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## The relationship between burnout and risk-taking in workplace decision-making and decision-making style

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### ABSTRACT

This study aimed to investigate what decision-making styles might be exhibited by employees who experience burnout. Using a Work Risk Inventory (WRI), developed for this study, which included generic workplace scenarios, it was also explored whether such employees take relatively more risky decisions. Risk was conceptualised as the adoption of decisions that threaten one's reputation at work, job performance and job security. The mediating effect of the likelihood and seriousness of the consequences of the worst that could happen in each given scenario on the relationships between dimensions of burnout and risk-taking was also tested. A total of 262 employees in various occupations completed an online survey, including measures on burnout, decision-making styles and the WRI. As predicted, dimensions of burnout – exhaustion, cynicism and professional inefficacy – correlated significantly with avoidant decision-making and negatively with rational decision-making. The seriousness of the consequences of the worst-case scenario occurring mediated the relationship between professional inefficacy and risk-taking. In the context of identifying mechanisms by which burnout leads to risky decision-making, the findings suggest that employees' sense of professional inefficacy determines their risky decision-making. The contribution to theory and implications for practice are discussed.

### ARTICLE HISTORY

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### KEYWORDS

Burnout; decision-making styles; risky decision-making; risk

## Introduction

The question of how acute stress influences peoples' decision-making has been addressed by several studies from various lines of research (e.g. Porcelli & Delgado, 2009; Van den Bos, Harteveld, & Stoop, 2009), indicating that under acute stress decision-makers fall back on automatic processes. However, there has been little research on the process by which the consequences of exposure to chronic stress, such as burnout, affect decision-making. Drawing on findings that burnout is associated with impaired cognitive functioning including impairment in cognitive ability, memory and attention (e.g. Sandström, Rhodin, Lundberg, Olsson, & Nyberg, 2005), it is reasonable to expect that burnout also interferes with individuals' decision-making processes. Specifically, McGee (1989) found that burned-out child protection service workers avoid making decisions. Burnout is described by feelings of exhaustion, cynicism and professional inefficacy,

originally operationalised as efficacy and reverse scored (Maslach & Jackson, 1981), and it could be that its effects on decision-making might occur due to a reduced sense of caring because of the chronic exposure to stress and the cognitive impairments associated with it (Oosterholt, Van der Linden, Maes, Verbraak, & Kompier, 2012). In turn, this reduced sense of caring might make employees experiencing burnout more prone to risk-taking. Thus, a main aspect of decision-making that would also be interesting to look at in relation to burnout is riskiness. Although both acute and chronic stress might impact decision-making, the mechanisms by which they do so might differ. This study represents an initial effort to study the mechanisms that underlie the effects of burnout on two angles of decision-making: decision-making style and risky decision-making.

### ***Burnout***

Burnout as a psychological response to work stress is characterised by emotional exhaustion, cynicism and feelings of professional inefficacy (Maslach & Jackson, 1981). Emotional exhaustion refers to the depletion of emotional resources. Cynicism describes the process whereby employees develop a feeling of indifference towards their work and coworkers. The third aspect of burnout, professional inefficacy, entails feelings of reduced confidence in one's ability to perform the job well. The negative impact of burnout on both the employee and the organisation is well recognised, both in well-being (Shirom, Westman, Shamai, & Carel, 1997) and job performance accounts (e.g. Taris, 2006), and also in individuals' cognitive performance (Sandström et al., 2005). However, what about employees' decision-making? Studies have recently addressed the relationship between burnout and decision-making but only in the context of healthcare provision. More specifically, Teixeira, Ribeiro, Fonseca, and Carvalho (2014) explored whether ethical decision-making in intensive care may be associated with increased burnout levels among physicians and nurses. Ethical decision-making, such as the need to proceed to a terminal sedation, was indeed found to be associated with burnout levels. However, these findings are limited to healthcare provision; thus a study investigating the effects of the dimensions of burnout on the work-related decision-making of employees in other contexts is much needed.

### ***Burnout and decision-making style***

Decision-making has been defined as one's ability to select between competing options of actions while taking into account the relative value of their consequences (Balleine, 2007). Peoples' decisions are often disposed to several demands exerted by the environment, leading to stressful conditions. A number of studies have indicated, at both a behavioural and a neural level, that stress and decision-making are intricately related (e.g. Van Dam, Eling, Keijsers, & Becker, 2013; Van den Bos et al., 2009). However, most of the studies have investigated the effect of acute stress on decision-making (e.g. Young, Goodie, Hall, & Wu, 2012).

Research has shown that there are five different, but not mutually exclusive, decision-making styles that individuals use. Scott and Bruce (1995) defined five decision-making styles in behavioural terms. Rational decision-making style refers to the systematic evaluation of alternatives. Intuitive decision-making style is described as a tendency to rely

upon feelings. Dependent decision-making is characterised by a search for advice from others before making a decision. Avoidant decision-making style refers to the avoidance of making decisions whenever possible. The final decision-making style, spontaneous, is characterised by a tendency to reach a decision quickly.

Individuals' profiles of decision-making styles may differ with respect to their relationship with stress. In support of this, Thunholm (2008) conducted a study investigating the relationship between decision-making styles and stress among military officers. The findings revealed that the avoidant style was strongly related to stress, as decision-makers appeared to avoid making decisions because they found it more stressful. In the same vein, Allwood and Salo (2012) investigated the relations between decision-making styles and stress in the organisational work context. The results suggested that certain styles, particularly avoidant and to some extent dependent style, were associated with higher stress.

There has been some initial theoretical speculation on the ways in which burnout may impair decision-making. Specifically, Weinberg, Edwards, and Garove (1983), in a study of job turnover among employees working with developmentally disabled individuals, found a positive correlation between levels of burnout and decision-making difficulties. Additionally, McGee (1989) conducted a study examining the relationship between burnout and decision-making among child protection service workers and found that burned-out workers coped with demanding cases by avoiding making decisions. However, the research examining the effect of burnout on decision-making is still in its infancy and the mechanisms underlying this effect are still unknown.

Given the relationship between avoidant decision-making style and stress and the existing evidence by McGee (1989), it would be of interest to study the effects of burnout on decision-making style. The present study builds upon McGee's (1989) study and takes it further by investigating the effect of burnout on two aspects of decision-making: decision-making style and risky decision-making. Moreover, the present study adds to the McGee (1989) study as it examines the effect of burnout on decision-making on a diverse population of employees and not solely on "helping professions". As yet, no empirical investigation has focused on the relationship between the dimensions of burnout and generic work decision-making. Therefore, this study first looks at whether employees who show higher burnout levels, on each dimension of burnout, exhibit an avoidant decision-making style.

*Hypothesis: 1a.* Employees reporting higher levels of exhaustion will score higher on the avoidance decision-making style.

*Hypothesis: 1b.* Employees reporting higher levels of cynicism will score higher on the avoidance decision-making style.

*Hypothesis: 1c.* Employees reporting higher levels of professional inefficacy will score higher on the avoidance decision-making style.

The study also examines what other decision-making styles are shown by burned-out employees.

### ***Burnout and risky decision-making***

This study also investigates the relationships between the dimensions of burnout and risk-taking. Scholars have conducted studies in order to address whether stress might lead

decision-makers to take more risks. Porcelli and Delgado (2009), for instance, examined the impact of acute stress on financial decision-making and revealed that acute stress altered decision-making by modulating risk-taking. Specifically, that study indicated that, under stress, individuals made risky decisions in the loss domain but conservative decisions in the gain domain (Kahneman & Tversky, 1979). An explanation of these findings has been given in the framework of dual-process theory, which proposes that stressful conditions that interfere with rational, deliberative process lead decision-makers to fall back on automatic processes (Kahneman & Frederick, 2002). Other research has also indicated that when making decisions under high-stress conditions, individuals make riskier decisions (Van den Bos et al., 2009). Interestingly, however, to date there has been no research on whether employees experiencing burnout make more risky or safer decisions. A main point of contrast here is the mechanism by which acute and chronic stress lead to risky decision-making. On the one hand acute stressors, such as rushing to an unplanned meeting, are characterised as sudden, unexpected and of short duration and hence people under acute stress come to rely more heavily on automatised risk biases (Kahneman & Frederick, 2002). On the other hand, burnout results from repeated exposure to situations that lead to stress, and is therefore characterised by exhaustion, cynicism and inefficacy that is, perceptions of low professional efficacy (Maslach, Schaufeli, & Leiter, 2001). It therefore seems possible that although both acute and chronic stress affect decision-making, the mechanism by which chronic stress and burnout lead to risky decision-making might differ compared to that of acute stress. Understanding burned-out individuals' risk-taking behaviour can not only help highlight how those individuals take decisions, but also provide insights on how a person's environment might interfere with their ability to make decisions.

The potential relationship between burnout and risky decision-making is not clear. On the one hand, burned-out individuals are emotionally exhausted and might become unable to be as caring as they used to be (Maslach et al., 2001), and thus it is plausible to consider burnout being related with more risky decisions as burned-out individuals would not value the consequences of their actions. On the other hand, however, it might also be the case that individuals showing high levels of burnout would take the less risky option so as to prevent additional feelings of burnout rising, given that the risky option might result in an extra burden for them, especially if its outcome has a negative consequence for them or their organisation.

In a study conducted by Mitte (2007), the influence of anxiety on preferences for risky behaviour was investigated using choice scenarios as developed by Hockey, Maule, Clough, and Bdzola (2000). The study further examined whether this was mediated by a judgmental bias of the probability and the subjective cost of threatening events. The results showed that high-anxious individuals more often preferred the safe alternative, which was mediated by the subjective cost of the threatening events, that is, high-anxious individuals assumed that they would feel worse given that the threatening events happen. The considerable mediator variables of subjective costs and expected probability of the negative event used in Mitte's study (2007) are based on cognitive theories of anxiety which suggest that in addition to choosing the processing of threatening information, anxious individuals show a judgmental bias of the probability and the subjective cost of threatening events (e.g. Lazarus & Folkman, 1984). Therefore, the present study additionally examines the mediating effect of the potential likelihood

(i.e. how likely participants think that their choice will go wrong) and seriousness (i.e. to what extent participants think it matters if their choice goes wrong) of the consequences of the worst-case scenario occurring (i.e. what could be the worst that could happen in each given scenario), on risky decision-making.

Given the current research, the relationship between the dimensions of burnout and risky decision-making is not clear. Therefore, the present study will explore another angle of decision-making, riskiness, and whether this is mediated by the effect of the likelihood and seriousness of the consequences of the worst-case scenario occurring. This will enable us to understand the mechanisms underlying burned-out individuals' risky decision-making. Risk, in the present study, has been conceptualised as relating to the adoption of threatening decisions towards one's reputation at work, job performance and job security.

*Hypothesis: 2a.* Employees reporting higher levels of exhaustion will score higher on risk-taking as indicated on the WRI.

*Hypothesis: 2b.* Employees reporting higher levels of cynicism will score higher on risk-taking as indicated on the WRI.

*Hypothesis: 2c.* Employees reporting higher levels of professional inefficacy will score higher on risk-taking as indicated on the WRI.

*Hypothesis: 3a.* The likelihood and/or seriousness of the consequences of the worst-case scenario occurring will mediate the relationship between exhaustion and risk-taking.

*Hypothesis: 3b.* The likelihood and/or seriousness of the consequences of the worst-case scenario occurring will mediate the relationship between cynicism and risk-taking.

*Hypothesis: 3c.* The likelihood and/or seriousness of the consequences of the worst-case scenario occurring will mediate the relationship between professional inefficacy and risk-taking.

## Method

### *Participants and procedure*

Two hundred and sixty two ( $N = 262$ ) employees (119 males and 143 females, age range 19–76,  $M = 35$ ,  $SD = 12$ ) took part in the study. The participants worked in many industry sections including: education (21%), business and finance (13%), administration (13%), social sciences (8%), management (7%), sales (7%), healthcare (6%), IT services (5%), engineering (3%), media (2%), legal (2%) and other (14%).

Participants, who were based in the UK, completed an online survey in 2014, which they could access from a location of their choice. Participants were recruited through the researcher's professional networks. Also an electronic link to the online survey was sent to HR managers of companies who agreed to take part, who then forwarded this to their employees. Close to half, 49% (127) of employees worked on average 40 hours per week, 33% (87) worked more than 40 hours, 10% (26) worked on average 30 hours per week, 5% (13) worked on average 20 hours per week and 3% (9) worked on average 10 hours per week. Participants were informed that the study involved an online survey testing how burnout levels affect employees' decisions. After answering a short demographic questionnaire comprising questions on background information

such as occupation and hours of work per week, they then completed the three measures of the study.

### **Materials and measures**

*Maslach Burnout Inventory-General Survey* (the MBI-General Survey; Schaufeli, Leiter, Maslach, & Jackson, 1996). This includes three subscales: exhaustion, cynicism and professional efficacy. The exhaustion item is measured with five items (e.g. "I feel emotionally drained from my work"). Included in the cynicism subscale are five items, such as "I have become less enthusiastic about my work". Finally, professional efficacy, is measured with six items (e.g. "In my opinion, I am good at my job"). A high degree of burnout is reflected in high scores on exhaustion and cynicism and low scores on professional efficacy. Satisfactory internal consistency has been reported by Leiter and Schaufeli (1996). They revealed Cronbach's alpha coefficients ranging from .84 to .90 for exhaustion, .74 to .84 for cynicism and .70 to .78 for professional efficacy. Cronbach's alphas for the present study were .82 for exhaustion, .85 for cynicism and .71 for professional efficacy. Respondents of the MBI-GS were asked to rate each statement on one dimension; frequency (0 = *never* to 6 = *every day*).

*General Decision-Making Style* (GDMS; Scott & Bruce, 1995). The GDMS questionnaire consists of 24 statements describing how people go about making important decisions. These decision statements include measures of five decision-making types: rational (e.g. "I make decisions in a systematic and logical way"), intuitive (e.g. "When I make a decision, I rely on my intuition"); dependent (e.g. "I use the advice of others in making my important decisions"); avoidant (e.g. "I often procrastinate when it comes to making important decisions") and spontaneous (e.g. "I make quick decisions"). Each item describes decision-making in practice, and the respondents are instructed to rate the extent to which he or she agrees or disagrees with the stated decision behaviour on a 5-point scale (from 1 = *strongly disagree* to 5 = *strongly agree*). The GDMS scale has been found to be reliable among studies (Cronbach's alphas ranging from .65 to .85 for the rational scale; .72 to .84 for the intuitive scale; .62 to .86 for the dependent scale; .84 to .94 for the avoidant scale; and .77 to .87 for the spontaneous scale; Scott & Bruce, 1995; Thunholm, 2008). In the present study, the Cronbach's alphas were .60 for rational, .70 for intuitive, .66 for dependent, .76 for avoidant and .74 for spontaneous.

*Work Risk Inventory (WRI)*. Risk-taking behaviour was assessed through an instrument that we specially developed for the study. Initially a small sample ( $n = 23$ ) of employees were asked using the critical incident technique (CIT; Flanagan, 1954) to state some examples of scenarios they faced at work that involve a high/low risky choice. Thus, CIT enabled researchers to understand the behaviours that related to whether the outcome of the situation/scenario was either particularly risky or less risky. Then, after collecting the scenarios, they were tailored to be typical of choice situations frequently confronted by employees from a wide range of occupations. This was done by removing any references to specific jobs so that the scenarios could be generic for employees.

The effort involved in each option as well as the effectiveness of each action was also measured. The rationale for this was to ensure that participants would not choose the less risky option just because it involved less effort and that it would be more effective than choosing the risky option. A pilot study was then conducted in which 34 participants

from a wide range of occupations were presented with a set of 23 generic workplace scenarios and were instructed to imagine themselves in each situation, and to rate each option for “how much risk it would involve”, “how much effort it would involve” using a 1–7 scale (1 = *hardly any* to 7 = *a great deal*), and “how effective do you believe each action will be” on a 1–7 scale (1 = *not at all effective* to 7 = *extremely effective*).

In the final survey used in the present study, participants were presented with 5 out of the 23 scenarios that, after conducting multiple *t*-tests, revealed a significant difference between risk involved in A and B options (at  $p < .05$  or better). Both options involved an equivalent level of effort. Participants were asked to denote their strength of commitment to the selected option on a 10-point scale (0 = *definitely A* to 10 = *definitely B*). This enabled a rated measure of riskiness. The options were counterbalanced assigned as “definitely A” and “definitely B” in order to eliminate order effects.

Participants were also asked to rate the likelihood of the worst case occurring in the given scenarios on a 10-point verbal description scale (0 = *not likely at all* to 10 = *extremely likely*). Finally, participants were asked to rate how serious the consequences would be for them if the worst-case scenario occurred, on a 10-point scale (0 = *not serious at all* to 10 = *extremely serious*). Cronbach’s alphas for the 3 subscales of the inventory were .34 (risk), .46 (likelihood), .73 (seriousness). An example of the scenarios is presented below. The full set of scenarios can be obtained from the corresponding author.

*Your colleague with whom you are sharing an office takes home confidential information without permission. You notice this a couple of times and you are aware that this is a serious offence. If by any chance your boss realises that the information is missing there is a possibility that you might be blamed as well. You wonder what you should do?*

- A. You don’t say anything to your boss and hope that your colleague will not do that again.
  - B. You tell your boss that your colleague is taking confidential information home.
1. Which option would you choose on a 0–10 scale (0 = *definitely A*, 10 = *definitely B*)?
  2. How likely is it that your boss will notice that the confidential information is missing? (0 = *not likely at all*, 10 = *extremely likely*).
  3. How serious would the consequences be for you if your boss notices that the confidential information is missing? (0 = *not serious at all*, 10 = *extremely serious*).

### **Model and plan of statistical analysis**

First, we examined the correlations between burnout components, decision-making styles and risk-taking, based on correlation coefficients. Regarding the mediating effects of the likelihood/seriousness of the consequences of the worst-case scenario occurring, mediation analysis was completed by using the PROCESS macro (Hayes, 2013). PROCESS generates direct and indirect effects in mediation models and can construct bootstrap confidence intervals for indirect effects. As we were interested in the mediating effect of both likelihood and seriousness of the consequences of the worst-case scenario occurring, PROCESS was utilised in order to test the effect the mediator variables have when in parallel.



## Results

### *Descriptive statistics*

Means and standard deviations for all study variables are presented in Table 1. Independent sample *t*-tests were initially conducted in order to test whether any gender differences occur in the data. However, no significant findings were revealed.

### *Burnout and decision-making styles: hypotheses 1 a, b and c; and 2 a, b and c*

Regarding the relationships between the dimensions of burnout and decision-making style, as well as between burnout dimensions and risk-taking, Pearson's *r* correlational analysis revealed that all three dimensions of burnout were positively and significantly correlated with avoidant decision-making (Table 2); thus hypotheses 1a–1c were supported. The three dimensions of burnout were also negatively and significantly correlated with rational decision-making. Regarding dependent decision-making, a significant and positive correlation was only shown with cynicism. Both exhaustion and cynicism correlated significantly and positively with spontaneous decision-making, whereas only professional inefficacy correlated negatively with intuitive decision-making. However, none of the three dimensions of burnout were significantly related to risk-taking. Thus, hypotheses 2a–2c were not supported.

### *Burnout and risky decision-making: hypotheses 3 a, b and c*

Three mediation analyses were conducted based on Haye's mediation analysis approach (PROCESS) to examine the effect of the three dimensions of burnout on risky decision-making and whether this effect is mediated by the likelihood and seriousness of consequences from the worst-case scenario occurring.

### *Mediation analysis: exhaustion as predictor*

None of the proposed mediation pathways explained the effect of exhaustion on risk-taking (Figure 1). The indirect pathways from exhaustion through likelihood ( $a_1b_1$ ) and

**Table 1.** Means and SDs for exhaustion, cynicism, professional inefficacy, decision-making styles, risk-taking and the likelihood and seriousness of the worst-case scenario occurring.

	<i>M</i>	<i>SD</i>
<i>Burnout components</i>		
Exhaustion	2.68	1.39
Cynicism	2.33	1.53
Professional inefficacy	1.33	0.86
<i>Decision-making style</i>		
Rational	4.15	0.45
Intuitive	4.43	0.81
Dependent	3.61	0.61
Avoidant	2.73	0.78
Spontaneous	2.89	0.69
<i>Risk-taking</i>	3.26	1.61
<i>Likelihood</i>	5.41	1.48
<i>Seriousness</i>	6.98	1.73

Note: *N* = 262.

**Table 2.** Correlations between burnout components, decision-making styles and risk-taking.

	Decision-making style					Risk-taking
	Rational	Intuitive	Dependent	Avoidant	Spontaneous	
<i>Burnout components</i>						
Exhaustion	-.18**	.05	.10	.39**	.21**	.11
Cynicism	-.19**	.04	.14*	.30**	.27**	.11
Professional inefficacy	-.37**	-.13*	-.01	.19**	.03	.10

Note: N = 262.

\* $p < .05$ ; \*\* $p < .01$ .

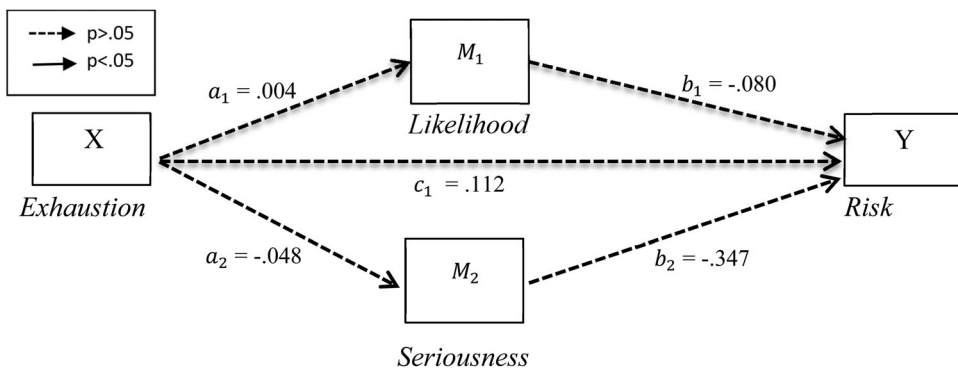
seriousness ( $a_2b_2$ ) were all non-significant. There was no evidence that exhaustion predicted risk independently of its effect on likelihood and seriousness ( $c' = .11$ ); the direct effect of exhaustion on risk-taking was not statistically significant ( $p = .09$ ).

**Mediation analysis: cynicism as predictor**

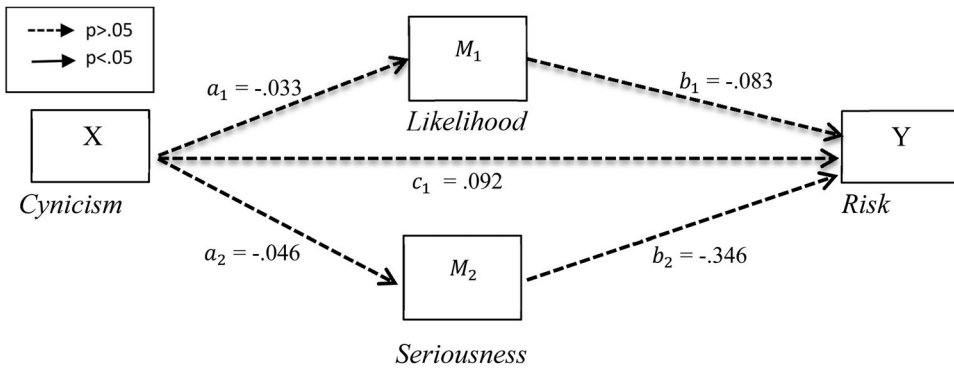
None of the proposed mediation pathways explained the effect of cynicism and risk-taking (Figure 2). The indirect pathways from cynicism through likelihood ( $a_1b_1$ ) and seriousness ( $a_2b_2$ ) were all non-significant. There was also no evidence that cynicism was associated with risk independently of its effect on likelihood and seriousness ( $c' = .09$ ). The direct effect of cynicism on risk-taking was not statistically significant ( $p = .12$ ).

**Mediation analysis: professional inefficacy as predictor**

The mediation analysis showed that professional inefficacy indirectly predicted risk through its effect on seriousness. As can be seen in Figure 3, professional inefficacy was significantly and negatively correlated with seriousness ( $a_2$ ), indicating that the higher the levels of professional inefficacy the less serious employees perceive the consequences of a risky decision to be. In turn, the decreased levels of perceptions of how serious the consequences of a risky decision would be correlated significantly with risk-taking ( $b_2$ ). A bias-corrected bootstrap confidence interval for the indirect effect of seriousness ( $a_2b_2 = 0.0998$ ), based on 5000 bootstrap samples was entirely above zero (95% CI [0.0321, 0.1881]), indicating a significant effect. There was no evidence that professional inefficacy predicted risk-taking independently of its effect on seriousness, because the



**Figure 1.** Effect of exhaustion on risk-taking behaviour, with likelihood and seriousness as mediators.

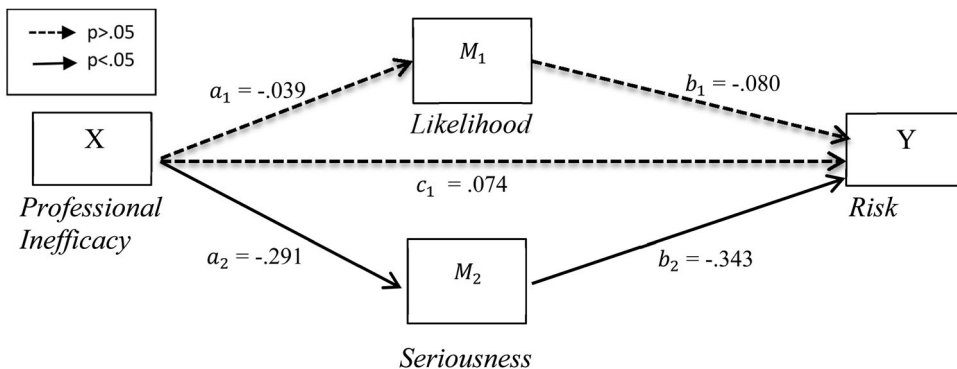


**Figure 2.** Effect of cynicism on risk-taking behaviour, with likelihood and seriousness as mediators.

direct pathway ( $c' = .07$ ; Figure 3) was not statistically significant. These results represent a total mediation effect of professional inefficacy through seriousness for its effect on risk-taking.

## Discussion

The mechanisms through which the dimensions of burnout relate to decision-making were examined. It was hypothesised that all dimensions of burnout would correlate significantly with avoidance decision-making (Hypotheses 1a–1c); these hypotheses were indeed supported. It was also hypothesised that all dimensions of burnout would correlate significantly with risky decision-making as indicated by WRI (hypotheses 2a–2c); these hypotheses were not supported. However, the mediating effect of likelihood and/or seriousness of the consequences of the worst-case scenario occurring on the relationship between each burnout dimension and risk-taking was also tested. The seriousness of the consequences of the worst-case scenario occurring mediated the relationship between professional inefficacy and risk-taking. The mediating effect of likelihood and/or seriousness of the consequences of the worst-case scenario occurring was not significant for the other two dimensions of burnout.



**Figure 3.** Effect of professional inefficacy on risk-taking behaviour, with likelihood and seriousness as mediators.

### ***The relationship of burnout dimensions with avoidance decision-making***

The findings revealed that all three dimensions of burnout correlated significantly with avoidance decision-making and that exhaustion showed the highest correlation ( $r = .39$ ). These findings suggest that employees experiencing burnout might avoid making decisions mostly due to feelings of exhaustion. Although it is not possible to draw any definite conclusions about causes from the study, given the correlational design, this makes theoretical sense. The feeling of being emotionally exhausted captures the stress dimension of burnout and constitutes the core symptom of burnout, as suggested in Maslach's et al. (2001) conceptualisation of burnout. Emotional exhaustion prompts actions to distance oneself emotionally and cognitively from one's work, as an attempt to cope with work pressure (Pines, Aronson, & Kafry, 1981), explaining why exhaustion may lead to avoidant decision-making.

It was also found that employees experiencing high levels of burnout were more likely to engage in spontaneous and irrational decision-making. This can be explained, given the fact that individuals suffering from burnout show impaired cognitive performance (Oosterholt et al., 2012; Van Dam, Keijsers, Eling, & Becker, 2015) that could potentially make individuals take decisions quickly without a logical evaluation of alternatives. In support of this, a growing body of evidence by clinical observations suggests that individuals with high levels of burnout tend to show impaired attention and memory, affective instability and inadequate flexibility in dealing with novel and changing tasks (Linden, Keijsers, Eling, & Schaijk, 2005).

### ***The relationship of professional inefficacy with risky decision-making: the mediating effect of seriousness***

Considering the other aspect of decision-making, riskiness, our findings indicated that specifically *professional inefficacy* was related to risk-taking but only through the mediating effect of the seriousness of consequences from the worst-case scenario occurring. The findings suggest that individuals with low levels of professional efficacy take the riskier option as they underestimate the seriousness of the consequences.

Professional inefficacy entails the tendency to assess one's own work negatively, and it involves a reduced sense of competence and performance at work (Maslach et al., 2001). Although Maslach et al. (2001) introduced a three-dimensional model of burnout, with exhaustion and cynicism constituting the core of burnout, studies have also supported the notion that burnout is a consequence of a crisis in one's efficacy and that it is this lack in confidence in one's own competence that is the key factor in the development of burnout (Leiter, 1992). In the present study, it seems that because of reduced feelings of professional efficacy employees were more likely to take more risky decisions. However, this effect was only present when taking into account the seriousness of the consequences that their decision might have. This finding seems to be aligned with recent findings linking burnout with cognitive performance. Van Dam et al. (2013) found that more employees with burnout than healthy controls applied a low-effort strategy on performance of a task. The authors explained burned-out employees' low-effort strategy as being due to reduced motivation to expend effort (Schaufeli & Taris, 2005). High levels of burnout might result in changes in the motivational system, explaining the reduced

motivation to expend effort as probably occurring because the individual believes that he/she has no control over the situation (Boksem & Tops, 2008). This might also be the case in the present study; employees who experience professional inefficacy might feel that they can no longer take control over situations and lack the motivation to expend effort to make a safe decision. Therefore, this prevents them from considering the potential seriousness that the consequences of their decision might have, leading them to more risky decisions. However, when developing the WRI we did ensure that both options (safe and risky) involved equivalent levels of effort. Therefore, these findings might instead imply that individuals low in professional efficacy might have the feeling that they do not function as well as they used to and that they no longer have control over situations. Therefore, they do not consider the potential seriousness the consequences of their decision might have, thus leading them to more risky decisions.

### *Contribution of findings to practice*

This study is one of the first to investigate the relationship between the dimensions of burnout and decision-making in a work context and is of particular interest and relevance to both employees and managers. Given the importance of decision-making in employees' working life and the serious consequences that risky decisions may have, this study highlights that employees experiencing burnout at their job, and specifically the professional inefficacy aspect of burnout, may be more prone to risky decision-making, depending of course on the job context. In turn, taking a risky decision may lead to aversive consequences, which may then lead to increased burnout levels, placing the individual in a vicious circle. Thus, given the high-stress work environment and the integral part that decision-making plays in employees' life, the present findings could enable managers to design work environments that provide more suitable support to employees who are responsible for decision-making tasks.

### *Limitations and implications for future research*

Although the current study may advance knowledge on the dimensions of burnout and decision-making, there were also some limitations. The most significant is the study's cross-sectional nature, which makes it impossible to establish causality with regards to the relationship between variables. Another limitation is the fact that the data were gathered from self-report measures. Future studies should attempt to expand on this study by implementing a longitudinal design and more action-orientated indicators of decision style. In support of this, Metzger and Denney (2002) showed that patients with chronic fatigue syndrome greatly underestimated their performance on a challenging cognitive task relative to the actual scores that they achieved. Another limitation lies in the reliability of the WRI used in the study. Cronbach's alphas for the WRI were low, especially for the measure of riskiness. This might be due to the fact that the scenarios were all different and respondents might have found it difficult to imagine themselves in the given situations. Moreover, the sample consisted of individuals who had not been diagnosed with burnout. From a psychometric point of view, MBI-GS measures burnout utilising the three subscales that are reflective of Maslach's (1982) original conceptualisation of burnout. However, MBI scales are not grounded in firm clinical observations. Technically

speaking, MBI scales are good instruments for measuring burnout, but from a clinical point of view they fail to capture other characteristics that burned-out employees express through clinical practice such as cognitive impairment (e.g. inability to concentrate; Schaufeli, Bakker, Hoogduin, Schaap, & Kladler, 2001). Thus, it was not clear through our sample how many participants were actually burned-out, as burnout was perceived as a dimensional rather than a categorical measure.

## Conclusion

The major finding of this study was that all three dimensions of burnout were positively related to avoidant and irrational decision-making styles. Given the cognitive impairments associated with burnout as well as the emotional and cognitive distance that burnout individuals keep from their work, these findings make theoretical sense. In the context of identifying mechanisms by which burnout leads to risky decision-making, the findings suggest that employees' sense of professional inefficacy determines their risky decision-making.

## Disclosure statement

No potential conflict of interest was reported by the authors.

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