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Older and younger job seekers’ attention towards metastereotypes in job ads

Short title: ATTENTION TO METASTEREOTYPES

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23 **Abstract**

24 Building on social identity theory and cognitive models on information processing, the present
25 paper considered whether and how stereotyped information in job ads impairs older/younger
26 job seekers' job attraction. Two eye-tracking experiments with older (Study 1) and younger job
27 seekers (Study 2) investigated effects of negatively metastereotyped personality requirements
28 (i.e., traits) on job attraction and whether attention to and memory for negative information
29 mediated these effects. Within-participants analyses showed for both older and younger job
30 seekers that job attraction was lower when ads included negative metastereotypes and that more
31 attention was allocated towards these negative metastereotypes. Older, but not younger job
32 seekers, also better recalled these negative metastereotypes compared to not negative
33 metastereotypes. The effect of metastereotypes on job attraction was not mediated by attention
34 or recall of information. Organizations should therefore avoid negative metastereotypes in job
35 ads that may capture older/younger job seekers' attention and lower job attraction.

36 *Keywords:* age-metastereotypes, job advertisements, eye-tracking

37 Despite an ongoing ‘war for talent’ (1,2), qualified older and younger job seekers still
38 experience more difficulties entering the labor market compared to their prime-aged
39 counterparts. Indeed, recent studies report hiring discrimination against older and younger
40 candidates (3–5). Whereas research preliminary focuses on this age discrimination in hiring
41 (i.e., *select-out*), job seekers’ *self-select out* of application procedures is considered to a smaller
42 extent. That is, job seekers might refrain from applying on the basis of stigmatizing information
43 in job advertisements (6,7). The present study investigates effects of stigmatizing information
44 in job ads on older and younger job seekers’ job attraction and hence focuses on job seekers’
45 own attitudes and experiences (8,9). Based on social identity theory, for instance, it is expected
46 that job ads can attract job seekers when the content of job ads indicates a fit between the
47 organization and job seekers’ own social identity (10), that is, the identity that refers to one’s
48 social group (e.g., being female, being older, being younger). If job ads contain age-related
49 cues, this might differently attract older or younger job seekers. However, information in job
50 ads might also capture job seekers’ attention in a *negative* way and lower their attraction to the
51 advertised job. Surprisingly, this has been investigated to a lesser extent and is considered here.
52 Imagine, for instance, a job ad that includes ‘flexible’ in the personality requirements section.
53 Older job seekers might attribute more attention to those traits in job ads that they think others
54 (like recruiters) have negative stereotypes about. When reading ‘we are looking for *flexible*
55 candidates’, older job seekers might believe that others think that older workers are *not flexible*.
56 Similarly, younger job seekers’ attention might be captured by traits such as ‘punctual’, when
57 they believe that others think younger workers are not punctual. These negative stereotypes that
58 group members think out-group members hold about them, or ‘metastereotypes’ (11), might
59 negatively affect job seekers’ job attraction (6,7) by signaling that the job/organization will not
60 fit their social identity. Therefore, as a first goal, we investigated whether negatively

61 metastereotyped personality requirements (i.e., traits) in job ads are less attractive for older and
62 younger job seekers than not negatively metastereotyped personality requirements.

63 While Wille and Derous (6,7) showed that negative metastereotypes in job ads lower
64 ethnic minority and female job seekers' attraction, we considered older and younger job seekers
65 and additionally investigated the underlying attentional processes that have – to the best of our
66 knowledge – not been considered before. Typically, negative and threatening information
67 captures a reader's early attention more (12) and is better recalled (13) than non-threatening
68 information. Hence and based on social identity theory (10), we investigated whether negatively
69 metastereotyped personality requirements in job ads might capture job seekers' attention more
70 and whether they are recalled better than not negatively metastereotyped personality
71 requirements in job ads. As a second goal, and answering a call for more research on underlying
72 mechanisms (6), we not only investigated whether, but also *how* negative metastereotypes in
73 job ads affect older/younger job seekers' job attraction by investigating whether this effect is
74 mediated by job seekers' attention and recall. In two eye-tracking experiments, we studied
75 visual attention patterns towards (not) negatively metastereotyped personality requirements in
76 job ads for older (i.e., aged 50-65; Study 1) and younger job seekers (i.e., aged 18-30 ; Study
77 2). Below we first discuss effects of metastereotyped information on job seekers' job attraction,
78 followed by a discussion on the underlying cognitive mechanisms.

79 **Metastereotypes in Job Ads**

80 Stereotypes are defined as beliefs about the characteristics of members of a certain
81 group (14). Age stereotypes, for example, include the idea that younger people are typically
82 more irresponsible and lazy, while older people are typically less flexible and less agreeable
83 (15–17). Interestingly, older and younger people might be *aware* of these negative age
84 stereotypes and might believe that other people hold these about their own age group. This is
85 referred to as metastereotypes, or “beliefs regarding the stereotype that out-group members hold

86 about his or her own group” (11, p. 917). For instance, research showed that older workers
87 believed that younger workers find them stubborn, while younger workers believed that older
88 workers find them irresponsible (17). Note that these cognitions can shape individuals’ attitudes
89 towards and interactions with out-group members, regardless of whether they are true or not.

90 During recruitment procedures, job seekers can activate negative age-related
91 metastereotypes about information in job ads, for instance, the personality requirements, which
92 can make job seekers’ social category (in this case: age group) more salient. Hence, one may
93 become more aware of the social age group one belongs to (e.g., older job seekers/younger job
94 seekers) and one may perceive oneself more in terms of their social identity (i.e., their social
95 group and related stereotypes), instead of their personal identity (i.e., their own skills,
96 personality, etc...). This social identity (10) is important for job seekers during the recruitment
97 process. When reading job ads, job seekers use the limited information in job ads as cues to
98 evaluate whether the job will fit their social identity, which may hence affect job attraction (18).
99 Indeed, according to the symbolic attraction theory (18), information that triggers job seekers’
100 social identity activates a process of making ‘symbolic inferences’ in which job seekers
101 determine whether the job will either fit their social identity or threaten it. Subsequently, job
102 seekers’ job attraction will be higher or lower, respectively.

103 Thus, when job ads activate age-related metastereotypes that are *negative* in nature, this
104 might pose a threat to older and younger job seekers’ social age identity (19) and impact
105 whether they intent to apply for the job (20). Research indeed showed that negative
106 metastereotypes in job ads lowered job attraction compared to job ads without negative
107 metastereotypes for female job seekers (7) and ethnic minority job seekers (6). Similarly, for
108 older and younger job seekers who were shown to each hold specific negative age
109 metastereotypes related to their own age group (17), we expected based on the social identity
110 theory (10) that:

136 that underlie these effects (6). Studies did touch on the idea the amount of attention that certain
137 job ad components receive affects attitudes towards the job (ad). For instance, Barber and
138 Roehling (37) employed a thinking-aloud interview method to investigate how applicants
139 process job ad information while reading job ads and how this effected their decisions to apply
140 for the job ad. Such self-report may of course induce demand characteristics, decrease external
141 validity, and participants may also not always be aware of their unconscious mental processes.
142 More recently, Pfiffelman et al. (38) used *eye-tracking* methodology to investigate job seekers'
143 attentional patterns towards information in job ads that is perceived as negative, as well as the
144 consequential effect on attitudes towards the job. More specifically, they found that
145 personalized LinkedIn job ads (i.e., including job seeker's name and LinkedIn picture) captured
146 job seekers' attention, which negatively affected attitudes towards the job ad through perceived
147 intrusiveness of job ad information. In line with these studies, we expect that visual attention to
148 negative job ad information may be associated with more negative attitudes towards the job.
149 Hence, we expected more visual attention towards negative/threatening information in the job
150 ad to lower job attraction for job seekers. Taken together, we expected for older and younger
151 job seekers:

152 **Hypothesis 2.** Job seekers will allocate more early attention towards negatively
153 metastereotyped traits in job ads compared to not negatively metastereotyped traits,
154 which will hence lower job attraction for job ads with negatively metastereotyped traits.

155 **Information Recall**

156 Stereotyped cues that pose a threat to one's social identity might not only capture
157 individuals' attention, they might also impair one's cognitive functioning (39), like working
158 memory. For instance, information recall levels of older-aged people (40) as well as younger-
159 aged people (41) can be impaired when confronted with cues that activate negative age
160 stereotypes (i.e., task instructions or explicit statements that imply that older/younger people

161 tend to perform worse). Building on self-regulation theory (42), dealing with negatively
162 stereotyped information requires more self-regulating processes and hence may deplete
163 cognitive resources that are needed for working memory tasks, such as information recall (i.e.,
164 of new, *non-threatening* information; (43) For instance, Johns et al. (44) found that inducing
165 gender-threatening cues to the experimental lab setting decreased women's performance on a
166 reading-span task in which female participants were presented with (non-threatening) words
167 that they were asked to recall. In a study of Buijsrogge et al. (33) in a job interview context,
168 interviewers' recall of general, non-threatening interview content (e.g., candidate information
169 like work experiences) was impaired when interviewers were presented with candidates with
170 visual stigma (like a port-wine stain). In the present study, we investigated recall of not only
171 the neutral/non-threatening job ad information, but also the *threatening* information in job ads
172 (i.e., the negatively metastereotyped traits) itself. That way, we aimed to directly compare job
173 seekers' memory for stereotyped versus non-stereotyped information in job ads. Similarly,
174 Kanar et al. (13) showed that negative information about the job/organization (i.e., transferred
175 through word of mouth or a business press articles) was better recalled by job seekers than
176 positive information during the pre-hiring stage.

177 Kanar et al. (13) did not consider the effects of the discrepancy in information recall
178 between negative and positive job information on attitudes towards the organization, such as
179 attraction. However, according to the memory-for-facts model (45), information that
180 individuals can recall (e.g., about advertisements) does affect their attitudes. Yet, over the years,
181 scholars found that the relationship between information recall and attitudes might depend on
182 the exact reading or processing task and should therefore be investigated in a multitude of
183 contexts/situations to further establish the boundary conditions of this relationship (46–50).
184 Addressing this call, the present study studied the relationship between recall and job attraction
185 in the context of job advertisements. While studies have indeed linked working memory

186 processing of job ad information to job seekers' attitudes to the organization (8), this has been
187 done in a more indirect way. For instance, job ad information with a higher level of specificity
188 led to higher attraction to the organization, because more specific information is assumed to
189 generate a more elaborate cognitive processing (51). However, this assumption regarding
190 underlying working memory processes was not empirically tested. The present study aims to
191 investigate information processing in job ads in a more direct way, through measuring
192 older/younger job seekers' recall of negatively metastereotyped personality requirements in job
193 ads. We hence expected for older and younger job seekers:

194 **Hypothesis 3.** Job seekers will better recall negatively metastereotyped traits in job ads
195 compared to not negatively metastereotyped traits, which will hence lower job attraction
196 for job ads with negatively metastereotyped traits.

197 **From Early Attention to Recall to Job Attraction**

198 While we expect that negative metastereotypes will receive more early attention and
199 will be better recalled by job seekers, it is also expected that more attention towards negative
200 metastereotypes will be related to a better recall of those negative metastereotypes. That is,
201 building on Baddeley and Hitch (52)'s working memory model, ample evidence has shown
202 that more visual attention to a certain location leads to a better transfer of information on that
203 location into the working memory (53–55). Negatively metastereotyped traits in job ads that
204 are expected to capture older/younger job seekers' early visual attention more, might therefore
205 also be better recalled by older/younger job seekers than not negatively metastereotyped traits
206 in job ads. Taken together, since both attention and recall are expected to be mediators in the
207 relationship between type of traits (negatively metastereotyped or not) and job attraction and
208 attention is expected to – in its turn – affect recall, we expected the following serial mediation
209 model to explain why negatively metastereotyped traits lower job attraction for older and
210 younger job seekers:

211 **Hypothesis 4.** Job seekers will allocate more early attention towards negatively
212 metastereotyped traits in job ads compared to not negatively metastereotyped traits,
213 which will hence increase recall of negatively metastereotyped traits in job ads and in
214 turn, lower job attraction for job ads with negatively metastereotyped traits.

215 To test the hypotheses we conducted two eye-tracking experiments. While different
216 methods and tasks can be used to measure one's attention to stimuli (e.g., attentional search
217 task; Posner cueing tasks and modifications; 29), the current study measured participants' eye-
218 movements by means of eye-tracking technology, which is often used in a marketing context
219 to study people's visual attention towards information in advertisements, as well as in more
220 fundamental research on reading tasks (56,57). In eye-movement research, a distinction is made
221 between fixations (i.e., when the eyes remain stationary) and saccades (i.e., the fast movement
222 from one fixation point to the next). During the fixations, information from the visual field is
223 extracted, so a tight link between fixations and the locus of attention is presumed (57,58). An
224 important advantage of eye-tracking is that it allows for a detailed spatial and temporal
225 measurement of eye-movements, while people perform tasks that are highly similar to their
226 daily life counterparts (e.g., reading job ads), so that the ecological validity of the method is
227 high. Since research showed that both older and younger people might experience threat when
228 being confronted with negative cues and hence experience consequences for their cognitive
229 processing (40,41), we tested identical paths for both older (Study 1) and younger (Study 2) job
230 seekers. However, as the content of the metastereotypes differs for older and younger job
231 seekers (17), we conducted two separate experiments in which we used negative
232 metastereotypes that are specific for either older or younger job workers, as further explained
233 in Studies 1 and 2. Fig 1 presents diagrams with the hypotheses of Study 1 and Study 2.

234

235 **Fig 1. Diagram of Hypotheses 1-4.** *Note.* H1 (striped line) investigates the effect of Trait on
236 Job Attraction (total effect). H2 (thin lines) investigates the effect of Trait on Job Attraction
237 via Attention (first mediation). H3 (dotted lines) investigates the effect of Trait on Job
238 Attraction via Recall (second mediation). H4 (bold lines) investigates the effect of Trait on
239 Job Attraction via Attention and Recall (serial mediation).

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241

Study 1

242 Study 1 investigated whether *older* job seekers allocate more early attention to, better
243 recall and are less attracted to negatively metastereotyped traits in job ads, compared to not
244 negatively metastereotyped requirements as well as mediating effects of attention and recall.
245 Older participants were aged 50-65 years, based on McCarthy et al. (59) who found that
246 managers typically consider someone an ‘older’ worker when they are aged 50 or older and
247 research that established that people older than 50 experience specific metastereotypes and
248 discrimination from that age on (17,60).

249 Method of Study 1

250 *Participants*

251 A total of 54 older job seekers (ranging from 50 until 65 years old, $M_{age} = 54.74$ years,
252 $SD_{age} = 3.43$; 66.7% women; 100% White/Caucasian ethnicity) were recruited (between
253 September 1st 2020 and August 31st 2021) via professional networks (i.e., via official social
254 media accounts of the research consortium) and snowballing method. Participants received
255 financial compensation (i.e., €10) for their participation in the study.

256 *Design and Measures*

257 An eye-tracking experiment was conducted that featured a two-condition within-
258 participants design, in which personality requirements in job ads (*trait*: negative
259 metastereotypes vs. not negative metastereotypes; see paragraph ‘Stimuli’ for examples) were

260 manipulated and job attraction, attention and recall were the outcome variables. *Job attraction*
261 was measured after each job ad with three items based on Van Hooft et al. (61), e.g., “I am
262 attracted to the advertised job”, on 5-point Likert scale with 1 = *strongly disagree* to 5 = *strongly*
263 *agree*. Cronbach’s alpha for the items ranged from .94 to .97 in the condition with negative
264 metastereotype ($M_{\text{cronbach's alpha}} = .96$) and .88 to .97 in the condition without negative
265 metastereotype ($M_{\text{cronbach's alpha}} = .94$). In order to measure *early visual attention* to traits in job
266 ads, compared to early visual attention to other job ad information, we divided study materials
267 (i.e., job ads) into seven interest areas and investigated visual attention towards each of these
268 areas by means of eye-tracking (i.e., eye fixations, see below). More specifically, to measure
269 participants’ early attention to the profiles, we measured their *first run dwell time* (22), i.e., the
270 sum of the duration (in milliseconds) of all fixations within the interest area of the profile during
271 participants’ first pass through the job ad, and compared that to their first run dwell time to the
272 other interest areas. In order to account for job seekers’ visual attention towards the profiles, as
273 well as to the other interest areas of the job ad, we calculated the difference between
274 participants’ first run dwell time to the interest area of the profiles and the average of their first
275 run dwell time to all other interest areas and used this difference score as our early visual
276 attention measure.

277 To measure *recall* of the traits, we built on Kanar et al. (13). After reading and rating
278 the job ads, participants were asked to write down the traits that they were able to recall from
279 the profiles in the ads in a two-minute window. Next, manipulation checks were administered
280 to ascertain that our manipulations of the *content* of the traits and their *metastereotyped*
281 *connotation* were perceived as intended. Example items are “Does the person profile show that
282 they were looking for an *agreeable* or *conscientious* person? [choose one option]”, and “To
283 what extent do you believe that younger workers think that older workers are [obedient / flexible
284 / friendly / patient / compliant]?”, with 1 = *strongly disagree* to 5 = *strongly agree*. Finally,

285 demographic question regarding participants' age (in years) and gender (0 = *male*; 1 = *female*,
286 2 = *other*) were completed.

287 *Stimuli*

288 Study materials were fictional job advertisements. Building on Hilberink-Schulpen et
289 al. (62), we distinguished the following sections in the job ads (see Fig 2): picture, logo, title,
290 company information, profile with personality requirements (i.e., traits), job offer and contact
291 information. Manipulations were situated in the profile section; profiles contained HEXACO-
292 traits (63,64) that older job seekers held either negative or no negative metastereotypes about.
293 These negatively metastereotyped and not negatively metastereotyped traits for older people
294 were developed and pilot tested in a previous study of this research project (20). A more detailed
295 description of the procedure and results of this pilot study can be retrieved from the first author.
296 Results of the pilot study showed that older job seekers hold a negative metastereotypes about
297 the HEXACO-trait Agreeableness, and no negative metastereotype about the HEXACO-trait
298 Conscientiousness. Subsequently, the pilot study revealed the most negatively metastereotyped
299 adjectives "obedient", "flexible", "friendly", "patient", and "compliant", which represent the
300 condition with a negative metastereotyped connotation (Agreeableness) and the least negatively
301 metastereotyped adjectives "punctual", "perfectionistic", "orderly", "disciplined", and
302 "dutiful", which represent the condition without a negative metastereotype
303 (Conscientiousness). The (not) negatively metastereotyped personality requirement was
304 supplemented with other requirements that were held constant across job ads (i.e., required
305 language proficiency and relevant educational degree for the advertised job). No organization
306 name or type of organization/industry was mentioned ("*Company A*", "*Company B*"), as
307 research has suggested that organizational familiarity might affect job seekers' application
308 intention (65). Similarly, no job characteristics were mentioned as those characteristics might
309 differentially attract older job seekers (66). A short company description of the company was

310 held constant across job ads, as well as the offer and contact information. The logo was adjusted
311 based on the letter of the company “A” for company A, “B” for company B etc. (see Fig 2).

312

313 **Fig 2. Example of Job Advertisement with Seven Interest Areas**

314

315 *Procedure and Experimental Apparatus*

316 Study 1 was approved (through written consent) by the Ethical Commission of Ghent
317 University in accordance with the Helsinki declaration [Special Ethical Protocol no 2020/77].
318 At the start of the experiment, participants signed an informed consent (i.e., written consent)
319 and were positioned in front of the eye-tracker. They placed their head in a chin- and headrest
320 to minimize head movements. Once seated, they performed a 9-point calibration procedure.
321 After a successful calibration, participants were instructed to carefully read and evaluate the
322 presented job advertisements. They were also instructed to imagine that the parts of the job ads
323 that were not displayed would suit their interest/qualifications. A total of ten job ads (five for
324 each experimental condition) were presented to participants in a randomized order. After each
325 job ad, participants answered the three items regarding job attraction on the computer screen.
326 On completion of reading all job ads, participants moved away from the eye-tracker and
327 completed the recall question and additional manipulation checks/demographical questions
328 through an online survey on a different computer. Participants’ eye-movements and fixations
329 were measured by means of the Eyelink 1000 (SR Research, Canada; see Table 1) with a spatial
330 resolution of less than 1/4 degrees of visual angle at a sampling rate of 1000Hz. Viewing was
331 binocular, but only the right eye was tracked; Job advertisements were presented on a
332 1920x1080 Beng XL2411Z LED-monitor at a viewing distance of 95cm with a refresh rate of
333 144 Hz. Additional to the calibration at the start of the experiment, eye-tracking accuracy was
334 also measured during the experiment by mean of drift checks. When eye-tracking accuracy was

335 low (i.e., higher average error than 0.5°), the experiment was terminated and data was not
 336 included in the analyses.

337 **Table 1. Description and Performance Estimates of EyeLink 1000 Tower and Desktop**
 338 **Mount**

339

340

341 **Results of Study 1**

	EyeLink 1000 Tower Mount performance estimates	EyeLink 1000 Desktop Mount performance estimates
Measure		
Max. Sampling Rate	2000 Hz (Monocular)	2000 Hz (Monocular)
Tracking principle	Pupil with Corneal Reflection	Pupil with Corneal Reflection
Accuracy	Down to 0.15°; 0.25° – 0.5° typical	Down to 0.15°; 0.25° – 0.5° typical
Resolution	0.01° RMS, micro-saccade resolution of 0.05°	0.01° RMS, micro-saccade resolution of 0.05°
Sample Delay	$M < 1.34$ msec, $SD < .2$ msec	$M < 1.34$ msec, $SD < .2$ msec
Real-Time data	1.4 msec (SD < 0.2 msec) @ 2000 Hz	1.4 msec (SD < 0.2 msec) @ 2000 Hz

342 ***Preliminary Analyses***

343 Table 2 shows descriptives, reliabilities, and correlations among study variables. First,
 344 manipulations were successful. Generalized Estimating Equation analysis (SPSS, v26) showed
 345 that older participants perceived those traits referring to Conscientiousness significantly more
 346 as Conscientiousness (75.9%) than Agreeableness (24.1%), compared to the traits referring to
 347 Agreeableness, which were perceived significantly more as Agreeableness (96%) than
 348 Conscientiousness (4%), $b = 4.34$, $SE = 0.37$, Wald $\chi^2(1) = 133.00$, $p < .001$. Further, results
 349 from a repeated measures anova on all adjectives used in the job ads showed that participants
 350 believed that younger people find older workers more conscientious ($M = 3.80$, $SD = 0.59$)
 351 than agreeable ($M = 2.92$, $SD = 0.62$), $F(1, 53) = 91.94$, $p < .001$, $\eta_p^2 = .63$. Finally, since word

Table 2. Descriptives, Internal Consistency and Correlations of Study Variables

	Study 1		Study 2		1	2	3	4	5	6	7	8
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>								
1. Job Attraction ^a negative MS ^b	3.00	0.61	2.88	0.48	(.96)/(.88)	.41**	-.23	-.16	.02	-.19	.04	-.12
2. Job Attraction not negative MS ^b	3.36	0.64	3.22	0.51	.68**	(.94)/(.91)	.20	.15	.23	.20	.35*	-.14
3. Early attention ^c negative MS ^b	1316.06	1268.72	1190.59	919.35	-.09	.10	(--)	.54**	.27	.07	-.00	.10
4. Early attention ^c not negative MS ^b	935.36	1082.28	671.88	540.56	-.09	.09	.70**	(--)	.28	.13	.04	.06
5. Recall ^d negative MS ^b	2.15	0.94	1.55	1.00	-.16	-.03	.01	.04	(--)	.28	.15	.07
6. Recall ^d not negative MS ^b	1.59	1.08	1.81	1.05	-.23	-.26	-.09	-.10	.13	(--)	.18	-.09
7. Gender ^{e, f}	0.67	0.47	0.67	0.47	.33*	.17	.08	.25	.26	.09	(--)	-.41**
8. Age ^g	54.74	3.43	23.67	2.49	-.09	.00	-.00	.02	-.00	-.25	-.13	(--)

353 *Note.* Results for Study 1 are displayed under the diagonal ($N = 54$); Results for Study 2 are displayed above the diagonal ($N = 49$). Results on the diagonal
354 represent Cronbach's alfa for older and younger job seekers, respectively ($\alpha_{old}/\alpha_{young}$). ^a Job Attraction = measured on 5-point Likert scale with 1 = *strongly*
355 *disagree* to 5 = *strongly agree*. ^b MS = Metastereotype. ^c Attention = the sum of the duration (in milliseconds) of all fixations within the interest area of the
356 profile during participants' first pass through the job ad, compared to sum of the duration (in milliseconds) of all fixations within the other interest areas. ^d
357 Recall: amount of remembered traits in two-minute window. ^e Spearman correlation. ^f Gender: 0 = male; 1 = female. ^g Age: all job seekers were aged 50-65
358 years in Study 1 and all job seekers were aged 18-30 years for Study 2. * $p < .05$; ** $p < .01$

359 frequency might affect how words are processed, i.e., frequency effect; Cop et al. (67), and
360 fixation times, we first investigated word frequency of our stimuli based on Keuleers et al.
361 (68)'s database. No significant difference in word frequency was observed between the
362 condition of negative metastereotypes ($M = 3.42$, $SD = 0.59$) and not negative metastereotypes
363 ($M = 3.00$, $SD = 0.59$), $t(8) = 1.08$, $p = .31$, Cohen's $d = .62$. This ensures that viewing time
364 differences reflect attention, and not word-level frequency effects.

365 ***Hypothesis Testing***

366 A within-participant mediation analysis through path analysis (69) using the MEMORE
367 macro (V2.1; 70) was performed to test Hypotheses 1 to 4. This allowed us to test the serial
368 mediation model with attention and recall as mediators and report difference scores between
369 the condition with and without negative metastereotype. Results are displayed in Fig 3.

370

371 **Fig 3. Serial Mediation Models for Older Job Seekers (Study 1) and Younger Job Seekers**

372 **(Study 2).** *Note.* $N_{\text{Study 1}} = 54$; $N_{\text{Study 2}} = 49$; Unstandardized coefficients are reported. The coefficients
373 in parentheses represent the total effect of trait on job attraction, i.e., the direct and indirect effects. ^aTrait
374 0 = not negatively metastereotyped trait, 1 = negatively metastereotyped trait. ^bAttention: the sum of the
375 duration (in milliseconds) of all fixations within the interest area of the profile during participants' first
376 pass through the job ad, compared to sum of the duration (in milliseconds) of all fixations within the
377 other interest areas. ^cRecall: amount of remembered traits in two-minute window. ^dJob Attraction =
378 measured on 5-point Likert scale with 1 = *strongly disagree* to 5 = *strongly agree*. * $p < .05$. ** $p < .01$.

379

380 First, results showed that older job seekers were significantly less attracted to jobs when the job
381 ad included negatively metastereotyped traits compared to when they included not negatively
382 metastereotyped traits, $b = -0.36$, $SE = 0.07$, $t(53) = -5.30$, $p < .001$, supporting Hypothesis 1.

383

384

385 Next, Hypothesis 2 expected that early attention mediates the relationship between type
386 of trait and job attraction for older job seekers. Although older job seekers indeed allocated
387 40.7% more early attention to negatively metastereotyped traits in job ads compared to not
388 negatively metastereotyped traits, $b = 380.70$, $SE = 129.47$, $t(53) = 2.94$, $p < .001$, early attention
389 towards negatively metastereotyped traits in job ads did not significantly relate to lower job
390 attraction, $b = 0.00$, $SE = 0.00$, $t(49) = -0.20$, $p = .84$. Moreover, the indirect effect of type of
391 trait on job attraction through early attention was not significant, $b = -0.01$, bootstrapped $SE =$
392 0.03 , bootstrapped 95% CI = [-0.06, 0.06]. Hence, Hypothesis 2 could not be supported for
393 older job seekers.

394 Further, Hypothesis 3 predicted that recall would mediate the relationship between type
395 of trait and job attraction. Results showed that, in line with expectations, older job seekers
396 indeed better recalled negatively metastereotyped traits in job ads compared to not negatively
397 metastereotyped traits, $b = 0.58$, $SE = 0.20$, $t(51) = 2.85$, $p = .01$. However, better recall of
398 negatively metastereotyped traits in job ads was not significantly related with lower job
399 attraction, $b = -0.06$, $SE = 0.05$, $t(49) = -1.11$, $p = .27$ and the indirect effect of type of trait on
400 job attraction through recall was also not significant, $b = -0.03$, bootstrapped $SE = 0.03$,
401 bootstrapped 95% CI = [-0.11, 0.01]. Hypothesis 3 could therefore not be supported for older
402 job seekers

403 Finally, the serial mediation as predicted by Hypothesis 4 could not be supported for
404 older job seekers. That is, more early attention to negatively metastereotyped traits in job ads
405 was not significantly related with better recall, $b = 0.00$, $SE = 0.00$, $t(51) = -0.27$, $p = .79$ and
406 the indirect effect of type of trait on job attraction through attention *and* recall was also not
407 significant, $b = 0.00$, bootstrapped $SE = 0.00$, bootstrapped 95% CI = [-0.01, 0.01].

408 Discussion of Study 1

409 In line with predictions from social identity theory (10), older job seekers were less
410 attracted to jobs when job ads contained negatively metastereotyped traits, signaling that the
411 job does not fit with their own age-identity. Older job seekers indeed allocated more early visual
412 attention towards negative metastereotypes in job ads (30) and better recalled the negative
413 metastereotypes compared to the not negative metastereotypes (13). Attention to and recall of
414 negatively metastereotyped traits in job ads were, however, not related to older job seekers' job
415 attraction. We measured job seekers' early attention to investigate a *vigilance* for negative
416 metastereotypes in job ads, yet future research might test whether an early attention bias
417 towards negative metastereotypes in job ads is followed by a different attentional pattern in
418 later stages (e.g., avoidance) and is hence not positively related to working memory and job
419 attraction. Contrary to previous expectations rooted in Baddeley and Hitch (52)'s working
420 memory model (e.g., 53–55), more attention to the negative metastereotypes did not increase
421 recall of negative metastereotypes and no mediating effects of either attention or recall were
422 found. Additional, emotional-motivational processes (see general discussion) might explain
423 why no effects were found (e.g., 71) and need to be considered in future research. We proceeded
424 testing Hypotheses 1 until 4 for younger job seekers, using (not) negatively metastereotyped
425 traits for younger people.

426 Study 2

427 Study 2 investigated the same hypotheses as Study 1 and tested whether *younger* job
428 seekers are less attracted to, allocate more early attention to and can better recall negatively
429 metastereotyped traits in job, compared to not negatively metastereotyped traits, as well as the
430 mediating mechanisms of attention and recall. Participants were all aged 18-30 years, based on
431 Arnett (72)'s life stage transition to young adulthood that is situated around the age of 30y and
432 Finkelstein et al. (17) who found specific metastereotypes for people younger than 30 years.

433 The method that was used in Study 2 was identical to the method employed in Study 1, unless
434 explicitly stated otherwise.

435 **Method of Study 2**

436 *Participants*

437 A total of 49 younger job seekers (ranging from 18 until 30 years old, $M_{\text{age}} = 23.67$
438 years, $SD_{\text{age}} = 2.50$; 67.3% women, 100% White/Caucasian ethnicity) were recruited (between
439 September 1st 2020 and August 31st 2021) through the professional network of the researchers
440 (e.g., social media accounts of the research consortium) and snowballing method. Participants
441 received financial compensation (€10) for their participation in the study.

442 *Design and Measures*

443 We conducted an eye-tracking experiment among younger job seekers that, identically
444 to Study 1, featured a two-condition within-participants design, in which traits in job ads (*trait*:
445 negative metastereotypes vs. not negative metastereotypes) were manipulated and job
446 attraction, attention and recall were outcome variables. Identical measures were used for job
447 attraction [i.e., three items based on Van Hooft et al. (61), Cronbach's alpha for the items ranged
448 from .84 to .91 in the condition with negative metastereotype ($M_{\text{Cronbach's alpha}} = .88$) and .89 until
449 .95 in the condition without negative metastereotype ($M_{\text{Cronbach's alpha}} = .91$)], visual attention
450 (i.e., difference in *first run dwell time* to the interest area and to the other interest areas; 22),
451 recall (i.e., recalled requirements in two-minute window; 13), and demographical questions.
452 Manipulation checks to test the *content* of the traits and their *metastereotyped connotation* were
453 completed. Example items are “Does the person profile show that they were looking for a
454 *conscientious* or *open* person? [choose one option]”, and “To what extent do you believe that
455 older workers think that younger workers are [punctual / perfectionistic / orderly / disciplined /
456 dutiful]?”, with 1 = *strongly disagree* to 5 = *strongly agree*.

457 *Stimuli*

458 Similar to Study 1, materials were fictional job advertisements but the manipulation of
459 traits in the profile section was now tailored to younger job seekers: profiles contained traits
460 that younger job seekers held either negative or no negative metastereotypes about. As in Study
461 1, we developed and pilot tested the traits in a previous study (20). A more detailed description
462 of the procedure and results of this pilot study can be retrieved from the first author. Results
463 showed that younger people held a negative metastereotype about the HEXACO-trait
464 Conscientiousness and no negative metastereotype about the HEXACO-trait Openness to
465 Experience. Based on the pilot study, we selected “punctual”, “disciplined”, “deliberative”,
466 “consistent”, and “diligent”, for the condition with negative metastereotype
467 (Conscientiousness) and “inventive”, “creative”, “open-minded”, “sharp-witted” and
468 “versatile” for the condition without negative metastereotype (Openness to Experience). Other
469 requirements were held constant across job ads, just as a short company description, the offer
470 and contact information. No organization name, type of organization/industry or job
471 characteristics were mentioned, and as for the logo, we used was an “A” for company A, etc.
472 (see Fig 2).

473 *Procedure and Experimental Apparatus*

474 Study 2 was approved (through written consent) by the Ethical Commission of Ghent
475 University in accordance with the Helsinki declaration [Special Ethical Protocol no 2020/77].
476 At the start of the experiment, participants signed an informed consent (i.e., written consent).
477 Both the procedure and the experimental apparatus of Study 2 were identical to that of Study 1
478 (see above).

479 *Results of Study 2***480 *Preliminary Analyses***

481 Table 2 shows descriptives, reliabilities, and correlations among study variables.

482 Our manipulations were successful: Generalized Estimating Equation analysis showed that
483 younger participants perceived those traits referring to Openness significantly more as
484 Openness (83.1%) than Conscientiousness (16.9%), compared to the traits referring to
485 Conscientiousness, which were perceived significantly more as Conscientiousness (94.5%)
486 than Openness (5.5%), $b = 4.44$, $SE = 0.33$, Wald $\chi^2(1) = 183.76$, $p < .001$. Further, repeated
487 measures anova results showed that participants believed that older people find younger
488 workers more open ($M = 3.98$, $SD = 0.58$) than conscientious ($M = 2.53$, $SD = 0.67$), $F(1, 53)$
489 $= 91.94$, $p < .001$, $\eta_p^2 = .85$. Again, no significant difference was observed in word frequency
490 between the condition of negative metastereotypes ($M = 2.98$, $SD = 0.40$) and not negative
491 metastereotypes ($M = 2.71$, $SD = 0.89$), $t(8) = .61$, $p = .56$, Cohen's $d = .69$, which excludes
492 low word-level differences between crucial conditions.

493 *Hypothesis Testing*

494 Similar to Study 1, we performed a within-participant serial mediation analysis through
495 path analysis (69) with the MEMORE macro (V2.1; 70) to investigate Hypotheses 1 to 4.
496 Results are displayed in Fig 3. First, younger job seekers were significantly less attracted to
497 jobs when the job ad included negatively metastereotyped traits compared to not negatively
498 metastereotyped traits, $b = -0.34$, $SE = 0.08$, $t(48) = -4.37$, $p < .001$, supporting Hypothesis 1.

499 Further, Hypothesis 2 tested the mediating effect of attention between type of trait and
500 job attraction. While younger job seekers indeed allocated 77.2% more early attention to
501 negatively metastereotyped traits in job ads compared to not negatively metastereotyped traits,
502 $b = 518.71$, $SE = 122.82$, $t(48) = 4.22$, $p < .001$, early attention towards negatively
503 metastereotyped traits in job ads did not significantly relate to job attraction, $b = -0.00$, $SE =$
504 0.00 , $t(44) = -1.50$, $p = .14$. Moreover, given that the indirect effect of type of trait on job
505 attraction through early attention was not significant, $b = -0.09$, bootstrapped $SE = 0.07$,

506 bootstrapped 95% CI = [-0.23, 0.03], Hypothesis 2 could not be supported for younger job
507 seekers.

508 Further, Hypothesis 3 investigated the mediating effect of recall between type of trait
509 and job attraction. Contrary to our expectations, younger job seekers better recalled the *not*
510 negatively metastereotyped traits in job ads compared to negatively metastereotyped traits, $b =$
511 -0.58 , $SE = 0.21$, $t(46) = -2.78$, $p = .01$. Furthermore, better recall of negatively metastereotyped
512 traits in job ads was not significantly related with job attraction, $b = 0.10$, $SE = 0.06$, $t(44) =$
513 1.48 , $p = .15$. Next, as the indirect effect of type of trait on job attraction through recall was not
514 significant, $b = -0.06$, bootstrapped $SE = 0.05$, bootstrapped 95% CI = [-0.16, 0.03], Hypothesis
515 3 could not be supported for younger job seekers.

516 Finally, Hypothesis 4 expected a serial mediation model with attention and recall as
517 serial mediators between type of trait and job attraction. First, more early attention to negatively
518 metastereotyped traits in job ads was indeed related with better recall, $b = 0.01$, $SE = 0.00$, $t(46)$
519 $= 2.58$, $p = .01$. However, the indirect effect of type of trait on job attraction through attention
520 *and* recall was not significant for younger job seekers, $b = 0.03$, bootstrapped $SE = 0.02$,
521 bootstrapped 95% CI = [-0.01, 0.08], providing no support for Hypothesis 4.

522 **Discussion of Study 2**

523 Similar to Study 1, Study 2 results showed that younger job seekers' job attraction was
524 lower for job ads with negatively metastereotyped traits, compared to job ads with not
525 negatively metastereotyped personality requirements. Younger job seekers also allocated more
526 early attention to negatively metastereotyped personality requirements in job ads. These
527 findings are in line with social identity theory (10) and an attention bias towards
528 negative/threatening information (30). That is, results indicate that negative metastereotypes in
529 job ads might signal to younger job seekers that their social age identity is threatened and hence
530 a lack of fit with the job. However, unlike Study 1 and findings of Kanar et al. (13), no support

531 was found for a better recall of negative metastereotypes in job ads in Study 2. That is, while
532 we expected that negatively metastereotyped traits would be better recalled, the opposite
533 relationship was found and not negatively metastereotyped traits were better recalled (i.e., as
534 marked by the negative regression coefficient in Fig 3). This indicates that the effect of negative
535 metastereotypes on recall might depend on age. As in Study 1, no effects of early attention and
536 recall on job attraction were found and future research initiatives should investigate later or
537 overall attention patterns to negative metastereotypes to provide more insight. Contrary to
538 Study 1, we did find a small positive relationship between attention towards negative
539 metastereotypes in job ads and recall for younger job seekers, in line with predictions from
540 Baddeley and Hitch (52)'s working memory theory and earlier findings. This might be
541 understood in light of the differential working memory performance that has been observed
542 between older and younger people (73). Finally, no mediating effects of attention and recall on
543 job attraction were found, which might be explained by job seekers' emotions and motivation,
544 as further discussed below.

545 **General Discussion**

546 Compared to prime-aged people, particularly older (50-65y) and younger (18-30y)
547 people experience specific obstacles when trying to enter the workforce (74,75). Despite
548 legislation that prohibits discrimination against people based on their age (76), studies have
549 shown that older and younger job seekers both experience hiring discrimination (4).
550 Remarkably, studies have overlooked more subtle forms of negative age cues and how they
551 might lead to self-select out in the early stages of the job seeking process. Therefore, the present
552 study investigated whether and how negatively metastereotyped personality requirements in job
553 ads affect older and younger job seekers' attraction during recruitment procedures.

554 Key Findings

555 Previous studies showed that female and ethnic minority job seekers' job attraction was
556 lower for job ads with negative metastereotypes (6,7). The present study built on these results
557 and, as a first goal, investigated these effects among older and younger job seekers. First, results
558 of Study 1 and Study 2 confirmed that job attraction was lower for job ads with negatively
559 metastereotyped traits for both older and younger job seekers. That is, job seekers' social age
560 identity might also be threatened by negative metastereotypes in job ads and might hence
561 influence job attraction (10,19).

562 Further, in terms of our second goal regarding the processes underlying the effect of
563 negative metastereotypes in job ads on job attraction, results of two experimental eye-tracking
564 studies showed that both older and younger job seekers allocated more early visual attention to
565 negative metastereotypes in job ads and provide support for the attention bias towards
566 negative/threatening cues that has been shown in previous studies (21,24,29). Interestingly, the
567 present study showed that this attention bias does not only exist for more imminent threats, but
568 also for information that is ego-threatening, or a threat to one's social identity (30). However,
569 attention did not mediate the relationship between type of trait and job attraction, which is not
570 in line with expectations based on previous findings (37,38), but might be understood in light
571 of the vigilance-avoidance hypothesis. That is, studies have shown that a vigilance or attention
572 bias towards negative information might be followed by an *avoidance* of that negative
573 information (77,78). Hence, an early attention-bias towards negative information might not
574 necessarily always result in a more elaborate procession of that information.

575 Third, we expected that recall would be a mediator between type of trait and job
576 attraction. Remarkably, the expectation that negatively metastereotyped traits in job ad would
577 be better recalled than not negatively metastereotyped traits in job ads was only supported for
578 older job seekers and not for younger job seekers (where we found a significant but negative

579 relationship between type of trait and recall, see Fig 3), despite successful manipulation checks
580 in both age groups. While not in line with our expectations based on social identity theory and
581 previous findings (40,41), a study by Hehman and Bugental (79) showed that age stereotypes
582 might also threaten younger people to a lesser extent than older people and hence affect their
583 cognitive performance in a different way, because older and younger people might have
584 different, 'life-stage specific' experiences. That is, younger people continuously grow older and
585 thus become closer to the group of the 'prime-aged' people. Their status in terms of age-
586 stereotypes will therefore improve, which might alter how they process negative age-
587 stereotypes compared to older people whose age-based status will not improve. Indeed, studies
588 found that younger – and not older – people might experience negative (meta)stereotypes more
589 as a challenge (31,80). Relatedly, effects of negative age stereotypes might also play out
590 differently for older-aged versus younger-aged people when considering the general ageism
591 and societal bias aimed more at older-aged people compared to younger-aged people (5,81).
592 Moreover, both in Study 1 and Study 2, recall of negative metastereotypes was not related to
593 job attraction, providing no support for a general link between information recall and attitudes
594 based on that information (memory-for-factsmodel; (45). Indeed, studies showed that the link
595 between information recall and attitudes depends on certain conditions, such as the exact
596 processing task (46–50). The present results indicate that a better recall of negatively
597 metastereotyped information in job ads might not lead to lower job attraction of older and
598 younger job seekers and hence uncovered one boundary condition of the relationship between
599 recall and attitudes (50).

600 Finally, contrary to Baddeley and Hitch (52), as well as previous findings (53–55), no
601 serial mediating effect of attention and recall was found for older/younger job seekers. Job
602 seekers' higher early attention levels to and lower job attraction for negative metastereotypes
603 in job ads indicate that older and younger job seekers' social identity might be threatened by

604 negative metastereotypes in job ads (31). However, we did not measure alternative appraisal
605 mechanisms such as challenge/boost, nor did we measure job seekers' *emotional* experiences
606 (e.g., which emotions job seekers experience when reading negative metastereotypes). This
607 suggests that, although a tight link between fixations and visual attention is presumed (57,58),
608 the relationship between eye-movements and memory is less straightforward and might depend
609 on one's age. For instance, given that working memory generally declines with age (see
610 further), the lack of relationship between visual attention and memory among older job seekers
611 might be explained by floor effects of the memory task that specifically challenged older job
612 seekers. Interestingly, we know of two other studies that also found no support for the expected
613 positive relationship between visual attention to textual information and recall (82,83). Similar
614 to the relationship between attention and job attraction, the relationship between attention and
615 recall might be different when later attentional stages are considered, hence a vigilance-
616 avoidance pattern might explain our current findings. Moreover, the findings that differed
617 between older and younger job seekers were both related to recall/memory. Indeed, research
618 has vastly shown that individual's working memory generally declines with age and that older
619 participants might perform differently than younger participants on a memory task (73).
620 However, while this is true for *general* working memory capacity, the effects of negative
621 metastereotypes on older and younger job seekers' working memory were not considered
622 before. While research has touched on the idea that negative versus positive cues might affect
623 memory of older and younger people differently (84,85), results were contradictory and
624 scholars also did not consider cues that are threatening for one's social identity. We thus
625 contribute to the literature by showing that working memory processing of social identity-
626 threatening information might differ between older and younger job seekers.

627 Contributions, Limitations, and Directions for Future Research

628 While age-related stereotypes might influence recruiters' hiring decisions later in the
629 selection process, age stereotypes might also impair older and younger job seekers' chances
630 earlier, during recruitment procedures. As a first contribution to the literature, the current study
631 thus considered experiences of job seekers during the early stage of the job search process, i.e.,
632 while reading job ads and thereby focused on demographic groups that tend to be overlooked
633 (i.e., older and younger job seekers). Study results show that job advertisements used as tools
634 to attract job seekers might also contain signals that can actually capture job seekers' attention
635 in a *negative* way and lower their attraction to the advertised job.

636 Second, previous studies on the effects of negative metastereotypes in job ads have not
637 considered the underlying mechanisms that are at play (6,7). The present study adds to the
638 existing literature by studying job attraction, as well as the potential mediating effects of early
639 visual attention and recall, hence aiming to uncover the processing of negatively
640 metastereotyped information compared to other information in job ads among older and
641 younger job seekers. In doing, the present study also adds to the literature on cognitive
642 information processing by testing attentional and recall mechanisms in an applied setting,
643 namely the recruitment context. For instance, studies on the attention bias towards negative
644 information focused on negative information that poses a general/imminent threat. Results of
645 Study 1 and Study 2 add to the limited research that supports the attention bias for more subtle
646 cues that pose a threat to one's social identity (i.e., ego-threat; 12). Finally, in both studies, we
647 used job advertisements that were complete and realistic, yet manipulated with thoroughly
648 developed and pilot tested stimuli, adding to both the internal and ecological validity of the
649 present study.

650 As in any study, limitations and directions for future research should be acknowledged..
651 First, in terms of the cognitive processing of job ads, negatively metastereotyped traits were

652 less attractive for older/younger job seekers and captured their attention. Yet, the exact
653 mechanism in which attention affects job attraction might depend on additional factors that
654 were not studied in the present study. For instance, job seekers' emotional-motivational
655 mechanisms were not considered. Finkelstein et al. (86) suggested that negative
656 metastereotypes might elicit both positive emotions (e.g., pride) and negative emotions (e.g.,
657 anger, sadness) within older/younger job seekers. Since emotions can affect people's attention
658 (87), memory (88,89) and attitudes (90–92), future research could therefore consider not only
659 the appraisal of negative metastereotypes in job ads terms of threat, but also in terms of
660 emotional valence (i.e., whether negative metastereotypes elicit positive or negative emotions).
661 Moreover, the emotional valence of information might also affect older and younger job seekers
662 differently. For instance, working memory performance was mitigated by negative emotions
663 for older, but not for younger people (85,93). However, study findings remain contradictory,
664 since different studies report no age difference in working memory reaction towards negative
665 emotions between older and younger people (84). In conclusion, future research might further
666 compare effects of positive versus negative emotions such as anger, sadness and pride on
667 attention, memory and attitudes between older and younger job seekers. Hence, interactional
668 effects between age and emotions can be investigated. Further, not only job seekers' emotions,
669 also their motivation might influence the processing of and attraction to job ads (8,51) and
670 should be considered in the future. That is, while we used complete and realistic job ads, no
671 real jobs were at stake and results of our study might be different/stronger when job seekers
672 were presented with an actual job tailored to their interests, since this might increase their
673 motivation (71).

674 Second, the present study investigated negative metastereotypes related to trait
675 requirements in job ads. However, metastereotypes may not be restricted to trait requirements
676 but may also exist about skills/competences. Future research, therefore, could investigate

677 skills/competences that one holds (no) negative metastereotype about. Moreover, since age-
678 metastereotypes might also be *positive* in nature (17), potentially boosting effects of positive
679 metastereotypes in job ads might also be studied in the future. Third, future research might
680 include measures on the degree to which one identifies with their age group and the degree to
681 which one is concerned about being evaluated by the out-group, since both of these aspects
682 might affect metastereotype activation within job seekers (6,94). Further, the link between
683 attention and recall of information and attitudes based on this information might be influenced
684 by personal factors such as one's self-perceptions (95). Indeed, Finkelstein et al. (86) showed
685 that individuals' core self-evaluations (i.e., CSE; the general belief in oneself) might affect how
686 older people react towards negative metastereotypes. Additional research is needed to
687 investigate the role of CSE or one's self-perceptions on older and younger job seekers'
688 processing of negative metastereotypes in job ads. Finally, future research might investigate the
689 more behavioral intentions to apply for the job (20) and might also include metastereotypes
690 regarding middle-aged workers (17).

691 **Practical Implications**

692 Organizations rarely evaluate how job advertisements are perceived by job seekers,
693 although job ads are used to inform and attract job seekers. Results of Study 1 and Study 2
694 showed that job advertisements with negatively metastereotyped information might capture
695 older/younger job seekers' attention and decreases their job attraction. Considering the
696 importance of job attraction for application intentions and behavior (96–98), these seemingly
697 subtle cues in job ads might affect the composition of the applicant pool and hence the success
698 of recruitment (6,7). In order to obtain an age-diverse applicant pool, organizations are advised
699 to avoid using traits in job ads that activate negative metastereotypes within older and younger
700 job seekers. This might be particularly useful for those organizations that aim to target older
701 and younger job seekers in their recruitment strategy. Targeted recruitment (99), for instance,

702 is a recruitment strategy that organizations can use to target those specific job seekers that are
703 currently underrepresented in the labor market or in their own organization, e.g., older and
704 younger job seekers. Research on targeted recruitment has overlooked how job seekers from
705 those underrepresented groups perceive required qualifications in job ads (6). Study findings
706 indicate that when job seekers have negative metastereotypes about those qualifications,
707 targeted recruitment strategies can backfire, and job seekers from underrepresented groups can
708 be discouraged by job advertisements instead.

709 Organizations can use different sources of information to determine negative age-
710 related metastereotypes for older/younger age groups. First, organizations might do
711 ‘sensitivity check’. That is, older and younger employees (if needed with different ethnic
712 backgrounds) can be consulted and share their experiences on possible metastereotypes, for
713 instance, by means of methodologies such as verbal protocol analysis (37) or a cognitive
714 interview (100).

715 Second, the present study and previous studies on age metastereotypes (17,86) report
716 traits that older and younger job seekers might have negative metastereotypes about and can be
717 used as a starting point for organizations. Based on these negative metastereotypes,
718 organizations might thoroughly evaluate job advertisements on potentially metastereotyped
719 information. Additionally, machine learning techniques can be used to facilitate this process
720 (101). Moreover, a distinction could be made between requirements that are crucial (e.g., ‘must
721 haves’) and those that are less crucial (‘nice to haves’). Indeed, negative metastereotypes related
722 to less crucial person requirements could be eliminated and those related to crucial requirements
723 might benefit from a more positive or behavioral wording (31).

724 Further, apart from eliminating negative information in job ads that grabs job seekers’
725 attention, organization might also add information in job ads that signals identity safety instead
726 of threat. Davies et al. (102) for instance, suggest using explicit statements during test-taking

727 that stress that “research shows that the underrepresented group does not perform significantly
728 worse on tests” and could also be used in the recruitment context. Adapting the positioning and
729 lay-out of those statements such that they capture readers’ attention more than the negative
730 information might also be an additional suggestion.

731 Finally, while most people know of the existence of age stereotypes, age
732 *metastereotypes* are a less known topic. For organizations and recruiters, the existence, content
733 and effects of age metastereotypes can be included in diversity trainings (103). For job seekers,
734 metastereotype awareness can be provided during career counseling by job coaches.

735 **Conclusion**

736 Two experimental eye-tracking studies showed that negatively metastereotyped traits
737 captured older/job seekers attention and decreased job attractiveness compared to not negatively
738 metastereotyped traits in job ads. Older but not younger job seekers also better recalled these
739 negative metastereotypes compared to not negative metastereotypes. These findings provides
740 unique insight into older/younger job seekers’ processing of negative recruitment information
741 and showed that subtle, but negative cues in job advertisements might have an attention-
742 grabbing effect and lower job attraction of certain groups of job seekers.

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