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WHY MAKING PROMOTION AFTER A BURNOUT IS LIKE BOILING THE OCEAN

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Why Making Promotion After a Burnout Is Like Boiling the Ocean*

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Abstract: Recent studies have explored hiring discrimination as an obstacle to former burnout patients. Many workers, however, return to the same employer, where they face an even more severe aftermath of burnout syndrome: promotion discrimination. To our knowledge, we are the first to directly address this issue in research. More specifically, we conducted a vignette experiment with 406 genuine managers, testing the potential of the main burnout stigma theoretically described in the literature as potential mediators of promotion discrimination. Estimates reveal that compared to employees without an employment interruption, former burnout patients have no less than a 34.4% lower probability of receiving a promotion. Moreover, these employees are perceived as having low (1) leadership, (2) learning capacity, (3) motivation, (4) autonomy and (5) stress tolerance, as well as being (6) less capable of taking on an exemplary role, (7) having worse current and (8) future health, (9) collaborating with them is regarded more negatively, and (10) managers perceive them as having fewer options to leave the organisation if denied a promotion. Four of these perceptions, namely lower leadership capacities, stress tolerance, abilities to take on an exemplary role and chances of finding another job explain almost half the burnout effect on promotion probabilities.

Keywords: promotion, burnout, statistical discrimination, taste-based discrimination, invisibility hypothesis.

JEL-codes: J71, I14, C83, C91.

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1. Introduction

Most research on burnout syndrome is centred around its determinants. In addition, its short-term impact on both health and work-related outcomes has been well documented (Bakker & Demerouti, 2017). The longer-term effects of burnout, in contrast, have received less attention. However, the societal and individual aftermath of burnout syndrome could linger for years after patients' acute state of utter exhaustion. This 'burnout aftermath' is typically initiated by a sick leave spell in which patients often take months to recover, followed by an arduous return-to-work process because of residual or returning exhaustion (Boštjančič & Koračin, 2014; Kärkkäinen, Saaranen, Hiltunen, Ryynänen & Räsänen, 2017).

Indeed, recent research has implied that hiring penalties inflicted by employers upon former burnout patients exist in the labour market (Purvanova & Muros, 2010; Sterkens, Baert, Rooman & Derous, 2020). However, compared to external hiring discrimination, promotion discrimination (i.e., internal hiring) could be an equally—if not more—damaging consequence of burnout for two reasons. First, burnout patients often voluntarily return to their prior employer after their sick leave (Perski, Grosi, Perski & Niemi, 2017) and, thus, avoid hiring penalties in the external job market. More so, most European countries and the United States of America (USA) explicitly forbid discrimination based on mental health and, therefore, legally secure the employment of workers on sick leave (EEOC, 2016; McDaid, 2008). Moreover, interviews reveal that these employees, although temporarily spared from external hiring discrimination, report experiencing interpersonal problems at their original workplace (Boštjančič & Koračin, 2014). Second, when applying for another job, former patients could also choose to keep their history of burnout hidden to avoid external hiring discrimination. However, concealing burnout comes at the cost of transparency towards new employers. Regarding the disclosure of burnout, the opposite seems to be true concerning internal hiring. Burnout gradually develops under the watchful gaze of the current employer and the worker's colleagues. Although patients are not legally obliged to reveal the exact reason for their sick leave (EEOC, 2016), knowledge of the employee's burnout is practically unavoidable because of the employer's crucial role in the return-to-work process (Rooman et al., 2020). Opportunities, therefore, arise for unequal treatment (such as promotion discrimination) based on a history of burnout. To the best of our knowledge, our study is the first to directly investigate promotion discrimination against former burnout patients.

From a theoretical point of view, two seminal theories are used to explain aspects of hiring discrimination, namely taste-based (Becker, 1957) and statistical (Arrow, 1973; Phelps, 1972) discrimination. These theories might explain reduced promotion chances for burnout patients as a consequence of stigmatisation. First,

in an application of taste-based discrimination, decision-makers may fear that the promotion of former burnout patients might result in lower professional satisfaction on the part of their new subordinates, direct colleagues or hierarchical superiors with whom they have to interact more intensely after their promotion. When decision-makers desire to avoid this perceived disutility in collaborations, this might result in lower promotion opportunities for former burnout patients. In line with this reasoning, burnout patients experience stigmatisation (Brouwers, 2020; Mendel, Kissling, Reichhart, Bühner & Haman, 2015) and indeed struggle with acceptance in organisations after returning to work (Boštjančič & Koračin, 2014).[1] Second, although the employer possesses information on internal candidates' productivity in their current jobs, informational frictions arise when predicting their productivity in a different job at a higher level.[2]

According to the theory of statistical discrimination, a candidate's history of burnout, or more specifically, the employers' stigmatised beliefs surrounding burnout patients as a group, are then used to evaluate the performance potential in the new job rather than resolve the informational frictions with knowledge of the candidate's individual performance (Arrow, 1973; Phelps, 1972). In particular, Mendel et al. (2015) have shown that former burnout patients are perceived as being worse leaders and less stress tolerant, which might be particularly relevant in this context.

A third theoretical mechanism that could explain promotion discrimination is the invisibility hypothesis (Cassidy, DeVaro & Kauhanen, 2016; Milgrom & Oster, 1987), which suggests that the job skills of some employees are not easily discovered by potential new employers. That is, the so-called invisible workers are less likely to 'broadcast' their productivity potential to the market and, as a result, have fewer job opportunities outside the organisation. A promotion, however, would create a strong signal that enhances the promoted worker's visibility to (poaching) competitors, increasing their job opportunities. Consequently, rational employers could then withhold their invisible workers from a promotion to further hide their capacities, retaining in-house talent at a relatively low cost. In line with this hypothesis, many recovering burnout patients are 'invisible workers' because the external hiring penalties former burnout patients face (Sterkens et al., 2020) and their often reduced sense of self-efficacy (Boštjančič & Galič, 2020) could limit their connection

[1] This stigmatisation and the corresponding distaste could then be further amplified because the promoted employee takes on a hierarchically superior and more visible role in the organisation and, thus, more readily activates prejudices (Pichler & Holmes, 2017).

[2] Furthermore, when individuals responsible for a promotion decision had limited (or no) contact with the promotion candidate (e.g., when they did not manage her or him directly), the information frictions increase compared to a situation in which the decision-makers had more professional contact with candidates.

with the external labour market, and therefore, the promotion opportunities that the market has to offer.

In general, to tackle promotion discrimination against a growing number of former burnout patients, it is crucial to understand its driving forces. This study is the first to empirically test the three mechanisms: taste-based, statistical discrimination and the invisibility hypothesis in the context of burnout. In our state-of-the-art factorial survey experiment, genuine managers with hiring experience evaluate fictitious internal promotion candidates with and without a history of burnout. The candidates' assigned promotion probabilities are then regressed on candidate perception items grounded in the three seminal frameworks and burnout literature. Exploration of job-sided moderators of discrimination can be assessed by varying the internal vacancies for which managers evaluate employees. Moreover, we also investigate the potential of additional moderators of promotion discrimination at the candidate (sex, age, tenure, prior performance, personality traits and training investments by the organisation) and employer (sex, age, ideal worker beliefs, social dominance orientation and prior contact with burnout) level in the relationship between prior burnout and promotion opportunities.

In addition to capturing the occurrence (whether), driving perceptions (why) and moderators (when) of promotion discrimination against former burnout patients, we extend the promotion literature by (1) broadening its scope through the investigation of health-related grounds of discrimination (Neumark, 2018) and (2) experimentally exploring the theoretical mechanisms explaining promotion discrimination. Moreover, we enhance the ecological validity of the state of the art of the vignette experimentation framework by approximating how promotion decisions are made in practice. More specifically, compared to external hiring contexts, conducting the experiment in an internal promotion context affords participants with additional realistic information relevant to hiring decisions (e.g., performance-related data and organisational tenure) across different occupational contexts.

2. Experimental Design

Whereas vignette experiments are primarily used to study the impact of candidate characteristics on hiring outcomes by mimicking hiring assignments (e.g., Kübler, Schmid & Stüber, 2018), our study follows a recent trend towards investigating explanations for hiring decisions (Neumark, 2018). Indeed, besides measuring the outcomes of employers' decisions, vignette experiments also allow for an investigation of decision grounds through mediation analyses (e.g., Van Belle, Di Stasio, Caers, De Couck & Baert, 2018). These explorations appeal to pressing

calls for research on how precisely hiring decisions are made (Bills, Di Stasio & Gërxhani, 2017; DeVaro, Kauhanen & Valmari, 2019; Rivera, 2020). Moreover, this tendency towards explaining hiring decisions has, thus far, almost exclusively focussed on external hiring decisions. That is, even fewer vignette experiments have considered the mechanisms behind decision-making in internal hiring contexts (e.g., Fernandez-Lozano, González, Jurado-Guerrero & Martínez-Pastor, 2020), and none have been related to the burnout history of candidates. Hence, our study applies Auspurg & Hinz's (2014) methodology to explain promotion decisions in the case of successfully reintegrated ex-burnout patients.

In addition to the rareness of natural, observational data on both promotion and burnout, vignette studies as a genre of lab experiments have shown to be an excellent alternative regarding research ethics and study design flexibility. First, regarding ethics, vignette experiments have been demonstrated to be an effective yet non-invasive measure of sensitive issues such as discriminatory behaviours and attitudes (Auspurg, Heinz, Liebig & Sauer, 2014) wherein explicit and free consent is obtained from participating professionals. The latter is not the case in correspondence experiments, the gold standard to objectively measure hiring discrimination (Baert, 2018b; Neumark, 2018). Second, the malleability of the fictitious candidate profiles allows statistically efficient analyses of specific combinations of traits (e.g., candidates with a history of burnout and different levels of organisational tenure) that realistically occur in practice but would require large numbers of registered burnout cases to obtain statistically efficient estimates for each composition. For example, compared to correspondence experiments, the results of vignette experiments may be biased by participants offering socially desirable responses. We discuss the measures that were taken to cover and compensate for this and other potential design limitations throughout Sections 2 and 4.

2.1 Vignette design

In our experiment, real-life managers passed a series of judgments on four fictitious candidates applying for a promotion, with some of the candidates having a past experience with burnout syndrome. That is, our promotion candidates varied systematically in seven characteristics. Following Auspurg and Hinz (2014), seven 'vignette dimensions' is the optimal number of such dimensions to maintain a balance between an experiment's complexity and the amount of candidate information available in actual human resource management decisions.[3] The

[3] Although there is logically more information available on internal than external candidates, human decision-making remains limited regarding the number of elements actually incorporated in decision-making (Auspurg & Hinz, 2014). Therefore, adding additional dimensions is discouraged.

employed vignette dimensions and their corresponding levels are displayed in Table 1.

<Table 1>

A first and crucial vignette dimension was the candidate's *employment record*, and more specifically, any interruptions that took place in the past two years. The fictitious candidates had either no interruptions (the first control level), took parental leave (the second control level), took sick leave following an accident (the third control level) or—the experimental condition—took a stress leave due to burnout. Whereas the level 'no interruptions' allows for comparison with the typical control candidate, the candidates who took sick leave—and to a lesser extent those with parental leave—also allow for comparisons of burnout patients with other groups that are stigmatised in labour markets (for an overview, see Baert, 2018b), further enhancing the ecological validity of the experiment.

The following four dimensions provided participants with additional information on the fictitious candidate's behaviours within the organisation: organisational tenure, last years' performance evaluation, training investments made by the organisation and the outcome of a personality assessment. *Organisational tenure* had the following levels: 'short (less than two years)', 'average (between two and five years)' and 'long (more than five years)'. Tenure was an essential dimension to add because of its evidenced impact on promotion decisions (Johnston, 2002; Rezende & Santos Alves de Carvalho, 1994). Next, a dimension reflecting *last years' performance* within the organisation clearly sets our 'promotion vignettes' apart from studies where the implementation of strong signals on candidate productivity would often be unrealistic (e.g., the external hiring context, for instance, Van Borm et al., 2018) or excluded (e.g., Fernandez-Lozano et al., 2020) in the promotion context. The performance levels included 'positive: average' and 'positive: above average' because candidates with a negative evaluation would never qualify for a promotion in the first place. More importantly, in the case of burnout patients, the performance dimension is a strong signal of recent productivity and, therefore, indicative of a successful return to work after their period of crisis. At least theoretically, such proof of (restored) productivity might be a promising counter to the productivity-related stigma that could explain promotion discrimination against former burnout patients.

Similar to prior performance, the dimension '*training investments by the organisation*' (levels: 'none', 'job rotation', 'leadership training' and 'occupation-specific training) is both relevant to promotion decisions (Forrier & Sels, 2003) and a potential moderator in the relationship between burnout and promotion opportunities. For instance, the skills and experience acquired in the levels of 'leadership training' and 'occupation-specific training' could, again, counter

productivity-related stigmatic perceptions that burnout patients encounter, such as reduced leadership (Mendel et al., 2015) and learning (Öhman, Nordin, Bergdahl, Birgander & Neely, 2007) capacities. In addition, training by means of job rotation (within the organisation) allows workers to gain broad experience within the organisation—which is yet another relevant factor in promotion decisions (Cassidy et al., 2019; Sato, Hashimoto & Owan, 2019). Next, the *personality assessment* of a promotion candidate is a logical fifth dimension because assessment centres are often organised to aid promotion decisions and because of personality traits' predictive value for both performance (Hurtz & Donovan, 2000) and the successful reintegration (Rooman et al., 2020) of burnout patients. Its five levels, namely 'openness', 'conscientiousness', 'extroversion', 'agreeableness' and 'emotional stability', were derived from the globally established 'Big Five' personality traits from the psychological literature (Barrick & Mount, 1991).

The remaining two vignette dimensions are gender and age. For ecological validity, it was logical to add both elements to the vignettes. Furthermore, differential treatment of burnout patients could also vary by gender and age. For instance, *gender* (levels: 'male' and 'female') is a potential moderator of discrimination against burnout patients because prior research found that men with mental health problems were favoured over women with mental health problems when evaluating candidates for a leadership function, with leadership being a common element of promotions (Brohan et al., 2012). The levels of *age* were fixed at '30', '40' and '50' (and randomly adjusted plus or minus three years to, once more, establish the ecological validity of the experiment). Because of age's negative signalling effects concerning reduced health, trainability and flexibility (Baert, Norga, Thuy & Van Hecke, 2016; Van Borm, Baert & Burn, 2019), older ages could further strengthen the negative productivity stigma surrounding burnout, thereby encouraging promotion discrimination.

The discussed selection of dimensions and levels resulted in a 2 (gender) × 3 (age) × 3 (organisational tenure) × 4 (employment record) × 2 (performance evaluation) × 5 (personality assessment) × 4 (training invested by the organisation) design of 2,880 unique vignettes ('the vignette universe'). Because exposing participants to the entire vignette universe is practically unfeasible, they were presented with one subset of vignettes (a 'vignette deck'). More specifically, we ran a D-efficiency algorithm (Auspurg & Hinz, 2014) that drew 50 decks of four unique vignettes from the vignette universe. This algorithm systematically selected those combinations of vignettes that yielded the most precise parameter estimates for each level with a minimal loss of efficiency compared to a fully factorial set-up. The resulting D-efficiency score (91.247/100) indicates that minimal correlations exist between vignette dimensions (Auspurg & Hinz, 2014).

2.2 Data collection

Our vignette experiment was administered online via Qualtrics to a total sample of 405 real-life managers with hiring experience. Participants were recruited in December 2020 via the online panel platform of Prolific and yielded a total of (405 × 4 =) 1,620 completed candidate evaluations that were analysed. Participants who failed the attention check (Liu & Wronski, 2018) (i.e., one participant), did not finish the experiment (n = 28) or already completed a pretest (n = 20) were excluded from analyses.

Via Prolific (Peer, Brandimarte, Samat & Acquisti, 2017), participants received an invite when they were registered in the online panel as (1) living in either the UK or the USA, (2) having experience in a management role and (3) being experienced at hiring employees. To hide the true purpose of the study (i.e., studying promotion discrimination against former burnout patients), the invitation did not contain any mention of either discrimination or burnout. Thus, the invitation solely focussed on 'requesting aid in fictitious promotion decisions'. To ensure data quality, we inserted a trap question in the post-experimental survey (see Subsection 2.3.4) 'This is an attention check. Please indicate "Strongly Oppose." ' and conducted several robustness checks on our results below. Online panel data are increasingly popular and welcomed in the case of hiring experiments (Bills et al., 2017). Indeed, a meta-analysis from Walter, Seibert, Goering & O'Boyle (2019) confirmed similar effect sizes and reliabilities between data gathered from online panels and traditionally sourced data.

2.3 Procedure

This subsection describes the experimental procedure for participants. Study participation took an average of 17 minutes and consisted of four main parts: (1) experimental context, (2) internal vacancy, (3) candidate evaluations and (4) post-experimental survey.

2.3.1 Experimental context

Participants provided informed consent to participate in the study and then advanced to a screen introducing the experimental context and internal vacancy. Participants read about their fictitious role as a manager in the organisation 'Isaakson Inc.' where, together with HR, they advised their superior on four internal candidates who were qualified for a promotion. Based on the earlier phases of the selection procedure and the candidate's employment history within the organisation, the selection committee compiled several candidate profiles that were to be evaluated. Our choice for the participant 'partaking in a selection committee'

maximised the ecological validity of the experiment: promotion decisions are often made in a committee setting where members formulate advice (Rezende et al., 1994; Steed, Waniganayake & De Nobile, 2020). Additionally, this approach subtly offered participants an explanation for their lack of knowledge of the candidates beyond the profiles. After all, they were advisors in a committee and did not specifically evaluate co-workers they had managed themselves.

2.3.2 Internal vacancy

Participants evaluated candidates' suitability for one randomly assigned internal vacancy. To explore potential job-related moderators and test the generalisability of findings across job contexts, we created a total of 12 fictitious vacancies that varied on three underlying job characteristics (i.e., 'required quantitative workload', 'required qualitative workload' and 'impact of error') and the nature of the promotion (i.e., occupational level, level of authority or a combination of both). Table 2 below summarises the different jobs and their underlying characteristics used in the experiment.

<Table 2>

The first two job characteristics—the required quantitative and qualitative job demands—were potential moderators of promotion discrimination because differences in workload between jobs could elicit varying responses from managers based on burnout patients' productivity stigma. More specifically, as burnout's main determinant (Alarcon, 2011), jobs with a high quantitative workload could be perceived as too demanding for ex-burnout patients because of stigmatic perceptions of reduced stress tolerance, poor health (Sterkens et al., 2020) and weakness (May, Terman, Foster, Seibert & Fincham, 2020). Similarly, we varied jobs based on their qualitative workload (i.e., task complexity) because of the burnout stigma of reduced intelligence (May et al., 2020), which might lead to perceptions of reduced performance on complex tasks. The vacancies also varied on the impact of errors made in the job because reintegrated ex-burnout patients are generally perceived as having higher probabilities of taking future sick leave (Mendel et al., 2015) or being more error prone from the reduced health stability. This elevated risk would, in turn, make former patients less attractive candidates for managers when the costs of errors are high. The latter is indicated by the job's impact of error.

To systematically select job titles fitting our proposed manipulations, we examined the O*NET classifications per job characteristic (e.g., Van Borm et al.,

2019).[4] Hence, we compiled a quantitative workload factor with the O*NET scores 'duration of typical work week', 'frequency of decision making' and 'time pressure' and an impact of error factor from O*NET's 'consequence of error' and 'impact of decisions on co-worker or company results' scores. In the O*NET scores for 'complex problem solving', we found a direct counterpart for the qualitative workload. Next, as presented in Table 2, we isolated the three characteristics in our job choices by constructing a 4 × 3 matrix with different levels of job characteristics. The matrix was then completed with jobs that scored high on one characteristic (e.g., quantitative workload) and low on the other two (e.g., qualitative workload and impact of error). Our classification of occupations scored as 'high' or 'low' on a job characteristic was based on their factor score rankings among all 969 O*Net occupations. We assigned occupations the labels 'low' or 'high' using 25% margins (i.e., bottom and top 242 scores). For example, the occupation 'sales manager' belonged to the top 25% occupations in terms of 'complex problem solving' (i.e., qualitative workload) and was, therefore, assigned the label 'high'. Applying this strategy, we found a matrix fit with the four occupations: graphic designer, billing, cost and rate clerks, sales manager and biomass plant technician.

In addition to the varying job characteristics, we also captured some of the variability between real-world promotions following Baert, De Pauw & Deschacht (2016) in varying the nature of promotions applied for. More specifically, given candidates' equal current jobs within the organisation, our fictitious vacancies implied either a promotion in terms of (1) occupational level, (2) level of authority or (3) a combination of both. By introducing a third, combined level of promotion characteristics, we expand Baert and colleagues' (2016) methodology by introducing differences in 'promotion size', with a larger promotion representing an increase in both occupational level and authority. We implemented the different promotions as follows:

(1). Promotions in occupational level were implemented by fixing all candidates' current jobs at job titles from a lower occupational level;[5]

(2). Promotions in the level of authority were implemented by fixing candidates' current jobs at the level of current vacancy but by adding '– Teamleader' to the vacancy title and mentioning an additional responsibility of directing other co-workers in the corresponding job

[4] O*NET Online is an application developed by the U.S. Department of Labor. It features occupational information on the required skills and work activities for over 900 occupations.

[5] Based on the O*NET task descriptions of the four jobs withheld, the researchers agreed on the following lower-level occupations: assistant graphic designer (graphic designer), administrative assistant (billing, cost and rate clerk), shop assistant (sales manager) and machine operator (biomass plant technicians).

descriptions;

(3). Promotions in both occupational level and level of authority ('promotion size') combined manipulations (1) and (2).

After participants read through the experimental context and one vacancy text, two manipulation checks were performed based on the O*NET occupation description. First, participants indicated their interpretation of the vacancy (i.e., which of the promotion types applied). Second, they assigned scores from 0 to 10 to three statements on the perceived job characteristics of the vacancy (i.e., its quantitative and qualitative workload and the impact of error).

2.3.3 Candidate evaluations

In the third part of the experiment, participants passed a series of judgments on four candidate vignettes using 11-point response scales. Appendix Table 1 gives an overview of all items used for candidate evaluations.

Two types of evaluations were made per candidate. The first evaluation was the probabilities they would (1) include the candidate in the next stages of the promotion process and (2) eventually select the candidate for the promotion. Next, participants also shared their candidate perceptions via scores on a total of 13 signalling statements (i.e., the signals emitted by candidates) derived from theory and the literature. Four of these statements measured attitudes towards collaboration and stemmed from four different sources of Becker's (1957) theory of taste-based discrimination applied to the promotion context (i.e., collaboration with the manager, employees at the same hierarchical level, co-workers at a lower hierarchical level and employees at the highest hierarchical level).

Another eight statements reflected burnout productivity stigma that could represent potential sources of statistical discrimination against former burnout patients. As explained in the introduction, the stigma surrounding burnout might influence employers' predictions on candidate productivity and, therefore, their suitability for a promotion (Arrow, 1973; Albrecht et al., 2013). Based on a comprehensive study of the literature, which included a first validated burnout stigma scale (May 2020), we bundled eight productivity perceptions with relevance to former burnout patients. More specifically, we asked participants whether they thought candidates had sufficient (1) leadership capacities (Mendel et al., 2015), could take on an (2) exemplary role for others (Pichler & Holmes; Boštjančič & Koračin, 2014), were sufficiently (3) motivated (May, 2020), (4) autonomous (Sterkens et al., 2020), (5) stress tolerant (Mendel et al., 2015; Ozawa & Yaeda, 2007), possessed sufficient (6) learning capacities (Boštjančič & Koračin, 2014; Grossi et al., 2015; Öhman, Nordin, Bergdahl, Birgander & Neely, 2007), were (7)

currently sufficiently healthy and whether they would often (8) take sick leave in the future (Laberon, 2014; Mendel et al., 2015). In line with the invisibility hypothesis (Cassidy et al., 2016; Milgrom & Oster, 1987), the last statement gauged perceived candidate 'visibility', that is, whether the manager believed the candidate could easily find a similar job in another organisation if denied the promotion.

A principal component analysis (PCA) on the perception items (using Varimax rotation) found one dominant factor explaining 58.4% of the total variance in the data and a smaller, second component explaining an additional 13.6% of the total variance. However, based on the calculated Eigenvectors, item loadings on the first and dominant component are generally low (maximum = 0.324), which encouraged a separate item-level analysis. Conversely, when we conducted a separate PCA on statements reflecting taste in collaboration, we found a single dominant factor explaining 80.7% of the variance in items with stronger loadings on all items (around .50). Therefore, we calculated a combined 'taste to collaborate' scale (α = .920). Nevertheless, we conducted a robustness check with the separate items (see below).

2.3.4 Post-experimental survey

In the fourth and final part of the experiment, participants completed a post-experimental survey through which we collected participant data for sample description, moderation analyses and robustness checks.

The demographic variables gender ('male', 'female') and age (in years) were tested as potential moderators in the relationship between burnout and promotion decisions. Indeed, Cole, Feild and Giles (2004) reported that male recruiters expressed stronger stigmatic perceptions when evaluating job candidates. Similarly, Ozawa & Yeada (2007) concluded that older employers (aged over 60 years) held more negative attitudes towards workers with mental health problems.

Next, to explore the role of employer perception beyond stigmatising beliefs, we conducted moderation analyses with two belief scales, the ideal worker norm measure from O'Connor and Kmec (2020) and the short social dominance orientation scale ($SDO_{7(s)}$ scale) from Ho et al. (2015), that have been found to correlate with discrimination. First, employers who uphold an 'ideal worker norm' are convinced that the best employees are both continuously devoted to their employer and will work throughout adult life with minimal family interruptions. An example of an item measuring the ideal worker norm is 'the ideal employee drops everything at a moments' notice for work'. Such beliefs are at odds with burnout patients' stigmatised status of lacking motivation and having a higher likelihood of requiring sick leave. Therefore, participants' beliefs in an ideal worker norm might be associated with reduced promotion probabilities assigned to former burnout

patients.

Second, a social dominance orientation entails a preference for a hierarchy between societal groups and inequality (Ho et al., 2015). For instance, individuals with a high score on social dominance orientation are likely to agree with statements such as ‘Group equality should not be our primary goal’. Again, such patterns of beliefs are at odds with the stigma carried by burnout patients (e.g., ‘being weaker’, [May et al., 2020]) and perceptions that collaborations with them could be unpleasant (Boštjančič & Koračin, 2014). A third and final characteristic that might be associated with favourable employment opportunities for burnout patients is managers’ personal experience with burnout syndrome (Allport, 1979). Therefore, in the survey, we distinguished between (no) contact with burnout syndrome in participants’ professional lives, private lives or as a former patient themselves.

To conduct robustness checks in diverse subsamples of participating managers, the post-experimental survey contained measures for participants’ frequency of involvement in promotion decisions (‘daily’, ‘weekly’, ‘monthly’, ‘once per semester’, ‘yearly’ or ‘less frequently’) and tenure at making promotion decisions (‘less than a year’, ‘one to five years’, ‘more than five years’ or ‘none, but experienced in hiring decisions’). Furthermore, we also measured social desirability tendencies with the shortened and validated Marlowe–Crowne Social Desirability Scale (Baert, 2018a; Beretvas, Meyers & Leite, 2002; Sârbescu, Costea & Rusu, 2012; Reynolds, 1982). The 13 items from the scale measured behaviours that are socially sanctioned or approved (e.g., ‘I’m always willing to admit it when I make a mistake’), and managers indicated per item whether these applied to them (score 1, if not, score 0). Afterwards, we calculated a standardised sum of item scores.

As briefly mentioned in Subsection 2.2, we pretested our experiment among 20 Prolific users from the intended survey population (i.e., individuals with management and hiring experience from the UK and USA). Throughout pretesting, we added two sets of statements pretesters used to rate the experimental materials. More specifically, they indicated on a scale from 0 to 10 whether they thought the vacancies and candidate profiles were sufficiently (1) informative, (2) realistic or (3) understandable, then clarified their responses in open-ended questions. Based on the results from our pretest, we provided supplementary information further clarifying the different types of promotions presented in the experiment. Our experiments received positive ratings on the informativeness (6.150/10 on average) and realism (7.450/10 on average) of the experimental materials. Therefore, we find that our experiment has successfully addressed the most pressing critique of factorial survey experiments: providing participants with insufficient information to

make a decision, which limits the experiments' realism (Auspurg & Hinz, 2014).

2.4 Data description

As explained in subsection 2.1, we ran a D-efficiency algorithm on the vignette universe to create vignette decks (with candidate profiles) that had minimal correlations between vignette dimensions. Indeed, exploration of the experimental data found correlations of a maximum 0.081 between candidates' history of burnout and other vignette dimensions, thus complying with Auspurg and Hinz's (2014) guidelines.

As illustrated in Appendix Table 2, our total sample (n = 405) was (relatively) balanced in term of gender (48.4% was female) and country of residence (UK 49.6%, USA 50.4%). Furthermore, the sample varied substantially in age (mean = 45.057 years, SD = 13.199),[6] frequency of promotion decisions and tenure at making promotion decisions. With 86.2% of the sample having experience at making promotion decisions and 74.1% of the sample at least annually involved in promotion decisions, participants were qualified for the experimental task. To reduce the potential bias of participants' inexperience at making promotion decisions (13.8%), we performed an additional robustness check that excluded inexperienced participants from analyses.

3. Results

To investigate whether (3.1), how (3.2) and when (3.3) employees' history of burnout affects promotion opportunities, we conducted three consecutive series of linear regressions in Stata/MP (version 15). The error terms were consistently corrected for clustering of the observations ('candidate evaluations') at the participant (i.e., manager) level. Ordered logistic regressions did not significantly change the results.

3.1 Effect of a history of burnout on promotion chances

First, we analysed the total effect of the candidate's history of burnout on promotion outcomes to examine whether former burnout patients are (dis)advantaged. As such, Table 3 below shows the results of promotion outcomes regressed on the (1) candidate, (2) job, (3) promotion and (4) participant characteristics discussed in subsections 2.1, 2.3.2 and 2.3.4. The stability of estimates is assessed by

[6] Our sample's composition is well in line with the Current Population Survey's estimates (U.S. Bureau of Labor Statistics) of the proportion of women (44.6%) and median age (46.9 years) in management occupations for 2021.

comparing different combinations of independent variables.

<Table 3>

As theorised in the introduction, promotion candidates with a history of burnout in the organisation are severely disadvantaged. More specifically, when comparing the average scores on 'the advice to advance the candidate in the process' item for (ex-)burnout patients (4.620/10) and candidates without interruptions (7.040/10) (i.e., Model 1), we find that former burnout patients have a ((1 − (4.620/7.040)*100 =) 34.4% lower promotion probability. Expressed in percentage points, we find that former burnout patients' promotion opportunities are 25.4 points and 26.3 points lower, respectively (when controlling for other variables in the model).[7] These estimates hold when controlling for candidate, job, promotion and participant characteristics in our regression framework. As such, Models 4 and 8 of Table 3 demonstrate that a past interruption in employment record due to burnout substantially reduces the promotion ratings assigned (i.e., $\beta = -2.541$, $p < 0.001$ for the advice to advance the candidate in the process and $\beta = -2.632$, $p < 0.001$ for the advice to ultimately select the candidate) when compared to the candidates without recent interruptions (i.e., our reference category).

In that Sterkens and co-workers' (2020) study featured a different experimental assignment in addition to varying manipulations and control reasons, we cannot make a definite comparison to the effect of burnout on (external) hiring probabilities. Nevertheless, the magnitude of the (external) hiring penalty inflicted on (ex-)burnout patients (i.e., 9.8 percentage points compared to candidates with a history of sick leave due to physical injury—their reference category) hints in the direction that the effect on promotion probabilities is larger. Considering our control levels of 'employment record', the coefficient estimates from Model 4 show that a history of burnout indisputably has the largest impact on advancement probability when compared to penalties inflicted on the grounds of parental leave ($\beta = -0.391$ ($p < 0.001$)) and sick leave following an accident ($\beta = -0.388$ ($p < 0.001$)).

The magnitude of the burnout effect on advancement probabilities is even more striking compared to the dummy estimates from the other experimental manipulations. In particular, we observe that the effect of candidate's past performance, which is yet a rare addition on its own to promotion vignettes, does not even remotely approach the burnout effect (i.e., a performance evaluation 'positive: above average', compared to on an evaluation as 'positive: average'; $\beta = 1.009$ ($p < 0.001$)). Similarly, the effects of employees' tenure, which has been found to increase promotion likelihood (Johnston, 2002), cannot compensate at all for the burnout penalty (i.e., over five years of organisational tenure compared to

[7] This interpretation is adequate because our response scales ranged from 0 to 10.

less than two years of tenure; $\beta = 1.111$ ($p < 0.001$)).

Finally, one could assume that the burnout effect measured is only a lower bound of the effect that would be measured in the field due to possible socially desirable actions of the study participants. We will return to this possible bias later when we discuss robustness analyses.

3.2 Drivers of promotion discrimination against former burnout patients

Next, we analysed whether candidate perceptions could empirically explain promotion discrimination based on the stigmatisation literature on burnout patients, statistical discrimination, taste-based discrimination and the invisibility hypothesis (as discussed in subsection 2.3.3). A multiple-mediation framework (Hayes, 2017) was applied to decompose the total burnout effect discussed in Section 3.1 into indirect effects via candidate perceptions related to these theories and a remaining direct effect. More specifically, we jointly estimated 11 regression models. The first 10 models regressed the 10 measured candidate perceptions (i.e., perceived (1) leadership capacities, (2) exemplary role, (3) motivation, (4) autonomy, (5) stress tolerance, (6) learning capacities, (7) current health, (8) likelihood of future sick leave, (9) attitudes towards collaboration (four items) and (10) chances of finding another job) on the independent variables listed in Table 3. The 11th model regresses the advancing probability on the same variables as well as on candidate perceptions (1–10).

3.2.1 The signalling function of a burnout history

Due to our experimental set-up, the first 10 regressions from our mediation framework estimate the causal relationship of a candidate's history of burnout on managers' candidate perceptions. As shown in Table 4, when compared to candidates without interruptions in their employment history within the organisation, former burnout patients are perceived as having lower (1) leadership capacities ($\beta = -1.443$; $p < 0.001$), being less capable of taking on an (2) exemplary role ($\beta = -1.855$; $p < 0.001$), (3) less motivated ($\beta = -1.544$; $p < 0.001$), (4) less autonomous ($\beta = -1.542$; $p < 0.001$), (5) less stress tolerant ($\beta = -3.766$; $p < 0.001$), having less (6) learning capacities ($\beta = -1.123$; $p < 0.001$), (7) worse current health ($\beta = -3.242$; $p < 0.001$), higher likelihood of (8) future sick leave ($\beta = -3.680$; $p < 0.001$), (9) collaboration with them is regarded more negatively ($\beta = -1.600$; $p < 0.001$), and they are perceived as having lower chances of (10) finding another job ($\beta = -1.874$; $p < 0.001$). The average perception scores for candidates without interruption compared to candidates with a history of burnout are

visually presented in Figure 1 below.

<Figure 1>

Our experiment, therefore, provides causal evidence for all stigma theoretically derived from the literature. The coefficient estimates of signals reveal that compared to candidates without interruptions in employment history, a history of burnout emits particularly strong signals of reduced (5) stress tolerance (a decrease of about 38 percentage points) and (7) current and (8) future health (decreases of approximately 32 and 37 percentage points, respectively). Although the occurrences of these signalling effects are in line with the stigma derived from the literature, we find their magnitudes astounding in the promotion context. After all, in the experiment, each candidate with a history of burnout successfully returned to the workplace and received a non-negative performance evaluation (subsection 2.1), which already are two strong arguments in favour of their restored capacities and health.[8]

<Table 4>

To address potential heterogeneity within burnout's causal signalling effect, we now briefly discuss additional results based on a different regression model and a country-specific subsample. As shown in Appendix Table 3, an alternative model with separate items measuring attitudes towards collaboration (instead of the scale introduced in Subsection 2.3.3) yields significant results for each item. Worse collaboration is expected with the participant as well as with colleagues at the same, lower or the highest level. Similarly, separate analyses of the UK and USA subsamples provide evidence for all signalling effects at the 1% significance level.

To conclude our analyses of signalling effects, we tested the robustness of estimates for more homogenous subsamples of participants (see Subsection 2.3.4), that is, participants with (1) prior experience in making promotion decisions, who make (2) promotion decisions on at least a yearly basis and with (3) low to average social desirability tendencies (i.e., a social desirability score lower than the total sample's average plus one standard deviation). As illustrated in Appendix Table 4, the regression results do not change significantly across the subsamples and can,

[8] Although only indirectly related to our research questions, we would also like to inform readers about the numerous signalling effects we find for other levels of employment record and dimensions, such as personality assessment, for two reasons. First, the significant differences in perceptions are indicative of the dimensions' (and levels') informativeness when screening candidates and, thus, suggest that the experiment approximates the high complexity of real-life promotion decisions particularly well. Second, given that participants' judgments corroborate with findings from earlier research, this is indicative of our data quality. For instance, we find that our participants, in line with the meta-analysis from Barrick and Mount (1991), appraised conscientious candidates more positively. As such, conscientious candidates are perceived as more capable to take on an exemplary role in the organisation ($\beta = 0.322$; $p < 0.001$) than agreeable candidates.

therefore, be considered robust.

3.2.2 The driving signals of promotion discrimination

Whereas we estimated burnouts' signalling effect in the previous subsection, this section explores the signals' explanatory power for promotion discrimination (i.e., 'mediation effects').[9] Although we find evidence of a signalling effect, this does not necessarily imply that all signals are equally considered when managers make promotion decisions. As indicated in Panel E in Table 4, differences are observed in the association between candidate perceptions and the probability for advancement. For example, we find that a candidate's capacity to take on an exemplary role in the organisation has a stronger association with promotion decisions ($\beta = 0.198$; $p < 0.001$) than perceptions of their current health ($\beta = -0.027$; $p = 0.356$) when controlled for other variables in the mediation model.

Within our multiple-mediation framework (Hayes, 2017), we calculated the indirect effects of burnout on promotion decisions by multiplying the regression estimates from burnout with the mediating candidate perceptions and from these mediators to the assigned promotion probabilities. The standard errors of the indirect effect estimations are based on a bootstrapping procedure with 100 repetitions. Table 5 below displays an overview of the percentages of the total burnout effect on promotion probabilities as explained by each of the investigated mediators.

Across the outcome variables (advancing and selection probability), four signals consistently emerge as significant explanations for promotion discrimination against (ex-)burnout patients: (1) perceived leadership capacities (explaining respectively 10.0% and 12.4% of the total burnout effect), (2) perceived exemplary role (14.4% and 13.1%), (3) perceived stress tolerance (16.9% and 26.8%) and (4) perceived chances of finding another job (7.9% and 13.1%). These four perceptions jointly explain approximately half (49.2%) of the penalty inflicted when deciding to advance former burnout patients in the promotion process (i.e., the most proximal decision of the experimental context). Three additional mediators have a different statistical significance depending on the outcome variable used. That is, perceived motivation (6.3%) and perceived likelihood of future sick leave (6.8%) explain additional significant proportions of advancing probability, whereas the perceptions on collaboration (13.1%) explain an additional significant proportion of the burnout

[9] The term 'mediation effects' follows the mediation literature. However, whereas the results in sections 3.1 and 3.2.1 can be given a causal interpretation, this is not true for those discussed in Section 3.2.2. That is, a causal effect from the candidate perceptions on hiring outcomes cannot be demonstrated from the current study design because the signals could correlate with unobserved candidate perceptions. Hence, mediation effects should be interpreted as associations. We further discuss this limitation in Section 4.

effect on selection probability. The mediators 'perceived autonomy' (3.8% and 2.5%), 'perceived learning capacities' (1.3% and 0.1%) and 'perceived current health' (3.4% and 1.9%) do not explain significant proportions of the burnout effect on promotion probabilities.

The proposed mediation model with 10 mediators partially mediates the effect of an employees' history of burnout on the probability of advancing in the promotion process because the remaining direct effect of burnout is statistically significant after controlling for indirect effects via its mediators ($\beta = -0.624$, $p < 0.001$). As it is, the current model explains no less than 75.4% of the total burnout effect. There could, nonetheless, be additional burnout stigma not yet identified in the literature that could further explain the burnout effect.

<Table 5>

In general, the mediation effects we find support the role burnout stigma plays in promotion discrimination as expected based on the theory of statistical discrimination. Interestingly, whereas perceptions of reduced stress tolerance took a central role in earlier studies (Mendel et al., 2015; Sterkens et al., 2020), managers from our study attached relatively less importance to perceived stress tolerance in promotion decisions—despite clearly indicating this perception (see above). The role of taste-based discrimination could, in contrast, be dependent on the stage of the promotion decision. More concretely, our results indicate that burnout patients are less likely restricted from advancing to promotion because of negative attitudes towards collaboration. However, in the final selection decision, managers assigned relatively higher weights to (negative) attitudes towards collaboration with former burnout patients. Nevertheless, the two seminal discrimination mechanisms cannot fully explain promotion discrimination of burnout patients because (1) they leave a part of the burnout effect unexplained and (2) a single item on candidates' perceived chances of finding another job ('invisibility hypothesis') captures a substantial part of the variance in the burnout effect. Indeed, these results underline the potential of the invisibility hypothesis as a seminal discrimination theory that could apply beyond its original context of gender differences to former burnout patients.

3.3 Moderators of promotion discrimination against former burnout patients

We lastly explore potential moderators (discussed in Subsection 2.3.4) of promotion discrimination against former burnout patients. To do so, the advancement probabilities assigned by the managers are regressed on the candidate, job, promotion and participant characteristics together with their interaction terms with employee's history of burnout. The results of the most comprehensive moderation analysis are presented in Table 6 below. Results did not change significantly upon

stepwise introduction of moderators into the model and are robust when analysed with selection probability as an outcome variable.

First, the absence of significant interaction terms between employees' history of burnout and the other employee characteristics indicates that the negative effect of a history of burnout and the positive effects of past performance, tenure, training investments and personality assessments (see Subsection 2.1) have a purely additive relationship with advancement probabilities. Based on the theory of statistical discrimination, however, we could have predicted that a beneficial performance evaluation decreases the burnout penalty inflicted. That is, in the presence of beneficial productivity data, rational managers would have relied less on other candidate characteristics to predict performance after a promotion. In the case of former burnout patients, it nonetheless appears that performance data from current jobs cannot sufficiently reduce informational frictions managers are confronted within the promotion setting.

Second, across the different types of job, promotion and participant characteristics, we find a single interaction effect between an employee's history of burnout and participant gender on promotion probability.[10] Compared to male colleagues, female managers inflict a higher promotion penalty on burnout patients ($\beta = -0.462$ $p = 0.032$). Although we did not expect the interaction term to have a negative sign (because male evaluators more commonly display discriminatory expressions in a selection context [Cole et al., 2004]), we find that by estimating two-way interaction effects between a candidate's history of burnout and participant gender on managers' candidate perceptions, female managers indeed evaluated employees with a history of burnout more negatively. More concretely, compared to their male counterparts, female managers perceived these candidates as less capable to take on an exemplary role ($\beta = -0.447$; $p = 0.029$), more likely to take sick leave in the future ($\beta = 0.613$; $p = 0.009$) and less likely to find other employment ($\beta = -0.681$; $p < 0.001$). These interactions with the female gender of the manager cannot be given a causal interpretation, however, because they may correlate with unobserved participant characteristics.

<Table 6>

4. Conclusion

To explain promotion discrimination against former burnout patients regarding

[10] Because the social dominance orientation data were skewed, we conducted a separate analysis with the dummy's classifying participants as either 'High' or 'Low' on social dominance as a function of the sample distribution. This approach, however, did not change our results.

underlying stigma, we conducted a factorial survey experiment. Actual managers judged fictitious internal candidates with varied employment histories inside the organisation. Some candidates were said to have overcome burnout, and other promotion-relevant characteristics were varied, such as organisational tenure, past performance and training received. More concretely, participants assessed the fictitious employees for diverging internal vacancies on promotion decisions as well as on statements derived from the literature's dominant explanations for promotion discrimination against former burnout patients. To the best of our knowledge, this study represents the first to directly measure this hitherto overlooked and, as our results indicate, grave consequence of burnout. Furthermore, we expand the promotion literature's focus beyond gender, ethnicity and age by analysing a mental health-related ground for discrimination. In addition to measuring promotion discrimination, we proceeded to test the role of stigmatising perceptions and attitudes in explaining such discrimination by exploring potential candidate, job and participant-side moderators of the burnout penalty. Finally, by conducting the experiment in an internal promotion setting, we optimised the ecological validity of hiring experiments because we were able to provide participants with additional realistic and relevant candidate information, such as performance data, to support hiring decisions.

In general, we conclude that, notwithstanding a successful recovery, employees' history of burnout creates a severe obstacle hampering one's options for promotion. A burnout history specifically reduced candidates' promotion probabilities by no less than 34.4% compared to others without interruptions in their employment record. The magnitude of this effect is perhaps even more striking because we also find that (1) the summed effects of both actual performance and tenure on promotion probabilities cannot compare in size, and we find (2) no significant employee-side interactions that could lessen the promotion penalty inflicted upon former burnout patients. As a result, one might say that making promotion after burnout is, indeed, like boiling the ocean. In addition, we find causal evidence for all mediating candidate perceptions theoretically identified in the literature. The four signals of lower leadership capacities, less ability to take on an exemplary role in the organisation, a lower stress tolerance and reduced likelihood of finding another job outside of the organisation jointly capture about half (49.2%) of the total burnout effect on promotion probabilities. The additional signals of lower motivation, autonomy, learning capacities, current and future health and negative perceptions on collaboration explained somewhat lesser proportions of the burnout effect.

These results have implications for employees with a history of burnout, their employers, policy-makers and researchers. First, the magnitude of the burnout effect on promotion probabilities obviously implicates that numerous fully recovered

(and productive) former burnout patients could be inextricably stuck at their current job in an organisation because they are refused access to higher-level jobs. This would not only be detrimental to their personal career advancement but also to their current employers. More specifically, when employees are fully recovered and aware of their denied or limited opportunities for upward mobility, this could create a strong incentive for them to leave the organisation in exchange for a new employer (Goldman, Slaughter, Schmit, Wiley & Brooks, 2008; Qablan & Farmanesh, 2019). This exit presents their current employers with a loss of human capital. Interestingly, compared to former burnout patients who immediately change employers after sick leave, those who successfully return to their initial workplace can more readily hide their burnout history (i.e., once recovered, they might become less dependent on vital supervisor support, see Rooman et al., 2020). Recovered employees would conceal their burnout history and avoid external hiring penalties (Brouwers, Joosen, van Zelst & Van Weeghel, 2020), which further incentivises them to leave in the case of promotion discrimination.

Second, by investigating effects of the 'burnout aftermath' on promotion opportunities, our results call for additional attention from policy-makers towards burnout syndrome. For one, the occurrence of promotion discrimination against former burnout patients is, next to its health and financial costs, another argument for investment in primary burnout prevention. It is obviously better to prevent promotion discrimination than to cure it. Moreover, our findings argue against the implementation of labour market reintegration policies and interventions with an exclusively short-term focus, which approach return-to-work as a simple, dichotomous variable (i.e., whether one has reintegrated or not). Clearly, burnout syndrome's negative career impact remains a threat in the mid to long term. Despite burnout patients' poor promotion prospects, interventions aimed at reducing stigmatic perceptions found to fuel discriminatory behaviour (Corrigan & O'Shaughnessy, 2007) have had success in counteracting other sources of workplace discrimination (Derous, Nguyen & Ryan, 2020). These methods might be effective to combat promotion discrimination; however, this strategy remains a matter to be addressed in future research.

Finally, based on our results, we call for additional interdisciplinary cooperation between social scientists (e.g., economists, psychologists and sociologists) in the domain of promotion discrimination. Because the mediators we proposed cannot fully explain the burnout effect, additional stigma or theoretical mechanisms could be at play. Therefore, as suggested by Albrecht et al. (2013), experiments specifically designed to investigate theoretical explanations from adjacent fields such as psychology (e.g., cognitive mechanisms such as 'conservatism in updating beliefs') could further our understanding of precisely how burnout stigma causes the promotion penalty evidenced in our pioneering study.

This interdisciplinary approach might also identify additional moderators of such discrimination.

We conclude this article by acknowledging some of the study's limitations. A first constraint is the current experiments' inability to draw causal inferences based on indirect effects. Although we are able to infer causality on both the effect of burnout on promotion chances and from the effects of burnout on candidate perceptions, the same cannot be said for the respective effects of candidate perceptions on promotion probabilities. Indeed, the possibility remains that additional perceptions confound the relationship between the surveyed stigma and promotion probabilities. To identify causal effects of signals (e.g., Piopiunik, Schwerdt, & Woessmann, 2020), future research should, therefore, focus on experimentally manipulating different burnout signals.

A second limitation (or rather caveat) in our experiment is that an employee's history of burnout was temporally restricted in time because the 'employment record dimension' concerns 'candidates' past two years of employment'. We deliberately limited the time frame in our experiment to guard us from conducting an overly complex experiment. Adding yet another dimension varying the timing of gaps in employment history would substantially increase heterogeneity of the burnout manipulation by implying for some candidates that their burnout episode occurred when employed at another organisation. Considerably more problematic, adding a 'timing dimension' would have produced correlations with our core reference group 'no interruptions' (i.e., its values would be fixed at 0 for a hypothetical timing dimension), thus complicating the construction of D-efficient designs (subsection 2.1). Future research could nonetheless examine whether the burnout penalty on promotions is heterogeneous in time in a comparable experimental set-up.

A third and final limitation of our study is inherent to the experiment's laboratory setting. In general, knowledge of being observed could induce participants with social desirability tendencies (i.e., behaving in a way that is socially desirable but not necessarily in line with one's own convictions) which could cause a certain degree of measurement bias. Applied to the experiment, the burnout penalty we calculated would be a lower bound of the true effect—assuming not providing former burnout patients with equal opportunities is perceived as a socially undesirable decision. However, to limit the impact of social desirability biases, we designed the experiment in a way that mimics the complexity of a real promotion context. More specifically, by simultaneously varying additional dimensions besides the experimental condition (burnout versus its controls: no interruption, physical injury or parental leave), such as tenure and training, the complexity of the decision obscured the true purpose of the study throughout employee evaluations. For example, from the managers' perspective during the evaluation, we might have

been studying the promotion probabilities of women (as one pretester indeed suggested). Notwithstanding the risk of social desirability, factorial survey experiments have been shown to correlate strongly with actual behaviour (Baert & De Pauw, 2014; Hainmueller, Hangartner & Yamamoto, 2015; Van Belle et al., 2018).

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Table 1. Vignette dimensions and levels presented in experimental materials.

Vignette dimensions	**Vignette levels**
Sex	{Man; Woman}
Age (years)	{30 ± 3 years; 40 ± 3 years; 50 ± 3 years}
Organisational tenure	{Short (less than 2 years); Average (2 to 5 years); Long (more than 5 years)}
Employment record (interruptions in the last two years)	{No interruptions; Parental leave; Sick leave following an accident; Stress leave due to burnout}
Performance evaluation of last year	{Positive: average; Positive: above average}
Personality assessment (highest scoring trait)	{Openness (to experience); Conscientiousness; Extroversion; Agreeableness; Emotional stability}
Training invested by the organisation	{None; Job rotation; Leadership training; Occupation-specific training}

Notes. As described in subsection 2.1, following the D-efficiency algorithm of Auspurg and Hinz (2014), 200 candidate profiles (i.e., efficient combinations of seven vignette dimensions) were systematically divided over 50 decks comprising four candidate profiles. Participating managers were then assigned one deck to evaluate. The values of the age dimension were randomly adjusted ± 3 years across vignettes to realise experimental realism.

Table 2. Job titles and job characteristics utilised in the experiment.

(Promotion) Job titles	Required quantitative workload	Required qualitative workload	Impact of error
Graphic designer	Low	Low	Low
Billing, cost and rate clerk	High	Low	Low
Sales manager	Low	High	Low
Biomass plant technician	Low	Low	High

Table 3. Regression results with probabilities of promotion advices.

	Advice to advance in the promotion procedure (0–10)				Advice to ultimately promote (0–10)			
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
A. CANDIDATE CHARACTERISTICS								
Female		0.032 (0.080)	0.030 (0.079)	0.035 (0.080)		0.085 (0.085)	0.084 (0.085)	0.093 (0.085)
Age		0.006 (0.005)	0.006 (0.005)	0.005 (0.005)		0.009* (0.006)	0.009* (0.006)	0.008 (0.005)
Organisational tenure (ref. short)								
Average		0.717*** (0.107)	0.713*** (0.107)	0.709*** (0.106)		0.636*** (0.112)	0.629*** (0.107)	0.626*** (0.107)
Long		1.111*** (0.109)	1.109*** (0.109)	1.111*** (0.109)		1.133*** (0.112)	1.128** (0.111)	1.130*** (0.111)
Employment record (ref. no interruptions)								
Parental leave	−0.259* (0.135)	−0.387*** (0.115)	−0.389*** (0.115)	−0.391*** (0.115)	−0.249* (0.143)	−0.382*** (0.126)	−0.387*** (0.126)	−0.389*** (0.126)
Sick leave following an accident	−0.200 (0.126)	−0.395*** (0.108)	−0.397*** (0.108)	−0.388*** (0.108)	−0.302** (0.133)	−0.488*** (0.116)	−0.492*** (0.116)	−0.480*** (0.116)
Burnout	−2.421*** (0.134)	−2.540*** (0.121)	−2.545*** (0.121)	−2.541*** (0.121)	−2.506*** (0.137)	−2.630*** (0.128)	−2.637*** (0.128)	−2.632*** (0.128)
Performance evaluation (ref.: average)								
Above average		1.003*** (0.085)	1.004*** (0.085)	1.009*** (0.085)		1.005*** (0.091)	1.007*** (0.091)	1.015*** (0.091)
Personality assessment (ref.: agreeableness)								
Openness		0.203 (0.125)	0.200 (0.126)	0.196 (0.125)		0.253* (0.137)	0.245* (0.137)	0.239* (0.136)
Conscientiousness		0.315*** (0.122)	0.311** (0.121)	0.315*** (0.125)		0.281** (0.131)	0.279** (0.131)	0.281** (0.131)
Extroversion		0.049 (0.137)	0.043 (0.137)	0.054 (0.138)		0.079 (0.139)	0.075 (0.140)	0.084 (0.140)
Emotional stability		0.207** (0.136)	0.208** (0.136)	0.214 (0.134)		0.261* (0.138)	0.265* (0.138)	0.272** (0.137)
Training invested by the organisation (ref.: none)								
Job rotation		0.254** (0.112)	0.255** (0.112)	0.256** (0.111)		0.176 (0.118)	0.178 (0.118)	0.182 (0.117)
Leadership training		0.917*** (0.120)	0.921*** (0.121)	0.925*** (0.121)		0.936*** (0.129)	0.940*** (0.129)	0.945*** (0.129)
Occupation-specific training		0.336*** (0.115)	0.340*** (0.115)	0.343*** (0.116)		0.386*** (0.120)	0.391*** (0.119)	0.391*** (0.120)

B. PROMOTION CHARACTERISTICS								
Promotion type (ref.: occupational level plus level of authority)								
Occupational level			0.214 (0.146)	0.224 (0.143)			0.158 (0.160)	0.178 (0.156)
Level of authority			−0.047 (0.150)	−0.033 (0.146)			−0.037 (0.162)	−0.025 (0.154)
C. JOB CHARACTERISTICS								
Required quantitative demands			0.060 (0.045)	0.045 (0.045)			0.088* (0.049)	0.059 (0.051)
Required qualitative demands			0.025 (0.036)	0.004 (0.034)			0.046 (0.042)	0.021 (0.041)
Impact of error			−0.057 (0.036)	−0.044 (0.036)			−0.072* (0.038)	−0.062 (0.038)
D. PARTICIPANT CHARACTERISTICS								
Female				0.075 (0.114)				0.098 (0.128)
Age				−0.007 (0.005)				−0.007 (0.005)
Ideal worker norm				0.020 (0.067)				0.108 (0.072)
Social dominance orientation				−0.170*** (0.046)				−0.224*** (0.052)
Contact with burnout (ref.: none)								
Professional				−0.124 (0.177)				−0.107 (0.193)
Private life				0.181 (0.172)				0.236 (0.183)
Self				0.049 (0.145)				0.208 (0.170)
R^2		0.326	0.331	0.346	0.193	0.301	0.308	0.330
N	1,620							

Notes. Abbreviation used: ref. (reference category). See Section 2 for a description of the adopted variables. The presented statistics are coefficient estimates with their standard errors in parentheses. Standard errors are corrected for clustering of observations at the participant level. *** (**) ((*)) indicates significance at 1% (5%) ((10%)) significance level.

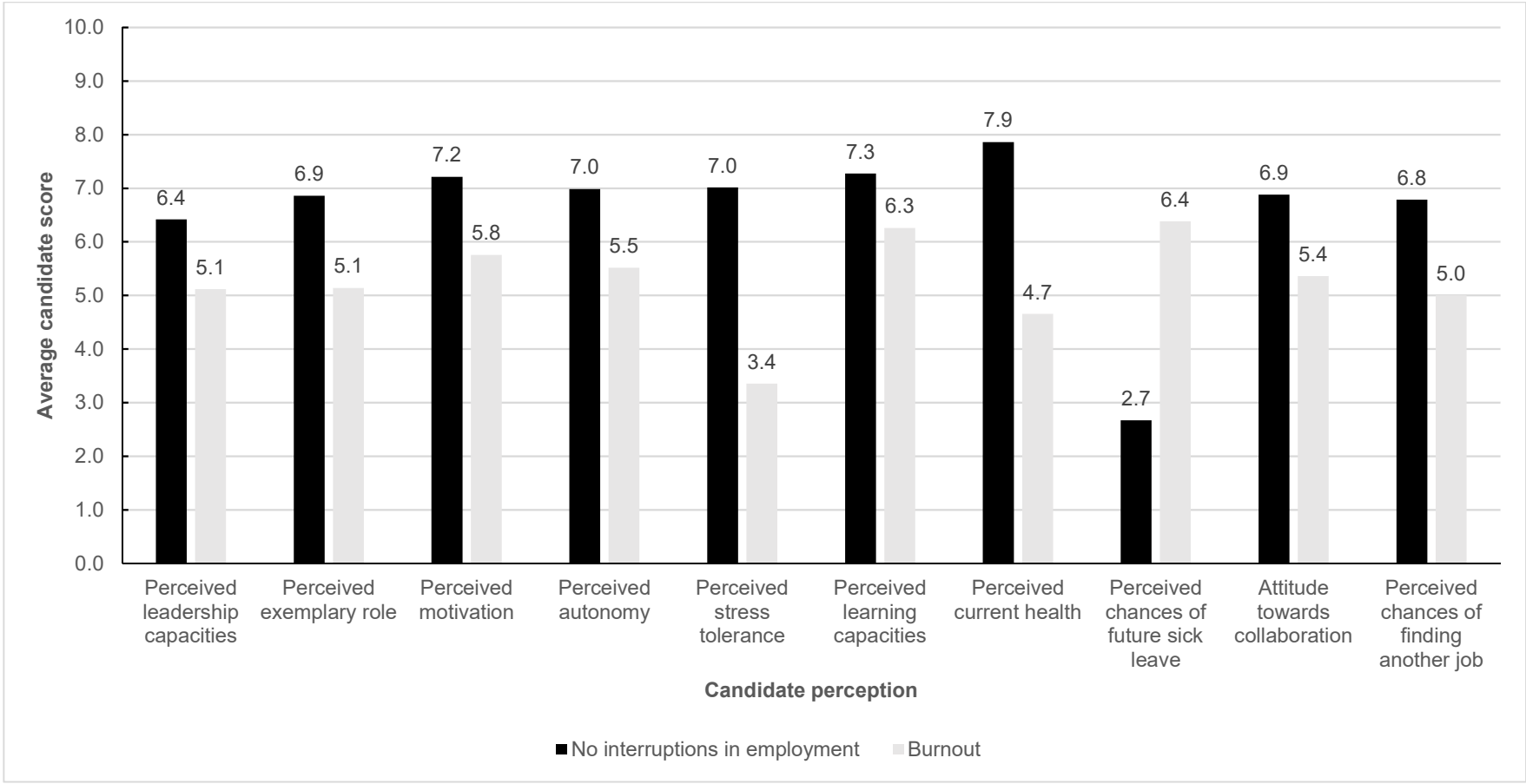

Figure 1. Average perception scores of promotion candidates. Differences are significant at the 1% significance level.

Table 4. Mediation analysis with advancing probability (in the promotion process) as the outcome and ten mediators.

	Mediators					
	Perceived leadership capacities	Perceived exemplary role	Perceived motivation	Perceived autonomy	Perceived stress tolerance	Perceived learning capacities
A. CANDIDATE CHARACTERISTICS						
Female	0.038 (0.087)	0.115 (0.078)	0.122* (0.075)	−0.010 (0.072)	0.036 (0.077)	0.158** (0.071)
Age	0.007 (0.005)	0.001 (0.005)	-0.005	0.005 (0.005)	0.007 (0.005)	0.001 (0.005)
Organisational tenure (ref.: short)						
Average	0.469*** (0.106)	0.491*** (0.099)	0.409*** (0.093)	0.394*** (0.090)	0.272*** (0.102)	0.394*** (0.090)
Long	0.956*** (0.109)	0.866*** (0.097)	0.699*** (0.096)	0.775** (0.093)	0.559*** (0.102)	0.617*** (0.092)
Employment record (ref.: no interruptions)						
Parental leave	−0.102 (0.115)	−0.230** (0.093)	-0.186* (0.096)	−0.281*** (0.095)	−0.142 (0.097)	−0.280*** (0.099)
Sick leave following an accident	−0.247** (0.113)	−0.431*** (0.102)	-0.352*** (0.096)	−0.318*** (0.097)	−0.496*** (0.098)	−0.320*** (0.095)
Burnout	−1.443*** (0.130)	−1.855*** (0.120)	-1.544*** (0.121)	−1.542*** (0.109)	−3.766*** (0.134)	−1.123*** (0.107)
Performance evaluation (ref.: average)						
Above average	0.729*** (0.085)	0.866*** (0.119)	0.773*** (0.077)	0.546*** (0.072)	0.614*** (0.076)	0.709*** (0.071)
Personality assessment (ref.: agreeableness)						
Openness	0.227* (0.130)	0.010 (0.120)	0.288** (0.116)	0.099 (0.113)	0.191 (0.129)	0.200* (0.115)
Conscientiousness	0.467***(0.127)	0.322*** (0.121)	0.531*** (0.119)	0.365*** (0.114)	0.300** (0.123)	0.344*** (0.114)
Extroversion	0.301** (0.146)	0.060 (0.125)	0.310** (0.132)	0.120 (0.119)	0.171 (0.130)	0.228** (0.111)
Emotional stability	0.395*** (0.134)	0.354*** (0.127)	0.398*** (0.118)	0.287** (0.117)	0.597*** (0.124)	0.193* (0.109)
Training invested by the organisation (ref.: none)						
Job rotation	0.223** (0.111)	0.023 (0.105)	0.245** (0.103)	0.130 (0.100)	0.150 (0.107)	0.491*** (0.101)
Leadership training	1.551*** (0.131)	0.609*** (0.110)	0.567*** (0.109)	0.584*** (0.105)	0.574*** (0.111)	1.042*** (0.110)
Occupation-specific training	0.317*** (0.113)	0.153 (0.109)	0.255** (0.106)	0.200* (0.103)	0.175* (0.104)	0.580*** (0.107)
B. PROMOTION CHARACTERISTICS						
Promotion type (ref.: occupational level plus level of authority)						
Occupational level	0.216 (0.136)	0.235* (0.126)	0.292** (0.127)	0.264** (0.131)	0.208 (0.128)	0.426*** (0.119)
Level of authority	0.388*** (0.136)	0.377*** (0.130)	0.330** (0.133)	0.296** (0.130)	0.257** (0.128)	0.382*** (0.120)

C. JOB CHARACTERISTICS						
Required quantitative demands	0.089** (0.039)	0.098** (0.039)	0.109** (0.044)	0.072* (0.043)	0.093** (0.037)	0.136*** (0.045)
Required qualitative demands	0.084*** (0.030)	0.026 (0.029)	0.016 (0.030)	0.021 (0.028)	0.039 (0.027)	0.027 (0.032)
Impact of error	−0.026 (0.033)	0.039 (0.032)	0.034 (0.032)	0.038 (0.032)	0.022 (0.030)	0.056* (0.032)
D. PARTICIPANT CHARACTERISTICS						
Female	−0.032 (0.109)	0.045 (0.105)	−0.067 (0.104)	0.031 (0.105)	0.086 (0.105)	0.171* (0.099)
Age	−0.015*** (0.004)	−0.006 (0.004)	−0.001 (0.004)	−0.007* (0.004)	−0.012*** (0.004)	−0.006 (0.04)
Ideal worker norm	0.112* (0.062)	0.117* (0.060)	0.072 (0.063)	0.081 (0.064)	0.132** (0.059)	0.058 (0.059)
Social dominance orientation	−0.136*** (0.048)	−0.129*** (0.041)	−0.157*** (0.042)	−0.183*** (0.046)	−0.166*** (0.043)	−0.201*** (0.042)
Contact with burnout (ref.: none)						
Professional	0.103 (0.162)	0.068 (0.159)	0.130 (0.161)	−0.136 (0.150)	−0.151 (0.148)	−0.071 (0.151)
Private life	0.060 (0.721)	0.152 (0.161)	0.145 (0.158)	−0.014 (0.160)	0.045 (0.157)	0.129 (0.146)
Self	−0.044 (0.145)	−0.068 (0.133)	−0.096 (0.133)	−0.181 (0.138)	−0.054 (0.135)	−0.132 (0.128)
E. MEDIATORS						
Perceived leadership capacities						
Perceived exemplary role						
Perceived motivation						
Perceived autonomy						
Perceived stress tolerance						
Perceived learning capacities						
Perceived current health						
Perceived likelihood of future sick leave						
Taste to collaborate [a]						
Perceived chances of finding another job						
N	1,620					

Notes. Abbreviation used: ref. (reference category). The presented statistics are coefficient estimates and their standard errors in parentheses for the mediation model outlined in subsection 3.2. Standard errors are corrected for clustering of the observations at the participant level. *** (**) ((*)) indicates significance at the 1% (5%) ((10%)) significance level. [a] indicates a mediator with scales comprising multiple items.

Table 4 (continued). Mediation analysis with advancing probability (in the promotion process) as the outcome and ten mediators

	Mediators				**Advancing probability**
	Perceived current health	Perceived likelihood of future sick leave	Attitude towards collaboration	Perceived chances of finding another job	
A. CANDIDATE CHARACTERISTICS					
Female	0.003 (0.078)	0.227*** (0.086)	0.093 (0.064)	−0.031 (0.079)	−0.008 (0.055)
Age	−0.005 (0.005)	−0.002 (0.006)	0.001 (0.004)	−0.016*** (0.005)	0.005 (0.004)
Organisational tenure (ref.: short)					
Average	0.304*** (0.099)	−0.129 (0.109)	0.404*** (0.082)	0.448*** (0.104)	0.327*** (0.077)
Long	0.348*** (0.101)	−0.417*** (0.115)	0.612*** (0.081)	0.760*** (0.100)	0.412*** (0.082)
Employment record (ref.: no interruptions)					
Parental leave	−0.272*** (0.090)	1.333*** (0.139)	−0.184** (0.083)	−0.356*** (0.103)	−0.145** (0.076)
Sick leave following an accident	−0.944*** (0.108)	1.101*** (0.127)	−0.351*** (0.085)	−0.447*** (0.112)	0.014 (0.076)
Burnout	−3.242*** (0.130)	3.680*** (0.143)	−1.600*** (0.097)	−1.874*** (0.113)	−0.624*** (0.131)
Performance evaluation (ref.: average)					
Above average	0.334*** (0.074)	−0.324*** (0.085)	0.568*** (0.063)	0.754*** (0.082)	0.363*** (0.064)
Personality assessment (ref.: agreeableness)					
Openness	0.200* (0.121)	−0.412*** (0.149)	−0.149 (0.096)	0.029 (0.0118)	0.074 (0.089)
Conscientiousness	0.315** (0.127)	−0.105 (0.146)	0.058 (0.100)	0.289** (0.132)	−0.002 (0.087)
Extroversion	0.266** (0.121)	−0.024 (0.149)	−0.214** (0.106)	0.164 (0.121)	−0.086 (0.096)
Emotional stability	0.291** (0.126)	−0.212 (0.140)	−0.033 (0.103)	0.181 (0.119)	−0.093 (0.099)
Training invested by the organisation (ref.: none)					
Job rotation	−0.068 (0.109)	0.209 (0.128)	0.085 (0.085)	0.115 (0.112)	0.140* (0.082)
Leadership training	0.100 (0.112)	0.020 (0.133)	0.459*** (0.091)	0.757*** (0.114)	0.222** (0.090)
Occupation-specific training	0.032 (0.110)	0.209 (0.133)	0.138 (0.088)	0.229** (0.110)	0.155* (0.080)
B. PROMOTION CHARACTERISTICS					
Promotion type (ref.: occupational level plus level of authority)					
Occupational level	0.305** (0.143)	−0.136 (0.167)	0.196 (0.123)	0.136 (0.139	0.013 (0.103)
Level of authority	0.350** (0.142)	−0.124 (0.173)	0.161 (0.126)	0.339** (0.140)	−0.333*** (0.110)

C. JOB CHARACTERISTICS					
Required quantitative demands	0.054 (0.045)	0.046 (0.049)	0.065 (0.045)	0.069 (0.048)	−0.032 (0.034)
Required qualitative demands	0.024 (0.032)	−0.003 (0.042)	0.040 (0.027)	−0.006 (0.034)	−0.027 (0.028)
Impact of error	0.042 (0.036)	0.006 (0.041)	0.006 (0.031)	0.030 (0.035)	−0.062** (0.029)
D. PARTICIPANT CHARACTERISTICS					
Female	0.150 (0.113)	−0.218 (0.136)	0.082 (0.100)	0.005 (0.112)	0.041 (0.082)
Age	−0.002 (0.005)	−0.010* (0.005)	−0.003 (0.004)	−0.011** (0.004)	0.000 (0.003)
Ideal worker norm	0.066 (0.071)	0.145* (0.082)	0.104* (0.060)	0.099 (0.063)	−0.065 (0.042)
Social dominance orientation	−0.165*** (0.047)	0.230*** (0.059)	−0.169*** (0.042)	−0.201*** (0.047)	−0.019 (0.032)
Contact with burnout (ref.: none)					
Professional	−0.125 (0.172)	0.108 (0.202)	−0.057 (0.152)	−0.175 (0.169)	−0.019 (0.032)
Private life	0.253 (0.174)	−0.127 (0.206)	0.049 (0.152)	0.298* (0.165)	0.069 (0.123)
Self	−0.012 (0.146)	−0.011 (0.181)	−0.129 (0.134)	0.139 (0.147)	0.096 (0.103)
E. MEDIATORS					
Perceived leadership capacities					0.177*** (0.038)
Perceived exemplary role					0.198*** (0.042)
Perceived motivation					0.103*** (0.040)
Perceived autonomy					0.063 (0.044)
Perceived stress tolerance					0.114*** (0.040)
Perceived learning capacities					0.029 (0.041)
Perceived current health					0.027 (0.029)
Perceived likelihood of future sick leave					−0.047** (0.021)
Taste to collaborate [a]					0.076 (0.059)
Perceived chances of finding another job					0.107*** (0.039)
N	1,620				

Notes. Abbreviation used: ref. (reference category). The presented statistics are coefficient estimates and their standard errors in parentheses for the mediation model outlined in subsection 3.2. Standard errors are corrected for clustering of the observations at the participant level. *** (**) ((*)) indicates significance at the 1% (5%) ((10%)) significance level. [a] indicates a mediator with scales comprising multiple items.

Table 5. Mediation analysis: percentages of burnout effect on promotion probability measures explained by mediators.

Mediators	**% of total burnout effect on advancing probability explained by mediator [p-value]**	**% of total burnout effect on selection probability explained by mediator [p-value]**
Perceived leadership capacities	**10.0%** [0.000]	**12.4%** [0.000]
Perceived exemplary role	**14.4%** [0.000]	**13.1%** [0.000]
Perceived motivation	**6.3%** [0.013]	1.4% [0.603]
Perceived autonomy	3.8% [0.206]	2.5% [0.386]
Perceived stress tolerance	**16.9%** [0.004]	**26.8%** [0.000]
Perceived learning capacities	1.3% [0.461]	0.1% [0.939]
Perceived current health	3.4% [0.386]	1.9% [0.595]
Perceived likelihood of future sick leave	**6.8%** [0.021]	2.8% [0.371]
Perceptions on collaboration[a]	4.8% [0.204]	**7.4%** [0.024]
Perceived chances of finding another job	**7.9%** [0.000]	**13.1%** [0.000]
N	1,620	

Notes. P-values are corrected for clustering of observations at participant level. Percentages related to p-values below 5% are in bold. [a] indicates mediators with scales comprising multiple items.

Table 6. Regression results with advancing probability as the outcome variable, two-way interactions included.

	Advice to advance the candidate in the promotion process (0–10)
A. CANDIDATE CHARACTERISTICS	
Female	−0.025 (0.089)
Age	0.006 (0.006)
Organisational tenure (ref.: short)	
Average	0.690*** (0.124)
Long	0.993*** (0.119)
Employment record (ref.: no interruptions)	
Parental leave	−0.396*** (0.116)
Sick leave following an accident	−0.405*** (0.109)
Burnout	−0.522 (1.147)
Performance evaluation (ref.: average)	
Above average	1.103*** (0.098)
Personality assessment (ref.: agreeableness)	
Openness	0.093 (0.144)
Conscientiousness	0.372*** (0.131)
Extroversion	0.135 (0.156)
Emotional stability	0.287* (0.157)
Training invested by the organisation (ref.: none)	
Job rotation	0.349*** (0.132)
Leadership training	0.982*** (0.140)
Occupation-specific training	0.327** (0.135)
Burnout × Female	0.200 (0.225)
Burnout × Age	−0.001 (0.015)
Burnout × Average tenure	0.097 (0.289)
Burnout × Long tenure	0.407 (0.292)

Burnout × Above average performance evaluation	−0.314 (0.221)
Burnout × Openness	0.373 (0.393)
Burnout × Conscientiousness	−0.306 (0.345)
Burnout × Extroversion	−0.281 (0.373)
Burnout × Emotional stability	−0.265 (0.347)
Burnout × Job rotation	−0.337 (0.336)
Burnout × Leadership training	−0.286 (0.339)
Burnout × Occupation-specific training	−0.010 (0.321)
B. PROMOTION CHARACTERISTICS	
Promotion type (ref.: occupational level plus level of authority)	
Occupational level	0.192 (0.143)
Level of authority	−0.078 (0.154)
Burnout × Occupational level	0.239 (0.270)
Burnout × Level of authority	0.181 (0.269)
C. JOB CHARACTERISTICS	
Required quantitative demands	0.041 (0.046)
Required qualitative demands	−0.031 (0.067)
Impact of error	0.021 (0.068)
Burnout × Required quantitative demands	0.008 (0.082)
Burnout × Required qualitative demands	−0.031 (0.067)
Burnout × Impact of error	0.021 (0.068)
D. PARTICIPANT CHARACTERISTICS	
Female	0.214* (0.117)
Age	−0.004 (0.005)
Ideal worker norm	0.064 (0.072)
Social dominance orientation	−0.152*** (0.050)
Contact with burnout (ref.: none)	
Professional	−0.045 (0.184)

Private life	0.196 (0.172)
Self	0.135 (0.149)
Burnout × Female	−0.462** (0.215)
Burnout × Age	−0.011 (0.009)
Burnout × Ideal worker norm	−0.184 (0.115)
Burnout × Social dominance orientation	−0.080 (0.090)
Burnout × Professional contact with burnout	−0.201 (0.307)
Burnout × Contact with burnout in private life	−0.045 (0.306)
Burnout × Self	−0.298 (0.288)
N	1,620

Notes. Abbreviation used: ref. (reference category). The presented statistics are coefficient estimates and their standard errors in parentheses. Standard errors are corrected for clustering of the observations at the participant level. *** (**) ((*)) indicates significance at 1% (5%) ((10%)) significance level. A stepwise insertion of interaction terms did not significantly change the results.

Appendix table 1. Statements employed for promotion candidate evaluations.

Evaluative dimension	Statement
A. PROMOTION ADVICE	
Advancing probability	I will recommend to include this candidate in the next stages of the promotion process.
Selection probability	There is a high chance that I will eventually recommend to select this candidate for the promotion.
B. PERCEPTIONS ON CANDIDATES' PRODUCTIVITY	
Perceived leadership capacities	I think that this person has sufficient leadership capacities to perform well in this function.
Perceived exemplary role	I think that this person is sufficiently capable of taking on an exemplary role for other employees to perform well in this function.
Perceived motivation	I think that this person is sufficiently motivated to perform well in this function.
Perceived autonomy	I think that this person is sufficiently autonomous to perform well in this function.
Perceived stress tolerance	I think that this person is sufficiently capable of performing under pressure to perform well in this function.
Perceived learning capacities	I think that this person has sufficient learning capacities to perform well in this function.
Perceived current health	I think that this person is sufficiently healthy at the moment to perform well in this function.
Perceived likelihood of future sick leave	I think that in the future, this person will often take sick leave.
C. PERCEPTIONS ON TASTE TO COLLABORATE WITH CANDIDATES	
Attitude towards collaboration with oneself	I think that I would enjoy collaborating with this person.
Attitude towards collaboration with employees at the same hierarchical level	I think that employees at the same hierarchical level would enjoy collaborating with this person.
Attitude towards collaboration with employees at a lower hierarchical level	I think that employees at a lower hierarchical level would enjoy being supervised by this person.
Attitude towards collaboration with employees at the highest hierarchical level	I think that employees at the highest hierarchical level would enjoy managing this person.
D. PERCEPTIONS ON CANDIDATES' VISIBILITY	
Perceived chances of finding another job	I think that this person would easily find a similar job in another organisation if he/she were not selected for the promotion.

Notes. Each item was rated on a scale from 0 (Completely disagree) to 10 (Completely agree).

Appendix table 2. Sample description.

Characteristic	Number of participants (Proportion of the sample)
Female	196 (48.4%)
Age	Mean = 45.057 years (SD = 13.199)
Country of residence	
UK	201 (49.6%)
USA	204 (50.4%)
Frequency of promotion decisions	
Daily	7 (1.7%)
Weekly	9 (2.2%)
Monthly	61 (15.1%)
Once per semester	94 (23.2%)
Yearly	105 (25.9%)
Less frequently	129 (31.9%)
Tenure at promotion decisions	
Less than a year	15 (3.7%)
One to five years	122 (30.1%)
More than five years	212 (52.4%)
None, but experienced in hiring decisions	56 (13.8%)
N	405

Notes. The table provides an overview of the sample discussed in subsection 2.4. Instead of the number of participants per age category, the sample mean (and standard deviation) are presented.

Appendix table 3. Burnout's signalling effect: alternative models and subsample results.

Dependent variable	Coefficient estimates for employment record: burnout (ref. no interruption)		
	Items	**UK subsample**	**USA subsample**
Perceived leadership capacities	−1.443*** (0.131)	−1.201*** (0.175)	−1.706*** (0.192)
Perceived exemplary role	−1.845*** (0.120)	−1.486*** (0.154)	−2.187*** (0.183)
Perceived motivation	−1.544*** (0.122)	−1.278*** (0.150)	−1.809*** (0.192)
Perceived autonomy	−1.542*** (0.110)	−1.198*** (0.136)	−1.879*** (0.172)
Perceived stress tolerance	−3.766*** (0.136)	−3.663*** (0.180)	−3.837*** (0.204)
Perceived learning capacities	−1.123*** (0.108)	−0.896*** (0.151)	−1.371*** (0.154)
Perceived current health	−3.242*** (0.131)	−3.229*** (0.182)	−3.233*** (0.197)
Perceived likelihood of future sick leave	3.680*** (0.144)	3.760*** (0.202)	3.533*** (0.213)
Perceptions on collaboration [a]		−1.390*** (0.133)	−1.822*** (0.140)
Self	−1.539*** (0.107)		
Same hierarchical level	−1.613*** (0.109)		
Lower hierarchical level	−1.493*** (0.118)		
Highest hierarchical level	−1.757*** (0.118)		
Perceived chances of finding another job	−1.874*** (0.114)	−1.747*** (0.160)	−1.985*** (0.164)
N	1,620	804	816

Notes. Abbreviation used: ref. (reference category). The presented statistics are coefficient estimates and their standard errors in parentheses. P-values are corrected for clustering of observations at participant level. *** indicates significance at 1% significance level. [a] indicates scales comprising multiple items.

Appendix table 4. Burnout's signalling effect: robustness checks.

Dependent variable	Coefficient estimates for employment record: burnout (ref. no interruption)		
	Experienced at making promotion decisions	**Is at least yearly involved in promotions**	**Low to average social desirability scores**
Perceived leadership capacities	−1.458*** (0.141)	−1.459*** (0.157)	−1.434*** (0.145)
Perceived exemplary role	−1.816*** (0.131)	−1.818*** (0.149)	−1.802*** (0.129)
Perceived motivation	−1.538*** (0.133)	−1.444*** (0.148)	−1.589*** (0.133)
Perceived autonomy	−1.525*** (0.120)	−1.490*** (0.130)	−1.486*** (0.121)
Perceived stress tolerance	−3.826*** (0.147)	−3.743*** (0.164)	−3.743*** (0.151)
Perceived learning capacities	−1.142*** (0.117)	−1.136*** (0.132)	−1.048*** (0.119)
Perceived current health	−3.227*** (0.143)	−3.159*** (0.159)	−3.258*** (0.145)
Perceived likelihood of future sick leave	3.732*** (0.156)	3.709*** (0.175)	3.657*** (0.158)
Perceptions on collaboration [a]	−1.630*** (0.106)	−1.592*** (0.116)	−1.522*** (0.108)
Perceived chances of finding another job	−1.829*** (0.120)	−1.748*** (0.134)	−1.842*** (0.128)
N	1,396	1,104	1,340

Notes. Abbreviation used: ref. (reference category). The presented statistics are coefficient estimates and their standard errors in parentheses. P-values are corrected for clustering of observations at participant level. *** indicates significance at 1% significance level. [a] indicates scales comprising multiple items. Observations are categorised as having 'Low or average social desirability scores' if participants scored socially desirable answering tendencies below the sample mean increased by one standard deviation.