



The Impact of Algorithmic Resume Screening on Applicants' Perceptions: The Role of Organisational Dehumanisation

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Abstract

Purpose: This research examines how algorithmic versus human resume screening shapes applicants' perceptions of organisational dehumanisation (OD) and its consequences (i.e., intentions to pursue employment, organisational attractiveness, and negative word-of-mouth). It explores one potential boundary condition of this relationship (i.e., negative attitudes toward artificial intelligence).

Design/methodology/approach: Three experimental studies were conducted on social media (Studies 1-2) or Prolific Academic (Study 3). Study 1 ($N = 249$) used a vignette experiment manipulating resume screening type (algorithmic vs. human). Studies 2a ($N = 210$) and 2b ($N = 392$) employed a 2×2 between-subjects design manipulating screening type and decision favourability (acceptance vs. rejection). These studies also controlled for justice perceptions and examined negative attitudes toward artificial intelligence as a moderator.

Findings: In Study 1, algorithmic resume screening increased OD, which was associated with lower intentions to pursue employment, reduced organisational attractiveness, and more negative word-of-mouth. Studies 2a and 2b replicated these effects regardless of decision favourability and while controlling for justice perceptions. Study 2a also showed stronger effects among applicants with negative attitudes toward artificial intelligence, although this interaction did not replicate in Study 2b.

Originality/value This research contributes to a better understanding of how algorithmic resume screening shapes applicants' perceptions, notably OD.

Keywords: organizational dehumanization; resume screening; artificial intelligence; organisational attractiveness.

The Impact of Algorithmic Resume Screening on Applicants' Perceptions: The Role of Organisational Dehumanisation

Recent developments in artificial intelligence have transformed recruitment practices by introducing new tools to improve the speed and accuracy of the selection process (e.g., Pandey & Arora 2025). This growing adoption is further supported by emerging evidence of their validity, which encourages their use in personnel selection (e.g., Castleman et al., 2026). Tools such as applicant tracking systems, chatbots, and automated resume screening are indeed increasingly used to improve efficiency in terms of time and costs while handling a large number of applications (Oostrom et al., 2024). Yet, the use of artificial intelligence in the recruitment and selection process has raised concerns regarding its potential to diminish the human dimension traditionally embedded in hiring practices (e.g., Pandey & Arora 2025). Scholars have emphasised the need for more research on how applicants perceive the use of algorithmic resume screening (Noble et al., 2021), that is, selection techniques relying on digital tools (e.g., artificial intelligence; Chamorro-Premuzic et al., 2016). Applicants' perceptions and reactions toward the recruitment and selection procedures are indeed considered crucial for the attractiveness of the overall organisation.

While scholars have explored the impact of algorithmic resume screening on justice perceptions (e.g., Noble et al., 2021), its effect on perceptions of the hiring organisation requires further investigation. Among the most frequently cited concerns in HR professionals are that “the use of recruitment algorithms will lead to a “dehumanisation’ of the hiring process” (Fritts & Cabrera, 2021, p.791), or that “the lack of empathy and personalised feedback in AI-driven recruitment processes can lead to a sense of alienation for candidates, who may feel reduced to data points rather than valued as individuals.” (Pandey & Arora, 2025, introduction section, end of para.4). In this context, applicants selected by algorithmic resume screening tools may feel

reduced to their attributes and dehumanised, which could threaten the potential future employee-employer relationship and subsequent outcomes (Bankins et al., 2022).

This research aims to test the latter proposition. In three experimental studies, we examine the effects of algorithmic versus human resume screening, hereafter named resume screening type, on applicants' perceptions that the hiring organisation would treat them as numbers or objects rather than full human-beings (OD). We also analyse whether OD reduces applicants' intentions to pursue employment if offered a job (Study 1), decreases organisational attractiveness (Studies 1-2a-2b), and increases applicants' use of negative word-of-mouth (Studies 1-2a-2b). Finally, we explore the moderating role of applicants' negative attitudes toward artificial intelligence (AI) (Studies 2a -2b) in the relationship between resume screening type and OD, as well as the subsequent outcomes (Figure S1). We also ensured that these hypotheses hold independently of screening decision favourability (whether the screening decision led to the next step of the selection process or not; Studies 2a-2b).

[Figure S1]

This research will contribute to the literature. First, we expand the theoretical understanding of applicants' reactions to algorithmic resume screening and respond to the recent call made by scholars for more research on applicants' reactions to hiring organisations, with a focus on the problem of dehumanisation in AI-driven personnel selection (Pandey & Arora, 2025). Second, by exploring whether an individual-level characteristic (i.e., negative attitudes toward AI) amplifies negative responses to algorithmic resume screening, we offer a nuanced understanding of the factors that influence reactions to AI-based decision-making processes (Bankins et al., 2022). Third, this research provides novel evidence of OD perceptions among applicants, thereby enhancing our understanding of OD.

Applicants' Reactions Toward Algorithmic Resume Screening

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Automating the hiring process through various technical solutions has been common practice for many years (e.g., Chapman & Webster, 2003). However, recent technological developments have led to the emergence of more advanced algorithmic methods that can analyse vast amounts of data in seconds (Noble et al., 2021). As such, these techniques have been used to assist in various hiring practices such as job interviews, game-based assessments, or the evaluation of applicants' resumes (e.g., Chamorro-Premuzic et al., 2016). Given its rapid rise to prominence in Human Resource Management, scholarly debate has largely focused on AI-based practices (i.e., systems able to perform tasks that traditionally require human intelligence; Mori et al., 2025). Most prior studies primarily examined the use of AI in job interviews, paying comparatively less attention to its role in resume screening (e.g., Acikgoz et al., 2020), despite it being an important phase of the selection process. Acknowledging this gap, scholars have begun to examine the effects of various forms of algorithmic resume screening on applicants. Noble et al. (2021), for instance, found that, compared to human screening, applicants perceived algorithmic resume screening as less fair across all justice-related dimensions identified by Gilliland (1993), except for the dimension of perceived consistency in treatment. Consistent with earlier evidence from studies on algorithmic interviews (Acikgoz et al., 2020), such a negative impact on justice perceptions could carry significant consequences for organisations. Indeed, applicants' justice perceptions of selection procedures are linked to key organisational outcomes, such as organisational attractiveness (e.g., Chapman et al., 2005), intentions to pursue the application process (e.g., McCarthy et al., 2017), or job acceptance decisions (Harold et al., 2016). Notably, the effects of resume screening type on justice perceptions are generally independent of whether an applicant's resume passes the screening process or not (i.e., decision favourability; Oostrom et al., 2024).

Aside from its impact on perceived justice, resume screening type might also affect applicants' perceptions of the hiring organisation. According to signalling theory (Bangerter et

al., 2012; Spence, 1973), every social interaction includes a signalling mechanism involving a sender, a receiver, and a signal that corresponds to an unseen attribute of the sender (Connelly et al., 2011). Receivers make inferences about the characteristics of senders based on the signals transmitted during the interaction. When applied to the context of recruitment, which involves many uncertainties between social actors that oftentimes do not know each other, both representatives of the organisation and applicants are likely to use any signal transmitted throughout the selection process to access unknown information (Oostrom et al., 2024). Such unknown information encompasses, for example, inferences about the applicant's personality and skills on the side of the organisation's representatives and about the organisation's culture on the side of the applicant (Oostrom et al., 2024). Specifically, we propose that outsourcing the resume screening phase to AI serves as a signal that applicants rely on to infer information about the hiring organisation and its personnel-related practices. We suggest that AI-based algorithmic resume screening might appear to applicants as a form of dehumanising treatment provided by the organisation.

Organisational Dehumanisation

Dehumanisation perceptions occur when people feel or experience that they are perceived as lacking fundamental human traits like empathy and thus considered like objects or machines (Haslam, 2006). When occurring in the workplace and emanating from the organisation, one talks about OD (i.e., employees' perception that their organisation treats them as objects, reduces them to mere tools to serve the organisation's objectives; Bell & Khoury, 2011). Recently, OD has garnered attention in the scientific community due to its harmful effects (e.g., Brison et al., 2022). High levels of OD are associated with decreased employees' well-being (increasing stress, psychological strains) and increased negative employee attitudes (e.g., reducing affective commitment or job satisfaction) (Brison et al., 2022). OD also

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undermines organisational effectiveness such as by increasing turnover intentions and reducing extra-role performance (Brison et al., 2022).

As algorithmic resume screening tools reduce human interactions and lack the ability to engage in meaningful interpersonal communications (e.g., Pandey & Arora, 2025), researchers have proposed these tools may foster OD. For instance, Gonzalez et al. (2019) noted that applicants might perceive the organisation as “not caring about applicants (or human capital in general)” (p.37). Similarly, Fritts and Cabrera (2021) stated that the use of technologies and AI in selection can be perceived as dehumanising. Providing initial support for this proposition, Mirowska and Mesnet (2022) found in a qualitative study that applicants overwhelmingly felt that AI evaluation systems convey the impression that the hiring organisation does not value human contact. Based on this, we hypothesise that:

H1: Relative to human screening, algorithmic resume screening increases applicants' OD.

Additionally, previous research has shown that OD has a significant detrimental impact on employees' attitudes and behaviours (Brison et al., 2022). In the context of recruitment, Pandey and Arora (2025) suggested that applicants who felt dehumanised during recruitment processes based on AI techniques will be less prone to recommend the organisation and may even dissuade potential candidates from applying in the future. Indeed, their qualitative study suggests that candidates who felt dehumanised during an AI-based hiring process are more inclined to develop unfavourable views of the organisation (Pandey & Arora, 2025). In the employer branding literature, frequently explored organisational outcomes of interest include intentions to pursue employment (e.g., Harold et al., 2016), organisational attractiveness (e.g., Bauer et al., 2001), and how applicants communicate about the organisation externally through negative word-of-mouth (e.g., Hausknecht et al., 2004). Therefore, we suggest that:

H2: OD perceptions during the selection process mediate the relationship between resume screening type and (a) intentions to pursue employment, (b) organisational attractiveness, and (c) negative word-of-mouth about the organisation.

The Moderating Role of Negative Attitude Toward Artificial Intelligence

Negative attitudes toward AI encompass the holding of negative beliefs and negative emotional reactions to AI (Schepman & Rodway, 2023). In the workplace particularly, employees with negative AI-related attitudes worry that AI might outperform them, become uncontrollable (Fast & Horvitz, 2017), or even replace them entirely (McClure, 2018). Attitudes towards AI are not without consequence. They may, for instance, impact the adoption of new technologies at work (e.g., Lichtenthaler, 2020). In the context of personnel selection, we propose that AI-related attitudes will influence the way applicants react to a selection process which relies on AI decision-making. As a matter of fact, some individuals are more prone than others to seeking a “human touch” (Bankins et al., 2022, p.858) in decision-making and, therefore, might react more intensely to the use of AI. We expect that individuals with negative attitudes toward AI will react more negatively to the use of algorithmic resume screening and will develop stronger OD perceptions:

H3: Negative AI-related attitudes moderate the effect of resume screening type on applicants’ OD. When resume screening is algorithmic, applicants with more negative attitudes report higher levels of OD than applicants who are less negatively oriented toward AI. This difference should not emerge under human screening process because AI-related attitudes are irrelevant in this context.

Overview of Studies

All studies used an experimental design and were preregistered. Study 1 aimed at testing the effect of resume screening type (algorithmic vs. human) on OD (H1) and its subsequent outcomes (H2a-c). Studies 2a and 2b replicated the findings of Study 1 while

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going several steps further. First, a measure of negative AI-related attitudes was included to assess its moderating role on the effect of resume screening type on OD (H3). Second, we added measures of perceived justice to control for alternative pathways known to explain the impact of selection procedures (e.g., resume screening type; Noble et al., 2021) on organisational outcomes (Hausknecht et al., 2004). Finally, decision favourability (i.e., whether one is hired or not, or invited to continue the selection process or not) was also controlled for because it is an important predictor of applicants' reactions (e.g., Oostrom et al., 2024). While Study 2a provided initial empirical evidence, Study 2b attempted to replicate the obtained results with increased statistical power and among a population of job seekers. Preregistrations, experimental material, measurement scales, and data from all studies are available online (https://osf.io/hyxqj/?view_only=d492f00991414f81901c6eb21f80e675).

Study 1

Method

Participants and Procedure.

Based on Richard et al. (2003)'s meta-analysis which computed the average effect size in (applied) social psychology ($d=.42$), a minimal sample size of $N=196$ was necessary for at least 90% power ($\alpha=.05$). Prospective participants, who were required to have some work experience, were recruited on social networks. In total, 249 participants took part in this study ($N_{\text{algorithmic}}=133$; $N_{\text{human}}=116$; $M_{\text{age}}=36.54$, $SD=11.32$), 85.5% were women, 15.7% were men, and 0.8% answered "other".

Participants were randomly assigned to one of two conditions (resume screening type: algorithmic vs. human). In both conditions, they read a fictive job advert, imagining they themselves were job-seeking candidates whose skills and interests matched the advert. The resume screening type manipulation was embedded into the job advert. Depending on the condition, participants read that "a software based on an artificial intelligence algorithm will

evaluate your CV and automatically select candidates on the basis of the criteria mentioned in the advert” (algorithmic screening) vs. “*our HR team will evaluate your CV and carry out an in-depth screening of your application based on the criteria mentioned in the advert*” (human screening). Participants were then asked to write a short text about the job tasks described in the advert and the different stages of the selection procedure. They were invited to rate the dependent variables considering themselves as job seekers whose profile matches the job advert of the vignettes. Finally, participants completed the manipulation check and were debriefed. The vignettes were pretested (see supplementary material).

Measures.

All items were assessed using a 7-point Likert scale ranging from 1 (*Strongly disagree*) to 7 (*Strongly agree*) and were slightly adapted by replacing the term “my organisation” by the name of the fictive hiring company “ToliOrg”.

OD was measured with an adapted version of Lagios et al. (2024)’s 5-item scale (the conditional rather than present verb tense was used).

Intentions to Pursue Employment were measured using the five items from Highhouse et al. (2003).

Organisational Attractiveness was assessed with the five items from Highhouse et al. (2003).

Negative Word-of-Mouth was measured with the three items from Lee and Suh (2020).

Manipulation Check. Participants were asked to rate three items (e.g., “ToliOrg’s recruitment process relies on advanced technology”). Participants reported higher levels of

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automation ($M=5.98$; $SD=1.05$) in the algorithmic resume screening condition as compared to the human one ($M=3.70$; $SD=1.32$), $t(247)=-15.16$, $p<.001$).

Results

Descriptive Statistics.

Descriptive statistics, correlations, and Cronbach's alphas are provided in Table S1.

[Table S1]

Regression analyses were performed to test H1 and H2a-c, and the significance of indirect effects was assessed using 95% confidence intervals (CI) computed with PROCESS (Model 4; 10,000 bootstrap samples; Hayes, 2017). This aligns with scholars' recommendations to estimate mediation models from data obtained from between-subjects designs using regression-based approaches (Igartua & Hayes, 2021).

Regression Analyses and Mediation Results.

In line with H1 and as reported in Table 1, resume screening type (coded -1 for human and +1 for algorithmic), had a positive impact on OD ($B=0.37$, $p<.001$), showing that participants reported higher levels of OD in the algorithmic condition as compared to the human one (see Table S1 for means in each condition). Resume screening type had also a negative effect on intentions to pursue employment ($B=-0.12$, $p<.01$) and organisational attractiveness ($B=-0.23$, $p<.01$), and a positive effect on negative word-of-mouth ($B=0.29$, $p<.001$).

[Table 1]

As shown in Table 2, OD was negatively associated with intentions to pursue employment ($B=-0.12$, $p<.001$), organisational attractiveness ($B=-0.37$, $p<.001$), and positively associated with negative word-of-mouth ($B=0.41$, $p<.001$). Finally, assessing the

mediation (H2a-c), bootstrap analyses confirmed that all indirect effects of resume screening type on organisational outcomes via OD were significant (Table 2).

[Table 2]

Discussion

Study 1 evidenced the impact of resume screening type on applicants’ feeling that the hiring organisation is dehumanising and on the subsequent negative consequences in terms of intentions to pursue employment, organisational attractiveness, and negative word-of-mouth. Studies 2a and 2b go several steps further. First, they examine the moderating role of people’s attitudes toward AI and control for alternative mediating pathways (organisational justice; opportunity to perform, treatment, and consistency of administration)¹. Finally, Studies 2a and 2b control for the favourability of the selection decision. Although prior research (e.g., Ostrom et al., 2024) shows that decision favourability does not alter the effect of resume screening type on applicants’ perceptions, we controlled for it given its known influence on applicants’ reactions. This ensures that observed effects can be attributed to screening type rather than outcome-related biases.

Studies 2a-2b

Method

Participants and Procedure.

Study 2a. Based on the average effect size of interactions in management journals ($d=.40$; Aguinis et al., 2005), a minimal sample size of $N=200$ was necessary for at least 80% power ($\alpha=.05$). The recruitment method and inclusion criteria were similar to Study 1. Out of the 237 participants who completed the study in full, 27 were excluded because they failed the

¹ These subdimensions were selected based on their relevance to the present research (see supplementary material for more information).

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attention check. The final sample included 210 participants ($N_{\text{algorithmic/rejected}}=60$; $N_{\text{algorithmic/selected}}=50$; $N_{\text{human/rejected}}=61$; $N_{\text{human/selected}}=39$) ($M_{\text{age}}=39.43$, $SD=12.08$), 74.8% were women, 24.8% were men, and 0.5% did not answer.

Participants were randomly assigned to one of four conditions. The manipulation of resume screening type replicated Study 1. For decision favourability, participants were asked to imagine that they applied for the job and sent their resume to the fictive company. They were then presented with an email from the company to inform them of the selection decision (i.e., acceptance versus rejection; see supplementary material). After that, participants rated dependent variables, completed the manipulation checks, as well as a self-affirmation task. Prior to debriefing, participants' negative attitudes toward AI were measured.

Study 2b. Similar to Study 2a, Study 2b involved a 2x2 between-participant design. An a priori power analysis, based on the effect size of the interaction obtained in Study 2a ($d=0.34$), indicated that a minimal sample size of $N=366$ was necessary for at least 90% power ($\alpha=.05$). Anticipating the exclusion of participants who failed the attention check, 402 participants were recruited on Prolific. Participants were invited to take part in a 15-minute study (£1.80 for participation). Only individuals who (1) were from the US, (2) were native English speakers, (3) had an approval rate in prior tasks completed on Prolific of at least 95%, and (4) were currently actively looking for a job, were allowed to participate. Out of the 402 participants, 10 were excluded as they did not correctly respond to the attention check. The final sample was thus composed of 392 participants ($N_{\text{algorithmic/rejected}}=92$; $N_{\text{algorithmic/selected}}=103$; $N_{\text{human/rejected}}=92$; $N_{\text{human/selected}}=105$). Of these participants ($M_{\text{age}}=37.39$, $SD=11.92$), 58.9% were women, 39.3% were men, and 1.8% identified as another gender. The procedure was the same as in Study 2a.

Measures.

OD, organisational attractiveness, and negative word-of-mouth were measured with the same scales as in Study 1. All items were assessed using a 7-point Likert scale ranging from 1 (*Strongly disagree*) to 7 (*Strongly agree*).

Justice Perceptions were measured using the items from the Selection Procedural Justice Scale (Bauer et al., 2001; *opportunity to perform* using 4 items, *treatment rule* with 3 items and *consistency of administration* with 3 items). Similar to Noble et al. (2021), all items were adapted to the context of applications and resumes (i.e., the term “test” was replaced by “the selection process”).

Negative Attitudes Toward AI were measured using 4 items with the highest loading of the negative dimension of General Attitudes toward Artificial Intelligence Scale (Schepman & Rodway, 2023).

Manipulation Check – Resume Screening Type ($\alpha_{\text{Study2a}}=.98$; $\alpha_{\text{Study2b}}=.98$). Participants were asked to rate three items comparable to those used in Study 1. In both studies, participants reported higher levels of automation in algorithmic conditions ($M_{2a}=6.44$, $SD_{2a}=1.01$; $M_{2b}=6.61$, $SD_{2b}=0.61$) as compared to human conditions ($M_{2a}=3.91$, $SD_{2a}=1.44$; $M_{2b}=4.04$, $SD_{2b}=1.59$; $t_{2a}(208)=14.839$, $p<.001$; $t_{2b}(390)=-21.123$, $p<.001$).

Manipulation Check – Favourability of the Decision. Participants were presented with the statement “When I applied to ToliOrg, my application was selected” and had to tick “yes” or “no”. Most participants (from 77.2% to 98.9% across studies and conditions) ticked the box that matched the decision they received from the fictive company, which indicates that the manipulation was effective².

Results

Descriptive Statistics.

² The analyses were conducted with and without participants who ticked the inappropriate box. Since their exclusion did not change the interpretations of the findings, findings from the full sample were reported.

Descriptive statistics, correlations, and Cronbach's alphas are provided in Table S2 (Study 2a) and in Table S3 (Study 2b).

[Tables S2-S3]

Hypothesis Testing and Regression Results.

First, in line with scholars' recommendations (Igartua & Hayes, 2021), regression analyses were conducted to test the effect of resume screening type (coded -1 for human and +1 for algorithmic) on OD and its subsequent outcomes (i.e., organisational attractiveness, negative word-of-mouth). To control decision favourability, these regressions were computed entering as predictors in the model: type of screening, favourability (coded -1 for rejection and +1 for acceptance), as well as their interaction. As displayed in Table 2, resume screening type had a positive effect on OD in each study ($B_{2a}=0.38, p<.001$; $B_{2b}=0.29, p<.001$), supporting H1. Additionally, resume screening type had a negative effect on organisational attractiveness ($B_{2a}=-0.31, p<.01$; $B_{2b}=-0.30, p<.001$) and a positive effect on negative word-of-mouth ($B_{2a}=0.43, p<.001$; $B_{2b}=0.28, p<.001$). For each study, none of these effects were conditional upon decision favourability (Table 2). Therefore, decision favourability and its interaction with resume screening type were removed from further analyses for parsimony purposes. This aligns with scholarly guidance suggesting that control variables should be excluded when their relationship with the focal variables lacks empirical support (Bernierth & Aguinis, 2016).

Mediation Analyses Controlling for Justice Perceptions.

Second, and consistent with scholars' recommendations (Igartua & Hayes, 2021), mediation models (PROCESS; Model 4; 10,000 bootstrap resamples; Hayes, 2017) were estimated to test Hypotheses 2b-c. These models were estimated while controlling for justice perceptions (i.e., opportunity to perform, treatment, consistency of administration) as

alternative pathways known to explain the effects of screening type on outcomes (Noble et al., 2011). Across each study, resume screening type had a positive effect on OD ($B_{2a}=0.35$, $p<.001$; $B_{2b}=0.29$, $p<.001$), which, in turn, was negatively associated with organisational attractiveness ($B_{2a}=-0.21$, $p<.01$; $B_{2b}=-0.31$, $p<.001$) and positively associated with negative word-of-mouth ($B_{2a}=0.37$, $p<.001$; $B_{2b}=0.36$, $p<.001$). Bootstrap analyses also revealed that, while controlling for justice perceptions (i.e., opportunity to perform, treatment, consistency of administration), the indirect effects of resume screening type on organisational outcomes via OD were significant (Table 2). Overall, these findings support H2b-c. Importantly, as can be seen in Table 2, both OD and justice perceptions (except the subdimension of consistency of administration) explained unique parts of the variance of the effects of resume screening type on organisational outcomes.

Moderation Analysis (Negative Attitudes Toward AI).

Third, to test H3, OD was regressed onto resume screening type, negative attitudes toward AI (mean-centered), and their interaction (Aiken & West, 1991). The interactive effect between resume screening type and negative attitudes toward AI on OD was only significant in Study 2a ($B=0.16$, $p=.012$). As shown in Figure 1, the effect of the resume screening type on OD was significant at one standard deviation above ($B=.58$, $t(206)=4.34$, $p<.001$) but not below ($B=.11$, $t(206)=0.82$, $p=.412$) the mean of negative attitudes toward AI. While participants with negative attitudes towards AI considered algorithmic resume screening as reflecting OD more than human screening, participants with low negative attitudes did not report such a difference in perception. Yet, this interactive effect was not significant in Study 2b ($B=-0.004$, $p=.921$).

[Figure 1]

General discussion

As more and more companies make use of AI to facilitate their personnel selection process, it is crucial to better understand applicants' reactions to such management practices (e.g., Pandey & Arora 2025). To this end, our research explored the impact of algorithmic resume screening on applicants' perceptions of the hiring organisation. Specifically, we examined the effect of algorithmic resume screening on applicants' OD perceptions and on outcomes in three experimental studies. Our results showed that algorithmic resume screening leads to higher feelings of OD than human resume screening. These effects occurred independently of whether the ultimate screening decision was favourable or not. Additionally, compared to human resume screening, algorithmic resume screening was associated with lesser intentions to pursue employment, lesser organisational attractiveness, and more negative word-of-mouth about the organisation. These relationships between resume screening type and organisational outcomes were simultaneously explained by both justice perceptions, replicating the results of Noble et al. (2021), and OD. Finally, results assessing the moderating role of applicants' negative attitudes toward AI in the relationship between resume screening type on OD were inconsistent. Results showed a negative impact of algorithmic resume screening only for those holding strong negative attitudes toward AI in Study 2a, but this moderating effect of attitudes did not replicate in Study 2b.

Theoretical Implications

Results of the present studies contribute to existing literature in several ways. First, these findings provide empirical evidence for the perceived dehumanising role of AI when used in personnel selection. The idea that AI-based procedures might lead applicants to feel treated as objects or tools by the hiring organisation had been suggested at the theoretical level (e.g., Fritts & Cabrera, 2021) and observed in qualitative interviews (Pandey & Arora, 2025). To the best of our knowledge, however, it is the first time that such a proposition is specifically assessed quantitatively in the context of algorithmic resume screening.

Additionally, our data showed that the effect of resume screening type on OD carries over to important organisational outcomes (intention to pursue employment, organisational attractiveness, and negative word-of-mouth). Consistent with signalling theory, our results suggest that resume screening methods act as organisational signals that shape applicants' perception of the hiring organisation. These findings highlight the broader impact of early-stage selection tools on employer image. While previous studies had already evidenced that the use of algorithmic resume screening affects applicants' justice perceptions (Noble et al., 2021), our studies built on these research efforts. They replicate the findings of Noble et al. (2021) on justice perceptions but also demonstrate that OD acts in parallel as an explanatory variable between resume screening type and its outcomes. As interesting as they are, these findings were limited to the point of view of job applicants and failed to adopt a *multi-stakeholder* perspective (e.g., Bauer et al., 2024). In particular, Human Resource (HR) practitioners who use AI in personnel selection might show ambivalence regarding algorithmic resume screening. They may recognise its benefits in terms of time, costs, or efficiency, yet consider the practice in much the same way as applicants, i.e., reflecting dehumanising treatment by the organisation.

Second, while examining AI-based procedures in personnel selection, we contributed to the literature by offering a more nuanced perspective on their effects. Consistent with Bankins et al. (2022), we reasoned that applicants would not all react uniformly to the use of algorithmic resume screening and that their general negative attitudes toward AI might moderate its effects. Our findings proved inconsistent in this regard. More investigation in future research is needed to get an in-depth understanding of the conditions under which AI-based procedures in personnel selection have the least/the strongest deleterious effects, or of the individuals who are the least/most likely to react negatively to it. In this perspective, future experimental studies should examine additional moderators, such as applicants' prior

experience with AI or their technological literacy (e.g., Pfaltzgraf et al., 2021), that might reduce the deleterious impact of algorithmic resume screening on applicants' perceptions of the overall organisation. In the same vein, future studies should explore whether incorporating into the selection process practices that are perceived by applicants as fair (higher apparent validity, such as interviews) is efficient at buffering the dehumanising effects of algorithmic resume screening. Alternatively, future research could also test whether providing explanations regarding the necessity of using AI during the resume screening phase (e.g., Ababneh et al., 2014; Köchling et al., 2023) would lessen applicants' negative reactions in terms of OD. As a matter of fact, the selection process is not just about evaluating candidates, but also about presenting the organisation in a way that reflects its values and care for individuals (e.g., Cable & Judge, 1996). This is of particular importance for managers as social influences such as negative word-of-mouth play an important role in determining applicant attraction, especially when the organisation is unknown (Stockman et al., 2020; Van Hove & Lievens, 2007).

Third, our research extends our knowledge of OD. OD has been studied from the perspective of employees (e.g., Brison et al., 2022), but little to no attention has been paid to how job candidates are affected by this phenomenon during the recruitment process. These studies explore the perception of OD from the perspective of job applicants for the first time. This new angle allowed us to broaden our understanding of the different stages in which OD occurs within organisations, and to gain insights into the early interactions between individuals and organisations. Future studies should investigate how these initial perceptions might shape the future employment relationships.

Practical Implications

The findings of this research have practical implications, notably for organisations integrating algorithmic resume screening tools into their recruitment processes. First, the detrimental impact of algorithmic screening on perceptions of OD among applications

suggests that organisations should be very cautious when implementing AI-driven tools, even at early stages of the selection procedure. Although this method might have advantages for HR practitioners (in terms of time or efficiency, Mori et al., 2025), it is important to bear in mind that it can also constitute a negative signal to applicants, ultimately impairing the image of the overall organisation and its reputation. Accordingly, results of this research also showed that perceptions of OD among applications were then associated with lower organisational attractiveness, reduced intentions to pursue employment, and increased negative word-of-mouth. Importantly, our findings remain the same independently of selection outcomes favourability (acceptance to pursue selection procedure vs. rejection, not pursuing the selection procedure). In order to reduce the detrimental consequences of algorithmic resume screening use on applicant reactions, organisations should be careful to add human interaction and interpersonal communication during the overall selection process and communicate more transparently regarding the reasons of its use (e.g., Pandey & Arora, 2025). Decision makers and HR professionals should be particularly attentive to weighing the pros and cons of such new management practices that is algorithmic resume screening.

Limitations and Future Research Directions

This research relied solely on hypothetical job advertisements and vignette-based selection scenarios, which limits generalizability. As noted by Oostrom et al. (2024), selection decisions may be perceived differently in low-stakes contexts, potentially underestimating real-world effects. Moreover, actual recruitment involves additional contextual factors (e.g., job characteristics, labour market conditions, organisational reputation) that were not captured in our design. Second, the use of a fictitious job advertisement that included specific terms such as “uses AI” versus “uses HR” may have inadvertently primed participants to respond in a certain way, possibly introducing bias into their evaluations. Future research should therefore seek to replicate these findings in more ecologically valid settings, using, for

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example, quasi-experimental designs. Further, another limitation of this research lies in its exclusive focus on negative word-of-mouth effects, and it overlooks the possibility of positive spillover effects, such as enhanced employer image while using digital tools. Future research should explore both sides of this spectrum.

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Declarations

Ethics

All procedures performed in the current study involving human participants were in accordance with the 1964 Helsinki Declaration and its later amendments.

Data Availability

For all studies, deidentified and cleaned data, pre-registrations, and materials are openly available at https://osf.io/hyxqj/?view_only=d492f00991414f81901c6eb21f80e675

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Table 1

Directs Effects of Resume Screening Type on Organisational Dehumanisation, Intentions to Pursue Employment, Organisational Attractiveness, and Negative word-of-mouth While controlling for Decision Favourability

Note. $N_{Study1}=249$, $N_{Study2a}=210$, $N_{Study2b}=392$. Resume screening type was coded -1=human screening and +1= algorithmic screening. Decision favourability was coded -1=rejection and +1=acceptance. The interaction term was built by multiplying the codes of the resume screening type and the decision favourability conditions. $**p<.01$.

Direct effects	Organisational dehumanisation						Intentions to pursue employment						Organisational attractiveness						Negative word-of-mouth					
	Study 1		Study 2a		Study 2b		Study 1		Study 2a		Study 2b		Study 1		Study 2a		Study 2b		Study 1		Study 2a		Study 2b	
	B	SE	B	SE	B	SE	B	SE	B	SE	B	SE	B	SE	B	SE	B	SE	B	SE	B	SE	B	SE
Resume screening type condition	.37***	.08	.38***	.09	.29***	.07	-.12**	.04	---	---	---	---	-.23**	.08	-.31**	.10	-.30***	.08	.29***	.08	.43***	.10	.28***	.07
Decision favourability condition	---	---	-.47***	.09	-.12	.07	---	---	---	---	---	---	---	---	.34***	.10	.35***	.08	---	---	-.44***	.10	-.30***	.07
Resume screening type X Decision favourability	---	---	.006	.09	.02	.07	---	---	---	---	---	---	---	---	-.09	.10	-.08	.08	---	---	-.04	.10	.07	.07

*** $p<.001$.

Source: Authors own work

Table 2

Directs and Indirect Effects of Resume Screening Type on Intentions to Pursue Employment, Organisational Attractiveness, and Negative word-of-mouth through Organisational Dehumanisation While controlling for Justice Perceptions as Alternative Pathways

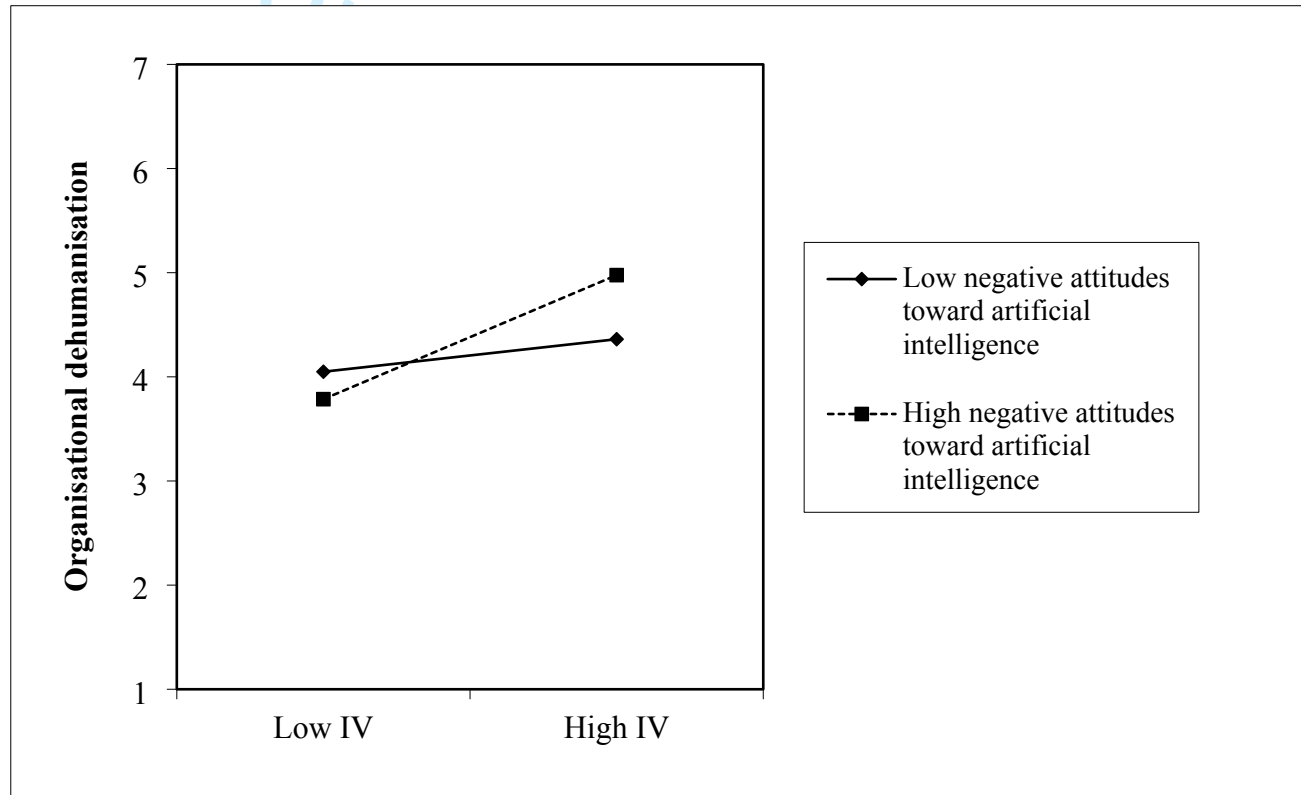
Intentions to pursue employment							Organisational attractiveness						Negative word-of-mouth					
Direct effects	Study 1		Study 2a		Study 2b		Study 1		Study 2a		Study 2b		Study 1		Study 2a		Study 2b	
	B	SE	B	SE	B	SE	B	SE	B	SE	B	SE	B	SE	B	SE	B	SE
Resume screening type condition	-.07	.04	---	---	---	---	-.09	.08	.02	.10	.05	.06	.14 ⁺	.07	.16	.10	-.03	.06
Opportunity to perform	---	---	---	---	---	---	---	---	.20*	.08	.23***	.04	---	---	-.17*	.07	-.14	.04
Treatment	---	---	---	---	---	---	---	---	.26***	.08	.36***	.05	---	---	-.20**	.07	-.31***	.05
Consistency of administration	---	---	---	---	---	---	---	---	-.03	.08	-.03	.04	---	---	-.25***	.07	.01	.04
Organisational dehumanisation	-.12***	.03	---	---	---	---	-.37***	.06	-.21**	.07	-.31***	.04	.41***	.06	.37***	.07	.36***	.04
Indirect effects [95% confidence intervals]	Study 1		Study 2a		Study 2b		Study 1		Study 2a		Study 2b		Study 1		Study 2a		Study 2b	
Through opportunity to perform	---		---		---		---		-.06 [-.12;-.01]		-.10 [-.16;-.04]		---		.05 [.01;.10]		.06 [.02;.11]	
Through treatment	---		---		---		---		-.18 [-.29;-.07]		-.16 [-.24;-.10]		---		.13 [.03;.25]		.13 [.08;.21]	
Through consistency of administration	---		---		---		---		-.01 [-.06;.04]		-.003 [-.02;.01]		---		-.07 [-.13;-.02]		.001 [-.01;.01]	
Through organisational dehumanisation	-.05 [-.08;-.02]		---		---		-.14 [-.22;-.07]		-.07 [-.15;-.02]		-.09 [-.15;-.04]		.15 [.08;.23]		.13 [.05;.22]		0.10 [.05;.16]	

Note. $N_{Study1}=249$, $N_{Study2a}=210$, $N_{Study2b}=392$. Resume screening type was coded -1=human screening and +1 = algorithmic screening. Decision favourability was coded -1=rejection and +1=acceptance. The interaction term was built by multiplying the codes of the resume screening type and the decision favourability conditions. ⁺ marginal effect. * $p<.05$. ** $p<.01$. *** $p<.001$.

Source: Authors own work

Figure 1

Effect of Resume Screening Type on Organisational Dehumanisation as a Function of Negative Attitudes Toward Artificial Intelligence



Source: Authors own work

Results of the pilot study aimed at testing the resume screening type manipulation

(Study 1)

Fifty-one participants, among whose 70.6% were women, 27.5% were men and 2% identified to another gender, were recruited via social networks ($M_{age}=28.29$, $SD=11.89$). After reading the vignette, participants rated three items created for the present study as a manipulation check (e.g., “ToliOrg uses digital tools in its selection procedures”; $\alpha=.86$). Results showed that in the algorithmic resume screening condition, participants reported higher levels of automation ($M=5.69$; $SD=1.60$) as compared to the human resume screening condition ($M=3.80$; $SD=1.45$), $t(49)=22.36$, $p<.001$), supporting the effectiveness of the manipulation.

Selection of the justice perceptions subdimensions

Based on Gilliland (1993)’s work, Noble et al. (2021) describe several subdimensions of applicants’ justice perceptions. Of these subdimensions, *job-relatedness* (i.e., whether the test taken is perceived as relevant to the job content) was not retained because our participants did not take any test. *Reconsideration opportunity* (i.e., whether applicants can challenge the selection decision) was not retained because our participants were not given such opportunity. Similarly, *two-way communication* (i.e., opportunity for applicants to have their views considered) and *priority of questions* (i.e., whether the questions asked are biased) were not retained because our participants were not asked questions, nor had they the opportunity to voice their views. Our research thus solely focuses on *opportunity to perform* (i.e., whether applicants can demonstrate their skills), *consistency of administration* (i.e., standardization of procedures across people and time), and *treatment* (i.e., whether applicants are treated with respect).

Results of the moderated mediation model (Study 2a)

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As can be seen in the main manuscript, resume screening type indirectly relates to outcomes via organisational dehumanisation beyond justice perceptions (i.e., opportunity to perform, treatment, consistency of administration), which were, therefore, removed from further analyses for the sake of parsimony. Specifically, because the interactive effect between resume screening type and negative attitudes toward AI on OD was not significant in Study 1b, Hypotheses 4a-b were tested on the sample from Study 2a only (PROCESS; Model 7; 10,000 bootstrap resamples; Hayes, 2017). Bootstrap analyses revealed that the indirect effects of the resume screening type on outcomes via organisational dehumanisation were significant at one standard deviation above (organisational attractiveness=-0.23, 95% CI [-0.37;-0.12]; negative word-of-mouth=0.28, 95% CI [0.14;0.44]) but not below (organisational attractiveness=-0.04, 95% CI [-0.17;0.07]; negative word-of-mouth=0.05, 95% CI [-0.09;0.19]) the mean of negative attitudes toward AI. Although consistent with our predictions, these findings provide partial support for Hypotheses 4a-b as they could not be replicated in Study 2b.

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Table S1

Descriptive Statistics and Correlations among Variables for Study 1

Variable	Algorithmic M (SD)	Human M (SD)	1	2	3	4	5	6
1.Age	36.85 (11.32)	36.19 (11.36)	--					
2.Resume screening type condition	--	--	.03	--				
3.Organisational dehumanisation	4.51 (1.28)	3.76 (1.17)	.02	.29***	(.82)			
4.Intentions to pursue employment	3.19 (0.73)	3.42 (0.53)	-.13*	-.18**	-.27***	(.78)		
5.Organisational attractiveness	3.76 (1.40)	4.22 (1.17)	-.11	-.17**	-.38***	.69***	(.90)	
6.Negative word-of-mouth	3.39 (1.22)	2.81 (1.14)	.02	.24***	.46***	-.46***	-.51***	(.87)

Note. N=249 (except for age N=248). Resume screening type was coded -1=human screening and +1= algorithmic screening. Cronbach alphas are between brackets on the diagonal. * $p<.05$ ** $p<.01$. *** $p<.001$.

Source: Authors own work

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Table S2*Descriptive Statistics and Correlations among Variables for Study 2a*

Variable	Algorithmic Rejection <i>M (SD)</i>	Algorithmic Acceptance <i>M (SD)</i>	Human Rejection <i>M (SD)</i>	Human Acceptance <i>M (SD)</i>	1	2	3	4	5	6	7	8	9	10
1.Age	39.56 (12.51)	36.94 (10.51)	41.43 (11.47)	39.26 (13.93)	--									
2.Negative attitudes toward artificial intelligence	4.76 (1.51)	4.34 (1.47)	4.57 (1.46)	4.39 (1.64)	.14	(.88)								
3.Resume screening type condition	--	--	--	--	-.09	.02	--							
4.Decision favourability condition	--	--	--	--	-.10	-.10	.07	--						
5.Organisational dehumanisation	5.05 (1.38)	4.12 (1.30)	4.31 (1.25)	3.35 (1.32)	-.16*	.10	.24***	-.31***	(.82)					
6.Organisational attractiveness	3.60 (1.58)	4.10 (1.35)	4.07 (1.42)	4.93 (1.29)	.10	-.10	-.20**	.21**	-.40***	(.90)				
7.Negative word-of-mouth	4.16 (1.68)	3.22 (1.27)	3.25 (1.51)	2.45 (0.89)	-.10	.17*	.26***	-.27***	.49***	-.49***	(.87)			
8.Opportunity to perform	1.76 (1.04)	2.19 (1.22)	1.94 (0.93)	3.38 (1.67)	.05	-.14*	-.21**	.32***	-.39***	.39***	-.38***	(.92)		
9.Treatment	3.75 (1.63)	4.48 (1.38)	5.08 (1.21)	5.98 (1.12)	.10	-.15*	.43***	.23***	-.48***	.45***	-.49***	.47***	(.83)	
10.Consistency of administration	5.58 (1.19)	5.62 (1.04)	4.95 (1.23)	5.22 (1.31)	.01	.05	-.22**	.08	.20**	-.08	-.09	-.11	.003	(.73)

Note. $N_{Study2a}=210$ (except for age $N=207$). Resume screening type was coded -1=human screening and +1= algorithmic screening. Decision favourability was coded -1=rejection

and +1=acceptance. Cronbach alphas are between brackets on the diagonal. * $p<.05$. ** $p<.01$. *** $p<.001$.

Source: Authors own work

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Table S3

Descriptive Statistics and Correlations among Variables for Study 2b

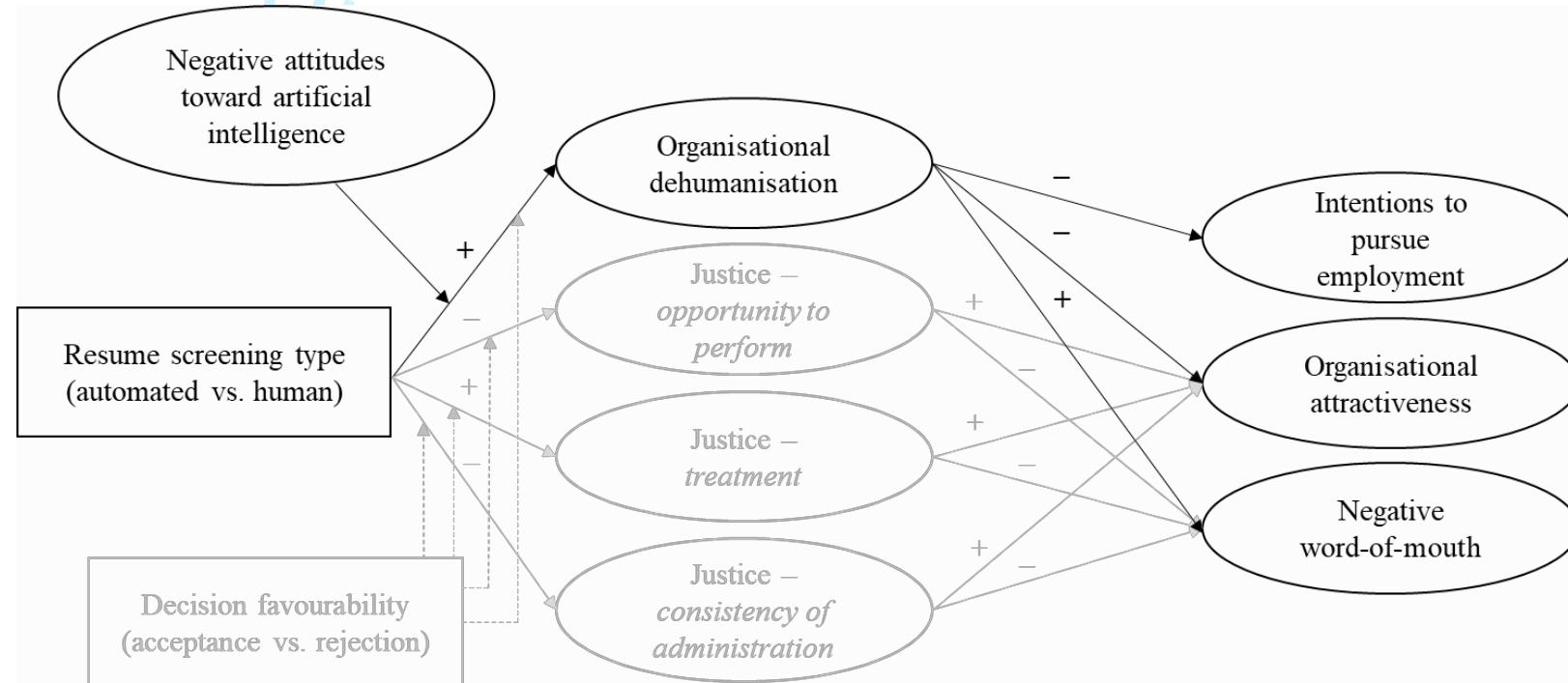
Variable	algorithmic Rejection <i>M (SD)</i>	algorithmic Acceptance <i>M (SD)</i>	Human Rejection <i>M (SD)</i>	Human Acceptance <i>M (SD)</i>	1	2	3	4	5	6	7	8	9	10
1.Age	37.74 (12.08)	37.90 (10.25)	36.45 (11.51)	37.41 (13.66)	--									
2.Negative attitudes toward artificial intelligence	3.83 (1.54)	3.82 (1.61)	3.85 (1.39)	3.71 (1.38)	-.07	(.89)								
3.Resume screening type condition	--	--	--	--	.04	.02	--							
4.Decision favourability condition	--	--	--	--	.02	-.03	-.01	--						
5.Organisational dehumanisation	5.20 (1.33)	5.01 (1.45)	4.66 (1.52)	4.38 (1.23)	.01	.16**	.21***	-.08	(.91)					
6.Organisational attractiveness	3.38 (1.50)	3.93 (1.60)	3.83 (1.54)	4.69 (1.36)	.06	-.11*	-.20***	.23***	-.56***	(.94)				
7.Negative word-of-mouth	3.87 (1.50)	3.39 (1.46)	3.45 (1.33)	2.71 (1.26)	-.09	.27***	.19***	-.21***	.58***	-.70***	(.91)			
8.Opportunity to perform	2.70 (1.54)	3.30 (1.74)	3.45 (1.56)	4.26 (1.44)	.04	-.14**	-.26***	.21***	-.44***	.60***	-.52***	(.96)		
9.Treatment	4.09 (1.69)	4.39 (1.76)	4.76 (1.31)	5.47 (1.20)	.05	-.22***	-.28***	.16**	-.47***	.65***	-.60***	.62***	(.93)	
10.Consistency of administration	5.33 (1.35)	5.52 (1.37)	5.07 (1.21)	5.35 (1.01)	.06	-.11*	.09	.10	.02	.03	-.04	-.02	.17***	(.80)

Note. $N_{Study2b}$ =392. Resume screening type was coded -1=human screening and +1= algorithmic screening. Decision favourability was coded -1=rejection and +1=acceptance.

Cronbach alphas are between brackets on the diagonal. * $p<.05$. ** $p<.01$. *** $p<.001$.

Source: Authors own work

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Figure S1*Hypothesised Model*

Source: Authors own work