

This study was carried out among *dyads* of employees, working in a variety of middle- and higher-level jobs, and their supervisors working at a large Dutch company that produces building materials. The company is a subsidiary of a French multinational with establishments throughout the world. Its main products concern glass and high-quality (building) materials. The company's turnover rate was 13 per cent (total percentage for external turnover) and its performance (expressed in sales) comprised €400 million. Participation in the study was encouraged using invitation letters written by the HR manager, allowing time to fill in the anonymous electronic survey during working hours and by means of a prize draw. Moreover, respondents received an anonymous feedback report indicating their scores on the model variables with guidelines on the interpretation thereof, as well as a clear outline on ways for improvement in the light of their future employability. In general, the participating company can be characterised as one that gives serious attention to employability enhancement and life-long learning measures, which might have positively influenced the willingness to participate in the study.

In order to protect the independence of the data points, as we know from previous research that the strongest effects in examining transformational leadership models occurred at the individual level (Ayman, Korabik and Morris 2009), we strived for a sampling stratification wherein a supervisor answered questions about only one subordinate. After carefully studying the composition of each and every dyad in the final data-set, this appeared to be fully the case, implying that the intra-group or team dimension of the supervisor evaluations was not to be taken into account (no 'nestedness' of the data points).

The employee questionnaire included, next to some demographic characteristics, measures of transformational leadership. It is the subordinate's evaluation of this interpersonal work context factor and their experiences with it that matters. In addition, their direct supervisors were asked to fill in a questionnaire, including some demographic characteristics, and were asked to indicate how they rated the occupational expertise of their subordinates, as they are the ones that are expected to assess on a regular basis whether the employee's amount of expertise has increased, or whether

they observe a deteriorated competence base. Moreover, in this way the so-called common-method bias was prevented (Doty and Glick 1998).

Our final sample consisted of 303 pairs of employees and supervisors (response rate was 91.8%). During the time of the study, all staff members participated in an employability project consisting of a workshop on 'employability management throughout the career', and a call to participate in an on-line employability survey, partly explaining the high response rate. The 'employability management' workshop comprised a seminar by the author of this article on individual, job-related and organisational factors that are important in the light of sustainable career management over the life-span. The sample included 253 male (83.5%) and 50 female employees (16.5%). The mean age of the employees was 41 years (standard deviation (SD) = 9.15). As regards the respondents' highest educational qualification, the outcomes were: (a) high school or equivalent (46.4%), (b) college/(some) university (34.2%), (c) bachelor's degree (or recognised equivalent) (17.0%), and (d) Master's degree (or recognised equivalent) (2.4%). Their organisational tenure was on average 10.74 years (SD = 9.61). In total, 288 of the participating supervisors were male (95.0%) and 15 were female (5.0%). Their mean age was 43 years (SD = 7.96); 7.8 per cent of these supervisors were in charge of their department for less than one year, 41.5 per cent for one to two years, 16.1 per cent for three to four years, 16.4 per cent for five to six years and 18.2 per cent for seven years or longer.

Measures

Directional age difference. Directional age difference refers to a difference score calculated by subtracting the superior's age from the subordinate's age. A difference score of 0 means that a subordinate and a superior are identical in age. Negative scores indicate that the employee is younger than his or her supervisor, and positive scores indicate the opposite (Tsui and O'Reilly 1989).

Dyadic tenure. Dyadic tenure was measured by asking the supervisors how long they have been supervising a particular employee. The scale anchors comprised: (a) shorter than one year; (b) one to two years; (c) three to four years; (d) five to six years; (e) seven years or longer.

Transformational leadership style. Transformational leadership style was assessed with the thoroughly validated Transformational Leadership Questionnaire (TLQ) (Alban-Metcalfe and Alimo-Metcalfe 2000*a*, 2000*b*). Evidence indicates that its factor structure, reliability, and

convergent and discriminant ability are good. Given their proven predictive validity in the light of employee achievement (Alban-Metcalfe and Alimo-Metcalfe 2000*a*, 2000*b*; Van der Heijden and Bakker 2011), five scales of the TLQ have been used, measuring: (a) 'genuine concern for others' well-being and development' (13 items; Cronbach's $\alpha = 0.95$); (b) 'empowers, delegates, develops potential' (six items; Cronbach's $\alpha = 0.84$); (c) 'integrity and openness to ideas and advice' (nine items; Cronbach's $\alpha = 0.85$); (d) 'encourages questioning and critical and strategic thinking' (eight items; Cronbach's $\alpha = 0.91$); and (e) 'creates a supportive learning and self-development environment' (nine items; Cronbach's $\alpha = 0.82$). Examples are: 'The manager [referring to the employee's supervisor] I am rating is sensitive to my needs and aspirations' (concern), 'The manager I am rating allows me to lead when the situation requires' (empowerment), 'The manager I am rating is prepared to admit when (s)he is wrong or has made a mistake' (openness), 'The manager I am rating gives clear direction about long-term corporate goals' (encouragement) and 'The manager I am rating makes it easy for me to admit my mistakes' (support). The scale anchors for each item range from: (1) strongly disagree to (6) strongly agree.

Occupational expertise. Occupational expertise was assessed with the 15-item measure of Van der Heijde and Van der Heijden (2006) (Cronbach's $\alpha = 0.95$). The instrument, which has been carefully tested as regards its reliability and (predictive) validity (in terms of both objective and subjective career success) (*see also* Van der Heijden *et al.* 2009; De Vos, De Hauw and Van der Heijden 2011), has proven to have sound psychometric qualities. Examples are: 'I consider this employee competent to engage in in-depth, specialist discussions in his or her job domain', 'I consider this employee competent to provide information on his or her work in a way that is comprehensible', 'In general, this employee is competent to distinguish main issues from side issues and to set priorities' and 'During the past year, this employee, in general, was competent to perform his or her work accurately and with few mistakes'. All items were scored on a six-point rating scale in order to avoid a central answering tendency. Examples of scale extremes are 'not at all', 'to a considerable degree', 'never' and 'very often'.

Analyses

To examine the effect of directional age difference on occupational expertise ratings (Hypothesis 1), a two-step hierarchical regression analysis was performed (Cohen and Cohen 1983). In the first step, the *control variables*

were entered: subordinate's age, gender, educational level and organisational tenure (*see also* Ng and Feldman 2008). In the second step, the *directional age difference* variable was entered. Examination of the scatter plot showed that the data points clearly resembled a straight line, indicating a negative linear relationship between directional age difference and occupational expertise, therefore justifying the chosen analysis approach (Cohen and Cohen 1983).

In addition, considering the moderation tests, following Shepperd (1991), who indicated that it is particularly important to test for non-linear relationships when predictor variables are highly correlated, preliminary analyses showed that linear regression models were suitable for these data. The association between 'directional age difference' and 'dyadic tenure' was moderately negative ($r = -0.40$); for the other moderator the association with 'directional age difference' was negligible (*see also* Lubinski and Humphreys 1990, who warned that moderator effects revealed using hierarchical multiple regression analyses may be spurious and actually represent non-linear relationships between predictors and outcome variables).

Subsequently, a series of four-step hierarchical regression analyses (Cohen and Cohen 1983) was performed in order to examine the (moderator) effects of the *interpersonal work context characteristics*, that is, dyadic tenure and transformational leadership style. This procedure controls for inter-correlations among independent variables by partialling out shared variance, and by measuring the unique contribution of the specific block of variables entered into the regression, after all other independent variables have been entered. In the first step, the *control variables* were entered (*see* above), because we were interested in the effects of relational demography (as far as age is concerned) above and beyond the simple demographics. In the second step, the *directional age difference* variable was entered. In the third step, one specific *interpersonal work context characteristic* (the moderator) was entered in each separate regression analysis. Finally, in the fourth step the interaction term was added in order to test whether the specific interpersonal work context factor could alleviate the impact of directional age difference on occupational expertise. To test these interaction effects, the composing variables were centred (the directional age difference variable and one specific work context characteristic) and interaction terms were built (*cf.* Aiken and West 1991).

More specifically, the extent to which the interaction between dyadic tenure and directional age difference explained a unique proportion of the variance in expertise ratings was examined (Hypothesis 2), after controlling for the demographic factors and the main effects. Similarly, whether the interaction between transformational leadership style and directional age difference explained a unique proportion of the variance in expertise ratings was examined (Hypothesis 3).

Results

Descriptive statistics

Table 1 shows the means, standard deviations, reliability coefficients (on the diagonal) and correlations between all study variables. All constructs that were assessed demonstrated good internal consistencies. The inter-correlations between the transformational leadership style components were relatively high. In addition, Table 1 shows that the correlation between the directional age difference term and occupational expertise was significantly negative ($r = -0.30$, $p < 0.01$).

Outcomes of hierarchical regression analyses

Age dissimilarity effect. The outcome of the analysis modestly supports the status-incongruence hypothesis (Hypothesis 1) ($R^2 = 0.10$, $F = 6.63$, $p < 0.001$). Directional age dissimilarity accounts for a substantial incremental amount of variance in expertise ($\Delta R^2 = 0.07$, $p < 0.001$; $\beta = -0.35$, $p < 0.001$), after having controlled for the control variables ($\Delta R^2 = 0.03$, $p < 0.10$). As far as the latter are concerned, the standardised regression coefficients (β) were: for age 0.07 (not significant (n.s.)), for gender 0.03 (n.s.), for educational level 0.04 (n.s.) and for organisational tenure 0.06 (n.s.).

Moderator effects. The results of the regression analyses are summarised in Table 2. Each column pertains to one of the distinguished interpersonal work context characteristics, *i.e.* dyadic tenure, and the five transformational leadership behaviours. Our outcomes indicate that all interpersonal work context characteristics appear to be important factors in the light of supervisor expertise ratings about subordinates. Looking at the interaction effects, it was found that only the interaction between age dissimilarity and dyadic tenure was significant, and that it displayed a rather complicated pattern. Simple slope analyses pointed out that, in the case of a longer duration of the relationship, more positive scores for directional age difference were associated with significantly more negative expertise ratings ($\beta = -0.26$, $p < 0.01$). In the case of a shorter relationship, the effect was not significant ($\beta = -0.13$, n.s.). In other words, the main negative effect of directional age difference on expertise ratings was only found in the case where employees and supervisors are quite familiar with one another (*see* Figure 1). With this outcome, Hypothesis 2 is rejected. Contrary to the expectations, there was no effect of directional age difference in the case of a short dyadic tenure, while the effect was negative in the case of a longer tenure.

TABLE 1. *Means, standard deviations (SD), reliability coefficients and correlations between the model variables*

	Variable	Mean[1]	SD	1	2	3	4	5	6	7	8	9	10	11	12
1	Subordinate's age	40.94	9.20	–											
2	Gender[2]	1.17	0.37	−0.21**	–										
3	Educational qualification	2.75	0.83	−0.27**	0.05	–									
4	Organisational tenure	10.52	9.61	0.56**	−0.01	−0.27**	–								
5	Directional age difference	−1.98	11.40	0.72**	−0.07	−0.22**	0.40**	–							
6	Duration of relationship	2.96	1.27	0.01	0.002	−0.03	0.08	−0.40**	–						
7	Concern (leadership style)	4.13	0.85	0.05	−0.12*	−0.05	0.007	0.001	0.04	0.95[3]					
8	Empowerment (leadership style)	4.32	0.83	0.02	−0.18**	−0.02	−0.007	−0.04	0.02	0.84**	0.84				
9	Openness (leadership style)	4.35	0.70	0.02	−0.12*	−0.01	−0.009	−0.10	0.12*	0.82**	0.75**	0.85			
10	Encouragement (leadership style)	4.06	0.93	0.06	−0.16**	−0.03	−0.009	0.02	−0.001	0.86**	0.79**	0.77**	0.91		
11	Support (leadership style)	4.10	0.67	0.09	−0.10	−0.06	0.06	0.03	0.04	0.83**	0.75**	0.80**	0.76**	0.82	
12	Occupational expertise	4.36	0.67	−0.17**	0.04	0.08	−0.05	−0.30**	0.26**	0.15**	0.20**	0.20**	0.09	0.14*	0.95

Notes: N = 303. 1. Means and SD of binary (0, 1) coding for supervisor–subordinate age difference. 2. Binary coding for gender (1, 2). 3. Reliability coefficients are Cronbach's alpha (on the diagonal).
Significance levels: * $p < 0.05$, ** $p < 0.01$.

TABLE 2. *Summary of hierarchical regression results using superior's directional age difference as the predictor, and with occupational expertise ratings as the dependent*

Predictor	β Step 1	β Step 2	DR	CO	EM	OP	EN	SU
Step 1:								
Age	−0.18*	0.07	−0.02	0.06	0.06	0.05	0.06	0.06
Gender	−0.002	0.03	0.01	0.04	0.05	0.04	0.04	0.04
Education level	0.05	0.04	0.02	0.04	0.04	0.04	0.04	0.04
Organisational tenure	0.07	0.06	0.03	0.06	0.06	0.06	0.07	0.06
	$R^2 = 0.03$†							
Step 2:								
Age dissimilarity		−0.35**	0.009	−0.45*	−0.37	−0.21	−0.42†	−0.36
		$R^2 = 0.09$**						
Step 3:								
Moderator[1]			0.13*	0.14*	0.17**	0.15**	0.09†	0.13*
Step 4:								
Moderator–age dissimilarity interactions			−0.26†	0.11	0.03	−0.12	0.07	0.01
Model summary:								
Step 1: ΔR^2	0.03†	0.03†	0.03†	0.03†	0.03†	0.03†	0.03†	0.03†
Step 2: ΔR^2		0.07***	0.07***	0.07***	0.07***	0.07***	0.07***	0.07***
Step 3: ΔR^2			0.02**	0.02*	0.03**	0.02**	0.008†	0.02*
Step 4: ΔR^2			0.008†	0.001	0.000	0.000	0.000	0.000
Full model R^2			0.12***	0.11***	0.12***	0.12***	0.10***	0.11***
Overall F			6.27	5.77	6.24	5.96	5.18	5.63

Notes: N = 303. DR: duration of the relationship. CO: concern. EM: empowerment. OP: openness. EN: encouragement. SU: support. Standardised regression coefficients (β) are shown for the *last* step in the regression, except for the first two columns indicating β Step 1 and β Step 2, respectively. 1. Moderators are listed horizontally under the relevant dependent variable. Thus, for the first occupational expertise equation, duration of the relationship is the moderator.

Significance levels: † $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

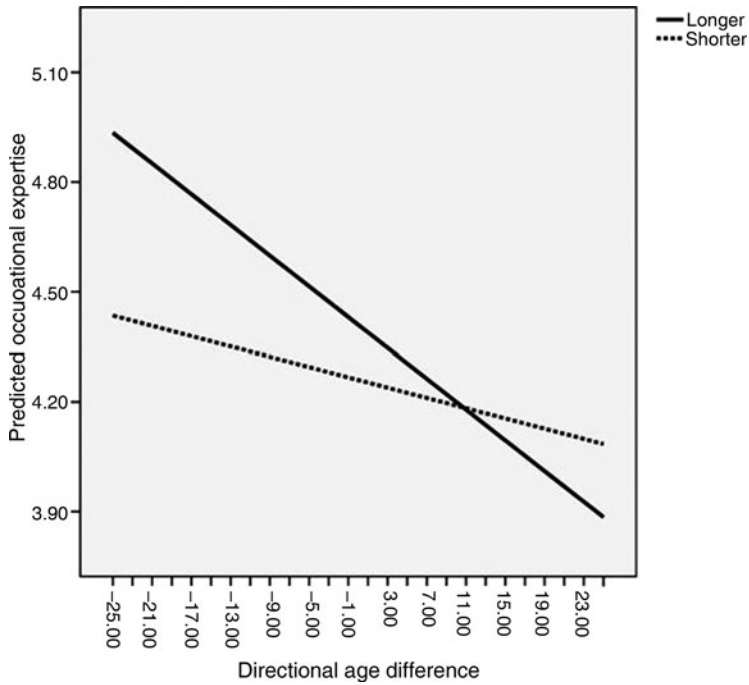

Figure 1. Interaction effects between directional age difference and tenure.

Contradictory to the expectations, for the five transformational leadership behaviours only main effects were found. With these outcomes Hypothesis 3 was rejected.

Discussion

Reflection on the outcomes

This study intended to add to our understanding of the age–performance relationship by studying relational demography and its impact upon supervisors' perceptions of occupational expertise of their subordinates. It appears that the status-incongruence hypothesis is supported. Indeed, the greater the directional age difference between a superior and his or her employee, the lower the supervisor rating of subordinate occupational expertise. The latter implies that age-related stereotyping might be an important phenomenon in cases where assessments concerning occupational expertise are made by superiors who are younger than their subordinates.

After examining the possible moderating influence of dyadic tenure, it appears that the effect of directional age difference is quite complex, and

cannot be easily combated. On the contrary, it seems as if the negative effect of directional age difference on expertise ratings is only found in cases where employees and supervisors are (quite) familiar with one another, according to a longer duration of their relationship (dyadic tenure). It was hypothesised that in the case of a lack of experience with one another, reliance on, in this case, age-related stereotyping, is cognitively efficient (and sometimes even the only practical resource) (Chaiken and Trope 1999; Sloman 1996; Smith and DeCoster 2000). However, the opposite appears to be the case. That is, in situations of more experience with one another (longer duration of the working relationship), the negative effect of status-incongruence is more prevalent.

It is not easy to understand these outcomes, as familiarity is usually seen as a highly important factor possibly buffering the negative effects of age-related stereotyping (*see* the theoretical outline above). However, when people make evaluations, such as performance appraisals, about objects, situations or events that they have encountered previously, they also tend to engage in lower levels of effortful, systematic processing (Garcia-Marques and Mackie 2001; Johnston and Hawley 1994). This tendency is adaptive as it is wasteful for human beings to think extensively about objects, situations or events that they have encountered in the past. This is why, under circumstances of familiarity, people might be inclined to rely on readily accessible knowledge, and reserve extensive and thoughtful processing mostly for novel objects, situations and events (Claypool *et al.* 2004; Garcia-Marques and Mackie 2001; Reder and Ritter 1992).

In relation to person perception, effortful processes of individuation have often been contrasted with heuristic or non-analytic processes of stereotyping or category-based processing (Brewer 1988; Fiske and Neuberg 1990). There is considerable evidence that the 'default' mode of person perception, in the absence of either *motivation* or *capacity*, is stereotyping, and that motivation and capacity tend to increase perceivers' use of individuating information (*see* Fiske 1998). Intuitively, more familiarity of the supervisor with the subordinate might be expected to increase the capacity to process information about the latter, and (perhaps) to increase motivation as well, allowing for greater individuation. However, the outcome of our study is in line with Smith *et al.* (2006), who predicted that previous exposure to information about a target person should decrease analytic processing of individuating information, thereby increasing the perceiver's reliance on stereotypes in making judgements about the target (*see also* Häfner and Stapel 2009, who tried to resolve the apparent contradiction between recent research showing that familiarity experiences may increase stereotyping and the common belief that familiarity should decrease stereotyping, and who argued for a 'usability' rather than a 'heuristic processing' perspective).

As regards person perception in working environments, one would not expect previous exposure to have this effect, because a longer duration of the relationship between an employee and his or her supervisor should generally lead to increases in affective ties, depth of friendship, amount of individuated knowledge and interpersonal interdependence. All these factors should, of course, motivate and enable individuated processing and thereby reduce stereotyping. However, in everyday business life, especially at higher functioning levels, employees work highly independently, and supervisors might frequently see them without engaging in meaningful interactions or forming an actual relationship. That is to say, they may engage only in minimal, highly scripted interactions. In such cases, if repeated exposure indeed reduces analytic processing, increased stereotyping of familiar target persons may be (partly) explained, because this effect would not be counteracted by individuated knowledge, emotional involvement, and so forth (Smith *et al.* 2006).

The outcomes described above greatly support the decision to include *relational demography* in research studying age effects. It seems that *compositional effects* of demographic attributes, in this case age, indeed add to our knowledge, given the complex interaction pattern using dyadic tenure as a moderator. While more age-related stereotyping was expected in the case of a lack of knowledge on a certain category of employees (in this case older workers), these data indicate that supervisors are inclined to fall back upon stereotypes, instead of making a careful consideration and weighing of observations of employee's work behaviour and capabilities, in case there is a history of interaction.

Additionally, in this study, it was examined whether these effects might be moderated by another interpersonal work context characteristic, *i.e.* transformational leadership style. A methodological strength of the chosen approach concerns the fact that this contextual variable is assessed from the subordinate's point of view, while the dependent variable, *i.e.* ratings on occupational expertise, is assessed from the supervisor's point of view. Whereas transformational leadership appeared to be an important factor in the light of occupational expertise development, it does not seem to moderate the negative effects of age dissimilarity upon supervisor ratings of occupational expertise. Again, these outcomes lead to the conclusion that age-related stereotyping is hard to combat, and it is important to pay serious attention to its impact upon the career growth of the working population, especially given the demographic changes. While a leadership style that is characterised by concern, empowerment, openness, encouragement and support, in itself is valuable, other means are necessary to prevent biased performance ratings.

Limitations of the study and recommendations for further research

Although these findings lend some credence to part of the theoretical framework, they must be interpreted with caution for several reasons. Firstly, observed effects and overall variance explained by the regression models are modest. On the other hand, the magnitude of the effects found in the current study is consistent with that reported in earlier research (*see also* Van der Heijden *et al.* 2010), and indicate that directional age differences between employee and supervisor provide unique – albeit small – sources of systematic variance in employee appraisal, that can be hardly buffered by means of interpersonal work context factors. Also, the small effects can represent a cumulative process that may multiply over time (Abelson 1985). Furthermore, any degree of systematic variance in this regard, however small, is worth noting (*see also* Prentice and Miller 1992), given the possible disadvantageous or unfair outcomes in terms of workplace decisions (*see* Rudolph and Baltes 2001). Secondly, all data have been collected using survey research opening up the possibility of response set consistencies. Thirdly, all data have been collected at one point in time, that is, our study is cross-sectional. The inability to test causal inferences makes it impossible to rule out alternative explanations for the effects noted in this study. Future longitudinal data collection procedures should be used to determine causality. An example of an alternative explanation that can be tested in longitudinal approaches comprises the idea that the outcomes pertaining to dyadic tenure represent a selection effect, as presumably those subordinates with higher expertise ratings will be more likely to remain with their supervisors (and so have higher tenure). Future approaches might also control for tenure in the job and/or in the department, in order to rule out the possibility that some employees are given lower ratings as a result of a lack of extensive expertise, instead of shorter dyadic tenure, and/or to understand better the impact of having fulfilled different jobs while working for the same supervisor, and the other way around. Moreover, due to the fact that both the employees' and supervisors' samples are predominantly male, more empirical work is needed to understand whether the results of this study may be generalised to more female, mixed or gender-balanced populations of employees and supervisors.

Future approaches using research designs investigating supervisor–subordinate dyads' age differentials in a context where a supervisor has multiple subordinates is recommended as well. More specifically, in this case the intra-group or team dimension to the supervisors' evaluations could be included, and one could examine the extent to which a supervisor's evaluation of multiple subordinates demonstrates differences within the same

unit or team (*see also* Joshi, Liao and Roh 2011, who stressed the need for multi-level research in this field of study). Also polynomial regression models might be used in future research in order to reply to some conceptual and methodological problems that are inherent to the practice of using difference scores (*see* Edwards 1995).

Moreover, scholars could include multiple demographic variables, and other sources of dissimilarity in future research, such as personal values, attitudes and personality (*see also* Glomb and Welsh 2005; Strauss, Barrick and Connerley 2001), and data on the nature and quality of the relationship, for instance using leader–member exchange measures (Graen and Uhl-Bien 1995). A longer duration of the relationship does not always imply a high-quality relationship and more familiarity. Also more research on *perceived* (age) similarity *versus actual* similarity is interesting as perceptions of similarity more consistently predict work-related outcomes than actual similarity because 'people react on the bases of perceptions of reality, not reality *per se*' (Ferris and Judge 1991: 464; *see also* Riordan and Wayne 2008; Wayne and Liden 1995).

More research is also needed to investigate whether the impact of relational norms may differ according to national culture (for an interesting example, *see* Hope Pelled and Xin 2000), racio-ethnicity, gender (*see e.g.* Carter *et al.* 2014; David *et al.* 2015; Luksyte, Avery and Yeo 2015) or employment status (*e.g.* part-time *versus* full-time employees; *see* Avery *et al.* 2012). For example, the relational norm of age could be more salient in cultures that value and respect the wisdom of the elderly. The results of the current study suggest that performance ratings in the vertical dyad may be lowest for subordinates who are dissimilar from the supervisor in a direction that is inconsistent with relational norms. Another opportunity for future research is to conduct cross-cultural studies of relational demography at the group level, rather than at the dyad level. Empirical research should also compare contexts in which relational norms differ. For example, in some occupations and in some companies, it may be 'normative' for supervisors to be younger, or to have less tenure. Moreover, given the fact that organisations may differ as to the extent to which they offer a climate that is more or less prone to age discrimination, more research into the possible impact of organisational culture is called for.

In addition, across the globe different approaches to legislation are adopted. For instance, one major difference between the United States of America (USA) and Europe lies in the fact that US legislation is designed to assist older workers, whilst the legislation of the European Union (EU) applies to all those at work. Specifically, under the US Age Discrimination in Employment Act (ADEA), it would not be illegal to discriminate between an older and a younger worker from the protected class (those

aged 40 plus), at the expense of the younger person. This would not be possible under the EU directive (unless there was justification). Both the US and EU measures have some significant weaknesses, herewith hindering a constructive approach to combat age discrimination. For instance, the ADEA has a small-firm exclusion, while under the EU directive, there is the possibility of justifying exceptions if the aim is legitimate and the means proportionate, but Article 6 of the Directive permits a wide interpretation of the meaning of legitimate aim. That is to say, in a sense both legislation approaches are similar in that they are really an inadequate response to the need for age discrimination protection (Sargeant 2013: 517–8). Therefore, there is an urgent need to investigate further which role an employee's interpersonal work context may play in changing this negative situation.

Future research might also go into the impact of demographic similarity in horizontal (*e.g.* among colleagues, such as mentor with protégé; for a dyadic approach, *see* Finkelstein, Allen, Ritchie, Lynch, and Montei 2012), rather than in vertical dyads, and by incorporating ratings on both employee, leader and peer outcomes (for an exemplary meta-analytic approach on the impact of leader–subordinate age differences on leadership effectiveness ratings, *see e.g.* Rudolph and Baltes 2011).

Notwithstanding the limitations that are inherent to this study, the results are noteworthy and provide challenges for future research and cross-validation in different occupational settings and countries.

Practical implications

Our findings suggest that staffing organisations with subordinates and supervisors that are dissimilar in age may create a breeding ground for bias in performance ratings, in particular age-related stereotyping. As the current demographic developments imply that more older workers will be supervised by younger managers, attention for diversity, for instance by means of training on the importance of age-aware HR policies and practices, is needed in order to alert both subordinates and supervisors to the possible consequences of age differences. The focus of such training should be to motivate supervisors to be highly ethical and conscientious in performance appraisals and to enable them to invest time in individuated processing of information and knowledge about all employees, regardless of their age. Obviously, given the previously mentioned inadequate response of current legislation approaches to the need to combat age discrimination (Sargeant 2013: 517–8), we advocate the use of psychometrically sound (*i.e.* valid and reliable) measurement instruments for performance appraisal practices in working organisations. Moreover, important stakeholders in

organisations should really care about justified appraisals of the competencies of all of their staff members across the lifespan. They should do their utmost to combat age-related stereotyping by stressing the need for thorough interaction between employees and their supervisors, and by stimulating transparency throughout evaluation processes in all major HR functions (planning, staffing, employee development and employee maintenance). After all, in-depth and valid knowledge about employee outcomes, in our case, occupational expertise ratings, is needed to guide staff welfare and development continuously, and as a result, to enhance organisational performance outcomes as well (Kehoe and Wright 2013). In order to improve performance appraisals and to combat age-related stereotyping, organisations should pay more attention to communication about the behaviour of individual employees (Stoker and Van der Heijden 2001). Superiors and subordinates should ask each other regularly for feedback, *e.g.* based upon a psychometrically sound instrument such as the one used for the occupational expertise ratings in this study. Given the current labour market demands, more knowledge on occupational expertise, over and above regular work evaluations, might add to an organisation's adaptive power, in that closing expertise gaps enhances employees' chances to contribute to the organisation's success.

In order to gain from what performance appraisal systems can offer, and to minimise the possible adverse consequences, organisations need to create an atmosphere of trust, openness and sharing (Jones 2001; McNabb and Whitfield 2001). This is why the amount of interaction, and possibly familiarity, in terms of a longer duration of the working relationship between superior and subordinate, is an important aspect to take into consideration. To facilitate employees in their further development, they need to know what they need to change, where (specifically) they have fallen short and what they need to do to improve their performance. In some cases, a personal coach may be the key to deal with the inherent discrepancies found in performance ratings (Van der Heijden and Nijhof 2004).

Combining supervisor appraisals and self-assessments may make apparent any area of supervisor–subordinate disagreement, and might lead to 'healthy conflicts' over the evaluation, and possibly increase job performance (Thornton 1980). Further, it is likely that this will result in an exchange of ideas and may imply a step forwards in reaching 'workable solutions' that are more likely to be accepted by employees due to their influence upon the process (*see also* Lind *et al.* 1993). In addition, one should make sure that raters are provided with guidance and training, including a clear explanation of the major competencies expected (*see also* Brutus and Derayeh 2002), and on the importance of experience in rating processes in the light of the reliability and validity of performance appraisals.

Furthermore, supervisors should be provided with opportunities to detect their own rating biases, if any, before they actually rate an employee. Training supervisors to recognise a perceived similarity bias may increase their willingness to evaluate (dissimilar) others more accurately. In this respect, training about generational differences and the impact of culture is called for as well. This becomes even more critical in an era wherein workforces flow across national boundaries, and with organisations being more likely to have a culture mix of employees who are not similar to each other. Without some type of intervention (*e.g.* frame of reference or diversity training) raters are more likely to base ratings on stereotypes due to, for instance, age (dis)similarity, especially when filling in gaps of knowledge on ratee performance (*see also* Lefkowitz 2000).

The suggestion to use think-aloud protocols aimed at explaining why a supervisor gives a particular rating to a particular item might be used in order to improve the quality of performance appraisals further (Heerkens and Van der Heijden 2005; Van der Heijden 2000). It is possible that this technique may improve the validity of the instrument, though, at the cost of the homogeneity of the rating scale. If supervisors are asked to give concrete examples of performances or behaviours of their subordinates, response biases like age-related stereotyping will probably be sifted out, or at least partly. If supervisors are required to justify their choices and are encouraged to think more carefully about their answers, the differentiation between item meanings will probably increase, leading to even more valid outcomes. Only if ratings are explicitly founded on empirical verifiable observations of behaviour and performance can we use them confidently in annual job and career assessments, including related salary implications (*see* Ostroff and Atwater 2003). To conclude, given the importance of a supervisor's perceptions about the competencies of individual employees in terms of future career development opportunities (Van der Heijden *et al.* 2009), it is highly important to make them aware of the possible dangers of age-related stereotyping in this regard. Diversity programmes wherein the strengths, challenges and added values of employees across the lifespan are stressed might help to overcome bias in performance appraisal, be it conscious or unconscious in the first place. Moreover, the possible impact of the employee's social work context should be explicitly taken into account as well in order to increase the chances for a better and happier life in the workplaces.

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