

Bringing age into view: discovering age-related effects on employee-supervisor (dis)agreement in employability ratings

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Abstract

Purpose – For a performance evaluation process to be successful, supervisors and employees should come to a common understanding. While organizations around the world are using multi-source feedback, human resource (HR) research draws predominantly on ratings by supervisors, hence we know little about such (dis) agreement in performance ratings. We re-introduce the lens of self-other agreement (SOA) to the HR literature to explore the agreement between employability self-ratings by employees (E) and the other ratings by supervisors (S).

Design/methodology/approach – A quantitative discovery approach is used to explore a combined data set of multi-source survey data.

Findings – A person-centered methodology identified six SOA profiles: two profiles represent self-other agreement ($S = E$), two profiles represent self-other disagreement in which self-ratings by employees are higher than the other ratings by the supervisors (disagreement type $E > S$) and two profiles in which the self-ratings are lower than the other ratings (disagreement type $E < S$). Multiple age effects appeared to be significant predictors of probability of profile membership.



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Research limitations/implications – Following a process of abductive reasoning, we interweave quantitative discovery with theory, resulting in six propositions and discussion of theoretical, methodological, and practical implications.

Originality/value – Particularly, increased understanding of the age-related causes of SOA is relevant given our work context is characterized by a strongly aging workforce.

Keywords Age, Employability, Self-other agreement, Person-centered methodology, Quantitative discovery approach

Paper type Research article

1. Introduction

With careers increasingly becoming boundaryless (Arthur, 1994), performance evaluation processes are more likely to include the diagnosis of employees' competences or their employability (i.e. "one's ability to identify and realize career opportunities"; Fugate *et al.*, 2004, p. 23). Employability ratings are all the more important for organizations, as they predict objective career success (Van der Heijde and Van der Heijden, 2006) and help organizations in gaining insight into what is needed for employees to keep performing well and be productive (De Vos *et al.*, 2020; Donald *et al.*, 2024; Van der Heijden *et al.*, 2020).

We posit that more scholarly work is urgently needed to disentangle the role of age (differences) regarding differences in perceptions between supervisors and their subordinates in performance appraisals, as distorted information and disagreement have a profound impact on the career sustainability of the latter over time (De Vos *et al.*, 2020; Van der Heijden *et al.*, 2020). Specifically, insight into differences in employability perceptions and their possible causes may contribute to protecting and further enhancing workers' career sustainability, which is a life necessity (De Lange *et al.*, 2021; Van der Heijden *et al.*, 2020). Given the increasingly rapid changing of the nature of work due to technological changes, economic influences, global competition and so on, more people must deal with job uncertainties (Adiasto, 2024; Doden *et al.*, 2024). Employability is conceived to be the new form of employment security for employees and comprises a dynamic interplay between the former (in terms of fulfilling the job), their employers (via competitive advantage) and the economy or society (offering full employment) over time (Fugate *et al.*, 2021).

With the exception by Van der Heijden *et al.*, 2016, in scientific studies so far, employability has been assessed either by employee ratings (Dello Russo *et al.*, 2020; Peters *et al.*, 2019) or by supervisor ratings (Van der Heijden and Bakker, 2011). Therefore, current research has been unable to identify the type of source-dependent rating biases identified by Ferris and associates (1985). To help closing this gap, we draw on the scholarly work on self-other agreement (SOA), which refers to the degree of congruence between one's self-ratings and the ratings of others (Fleenor *et al.*, 2010; Yammarino and Atwater, 1993), as the foundation for our empirical work. The SOA conceptualization does justice to a series of perception biases, explaining differences in perceptions, such as the leniency bias (e.g. Tsui and Ohlott, 1988) and the halo/horn effect (e.g. Nisbett and Wilson, 1977) and may provide theoretical ground for the age effects in SOA of employability (Van der Heijden *et al.*, 2016) as well.

The relevance of age-related effects in the assessment of employability has only started to receive empirical attention recently (Dello Russo *et al.*, 2020; Van der Heijden, 2018), and we contend that it is of utmost importance to gain more insight into these age effects given their potential impact on the individual employee's career sustainability (De Vos *et al.*, 2020; Van der Heijden *et al.*, 2020). We follow a quantitative discovery approach (Bamberger, 2018; Bamberger and Ang, 2016). Central to this approach is a process of abductive reasoning, which requires to "hold theories lightly" (Martela, 2015) and to use pre-understanding of the phenomenon under study to iteratively move between the material and the empirical data (Mueller, 2018).

Quantitative discovery is rare in (career) management science (for a recent exceptions see Van Rossenberg *et al.*, 2022a), which may be due to contextual, philosophical and managerial reasons (Miller and Bamberger, 2016). We believe that the inherent process of

abductive reasoning can help us to move the field forward in the form of theoretical extension of directly and distally related (career) management literatures (Bamberger and Ang, 2016; Van Rossenberg *et al.*, 2022b). Specifically, we explore a combined, heterogeneous dataset using a person-centered methodology, to explore age effects in SOA of employability. In doing so, our study adds to scholarly literature in two crucial ways. First, we provide insight into age-related differences in employee and supervisor perceptions of a multi-dimensional operationalization of employability, which is useful in identifying those components most in need of being updated (Van der Heijden, 2001).

Second, the theoretical grounding of age effects on employability ratings has not been developed extensively (Fugate *et al.*, 2021). The aim of a quantitative discovery approach and its underlying abductive reasoning comprises a theoretical extension or innovation contributing to directly and distally related (career) management literatures (Bamberger, 2018).

The insights of our study are translated into a series of propositions. In the discussion section, we carefully interweave these propositions with theorizing and highlight where unique insight is provided into the phenomenon under study. Further, we reflect on and discuss the implications of our theoretical contributions to the wider career management literature.

2. Theoretical background

2.1 Self-other agreement

In line with common practice, we conceptualize employability as subjective perceptions of the employee's current employability, and, therefore, we assess the distinctive agreement, which refers to the relative agreement between a self-rating and the perception of the "other" (i.e. SOA). For ratings of employability, the application of SOA may be more complex because disagreement is particular to the employee-supervisor dynamics (Marescaux and De Winne, 2023), and therefore, disagreement may be bi-directional, with higher employability ratings by employees and lower ratings by supervisors ($E > S$), as well as lower employability ratings by employees and higher ratings by supervisors ($S > E$) (Ferris *et al.*, 1985; Van Rossenberg, 2021). The five-dimensional conceptualization of employability by Van der Heijde and Van der Heijden (2006) provides further complexity in the application of SOA, as the agreement between the self-ratings and the other ratings of employability may vary in strength and direction between each of these dimensions.

2.2 Age effects

In this empirical work, we unpack age effects on ratings of employability by distinguishing between: (1) age of the employee; (2) age of the supervisor and (3) (dis)similarity of age between both parties. Moreover, we distinguish between: (1) age-related biases in self-ratings (employee), and (2) age-related biases in other ratings (supervisor).

2.3 Employee age-related perception biases in self-ratings of employability

Atwater and Yammarino (1997) posited that older people are more likely to provide inflated self-ratings relative to other ratings. Indeed, older workers are likely to rate themselves higher in comparison with how their supervisors rate them (Ferris *et al.*, 1985), which can be explained based on a natural tendency to rate oneself more positively with age (Brutus *et al.*, 1999). Alternatively, the over rating might be a result of them being less receptive to feedback (Ashford, 1986; McEvoy and Buller, 1987) with age (Ryan *et al.*, 2000).

2.4 Employee age-related perception biases in other ratings of employability

Self-ratings may appear inflated relative to other ratings due to age-based stereotyping in other ratings (Lawrence, 1988; Rosen and Jerdee, 1988). Correspondingly, much scholarly work spanning the last decades has revealed stereotypical categorizations based on age (see, for e.g. Boerlijst *et al.*, 1998; Finkelstein and Farrell, 2007; Pecher *et al.*, 2023; Van der Heijden, 2018),

and the implicit ageism framework (Levy and Banaji, 2002) suggests that people prefer younger people over older ones, as they believe that older people may contribute less to society. All in all, these age-related stereotypes are likely to lead to biases in ratings of employability, resulting in younger employees being rated more favorable by their supervisors, whereas older employees are rated less favorable.

2.5 Supervisor age-related perception biases in other ratings of employability

Building on attribution theory (i.e. theory referring to the perception or inference of cause) (Kelley, 1973), Liden *et al.* (1996) argued that older supervisors, who in general have more experience, have greater knowledge of possible external causes for their employees' performance. As a result, they will be more inclined to make external attributions in case their employees portray substandard performance, while, in their view, their employees do possess the necessary competencies (p. 332).

In other words, older supervisors will be less likely to assume that an internal attribution is appropriate for poor performance than supervisors who are relatively less aware of the environmental factors and internal characteristics of their staff. Therefore, we may expect that older supervisors will be more likely to rate their subordinates' performance more positively (Ferris *et al.*, 1994; Mitchell and Kalb, 1982).

2.6 Perception biases due to (dis)similarity of age between employee and supervisor

We build on the similarity-attraction paradigm (Byrne, 1971; see also Van der Heijden, 2018) that originally focused on similarity of attitudes as the basis for positive evaluations and that has been extended, over time, to include demographic variables as well (Riordan *et al.*, 2005). Relational demography research (Tsui and O'Reilly, 1989, p. 403) takes this approach a step further and adds to previous scholarly work on the (dis)similarity between supervisor and employee age by directly exploring the extent to which the comparative demographic characteristic of supervisor and subordinate influence work outcomes, in our case employability.

In case supervisors and employees are more similar in terms of age, we may expect them to feel more comfortable with each other, because of them having similar values and attitudes and/or because of their "common language" (Webber and Donahue, 2001; Zenger and Lawrence, 1989), which implies smoother interactions (Geddes and Konrad, 2003). In a performance rating context, this so-called preference for homogeneity also manifests itself, as raters who see themselves as more similar to a target tend to rate the target more positively (Kraiger and Ford, 1985; Pazy, 1986).

Adversely, an alternative approach to exploring the impact of age difference on performance ratings concerns social comparison processes (Goodman, 1977; Jones and Regan, 1974). Due to the competition between people within one and the same generational cohort, we may translate this into supervisors providing relatively lower employability ratings to employees that are relatively close in age (Vecchio, 1993). Given the lack of scholarly work in this domain, further empirical insight is needed into the combined effect of age of both parties.

2.7 Perception biases due to directional age difference between employee and supervisor

Directional age difference (Pfeffer, 1985) incorporates social attitudes towards an employee, depending on their age, and pertains to perceived attributes and accompanying stereotypes regarding age. We argue that the nature and strength of its effect on the character of social attitudes (or perceived attributes and accompanying stereotypes) towards an employee is dependent on the direction of the age difference (i.e. in case the supervisor is younger than their employee, that is in case of status-incongruence or the other way around; Tsui *et al.*, 1995). Status incongruence pertains to inconsistencies between a person's relative ranking on different status dimensions (e.g. organizational position and age) or so-called perceived violation of the career timetable that is associated

with supervisory positions, which may lead to a lack of trust of employees in their supervisor's managerial capabilities (Perry *et al.*, 1999).

Analogously, employees may also believe that their competencies are more developed than their supervisor's ones, herewith creating tensions between both parties, which, in turn, might lead to lower performance ratings of older subordinates by their supervisors (see also Kunze and Menges, 2017). The resulting so-called vicious circle or self-fulfilling prophecy (Walton *et al.*, 2015) is even more distressing as contemporary organizations face increasing greying of their working population (Ackerman and Kanfer, 2020).

All in all, since the existing literature has not informed us with sound and thorough insight into the age-related biases in perceptions of employability yet, particularly regarding employee-supervisor ratings, we go through a process of abductive reasoning (Bamberger, 2018; Bamberger and Ang, 2016) to further unpack the relationships under study (see Figure 1).

3. Methods

3.1 Ethics, transparency and openness

At the time of data collection, no ethical approval was required. However, the present study has been conducted in full accordance with the guidelines of the American Psychological Association and the Dutch Association of Psychologists (of whom the first author is a registered member) in that all data have been treated fully confidentially and anonymously. Furthermore, the current research is fully in line with the latest version of the Declaration of Helsinki (World Medical Association, 2008).

3.2 Quantitative discovery approach

We followed the recommended steps of the quantitative discovery approach (Bamberger, 2018; Bamberger and Ang, 2016). The quantitative discovery analytical approach, procedures and considerations are included in the [Supplement of this article](#).

3.3 Participants and procedure

We have sought to compile heterogeneous multi-source (self-ratings and supervisor) ratings comprising two complementary datasets, including a variety of organizations (dataset A) and departments (dataset B) and ages [fairly representing different age groups; starters (20–34 years), middle-aged (35–49 years) and seniors (50+)] (Van der Heijden, 2002).

Dataset A comprises 487 employees and their supervisors working in 151 small and medium-sized enterprises (SMEs) at middle and higher occupational levels in a southern province in the Netherlands. The respondents' average age was 38.30 (standard deviation (SD) = 11.05), and the supervisors' average age was 43.60 (SD = 9.23). The supervisors

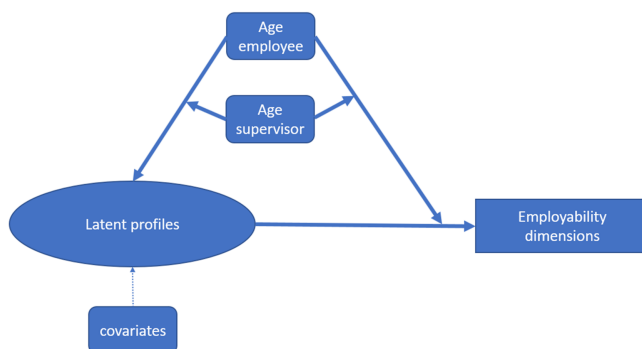


Figure 1. Conceptual framework

were, on average, 5.27 years older than the employees ($SD = 11.50$). There were 197 female employees (40.5%) and 88 female supervisors (18.1%).

Dataset B was gathered among 314 employees and their supervisors with at least a middle-level position, working in a large Dutch firm that produces building materials. The respondents' average age was 40.94 ($SD = 9.20$), and the supervisors' average age was 42.94 ($SD = 7.94$). The supervisors were, on average, 1.98 years older than the employees ($SD = 11.39$). There were 55 female employees (17.5%) and 15 female supervisors (4.8%).

Besides the size of the organization (SME versus large firm), datasets A and B are significantly different in terms of gender ratios and ages employees and managers. The age and gender differences between the datasets were representative for the sector and job type in the Netherlands.

3.4 Measures

Employability was assessed with the short-form competence-based measurement instrument by Van der Heijden and associates (2018) (see also [Van der Heijde and Van der Heijden, 2006](#)), which has proven to have sound psychometric qualities ([Stoffers et al., 2020](#); [Van der Heijden et al., 2009](#); [Van der Heijden and Bakker, 2011](#)). The instrument includes five sub-scales measuring: (1) occupational expertise (5 items); (2) anticipation and optimization (4 items); (3) personal flexibility (4 items); (4) corporate sense (4 items) and (5) balance (5 items) ([Van der Heijden et al., 2018](#)). Building on [Linacre \(2002\)](#), who favored eliminating the neutral category in bi-polar scales, and in line with [Van der Heijden et al.'s \(2018\)](#) response format, for all items, six-point rating scales were used.

The age of employee and the supervisor were rated in years, and the age difference is the absolute (directional) difference between the age of the supervisor minus the age of the employee (cf. [Tsui and O'Reilly, 1989](#)). We included employee tenure with the organization (in months), gender of the employee and the supervisor (0 = men, 1 = women), educational level (0 = high school, 1 = vocational education, 2 = university of applied science, 3 = higher education), marital status (0 = married, 1 = single, 2 = divorced) and managerial responsibilities (0 = line, 1 = staff, 2 = project management) (cf. [Ng et al., 2005](#); [Van der Heijden et al., 2009](#)).

Means, standard deviations, Cronbach's alpha and correlations between the variables are included in [Table 1](#).

The measurement model was tested and showed a sufficient fit for the *employee self-ratings* [$\chi^2 = 620.188$ (199) $p < 0.0001$, root mean square error of approximation (RMSEA) = 0.05, comparative fit index (CFI) = 0.91, Tucker-Lewis index (TLI) = 0.89]; however, adding a second-order factor to reflect an overarching employability construct resulted in a significant decrease in model fit [$\chi^2 = 662.63$ (204) $p < 0.0001$, RMSEA = 0.05, CFI = 0.90, TLI = 0.89]. Previous work by [Van der Heijde and Van der Heijden \(2006\)](#) showed the discriminant validity for the distinguished employability dimensions to be reasonable, yet the five dimensions were not fully exclusive and represented an oblique factor structure. On the basis of our fit analysis, we conclude that for the employability ratings by employees in our data the dimensions of employability are represented better as separate constructs [$\Delta\chi^2 = 42.44$ ($\Delta DF = 5$) $p < 0.0001$].

The model fit of the measurement model for the five employability dimensions *rated by the supervisors* showed a sufficient fit with the data [$\chi^2 = 1,459.77$ (199) $p < 0.0001$, RMSEA = 0.09, CFI = 0.84, TLI = 0.82]. Adding a second-order factor for an overarching employability construct resulted in a decrease in model fit [$\chi^2 = 1,469.35$ (204) $p < 0.0001$, RMSEA = 0.088, CFI = 0.84, TLI = 0.82]. This decrease was not significant; thus, the simpler model with the second-order factor [$\Delta\chi^2 = 9.58$ ($\Delta DF = 5$), $p = 0.09$] should be preferred. Yet, the aim of this study is to explore patterns in self-other ratings, and this requires the measurement model for the employee ratings to be the same as the supervisor ratings. For this reason, the second-order model was not adopted, and we assessed the five dimensions as

Table 1. Means, standard deviations, correlations and Cronbach's alphas

Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12
<i>Employee; self-ratings</i>														
1. Occupational expertise	4.66	0.51	0.76											
2. Anticipation and optimization	4.04	0.66	0.35**	0.63										
3. Personal flexibility	4.64	0.52	0.50**	0.47**	0.74									
4. Corporate sense	4.16	0.78	0.40**	0.47**	0.46**	0.75								
5. Balance	4.19	0.64	0.33**	0.25**	0.30**	0.23**	0.68							
<i>Supervisor; Other ratings</i>														
6. Occupational expertise	4.43	0.70	0.20**	0.08*	0.12**	0.11**	0.11**	0.86						
7. Anticipation and optimization	4.03	0.66	0.10**	0.18**	0.23**	0.14**	0.11**	0.69**	0.62					
8. Personal flexibility	4.09	0.69	0.09*	0.20**	0.28**	0.15**	0.11**	0.71**	0.72**	0.79				
9. Corporate sense	4.01	0.76	0.10**	0.15**	0.23**	0.20**	0.08*	0.64**	0.65**	0.68**	0.76			
10. Balance	4.25	0.65	0.13**	0.17**	0.22**	0.19**	0.21**	0.64**	0.65**	0.63**	0.59**	0.73		
11. Age of employee	42.62	11.58	0.17**	−0.04	−0.13**	0.11**	0.02	−0.16**	−0.29**	−0.28**	−0.13**	−0.14**		
12. Age of supervisor	46.44	9.46	0.13**	−0.01	−0.00	0.08*	0.02	0.08*	0.03	0.03	0.06	0.04	0.41**	
13. Age difference	4.01	11.56	−0.07	0.03	0.12**	−0.05	−0.00	0.23**	0.31**	0.31**	0.18**	0.17**	−0.67**	0.41**

Note(s): All *p*-values are based on two-tailed tests. **p* < 0.05; ***p* < 0.01

separate constructs for both employee and a supervisor ratings of the employability construct. In the analysis of the measurement model, there were no significant differences between the two datasets.

4. Results

4.1 Profiles of SOA of employability

The quantitative exploration of our data showed six profiles of self-other ratings of employability: (1) supervisor ratings being moderately higher than employee ratings (Mod. S > E); (2) employee ratings being moderately higher than supervisor ratings (Mod. E > S); (3) high agreement between both parties about high employability ratings (HA); (4) high agreement between both parties about low employability ratings (LA); (5) supervisor ratings being severely higher than employee ratings (Sev. S > E) and (6) employee ratings being severely higher than supervisor ratings (Sev. E > S) (see Table 2 and Figure 2 for all details).

We found two profiles representing relative *agreement* between the ratings by the employee (self) and the ratings by the supervisor (other) [profiles agreement high (AH) and agreement low (AL)] (see Table 2). In total, these two profiles represent 16% each, that is in total 32% of the sample; in other words, for 242 employees that were included in our study, we found that they experience SOA.

As regards the other four profiles, most frequent was moderate disagreement (Profiles Mod. S > E and Mod. E > S; in total 50% of the sample). Less frequent was severe

Table 2. Overview of profile membership

Profile	Mod. S > E moderate disagreement	Mod. E > S moderate disagreement	High agreement high	High agreement low	Sev. S > E severe disagreement	Sev. E > S severe disagreement
Number of employees	231	155	120	122	66	69
Percentage (size of the profile)	30%	20%	16%	16%	9%	9%
Agreement/disagreement	D+	D+	A	A	D++	D++
Type	S > E	E > S	High	Low	S > E	E > S
<i>Employee self-rating</i>						
1. Occupational expertise	-0.27	0.38	0.81	-0.72	0.17	-0.41
2. Anticipation and optimization	-0.27	0.45	0.87	-0.92	0.28	-0.37
3. Personal flexibility	-0.10	0.38	0.90	-1.10	0.29	-0.53
4. Corporate sense	-0.22	0.41	0.85	-0.84	0.20	-0.40
5. Balance	-0.15	0.23	0.62	-0.46	0.06	-0.35
<i>Supervisor other rating</i>						
6. Occupational expertise	0.45	-0.52	0.54	-0.35	1.38	-1.76
7. Anticipation and optimization	0.41	-0.43	0.55	-0.53	1.40	-1.71
8. Personal flexibility	0.43	-0.43	0.61	-0.53	1.33	-1.69
9. Corporate sense	0.36	-0.34	0.47	-0.50	1.49	-1.65
10. Balance	0.37	-0.40	0.56	-0.54	1.30	-1.55

Note(s): Profile scores are standardized to aid interpretation; S = other ratings by supervisors; E = self-ratings by employees

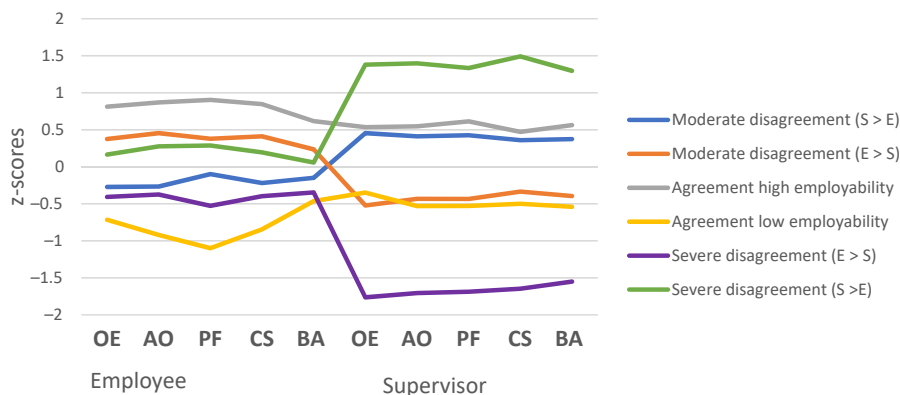


Figure 2. Profiles of self-other ratings of employability. Note. OE = occupational expertise; AO = anticipation and optimization; PF = personal flexibility; CS = corporate sense; BA = balance; the first series is rated by the employee and the second series is rated by the supervisor. Profile scores are standardized to support interpretation of the profiles. S = other ratings by supervisors; E = self-ratings by employees

disagreement (Profiles Sev. S > E and Sev. E > S; in total 18% of the sample). There was disagreement in which the supervisor rated the employee to be more employable than the employee themselves did (Profile Mod. S > E and Profile Sev. S > E; in total 39% of the sample). On the other hand, there was also disagreement in which the employee rated themselves to be more employable than the supervisor did (Profile Mod. E > S and Profile Sev. E > S; in total 29% of the total sample).

With these outcomes, our analysis indicates the existence of meaningful profiles of SOA, representing self-other agreement and self-other disagreement. Interestingly, it appears that the differences between the profiles regarding the five employability dimensions are only quantitative in nature, that is, the differences in the supervisor and employee ratings are found in the same direction across the five dimensions. In other words, the same profile structure is likely to be found if we had used a second-order measurement model. However, we do see small quantitative differences, meaning that the dimensions vary somewhat in how much the rating by the employee and the rating by the supervisor is different. For example, across the profiles, the difference in self-other ratings for balance is smaller than for the other dimensions. This may indicate that the dimensions may differ in being more or less prone to self-other rating effects.

These outcomes have been translated in our first proposition.

- P1. Profiles of SOA of employability represent self-other agreement and self-other disagreement. Self-other disagreement was found in both directions, with supervisor ratings being higher than employee ratings (S > E) and employee ratings being higher than supervisor ratings (E > S).

4.2 Age effects

The analysis showed a small effect of age on the measurement model of the employability dimensions, which will be further discussed in [Section 4.8](#).

4.3 Employee age-related perception biases in self-ratings of employability

The Wald test ([Vermunt and Magidson, 2002](#)) was used to help determine if the age-related variables (age of the employee, age of the supervisor and their age difference) significantly affect the probabilities of employees belonging to different profiles. A large statistic suggests that the parameter is significantly different from zero, implying that the variable influences profile membership (see [Table 3](#)).

Table 3. Relationships between age, covariates and membership profiles

Profile	Mod. S > E moderate disagreement	Mod. E > S moderate disagreement	High agreement high	High agreement low	Sev. S > E severe disagreement	Sev. E > S severe disagreement	Wald test
<i>Main effects</i>							
Age of employee	−0.03***	0.03**	0.01	0.02	−0.02	0.01	18.68***
Age of supervisor	0.01	−0.03***	0.01	−0.04***	0.08***	−0.02	35.26***
<i>Descriptive effects</i>							
Tenure	−0.001	−0.003**	−0.001	0.002	−0.01	0.01**	12.75*
Gender employee	−0.11	−0.01	−0.36***	0.32***	0.13	0.02	14.02*
Gender supervisor	0.22	−0.33	0.30**	−0.47**	0.05	0.23	16.39**
Dataset A	−0.11	−0.28**	0.06	−0.04	0.46**	−0.08	12.79*
Note(s): S = other ratings by supervisors; E = self-ratings by employees; SMEs = small and medium-sized enterprises							
* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$							

We found age of the employee to have a significant effect on the membership of profiles Mod. S > E and Mod. E > S. This means that younger employees were more likely to be a member of profile Mod. S > E, in which the employee scored their employability lower than their supervisor. However, older employees were more likely to be a member of the profile Mod. E > S, in which employees scored their employability higher than their supervisor. Altogether, these outcomes have been translated into our second proposition (see [Section 4.8](#) for more information about the personal flexibility dimension).

- P2. Younger employees tend to underestimate their employability, while older employees are more likely to overrate their employability (in comparison to other ratings provided by their supervisor). Particularly the dimensions occupational expertise and corporate sense are vulnerable to this bias.

4.4 Employee age-related perception biases in other ratings of employability

The direct relationships between employee age and ratings of employability by their supervisor showed a negative effect of age of the employee on other ratings, yet only for the dimensions anticipation and optimization and personal flexibility (see [Table 3 in the Supplement of this article](#)). The Wald test showed that younger employees were more likely to be in the moderate disagreement type S > E profile (Mod. S > E), whereas older employees were more likely to experience moderate disagreement type E > S (Mod. E > S). Interestingly, membership of the severe disagreement profiles (Sev. S > E and Sev. E > S) appeared not to be affected by age of the employee. These outcomes have led to our third proposition.

- P3. Younger employees are more likely to be rated more positively by their supervisor, while older employees are more likely to be underrated by their supervisor (in comparison to their self-ratings). These tendencies are stronger for the dimensions anticipation and optimization and personal flexibility.

4.5 Supervisor age-related perception biases in other ratings of employability

Our analysis showed that age of the supervisor was significantly negative related to profile memberships Mod. E > S and AL, but significantly positive to Sev. S > E. This outcome implies that younger supervisors were more likely to be a member of the Profile Mod. E > S or to the Profile AL.

[Table 4](#) provides further descriptive insight into the characteristics of the profile membership. The ratings of employees for the two profiles of Mod. E > S and AL were, in both cases, around 0.5 SD below the average supervisor rating. The supervisors in the profile Sev. S > E were more likely to be older and, moreover, in this profile the supervisor rated the employee around 1.5 SD above the supervisors' average. All in all, the exploration of our data showed that older supervisors were more likely to rate their employees as being more employable in comparison with the employees' self-ratings and that younger supervisors were more likely to rate the employees as less employable in comparison with how they saw themselves. These outcomes have been translated into our fourth proposition.

- P4. Younger supervisors tend to have a generic negative bias in the employability ratings, resulting in overall lower other ratings in comparison to the self-ratings by their subordinates (E > S). Older supervisors tend to have a generic positive bias in the employability ratings, resulting in overall higher other ratings in comparison to the self-ratings by their subordinates (S > E).

4.6 Perception biases due to (dis)similarity of age between employee and supervisor

The interaction effect between the age of both parties was tested by adding it to the main effects of the model. The Wald statistic of 6.55 with 5 degrees of freedom was not significant

Table 4. Post-hoc tests of mean differences between profiles

Profile	Mod. S > E moderate disagreement	Mod. E > S moderate disagreement	High agreement high	High agreement low	Sev. S > E severe disagreement	Sev. E > S severe disagreement	Tamhane's test ^a
Agreement/disagreement Type	D+ S > E	D+ E > S	A High	A Low	D++ S > E	D++ E > S	– –
<i>Age</i>							
Employee	38.36	45.06	42.85	45.14	40.85	44.38	4,2,5,3 > 6.1
Supervisor	45.77	46.43	47.33	44.77	51.08	45.71	6 > 2,1,4,5
Age difference (S–E)	7.41	1.37	4.48	–0.37	10.23	1.33	6.1 > 2,5,4 6.4 > 3
Tenure of employee	80.27	103.49	102.44	130.47	95.94	133.97	4.5 > 1
<i>Gender</i>							
Employee	0.33	0.26	0.21	0.40	0.44	0.33	4.6 > 3
Supervisor	0.18	0.06	0.18	0.06	0.12	0.19	1 > 2.4
<i>Education</i>							
High school	0.00	0.00	0.00	0.01	0.00	0.01	— ^b
Vocational	0.26	0.31	0.17	0.30	0.18	0.32	— ^b
Applied science	0.31	0.23	0.29	0.21	0.26	0.14	1 > 5
Higher education	0.03	0.01	0.03	0.00	0.08	0.00	— ^b
<i>Marital status</i>							
Single	0.30	0.15	0.21	0.25	0.21	0.14	1 > 2.5
Married	0.67	0.82	0.78	0.66	0.71	0.82	2 > 1
Divorced	0.02	0.03	0.03	0.08	0.06	0.03	— ^b
<i>Management</i>							
Line	1.45	1.65	1.95	1.20	1.58	1.49	3 > 1 2.3 > 4
Staff	1.36	1.44	1.57	1.18	1.59	1.32	3 > 4
Project	1.13	1.19	1.36	1.10	1.32	1.14	— ^b

Note(s): S = other-ratings by supervisors; E = self-ratings by employees, ^a Tamhane's test of mean difference, ^b Non-significant

($p = 0.26$). In a quantitative discovery approach, significance should be considered necessary but not sufficient to interpret research findings (Bamberger, 2018; Bamberger and Ang, 2016). Hence, our data were further explored, and we assessed the directional age difference effect by including the interaction of the squared age of both rater sources (employee and supervisor) as a predictor in our model. Unfortunately, this model could not converge because of boundary estimates.

4.7 Perception biases due to directional age difference between employee and supervisor

We again refer to the descriptive and post-hoc tests of the profile membership as reported in Table 4. Age differences between the supervisor and their employee were significantly larger for the disagreement $S > E$ profiles (Profiles Mod. $S > E$ and Sev. $S > E$; age difference $\mu = 7.41$ and $\mu = 10.23$, respectively) than for the other profiles. This indicates that a relatively low age of the employee and a relatively high age of the supervisor (i.e. a large age difference) was associated with a larger probability of being a member of Profiles Mod. $S > E$ and Sev. $S > E$. In other words, in case of a large age discrepancy between a younger employee and an older supervisor, the higher the chance that their supervisor gives a more positive evaluation of their employability in comparison with the employee's self-ratings.

These age effects were only found in case of a relatively low age of the employee in combination with a relatively high age of the supervisor. The picture was not the same when we examined the situation wherein the employee is older and the supervisor is younger, in which we expected to find disagreement $E > S$. In this case, the age difference between the supervisor and the employee was most negative in profile AL ($\mu = -0.37$). This age difference was not significantly larger for members of the disagreement $E > S$ profiles (Profiles Mod. $E > S$ and Sev. $E > S$, $\mu = 1.37$ and $\mu = 1.33$, respectively). The latter means that directional age difference, in this case of older employees and younger supervisors, was not associated with disagreement $E > S$. With these outcomes, we could formulate our fifth proposition.

- P5. The effect of difference between employee age and supervisor age is directional, such that only if the employee is younger than the supervisor there is a higher chance of moderate to severe disagreement in employability ratings ($S > E$).

4.8 Unexpected age effect

Beyond the effects of age on the profiles, we found small but significant overall effects of age on the ratings of employability when testing the measurement model (see Table 3 in the Supplement of this article from which we can conclude that age of the employee has an effect on the measurement model, although profile membership is not affected substantially). For all groups in the sample, we detected that when employees become older, they tend to provide significantly higher ratings for occupational expertise and corporate sense. Similarly, as expected, supervisors tend to rate older employees as less employable; however, this effect is only significant for anticipation and optimization. Interestingly, this outcome indicates that the perception biases discussed in the previous section are particular to the members of the profile. And in addition, only for the dimensions of occupational expertise and corporate sense overall effects of age of the employee for employee ratings were found, and only for anticipation and optimization an overall effect of the age of the employee for the supervisor ratings was found.

Remarkably, there is another significant overall effect for the dimension personal flexibility, which is counteracting the previous results. For this dimension, both employees and their supervisors tend to agree, that is rating higher for younger and rating lower for older employees (see Table 3 in the Supplement). These results indicate the relevance of studying employability drawing on its five factors separately, since SOA of employability and age-related perception biases appeared to differ between the dimensions. Further research may find why ratings of the dimension personal flexibility showed this contrasting effect. Based on these outcomes, we have formulated our final proposition.

- P6. There is a negative effect of employee age on the personal flexibility dimension of employability (in both employee and supervisor ratings).

5. Discussion

5.1 *Merits and promise of the data-derived propositions*

All in all, our research indicates the existence of meaningful SOA profiles, representing both self-other agreement and self-other disagreement ([Proposition 1](#)). The person-centered methodology is a major contribution to the field by showing insight into the multi-source nature of employability ratings as well as the dimensionality of the construct. Our analysis shows a rigorous and comprehensive description of age-related perception biases and is the very first to empirically identify age-related effects and SOA of employability. Thereby, this study provides insights into a phenomenon, which may have a profound impact on an employee's work relationships, their career potential and underlying motives for further career development (by both the supervisor and the employee themselves) (cf. [Van der Heijden, 2005](#) on the supervisor's neglect of older workers and the resulting danger of passivity by the employee too; self-fulfilling prophecy) ([Van der Heijden and Nijhof, 2004](#)).

A key contribution of our study concerns the role of the employee themselves in interpreting these age effects. We found that, in general, younger employees tend to underestimate their own employability, while older employees tend to overestimate their employability in comparison to supervisor ratings of the employee's employability. Especially the dimensions of occupational expertise and corporate sense were found to be vulnerable to this bias ([Proposition 2](#)).

Moreover, our findings indicate that supervisors tend to overrate their younger employees and to underrate their older subordinates in comparison with employee self-ratings. Especially the dimensions of anticipation and optimization and personal flexibility are vulnerable to this bias ([Proposition 3](#)). It is particularly insightful to discover that age-related rater biases exist on both the supervisor and the employee side. We conclude that the impact of employee age on SOA profile membership is more complex than what could be expected based on existing theorizing about ageism in supervisor ratings and on disadvantaging older employees.

Besides, looking at the influence of supervisor age, our research indicates that younger supervisors tend to have a generic negative age-related bias in the employability ratings of their subordinates, resulting in lower other ratings in comparison to the self-ratings (by their subordinate), while older supervisors tend to have a generic positive bias in these ratings, being the opposite of the former ([Proposition 4](#)).

As regards the directional age difference effect (for which we built on the notion of status-incongruence; [Tsui et al., 1995](#)), all in all, our study indicates that this effect appeared to be the opposite from what we would expect on the basis of the presented theoretical alternatives (perceived violation of the career time table; [Perry et al., 1999](#) and employees believing to have more competencies than their supervisors have; [Kunze and Menges, 2017](#)). More specifically, this effect was confirmed for younger employees with older supervisors, but not for older employees with younger supervisors. That is, the age effect was directional but only showed to strengthen the disagreement $S > E$ when the age difference was larger for younger employees who reported to older supervisors ([Proposition 5](#)).

Finally, our empirical work yielded an unexpected age effect portraying a negative impact of employee age on personal flexibility (in both employee and supervisor ratings). Further research is needed to better understand possible reasons behind this contrasting effect.

5.2 *Similarity and uniqueness of propositions*

First, self-ratings of employability show to be related to age of the employee, such that the overestimation of the self becomes stronger with age, with older employees having a natural tendency to rate themselves more positively ([Brutus et al., 1999](#)) or, alternatively, because of

them being less receptive to feedback with age (Ryan *et al.*, 2000). Second, age-based stereotyping provides a theoretical ground for supervisor ratings to be positively biased to younger employees (over rating) and negatively to older employees (under-rating) (Lawrence, 1988; Rosen and Jerdee, 1988; Pecher *et al.*, 2023; Van der Heijden, 2018). Third, based on attribution theory (Kelley, 1973), older supervisors (who are more experienced and have greater knowledge about possible external causes of performance) are more likely to make external attributions in case employees display substandard performance, while possessing the necessary competencies. This results in an overestimation of employee ratings from older supervisors and an underestimation from younger supervisors (Liden *et al.*, 1996).

In other cases, the available theory did not suffice to explain the results from our quantitative exploration. Specifically, regarding the similarity-attraction paradigm (Byrne, 1971), and alternatively, theorizing on social comparison processes (Goodman, 1977; Jones and Regan, 1974), the quantitative discovery approach to our data did not confirm the expectation that the smaller the age difference between both parties, the more positive the rating by the supervisor. Only a directional age difference effect was found, albeit with an unexpected character, namely that if the employee is younger than the supervisor, the effect of overestimation of younger employees is strengthened.

This effect can only be partly explained based on status-incongruence (Tsui *et al.*, 1995), because the effect of age difference is confirmed for younger employees with older supervisors, but not for older employees with younger supervisors. It is not easy to further reflect on this, but it does imply that the larger the age gap between younger employees and their older supervisors, the higher the chance that a perceptual disagreement between both parties exists in which employees underestimate and supervisors overestimate the career potential of the employee.

Finally, the unexpected age effect dealing with the personal flexibility dimension that we found has been translated into Proposition 6. Two possible explanations may be provided for this outcome. First, the lower employee and supervisor ratings for personal flexibility may be due to age-related stereotyping, in particular the view that younger employees are more flexible to learn new things and to use new technologies, while the opposite is attributed to older workforce members (Mariano *et al.*, 2022; Van Dalen *et al.*, 2010). However, our finding that both supervisors and employees underrate the dimension of personal flexibility for older employees may also be partly explained by the fact that employees are stereotyping themselves or are sensitive to the expectations of others. In other words, a so-called Pygmalion effect might be likely (a type of self-fulfilling prophecy whereby individuals act in accordance with the beliefs of salient others, such as their supervisor in a work context; Kierein and Gold, 2000).

Measurement equivalence was only partially present but did not really matter much for the classification of subjects across profiles. This means that we do not identify age and employability to be related in the sense of a “real” effect, with Proposition 6 referring to a possible exception, but this is just a speculation and more empirical work is needed to gain more insight. In other words, we argue that the age effects that we have found in this quantitative discovery analysis can only be attributed to perception biases of both employees and supervisors.

5.3 Practical implications

Managers should be clearly informed by human resource (HR) professionals with expertise in this domain about the possible dangers of ageism and educated in possible benefits of age diversity for team performance, the role of contextual factors in this regard (e.g. leader moral identity, Wu and Konrad, 2023; and complexity of tasks, Beier *et al.*, 2022) and how the average age of employees in a team relates to innovation climate in the organization (Rudolph and Zacher, 2024).

Interventions targeting the detrimental effects of stereotyping of older workers (Malatest & Associates, 2003) and the legal ramifications of discriminating them (Cheung *et al.*, 2015) should include both employees and supervisors (e.g. Eppler-Hattab *et al.*, 2024). We also recommend continuous dialog between both parties, to support younger employees with increasing their self-efficacy (Lubbers *et al.*, 2005) and to encourage them to share advice with their older counterparts.

Interventions aimed at creating age-friendly work environments (Egdell *et al.*, 2020; Nilsson *et al.*, 2023), and age-inclusive human resource management (HRM) practices (e.g. age-neutral recruiting, training and development) should be developed, considering both sides of the coin. While older employees are rated by supervisors more negatively, younger employees are likely subjected to overly optimistic expectations, which may result in unrealistic expectations that younger employees may not be able to fulfill.

From a societal point of view, combatting ageism and valuing the contribution of older workers and retaining them is crucial because they are needed to transfer the expertise gained throughout their career to their younger counterparts, to provide a stable and motivated workforce and to reduce costs associated with the need to recruit and train new staff members.

5.4 Limitations and future research recommendations

We contend that our scholarly work provides ample directions for future research. Specifically, more scholarly work is needed to gain more insight into facilitating HR processes and (HR) context-specific patterns (cf. Akkermans *et al.*, 2024) of employability approaches and the role of age. Additional empirical work might also investigate whether the occupational and organizational culture, HR strength and knowledge sharing (Andreeva *et al.*, 2023; Meier-Barthold *et al.*, 2023) may be effective in reducing differences in performance ratings and their age-related underpinnings.

It is also very appealing to find out more about the question whether the impact of age-related stereotyping might differ according to gender, national culture, racio-ethnicity and so on (Dello Russo *et al.*, 2020). We also encourage colleagues to further assess the (intersectional) effects between these covariates and relational norm of age, which can be more salient in cultures that highly value wisdom of the elderly (e.g. Ferrari and Alhosseini, 2019).

Supplementary material

The supplementary material for this article can be found online.

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