What the Future Holds: The Effects of Neuroticism and Conscientiousness on Occupational Future Time Perspective and the Moderating Role of Job Insecurity

Master Thesis Human Resource Studies

Tilburg University: School of Social and Behavioral Sciences

Name	A.C.F. Troost
SNR	2009852
Supervisor	dr. C. Karaduman
Theme	Time perspectives and HR outcomes
Period	November 2021 – June 2022

Abstract

Despite numerous calls for research to further examine a possible relationship between personality traits and an employee's Occupational Future Time Perspective (OFTP), this study aimed to stand at the forefront of preliminary research by not letting this request go by unanswered any longer. Therefore, this research focused on neuroticism and conscientiousness, and was based on the underlying assumption that both would be related to OFTP due to differences in uncertainty intolerance. Moreover, this study examined whether job insecurity added to the uncertainty, by incorporating it as a moderator for both relationships. This research used the data of 257 Dutch employees in a master thesis circle's joint questionnaire. The results of multiple regressions did not find support for neuroticism and conscientiousness to be related to OFTP. Furthermore, no support was found for job insecurity to influence either one these relationships. Finally, the limitations of this research have been discussed, followed by future recommendations and implications for practice.

Keywords: Occupational Future Time Perspective, neuroticism, conscientiousness, job insecurity, uncertainty intolerance

Introduction

March 11th 2020, the date that will go down in history as the day the World Health Organization officially declared COVID-19 a pandemic (WHO, 2020). As the world slowly went into a global lockdown, countless organizations were unprepared to handle the involuntary shift to working from home or were forced to lay off many of their workers (Brynjolfsson et al., 2020). As a result, employees had to continuously adapt and adjust to the changes and uncertainties that the pandemic brought along (Caligiuri et al., 2020; Mihalache & Mihalache, 2021). Despite the conducted research on preventing pandemics, COVID-19 shows that nothing can prepare people for what will happen in the future. Consequently, this has changed people's perspective on their future and led to more feelings of uncertainty (Ceccato et al., 2021). For employees, such a perception of the future is known as the Occupational Future Time Perspective (OFTP) and encompasses the time one thinks is left in one's career, next to the perceived work-related opportunities and limitations (Zacher, 2013).

Notwithstanding an employee's OFTP, the only certain thing about the future is that it is uncertain, especially in the current employment context (Hirsh & Inzlicht, 2008). The ability to tolerate uncertainty differs per person, however Gokuladas (2021) argues that personality traits play a crucial role in this. Neuroticism, which is a trait characterized by anxiety and worry, has been linked to having difficulties with tolerating uncertainty (Gokuladas, 2021). As Anderson et al. (2019) argue that uncertainty is related to negative affect, and highly neurotic employees are less able to tolerate this uncertainty, they might have a more negative perception of their occupational future.

Considering other personality traits in relation to OFTP, conscientiousness should not be overlooked; it has been identified as "the most important of the Big Five personality traits across various work contexts" (Orvis et al., 2008, p.1184). Conscientiousness is characterized by determination, self-control, organization, and persistence (Betts, 2013). According to

Bongelli et al. (2021), highly conscientious individuals are more able to tolerate uncertainty than those with lower levels of conscientiousness, as they have advanced coping mechanisms to regulate their response to uncertainty. Therefore, employees with high levels of conscientiousness might see their OFTP as more positive since they are able to tolerate and cope with the uncertainty of their future career better.

Additionally, this study aims to explore whether job insecurity moderates the aforementioned relationships. Job insecurity can be defined as an employee's "concern about the continued existence of the job in the future" (Sverke et al., 2002, p.243). Accordingly, job insecurity can be perceived as uncertainty about one's employment continuation. Moreover, research shows that an employee's emotional appraisal of potential job loss depends on their ability to tolerate uncertainty (Blanuša et al. 2021; Rettie & Daniels, 2021). Therefore, as high levels of job insecurity create even more uncertain circumstances, it can be argued that highly neurotic employees might view their OFTP as even more negative. Furthermore, because high job insecurity creates extra uncertainty, highly conscientious employees might view their OFTP as less positive since they are less able to cope with the additional uncertainty.

Whereas most existing literature on antecedents of OFTP have included individual characteristics, little to no research has included personality traits as a possible antecedent after Cate and John (2007) first suggested it to be related to an individual's perception of the future. Thereafter, multiple studies have called for further examination of personality traits in relation to OFTP (Henry et al., 2017; Rudolph et al., 2018; Zacher & Frese, 2009). Consequently, this study aims to fill the gap in the literature by exploring and analyzing a possible relationship between the personality traits neuroticism and conscientiousness, and OFTP. Additionally, this study intends to enhance the aforementioned theoretical contribution by investigating whether job insecurity is associated with these relationships.

Furthermore, this study is also relevant for managers in practice. Previous research has shown that employees with a more positive, higher level of OFTP tend to have more positive work-related outcomes and better performance (Rudolph et al., 2018). In practice, managers could use personality assessments in the recruitment and selection process to guide their decision in choosing the best candidate (i.e., low levels of neuroticism and high levels of conscientiousness for potentially a positive OFTP). Additionally, where possible, managers could provide clarity on the employment security of employees in times of perceived job insecurity to ease the additional uncertainty (Vander Elst et al., 2010).

Based on the aforementioned information, the following research question has been formed:

"To what extent are neuroticism and conscientiousness associated with Occupational Future Time Perspective, and to what extent does job insecurity moderate these relationships?"

Theoretical Framework

OFTP

The first section of this chapter will discuss OFTP and its relation to the personality traits neuroticism and conscientiousness through the mechanism of uncertainty intolerance. The concept of Occupational Future Time Perspective (OFTP) originally stems from the Future Time Perspective (FTP) literature. FTP has its roots in many lifespan-related research (Cate & John, 2007; Rudolph et al., 2018). However, Zacher and Frese (2009) decided to expand on the concept of FTP, in order to fit the work context – constructing the concept of OFTP. Accordingly, OFTP has been defined as "an individual's perceptions of their future in the employment context" (Zacher, 2013, p.1142). Zacher (2013) identified three dimensions: *perceived remaining time, focus on opportunities*, and *focus on limitations*. The first dimension, perceived remaining time, can be defined as an employee's perception of the time they have

left in their career (Zacher, 2013). Secondly, a focus on opportunities in the workplace captures perceived possibilities, goals, and opportunities in an employee's occupational future (Zacher, 2013). Lastly, a focus on limitations refers to the "perceptions of the constraints, limitations, and restrictions" (Zacher, 2013, p.1142) an employee might come across in their occupational future. Overall, OFTP of an employee can vary from a high to a low score.

According to previous research, a higher OFTP infers a more positive outlook on one's professional future (Kochoian et al., 2017; Oliveira, 2021; Zacher & Rudolph, 2021). Namely, employees with high OFTP view their occupational future more positively because they see more opportunities and options in their professional future (Kochoian et al., 2017; Oliveira, 2021). Similarly, a lower OFTP infers a more negative outlook. When an employee perceives their professional future to be more constrained, less full of opportunities and with little time remaining, their perception tends to be more pessimistic (Kochoian et al., 2017; Zacher & Rudolph, 2021).

One fundamental principle about the future is that it has not happened yet. Like Paulos (as cited in Hirsh & Inzlicht, 2008) stated: "uncertainty is the only certainty there is," (p.962) and the future is filled with it. Anderson et al. (2019) explain that uncertainty is derived from not being able to determine the future in which the available information is ambiguous and complex. Whereas uncertainty plays a vital role in one's perception of the future, the same can be argued for an employee's perception of their occupational future. Thus, to explain associations with OFTP, the concept of uncertainty intolerance (UI) will be used. Uncertainty intolerance can be defined as "an individual's negative emotions, cognitions, and behaviors (e.g., coping behaviors) when experiencing uncertainty" (Rettie & Daniels, 2021, p.2). While it differs per person and depends on various factors, individuals will usually either try to avoid uncertainty, reduce its negative effects, or maximize the positive effects where possible (Anderson et al., 2019; Hillen et al., 2017). Individuals cope differently with uncertainty in the

future; one will have developed a tolerance for it, while the other is more intolerant of uncertainty. Such intolerance of uncertainty implies a bias towards how an uncertain event in the future is interpreted (Blanuša et al., 2021). Building on this information, the subsequent section outlines neuroticism to be associated with OFTP, through the UI mechanism.

Neuroticism

According to Gokuladas (2021), personality traits can contribute to an individual's ability to cope with uncertainty. Personality traits are "characteristic patterns of thoughts, feelings, and behaviors" (Diener & Lucas, 2019, p.278). The personality trait predominantly linked to high UI is neuroticism (Bongelli et al., 2021; Gokuladas, 2021; Hirsh & Inzlicht, 2008). Neuroticism is a state of emotional instability characterized by anxiety, worrying, hostility, and self-consciousness (Costa Jr & McCrae, 1992). Accordingly, highly neurotic employees are less able to tolerate uncertainty, as they tend to be more anxious, distressed, and pessimistic about the unknown (Hirsh & Inzlicht, 2008). Because an employee's (in)tolerance influences their situational response, employees who are less able to tolerate the uncertainty tend to have more negative perceptions of uncertainty (Anderson et al., 2019; Rettie & Daniels, 2021; Yang et al., 2021). Moreover, Blanuša et al. (2021) argue that uncertainty is experienced by intolerant individuals as stressful and negative. Since neurotics have more negative perceptions about future uncertainty, due to their inability to cope with said uncertainty (Bongelli et al., 2021), they might focus more on possible constraints in their occupational future. By the same reasoning, employees with high levels of neuroticism might perceive less time remaining and less opportunities in their future career, as they might be overwhelmed with the stress caused by the uncertainty. Accordingly, as highly neurotic employees are pessimistic about the unknown (Hirsh & Inzlicht, 2008), i.e., the number and nature of opportunities,

restrictions, and possible time remaining, they tend to focus on negative aspects of their occupational future more and have a lower OFTP.

Whereas to the knowledge of this study, no previous research has been done on the relationship between neuroticism and OFTP. Empirical research by Park et al.'s (2020) might substantiate the suggested relationship. The study found neuroticism to be negatively related to an individual's future time perspective (Park et al., 2020). Despite their research focusing on FTP, present study will expect a similar relationship. Since personality traits are stable and consistent across contexts (Diener & Lucas, 2019), an employee's neuroticism will influence their perceptions at work as well.

Thus, it is expected that employees with higher levels of neuroticism will have a lower, more negative outlook on their occupational future. Consequently, the following hypothesis has been formed:

Hypothesis 1: Neuroticism is negatively related to OFTP.

Job insecurity

Central in this section is the extent to which job insecurity influences the relationship between neuroticism and OFTP. According to Sverke et al. (2002), job insecurity can be defined as an employee's "concern about the continued existence of the job in the future" (p.243). There are different conditions that can affect or increase an individual's perception of job insecurity such as labor market characteristics (e.g., flexible labor market), organizational change (e.g., downsizing), and the nature of an employee's employment contract (e.g., temporary contract) (Keim et al., 2014). Essentially, high job insecurity is notorious for being an extremely stressful factor in one's career (Blanuša et al., 2021), as it can be perceived as uncertainty about an employee's continued employment (Glavin & Schieman, 2014; Sverke et al., 2002). Therefore,

it is expected that perceived high job insecurity strengthens the relationship between neuroticism and OFTP.

As aforementioned, UI literature argues that an employee's (in)tolerance of uncertainty influences their response (Rettie & Daniels, 2021). However, the uncertainty experienced during job insecurity might be perceived as additional uncertainty on top of the regular uncertainty. According to Blanuša et al. (2021), an employee's emotional appraisal of a situation in which job insecurity is high, depends on their (in)tolerance of uncertainty. Building on the idea that highly neurotic employees have a higher UI and are less able to cope with uncertainty (Bongelli et al., 2021; Gokuladas, 2021; Hirsh & Inzlicht, 2008), it is expected that the additional uncertainty of job insecurity will weigh them down even more. In other words, neurotic employees might experience considerably more negative affect, as there is even more (intolerance of) uncertainty due to high job insecurity.

Since the relationship between neuroticism and OFTP has not previously been researched to the knowledge of this study, there is no empirical evidence to substantiate the suggested influence of job insecurity on the relationship. Nevertheless, a study by Blanuša et al. (2021) found that during high job insecurity, employees experienced higher UI, which would support the reasoning for the mechanism between neuroticism and OFTP.

Thus, since job insecurity will add onto the uncertainty even more, and neurotic employees already have difficulty tolerating uncertainty, they might perceive their uncertain occupational future more negatively. Consequently, the following hypothesis is formed:

Hypothesis 2: Job insecurity moderates the relationship between neuroticism and OFTP, such that perceived high job insecurity strengthens the negative relationship between neuroticism and OFTP.

Conscientiousness

Whereas neuroticism has been linked to UI, the personality traits conscientiousness must be addressed as well. “As the most important of the Big Five personality traits across various work contexts” (Orvis et al., 2008, p.1184), conscientiousness is characterized by an employee’s persistency, determination, and self-control (Costa Jr & McCrae, 1992; Kairys & Liniauskaite, 2015). Highly conscientious employees work hard, are organized, careful, and purposeful (Betts, 2013; Kairys & Liniauskaite, 2015). According to Bongelli et al. (2021), highly conscientious individuals have lower UI than those with lower levels of conscientiousness, as they have advanced coping mechanisms to regulate their response to uncertainty. Moreover, conscientious employee’s hard work and structured nature provide better tools to tolerate future uncertainty (Novoradovskaya et al., 2020). Likewise, self-control in highly conscientious employees plays an important role for self-regulating negative affect that potentially arises from uncertainty (Balliet, 2010). Correspondingly, better tolerance of uncertainty has been associated with more positive affect about uncertainty (Garrison et al., 2017). Reason for this is that conscientious employees with low UI will likely perceive future uncertainty as less stressful, and more so as interesting and filled with potential opportunities (Garrison et al., 2017). This is in line with previous research which reasoned that highly conscientious employees might be more determined to pursue potential new career goals and thus actively look out for them (Zacher & Frese, 2009). Moreover, it has been argued that conscientious employees often take different future possibilities into consideration and might anticipate possible obstacles in their occupational future (Park et al., 2020; Zacher & Frese, 2009). Nevertheless, as aforementioned, they might not see these constraints as negative (Garrison et al., 2017). Thus, it is expected that employees who are highly conscientious are more likely to have a higher, more positive OFTP, due to their ability to tolerate and cope with uncertainty.

Research on the relationship between conscientiousness and OFTP is still preliminary. Similar to neuroticism, empirical evidence which found a positive relationship between conscientiousness and FTP (Cate & John, 2007; Park et al., 2020; Zimbardo & Boyd, 2015), might substantiate present theoretical proposition. A similar relationship for conscientiousness and OFTP is expected, as the influence of personality traits have shown to carry over in a work context (Diener & Lucas, 2019).

Based on the arguments provided above, the following hypothesis has been formed:

Hypothesis 3: Conscientiousness is positively related to OFTP.

Job insecurity

This final section addresses the extent to which job insecurity influences the relationship between conscientiousness and OFTP. As aforementioned, it is expected that conscientious employees perceive a more positive OFTP because their coping strategies make it easier for them to tolerate uncertainty (Bongelli et al., 2021). However, job insecurity might weaken this relationship. To start, job insecurity is particularly stressful because employees experience additional uncertainty about the timing and the way they might lose their job in the future (Glavin & Schieman, 2014). Most importantly, previous research has shown that "people experiencing perceived job insecurity cannot employ strategies of coping because of the persistent uncertainty about whether or not the feared employment instability will actually occur" (Burgard et al., 2009, p.778). Therefore, when perceived job insecurity is high, the coping mechanism of highly conscientious employees to tolerate uncertainty, are now undermined. In other words, job insecurity weakens a conscientious employee's ability to tolerate uncertainty in their future. Therefore, it is expected that highly conscientious employees are less inclined to perceive their OFTP as positive.

Research has, to knowledge of this study, not previously found empirical evidence to support job insecurity moderating the relationship between conscientiousness and OFTP. Nevertheless, Blanuša et al.'s study (2021) might support the proposed arguments. Their research found empirical evidence of employees experiencing higher UI during high job insecurity (Blanuša et al., 2021), which supports aforementioned theoretical reasoning about undermining the coping mechanism of conscientiousness employees.

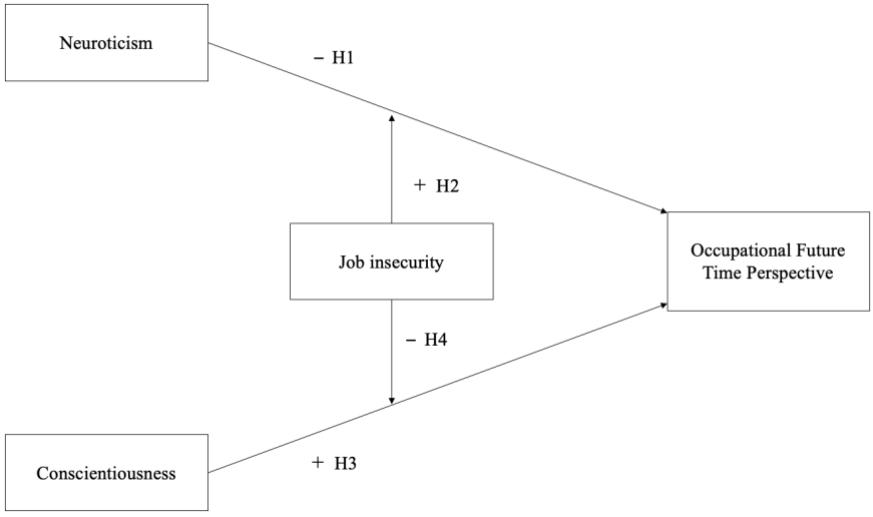
In sum, as the additional perceived uncertainty of job insecurity in highly conscientious employees might weaken their ability to cope with uncertainty, they might perceive their OFTP as less positive. Consequently, the following hypothesis is formed:

Hypothesis 4: Job insecurity moderates the relationship between conscientiousness and OFTP, such that perceived high job insecurity weakens the positive relationship between conscientiousness and OFTP.

The proposed relationships and hypotheses have resulted in the following conceptual model:

Figure 1

Conceptual Model



Methodology

Research Design and Procedure

To answer the research question, this quantitative explanatory study tested the proposed hypotheses. This research has a cross-sectional survey design, as the data was collected at a single moment in time through a master thesis circle's joint questionnaire. The present research proposal was accepted by Tilburg University's Ethics Review Board, to guarantee ethical legitimacy.

The questionnaire was set up through Qualtrics in English due to the internationality of the thesis circle. To guarantee respondents' informed consent, the cover letter of the questionnaire explained the goal of the research, the procedure, and instructions for the respondent. Respondents were guaranteed anonymity and confidentiality of their answers and could withdraw at any moment as stated in the questionnaire's introduction. Thereafter, the URL of the questionnaire was distributed via email across pre-selected organizations contacted beforehand and through telephone and LinkedIn. Data was collected over the course of three weeks.

Sample

Present study collected data from the Dutch labor force ($\geq$ 18 years) through convenience sampling at different organizations across sectors (e.g., education, transport) and through personal networks. A power analysis[1] in the program G*Power 3.1 was conducted to calculate the required minimum number of respondents in this research. This resulted in a required minimum sample size of N = 218. When the survey closed, a total of 377 responses

[1] The input for the analyses was as follows: one-tailed, Effect size f^2 = 0.05, α = 0.05, Power = 0.95, and three predictors.

were recorded. Out of the 377 responses, 120 responses were incomplete. These 120 cases failed to respond to more than 50% of the items and were therefore listwise deleted (Newman, 2014), resulting in a sufficient final sample size of 257 (N = 257). Most respondents were between the ages of 28 and 37 (40.9%), of which slightly more than half identified as female (50.2%). The majority of respondents had a Bachelor's degree or equivalent (40.9%), a permanent contract (60.3%), and worked either in the Education industry (16.3%) or any Other industry (48.2%) out of which Health Care was mentioned the most (3.9%). The average organizational tenure was 4 years (M = 4.09), and 3 years for job tenure (M = 3.40). In Table 1 an overview of the sample characteristics can be found.

Table 1

Sample Characteristics

Characteristic	Percentage	Mean	Std. Deviation
Age (years)			
18 – 27	33.1		
28 – 37	40.9		
38 – 47	10.5		
48 – 57	10.1		
58 – 67	5.4		
68 and over	0.0		
Gender			
Male	49.0		
Female	50.2		
Non-binary	0.4		
Prefer not to say	0.4		
Other	0.0		
Educational level			
Secondary education	4.3		
Vocational education	15.6		
Bachelor's or equivalent	40.9		
Master's or equivalent	36.6		
Doctoral or equivalent	2.7		
Contract			
Permanent	60.3		
Temporary	39.7		
Organizational tenure (years)		4.09	5.97
Job tenure (years)		3.40	5.64

Table 1 Continued

Characteristic	Percentage	Mean	Std. Deviation
Sector			
Supply chain & logistics	9.7		
Transport	10.1		
Semiconductor	2.7		
AV/Videoconferencing	2.7		
Education	16.3		
Finance, banking & insurance	10.1		
Other	48.2		

Note. $N = 257$

Instruments

The Appendix shows an overview of the items for each of the scales used in the questionnaire. All items, except for the control variables, were scored on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

OFTP was measured using Zacher and Frese's (2009) adaptation of the 10-item FTP scale by Carstensen and Lang (1996). This adapted scale added the word 'occupational' to the items, to fit FTP to the work context (Zacher & Frese, 2009). Thereafter, Zacher (2013) found that there are eight items which each have the highest loadings on one of the three factors. Example items include: "Most of my occupational life lies ahead of me" (perceived remaining time), "Many opportunities await me in my occupational future" (focus on opportunities), and "As I get older, I begin to experience time in my occupational future as limited" (focus on limitations). The reliability of the items was checked and a Cronbach's alpha of $\alpha = .83$ was found, while Zacher (2013) found a Cronbach's alpha of $\alpha = .92$. The reliability of this scale is good as the value of Cronbach's alpha should be at least .70 to be sufficiently reliable and .80 to be considered good (Gliem & Gliem, 2003).

Neuroticism will be measured using the eight corresponding Neuroticism items in the Big Five Inventory (BFI) (John & Srivastava, 1999). A sample item includes: "I see myself as someone who worries a lot." A reliability analysis found a Cronbach's alpha of $\alpha = .82$,

indicating a scale with good reliability. Likewise, John and Srivastava (1999) reported a Cronbach's alpha of α = .84.

Conscientiousness will be measured using the nine corresponding Conscientiousness items in the BFI for personality traits by John and Srivastava (1999). An example item includes: "I see myself as someone who makes plans and follows through with them." A reliability analysis reported a sufficient Cronbach's alpha of α = .75, compared to John and Srivastava's (1999) Cronbach's alpha of α = .82.

Job insecurity will be measured using the four-item Job Insecurity Scale by Vander Elst et al. (2014). An example item includes: "Chances are I will soon lose my job." To assess reliability of the scale, this study found a good Cronbach's alpha of α = .86, whereas Vander Elst et al. (2014) reported a Cronbach's alpha of α = .85.

The *control variables* age, gender, educational level, organizational tenure, and type of contract were added to control for possible extraneous effects that might distort the researched relationships (Spector & Brannick, 2011). A meta-analysis by Rudolph et al. (2018) found support for age, gender, educational level, job- and organizational tenure to influence OFTP. Moreover, type of contract was found to influence an employee's perceived job insecurity (De Cuyper & De Witte, 2006). *Age* was measured by asking respondents to choose the category with their age in years. *Gender* was measured by asking the respondent's gender, with answer categories 1 = Male, 2 = Female, 3 = Non-binary, 4 = Prefer not to say, and 5 = Other. *Educational level* was measured by asking respondents to indicate their highest completed level of education, ranging from 1 = Primary education to 6 = Doctoral or equivalent. Moreover, *job tenure* and *organizational tenure* were measured by letting respondents indicate their tenure in years and months. Lastly, *type of contract* was measured by either 1 = permanent or 2 = temporary, and dummy coded into 0 = permanent and 1 = temporary, to interpret 'permanent contract' as the constant value.

Analyses

Preceding the analyses, the data was checked for outliers, missing values, and other errors. According to Pallant (2010), outliers and other errors are values with unusual scores or scores that differ from the possible range. In this study, no outliers or other errors were found. Moreover, no missing values were found as all questions were mandatory for completing the survey. To interpret the data, the reverse coded item scores were recoded to always let '5' indicate the highest score. Thereafter, factor analyses were done to validate the scales of OFTP, neuroticism, conscientiousness, and job insecurity. For OFTP the number of components in the Scree Plot and Kaiser's criterion (eigenvalue > 1) indicate two components, whereas Zacher (2013) argued for three. Therefore, interpretation based on the three dimensions separately of OFTP should be considered carefully. Notwithstanding, the scale has been validated by Rudolph et al.'s (2018) meta-analysis and present study similarly uses OFTP as a whole construct. Thus, this finding did not invalidate this scale. Overall, the four factor analyses showed that there was no cause to adjust each scale differently from how it was validated in the literature. Based on reliability and validation of the scales, the item scores for OFTP, neuroticism, conscientiousness, and job insecurity were aggregated into one scale ranging from 1 (indicating the lowest score) to 5 (indicating the highest score). Accordingly, a higher score indicates a higher level of neuroticism, conscientiousness, job insecurity, and OFTP. Subsequently, the data was checked for the assumptions of linearity, normality, multicollinearity, independence of residuals, and homoscedasticity (Pallant, 2010). The assumptions of linearity, normality, and homoscedasticity were checked by looking at the Normal Probability Plot and the Scatterplot which showed no signs of violations of these assumptions. Moreover, the assumption of independence of residuals was met (Durbin-Watson value = 2.02) (Kelley & Bolin, 2013). Furthermore, by inspecting the correlation matrix in

Table 2 the assumption of multicollinearity was checked. According to Pallant (2010), multicollinearity exists for high correlations ($r \geq .90$), which was not the case in this research. Therefore, all assumptions were met.

Lastly, this research used multiple regression analyses in IBM SPSS 25 by using Hayes, PROCESS macro to test all hypotheses (Hayes, 2017). According to Hayes et al. (2017), PROCESS simplifies the process of moderation as used in this study's multiple regression analyses. Model 1 was used twice to conduct two separate moderation regression analyses. The first analysis included hypothesis 1 and 2 with neuroticism as independent variable. Thereafter, the second analysis was done for hypothesis 3 and 4 with conscientiousness as independent variable. Statistical significance will be set at a confidence interval of 95% and thus $p < .05$ (Pallant, 2010). For both regression analysis, control variables were added in PROCESS.

Results

Table 2 shows the means, standard deviations, and correlations of the variables and control variables. Firstly, in relation to OFTP, almost all main variables in the model were found to be non-significant correlations. According to Pallant (2010), correlations can be small ($r \geq .10$), medium ($r \geq .30$), and large ($r \geq .50$). Nevertheless, a significant but small negative correlation between OFTP and job insecurity was found ($r = -.20$, $p < .01$), implying that a higher level of job insecurity is related to a more negative OFTP and vice versa. Furthermore, a significant negative medium correlation was found between neuroticism and conscientiousness ($r = -.30$, $p < .01$). This implies that more neurotic employees are less conscientious and vice versa Moreover, a significant positive medium correlation between neuroticism and job insecurity was found ($r = .31$, $p < .01$), which means more neurotic employees have higher levels of job insecurity and vice versa. Accordingly, a significant negative correlation between conscientiousness and job insecurity was found ($r = -.15$, $p < .05$).

Thus, implying that more conscientious employees have less job insecurity and vice versa. As expected, the correlations show that a higher age (r = -.57, p < .01), organizational tenure (r = -.29, p < .01), and job tenure (r = -.34, p < .01) seem to be negatively related to OFTP, whereas employees with temporary contracts (r = .18, p < .01) reported a more positive OFTP than employees with permanent contracts.

Whereas adding in more control variables could influence the relationship, a high number of covariates also makes this model more complex reducing statistical power (Grant, 2019). Therefore, a trade-off had to be made: either ideally control for all covariate influences or maintain more statistical power considering the limited sample size. The latter was chosen and three of the initial six control variables were excluded from the regression analyses. Based on the non-significant correlations between educational level and the other variables (Table 2), education level was excluded from the regression analyses. Moreover, gender was excluded as it has less strong (or non-significant) influences on the other (control) variables. Due to the high correlation between organizational- and job tenure, organizational tenure was chosen to keep as a control variable in the trade-off. In terms of theoretical reasoning, looking at the overall model it might be better to include how long an employee has been with the organization, rather than how long they have been in their job as one might feel more insecure about their future in the organization than in their overall job field. Therefore, these analyses controlled for the effects of age, contract type, and organizational tenure in the main regression analyses as they seem to significantly influence the other variables.

Table 2

Means, Standard Deviations, and Correlations

	M	SD	1	2	3	4	5	6	7	8	9	10
1. OFTP	3.78	.67	1									
2. Neuroticism	2.58	.65	-.04	1								
3. Conscientiousness	3.88	.51	-.03	-.30**	1							
4. Job Insecurity	2.01	.87	-.20**	.31**	-.15*	1						
5. Gender[a]			.08	.15*	.15*	.03	1					
6. Age[b]			-.57**	-.24**	.18**	-.01	-.20**	1				
7. Education level[c]			.08	-.07	.08	-.01	-.09	.02	1			
8. Contract type[d]			.18**	.21**	-.09	.24**	.24**	-.29**	-.08	1		
9. Organizational tenure	3.40	5.64	-.29**	-.08	.06	-.06	-.01	.42**	-.08	-.21**	1	
10. Job tenure	4.09	5.97	-.34**	-.08	.06	-.11	-.11	.43**	-.11	-.41**	.53**	1

Note. $N = 257$
[a]Gender was coded as: (1 = male, 2 = female, 3 = non-binary, 4 = prefer not to say, 5 = other).
[b]Age was coded as: (1 = 18-27, 2 = 28-37, 3 = 38-47, 4 = 48-57, 5 = 58-67, 6 = 68 years and older).
[c]Educational level was coded as: (1 = primary education, 2 = lower vocational education, 3 = general secondary education, 4 = bachelor's or equivalent, 5 = master's or equivalent, 6 = doctoral or equivalent).
[d]Contract type was dummy coded as: (0 = permanent, 1 = temporary).
* $p < .05$ (two-tailed), ** $p < .01$ (two-tailed)

Hayes' PROCESS model 1 was used twice to test the four hypotheses of this research by executing two regression analyses. Firstly, the results of the regression analysis for hypothesis 1 and 2 can be found in Table 3. The first hypothesis implied that employees who score higher on neuroticism would have a lower and thus more negative OFTP. As displayed in Table 3, the analysis showed this relationship to not be significant (b = -.21, SE = .13, p > .05). Hence, no support for an effect was found between an employee's level of neuroticism and their OFTP. Thus, the first hypothesis was not supported.

The second hypothesis expected an increase in perceived job insecurity to strengthen the effect of neuroticism on OFTP. As shown in Table 3, the interaction effect (b = .04, SE = .05, p > .05) is not significant. This indicates that no support was found for job insecurity to have an effect on the relationship between neuroticism and OFTP. Consequently, the second hypothesis was not supported. Overall, the model explained 39.5% of the variance in OFTP

($F(6; 250) = 27.14$, $p < .001$). While no support was found for both hypotheses, there are significant results in Table 3 for two control variables. Thus, these control variables, and primarily age, explain most of the variance in OFTP, instead of neuroticism and the interaction effect.

Table 3

Regression Analysis of OFTP on Neuroticism and Job insecurity

Variable	*B*	*SE*	*t*	*p*
(Constant)	5.31	.34	15.80	< .001**
Neuroticism	-.21	.13	-1.66	.098
Job insecurity	-.25	.15	-1.68	.094
Neuroticism * Job insecurity	.04	.05	.75	.456
Control variables				
Age[a]	-.30	.03	-9.27	< .001**
Contract type[b]	.05	.08	.68	.500
Organizational tenure	-.02	.01	-2.26	.025*
	R^2	*F*	*df1*	*df2*	*p*
Model	.39	27.14	6	250	< .001**

Note. $N = 257$
[a]Age was coded as: (1 = 18-27, 2 = 28-37, 3 = 38-47, 4 = 48-57, 5 = 58-67, 6 = 68 years and older).
[b]Contract type was dummy coded as: (0 = permanent, 1 = temporary).
* $p < .05$ (two-tailed), ** $p < .01$ (two-tailed)

Next, a second regression analysis was performed to test hypothesis 3 and 4. The results of this analysis can be found in Table 4. The third hypothesis proposed employees with high levels of conscientiousness to have a higher and thus more positive OFTP. As can be seen in Table 4, the effect between conscientiousness and OFTP was not significant ($b = -.13$, $SE = .18$, $p > .05$). As no support for an effect was found between conscientiousness and OFTP, the third hypothesis was not supported.

Hypothesis 4 assumed that a higher level of perceived job insecurity would weaken the effect between conscientiousness and OFTP. As shown in Table 4, the interaction effect ($b =$

.09, *SE* = .08, $p > .05$) is not significant. This implies that no support was found for the level of an employee's job insecurity to influence the relationship between conscientiousness and OFTP. Thus, no support was found for the fourth hypothesis. Overall, the second model explained 38.5% of the variance in OFTP ($F(6; 250) = 26.12$, $p < .001$). Given that no support was found for hypothesis 3 and 4, similar to the first two hypotheses, the included control variables might explain most of this variance in OFTP, instead of conscientiousness and the interaction effect.

Table 4

Regression Analysis of OFTP on Conscientiousness and Job insecurity

Variable	*B*	*SE*	*t*	*p*
(Constant)	5.32	.72	7.36	< .001**
Conscientiousness	-.13	.18	-.73	.467
Job insecurity	-.52	.31	-1.64	.102
Conscientiousness * Job insecurity	.09	.08	1.12	.264
Control variables				
Age[a]	-.29	.03	-8.95	< .001**
Contract type[b]	.04	.08	.57	.569
Organizational tenure	-.02	.01	-2.41	.017*
	R^2	*F*	*df1*	*df2*	*p*
Model	.39	26.12	6	250	< .001**

Note. *N* = 257
[a]Age was coded as: (1 = 18-27, 2 = 28-37, 3 = 38-47, 4 = 48-57, 5 = 58-67, 6 = 68 years and older).
[b]Contract type was dummy coded as: (0 = permanent, 1 = temporary).
* $p < .05$ (two-tailed), ** $p < .01$ (two-tailed)

Discussion

More than a decade has passed since research first called for further examination of personality traits in relation to OFTP (Zacher & Frese, 2009). Despite this request, the focus of most OFTP studies has been on work and individual characteristics, leaving the field of personality traits rather untouched. Therefore, this study aimed to further examine a possible

relationship between OFTP and personality traits – in general and more specifically neuroticism and conscientiousness. Overall, this study has paved the way for examining personality traits as predictors of OFTP. Moreover, this research also aimed to potentially enhance this theoretical contribution by investigating whether job insecurity influenced these relationships. This study built on the underlying assumption that both personality traits would be related to OFTP due to differences in uncertainty intolerance, which in turn could be influenced by the additional uncertainty of job insecurity. To test this research question, data from 257 Dutch employees in a master thesis circle's joint questionnaire were used to run multiple regression analyses for the proposed hypotheses.

Neuroticism and Conscientiousness

Whereas the first hypothesis in this research proposed a negative relationship between neuroticism and OFTP, the third hypothesis expected conscientiousness to be positively related to OFTP. However, no significant effect was found to support both. An explanation for both these results might be as follows. Firstly, the underlying mechanism of UI might not explain the relationship between neuroticism, conscientiousness and OFTP. While this study's assumptions about the underlying mechanism were not supported, alternative mechanisms might be related such as perceived autonomy or control. According to Rudolph et al. (2018), autonomy is positively related to OFTP as work environments with high autonomy can help employees view more opportunities and remaining time. Additionally, research argues the relationship between personality and perceptions or behavior, differs "depending on the degree to which the external environment inhibits a person's freedom to behave in idiosyncratic ways" (Barrick & Mount, 1993, p. 112).

Furthermore, employees experiencing high autonomy and control feel less restricted by situational factors during difficult circumstances, than less autonomous employees (Gellatly &

Irving, 2001). Consequently, during these moments, employees with high autonomy will have more freedom to exhibit their personality-based perceptions (Barrick & Mount, 1993; Gellatly & Irving, 2001). They are able to perceive more or less possible opportunities or remaining time in their future, based on their personality traits. Neurotic employees might perceive more constraints, and conscientious employees might perceive more opportunities for example. However, employees with less control will have more difficulty with perceiving their true OFTP level, as they feel restricted in their typical personality responses (Barrick & Mount, 1993). Thus, when employees experience a low level of autonomy or control, their OFTP is influenced, apart from their existing OFTP based on their personality. In conclusion, alternative related mechanisms such as autonomy explain why no support was found for these relationships.

A final explanation as to why no support was found for both hypotheses, could be a difference in the sample between this study and the empirical evidence which supports the hypotheses. Whereas Park et al.'s (2020) sample consisted of 250 Korean individuals, this research's population consisted solely of employees working in the Netherlands. According to Allik (2005), Koreans and other Asian countries score higher on neuroticism than Dutch individuals. Moreover, meta-analyses have found cultures to differ in responses on questions regarding both neuroticism and conscientiousness (Allik, 2005). In more collectivistic countries (e.g., Asia), respondents will answer more socially desirable to the questions on neuroticism as they often lack self-disclosure and want to uphold positivity (Allik, 2005; Johnson, & Van de Vijver, 2003). The empirical evidence used to substantiate the hypotheses was based on Asian culture and contextual influences, whereas European culture and contextual factors often differs. Thus, it can be explained that these cultural differences might explain why no support was found for the hypothesis.

Job insecurity

The second hypothesis expected a higher level of perceived job insecurity to strengthen the relationship between neuroticism and OFTP. Moreover, the fourth hypothesis expected a higher level of perceived job insecurity to weaken the relationship between conscientiousness and OFTP. However, the results of this research did not find support for these hypotheses. An explanation for both these results might be as follows. Subsequent to the explanation for the unsupported first and third hypothesis, job insecurity might only influence OFTP directly. According to Lam et al. (2019), job insecurity is negatively related to OFTP in which more perceived job insecurity is related to a lower OFTP. Indeed, looking at the correlation between OFTP and job insecurity it shows that a higher level of job insecurity directly relates to a lower OFTP and vice versa (r = -.20 p < .01). Thus, job insecurity has a direct relationship with OFTP, even though there was not a moderating effect between personality traits and OFTP.

A different explanation for the non-significant result in this research might be the contextual influence of the employee's industry and job type and might moderate job insecurity as a moderator for both neuroticism and conscientiousness. According to Sender et al. (2017), the nature of the industry and its labor market (i.e., competitiveness, (un)employment rates, and scarcity), can buffer the effects of an employee's reaction to job insecurity. In essence, more scarcity in the market makes it easier for employees to quickly find a new job and thus might buffer the threat of perceived job insecurity. In turn, this reduced threat might influence employees in their ability to cope with uncertainty and possibly the opportunities, limitations, or time they think remains in their occupational future. Thus, the contextual influence of the labor market and industry of employees on job insecurity might explain why no support was found for job insecurity to moderate both relationships.

Furthermore, an explanation which builds on the previous argument might be the influence of job type on job insecurity as a moderator. Considering both blue-collar workers

and white-collar workers, the latter have shown to perceive less job insecurity than blue-collar workers (Keim et al., 2014). This is because jobs in manufacturing and other manual labor are easier to lay-off or replace by technology or cheaper labor (Keim et al, 2014; Krugman & Lawrence, 1994). In turn, blue-collar employees might perceive job insecurity as a bigger threat than white-collar employees and might thus influence an employee's ability to cope with uncertainty. Therefore, job type might influence job insecurity as a moderator and could explain why the hypotheses in which job insecurity moderates the relationship between neuroticism and conscientiousness were not supported.

Practical Implications

The results of this study can also contribute to (HR) managers in practice, despite the lack of support for neuroticism and conscientiousness to influence an employee's occupational future. The "Great Resignation" in 2021 meant that a record-number of employees globally had quit their jobs hoping the grass was greener on the other side – at another organization (Tessema et al., 2022). As a result, organizations have asked HR managers to make retention and recruitment their top-priority (Tessema et al., 2022). As Rudolph et al. (2018) found employees with a higher OFTP to have more positive work-related outcomes and better performance, it makes sense for organizations to focus on retaining and selecting such desired employees. However, as the results of this study show no support for personality traits to be related to OFTP, it is better for HR professionals to filter on other individual characteristics in candidates and employees. In selecting new hires, research showed younger workers and a motivation to learn to be positively associated with OFTP (Rudolph et al., 2018). Such a motivation to learn is also part of work readiness which, Caballero and Walker (2010) found to be indicative of career advancement and long-term job performance. Therefore, recruiters in practice could benefit from using the Work Readiness Scale during assessment or interviews to attract the

desired employees. In retaining employees with a high OFTP, research shows trainings on enhancing career adaptability are the way to go (Fasbender, 2019). This training intervention lets employees explore their long-term goals and their skills and self-knowledge, instead of personality which present study found no support for, indicates how they deal with future career obstacles (Fasbender, 2019).

Furthermore, while the results of this study did not find support for job insecurity to moderate the relationships, HR professionals should still expect job insecurity to be a relevant factor for employees in general. According to Kiem et al. (2014), organizational change, labor market characteristics, and the nature of an employee's employment contract are all conditions that affect perceived job insecurity. Moreover, as aforementioned, job insecurity rather seems to be negatively related to OFTP directly. Accordingly, job insecurity almost never has a positive effect on employees (Blanuša et al., 2021). Furthermore, the pandemic gave employees more time to rethink their career and reconsider priorities (Tessema et al., 2022). Therefore, managers should be transparent about any job insecurity concerns employees have and start conversations with them about their professional future within or outside of the company.

Limitations and Future Research

While the strength of this study is the initial exploration of a potential relationship between the personality traits neuroticism, conscientiousness and OFTP, present research did not yield any significant results. Appropriately, this research also has several limitations. Foremost, the absence of established theory can be considered a limitation in this research. As no established theory exists (yet), reasoning a direct relationship between neuroticism, conscientiousness and OFTP is relatively challenging. While this research assumed one's occupational future to be uncertain, this might be a pessimistic way of looking at the future and reasoning. Future research should examine whether the relationship might be explained through

an alternative mechanism. Alternatively, it is recommended for future research to incorporate UI as a mediator in the model to examine whether it fully mediates the relationship between neuroticism, conscientiousness and OFTP. Future research could make use of the shortened 12-item UI scale by Carleton et al. (2007), which previous studies have used that incorporated both UI and personality traits (Berenbaum et al., 2008). Nevertheless, UI might still be the underlying mechanism in the relationship, despite the non-significant results. However, future studies should examine a potential relationship and once supported, replicate studies with the aim of contributing towards the building of a theory.

The second limitation in this study is that only two of the Big Five personality traits were included. While this study only focused on neuroticism and conscientiousness, the other traits: openness, extraversion, and agreeableness have been excluded. Nevertheless, these three are not less important. Previous research has included all five traits or focused on a similar selection (Cate & John, 2007; Park et al., 2020; Zimbardo & Boyd, 2015). However, due to the scope and time of this study, it was not possible to examine all Big Five personality traits in relation to OFTP. Previous research (Bongelli et al., 2021) found neuroticism and conscientiousness to be the two personality traits with the strongest association to UI. Based on previous research's selection (Park et al., 2020), and the assumption that these two would differ in UI the most in relation to OFTP, the other three personality traits were excluded. Thus, it is recommended future research includes all five personality traits when testing for a relationship with OFTP. Zacher and Frese (2009) have made the first steps in doing this by including all five traits as control variables in their OFTP research. Whereas Park et al. (2020), found support for extraversion to be positively related to FTP through the mechanism of enthusiasm about future possibilities, limited research on agreeableness in relation to OFTP is done. Moreover, openness to experience has been associated with a curiosity to seek new opportunities

(Zimmerman, 2008), and therefore might be related to OFTP. Consequently, new underlying mechanisms may be explored when studying all five traits.

A third limitation concerns the control variables. As previously explained, a trade-off had to be made between choosing more statistical power or losing some of the control variables. While the decision to choose for more statistical power per se is not a limitation, the result of excluding certain control variables also has its consequences. That is, an increased risk of confounding variables influencing and distorting the studied relationship (Spector & Brannick, 2011). Therefore, it is recommended for future research to collect a bigger sample size to ensure enough statistical power for when more variables are included (Hong & Park, 2012). Additionally, the regression analyses showed both overall models to be significant, yet none of the main individual variables found a significant relationship. Therefore, future research should explore other variables in relation to OFTP which might explain more variance.

The demographic and generalizability of the sample forms the fourth and final limitation in this study and is followed by recommendations for future research. While this study's sample includes employees from the Netherlands in many different industries, not all industries are equally represented or included in the sample and thus no generalization to a wider population of industries can be made (Etikan et al., 2016). This bias is characteristic for convenience sampling. As the overall population of this study's sample consists of employees working in the Netherlands, conclusions can only be made for employees working in the Netherlands and not workers in other countries. Therefore, no generalization of these results can be made to other countries and cultures (Etikan et al., 2016). Consequently, future research should gather a larger sample and make sure no groups in the population are underrepresented.

Conclusion

Despite previous research calling for studies on personality traits in relation to OFTP, none of the results in this research have found support for neuroticism and conscientiousness to have an effect on OFTP. Moreover, no support was found for job insecurity influencing these relationships. Thereby answering the research question: *"To what extent are neuroticism and conscientiousness associated with Occupational Future Time Perspective, and to what extent does job insecurity moderate these relationships?"*. Overall, the evidence presented in this study shows that there is still a long way to go in studying the grey area between personality traits and OFTP. Consequently, research should further explore the probability of a relationship, with the fundamental goal of theory building if supported, in which personality traits like neuroticism and conscientiousness predict an employee's OFTP.

References

Allik, J. (2005). Personality dimensions across cultures. *Journal of Personality Disorders, 19*(3), 212-232. https://doi.org/10.1521/pedi.2005.19.3.212

Anderson, E. C., Carleton, R. N., Diefenbach, M., & Han, P. K. (2019). The relationship between uncertainty and affect. *Frontiers in Psychology, 10*, 2504. https://doi.org/10.3389/fpsyg.2019.02504

Balliet, D. (2010). Conscientiousness and forgivingness: A meta-analysis. *Personality and Individual Differences, 48*(3), 259-263. https://doi.org/10.1016/j.paid.2009.10.021

Barrick, M. R., & Mount, M. K. (1993). Autonomy as a moderator of the relationships between the Big Five personality dimensions and job performance. *Journal of Applied Psychology, 78*(1), 111-118. https://doi.org/10.1037/0021-9010.78.1.111

Berenbaum, H., Bredemeier, K., & Thompson, R. J. (2008). Intolerance of uncertainty: Exploring its dimensionality and associations with need for cognitive closure, psychopathology, and personality. *Journal of Anxiety Disorders*, *22*(1), 117-125. https://doi.org/10.1016/j.janxdis.2007.01.004

Betts, M. J. (2013). *Future time perspective: examination of multiple conceptualizations and work-related correlates.* [Doctoral dissertation, Georgia Institute of Technology]. Georgia Tech Library. https://smartech.gatech.edu/bitstream/handle/1853/47569/betts_matthew_j_201305_mast.pdf

Blanuša, J., Barzut, V., & Knežević, J. (2021). Intolerance of Uncertainty and Fear of COVID-19 Moderating Role in Relationship Between Job Insecurity and Work-Related Distress in the Republic of Serbia. *Frontiers in Psychology, 12*, 647972. https://doi.org/10.3389/fpsyg.2021.647972

Bongelli, R., Canestrari, C., Fermani, A., Muzi, M., Riccioni, I., Bertolazzi, A., & Burro, R. (2021). Associations between Personality Traits, Intolerance of Uncertainty, Coping

Strategies, and Stress in Italian Frontline and Non-Frontline HCWs during the COVID-19 Pandemic—A Multi-Group Path-Analysis. *Healthcare, 9*(8), 1086-1106. https://doi.org/10.3390/healthcare9081086

Brynjolfsson, E., Horton, J. J., Ozimek, A., Rock, D., Sharma, G., & TuYe, H. Y. (2020). *COVID-19 and remote work: an early look at US data* (NBER Working Paper No. w27344). National Bureau of Economic Research. https://www.nber.org/system/files/working_papers/w27344/w27344.pdf

Burgard, S. A., Brand, J. E., & House, J. S. (2009). Perceived job insecurity and worker health in the United States. *Social Science & Medicine, 69*(5), 777-785. https://doi.org/10.1016/j.socscimed.2009.06.029

Caballero, C. L., & Walker, A. (2010). Work readiness in graduate recruitment and selection: A review of current assessment methods. *Journal of Teaching and Learning for Graduate Employability*, *1*(1), 13-25. https://doi.org/10.21153/jtlge2010vol1no1art546

Caligiuri, P., De Cieri, H., Minbaeva, D., Verbeke, A., & Zimmermann, A. (2020). International HRM insights for navigating the COVID-19 pandemic: Implications for future research and practice. *Journal of International Business Studies*, *51*, 697-713. https://doi.org/10.1057/s41267-020-00335-9

Carleton, R. N., Norton, M. P. J., & Asmundson, G. J. (2007). Fearing the unknown: A short version of the Intolerance of Uncertainty Scale. *Journal of Anxiety Disorders*, *21*(1), 105-117. https://doi.org/10.1016/j.janxdis.2006.03.014

Cate, R. A., & John, O. P. (2007). Testing models of the structure and development of future time perspective: maintaining a focus on opportunities in middle age. *Psychology and Aging*, *22*(1), 186 –201. https://doi.org/10.1037/0882-7974.22.1.186

Ceccato, I., Palumbo, R., Di Crosta, A., Marchetti, D., La Malva, P., Maiella, R., Marin, A., Mammarella, N., Verrocchio, M. C., & Di Domenico, A. (2021). “What's next?” Individual differences in expected repercussions of the COVID-19 pandemic. *Personality and Individual Differences, 174*, 110674. https://doi.org/10.1016/j.paid.2021.110674

Costa Jr, P. T., & McCrae, R. R. (1992). The five-factor model of personality and its relevance to personality disorders. *Journal of Personality Disorders, 6*(4), 343-359. https://doi.org/10.1521/pedi.1992.6.4.343

De Cuyper, N., & De Witte, H. (2006). The impact of job insecurity and contract type on attitudes, well-being and behavioural reports: a psychological contract perspective. *Journal of Occupational and Organizational Psychology, 79*(3), 395-409. https://doi.org/10.1348/096317905X53660

Diener, E., & Lucas, R. E. (2019). Personality traits. In L. Brewer (Ed.), *General psychology: Required reading* (p. 278-295). https://d1wqtxts1xzle7.cloudfront.net/60283871/General_Psychology_-__Required_Reading20190813-110996-103829r-with-cover-page-v2.pdf?Expires=1639417413&Signature=L7~vHXrLE55o~Zjxxohtlc0FrIdYd29jtlbsscVlS7ShuYpgPfkmTkzYwAoQ-4qFwxePIQSZfNTk-3Z5wDD3NzKaHYhWoXmz2VJGyZenYQvB~2yXcBzGKtuCgwR9qdqdpA10xJeC4pGQ9bI8oCl7Yxr~9fBBUov7cN~SccSXDCPK08AAv-OE~8oVzIIuylwpnKwPBLmKVlGsa4mfHIZ6ImjWPPA~urE0~xfpxO7zGYlturH3RQ742DvfMeteN1nz2KJBoxH7kTx6~ZaQbryTUVgiQyd-aeGOoQcDdnIL-WKX8ALBzjovKUAxLXp1tC4gSRP6lQh8So9Hy4Z0jlUj~g__&Key-Pair-Id=APKAJLOHF5GGSLRBV4ZA#page=280

Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics*, *5*(1), 1-4. https://doi.org/10.11648/j.ajtas.20160501.11

Fasbender, U., Wöhrmann, A. M., Wang, M., & Klehe, U. C. (2019). Is the future still open? The mediating role of occupational future time perspective in the effects of career adaptability and aging experience on late career planning. *Journal of Vocational Behavior*, *111*, 24-38. https://doi.org/10.1016/j.jvb.2018.10.006

Garrison, Y. L., Lee, K. H., & Ali, S. R. (2017). Career identity and life satisfaction: The mediating role of tolerance for uncertainty and positive/negative affect. *Journal of Career Development, 44*(6), 516-529. https://doi.org/10.1177%2F0894845316668410

Gellatly, I. R., & Irving, P. G. (2001). Personality, autonomy, and contextual performance of managers. *Human Performance*, *14*(3), 231-245. https://doi.org/10.1207/S15327043HUP1403_2

Glavin, P., & Schieman, S. (2014). Control in the face of uncertainty: is job insecurity a challenge to the mental health benefits of control beliefs? *Social Psychology Quarterly, 77*(4), 319-343. https://doi.org/10.1177%2F0190272514546698

Gliem, J. A., & Gliem, R. R. (2003). Calculating, interpreting, and reporting Cronbach's alpha reliability coefficient for Likert-type scales. Paper presented at *Midwest Research-to-Practice Conference in Adult, Continuing, and Community Education.* https://scholarworks.iupui.edu/bitstream/handle/1805/344/Gliem%20&%20Gliem.pdf?s

Gokuladas, V. K. (2021). Predictability of Big-Five Factors on Intolerance of Uncertainty: A Case from Middle Adulthood Category of People in The Southern India During Pandemic Period. *The International Journal of Indian Psychology, 9*(3), 441-463. https://doi.org/10.25215/0903.046

Grant, P. (2019, August 8). Understanding Multiple Regression. *Towards Data Science Inc.*, https://towardsdatascience.com/understanding-multiple-regression-249b16bde83e

Hayes, A. F. (2017). Introduction to mediation, moderation, and conditional process analysis: A regression-based approach. Guilford Publications.

Hayes, A. F., Montoya, A. K., & Rockwood, N. J. (2017). The analysis of mechanisms and their contingencies: PROCESS versus structural equation modeling. *Australasian Marketing Journal (AMJ)*, *25*(1), 76-81. https://doi.org/10.1016/j.ausmj.2017.02.001

Henry, H., Zacher, H., & Desmette, D. (2017). Future time perspective in the work context: A systematic review of quantitative studies. *Frontiers in Psychology*, *8*, 413-435. https://doi.org/10.3389/fpsyg.2017.00413

Hillen, M. A., Gutheil, C. M., Strout, T. D., Smets, E. M., & Han, P. K. (2017). Tolerance of uncertainty: Conceptual analysis, integrative model, and implications for healthcare. *Social Science & Medicine, 180*, 62-75. https://doi.org/10.1016/j.socscimed.2017.03.024

Hirsh, J. B., & Inzlicht, M. (2008). The devil you know: Neuroticism predicts neural response to uncertainty. *Psychological Science, 19(*10), 962-967. https://doi.org/10.1111%2Fj.1467-9280.2008.02183.x

Hong, E. P., & Park, J. W. (2012). Sample size and statistical power calculation in genetic association studies. *Genomics & Informatics*, *10*(2), 117-122. https://doi.org|/10.5808%2FGI.2012.10.2.117

John, O. P., & Srivastava, S. (1999). The Big-Five trait taxonomy: History, measurement, and theoretical perspectives. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research* (pp. 102–138). Guilford Press.

Johnson, T. P., & Van de Vijver, F. J. (2003). Social desirability in cross-cultural research. In T. P. Johnson & F. J. Van de Vijver (Eds.), *Cross-cultural survey methods 325*, 195-

204. https://www.researchgate.net/profile/Timothy-Johnson-9/publication/235660939_Social_Desirability_in_Cross-Cultural_Research/links/0deec52e570314b51a000000/Social-Desirability-in-Cross-Cultural-Research.pdf

Judge, T. A., Erez, A., Bono, J. E., & Thoresen, C. J. (2002). Are measures of self-esteem, neuroticism, locus of control, and generalized self-efficacy indicators of a common core construct? *Journal of Personality and Social Psychology*, *83*(3), 693-710. https://psycnet.apa.org/doi/10.1037/0022-3514.83.3.693

Kairys A., & Liniauskaite A. (2015). Time Perspective and Personality. In M. Stolarski, N. Fieulaine, & W. van Beek (Eds.), *Time Perspective Theory; Review, Research and Application* (pp.99-113). https://doi.org/10.1007/978-3-319-07368-2_6

Keim, A. C., Landis, R. S., Pierce, C. A., & Earnest, D. R. (2014). Why do employees worry about their jobs? A meta-analytic review of predictors of job insecurity. *Journal of Occupational Health Psychology*, *19*(3), 269-290. http://dx.doi.org/10.1037/a0036743

Kelley, K., & Bolin, J. H. (2013). Multiple regression. In T. Teo (Eds.), *Handbook of quantitative methods for educational research* (pp. 69-101). Brill Sense. https://brill.com/view/book/edcoll/9789462094048/BP000005.xml

Kochoian, N., Raemdonck, I., Frenay, M., & Zacher, H. (2017). The role of age and occupational future time perspective in workers' motivation to learn. *Vocations and Learning*, *10*(1), 27-45. https://doi.org/10.1007/s12186-016-9160-9

Krugman, P. R., & Lawrence, R. Z. (1994). Trade, Jobs and Wages. *Scientific American*, *270*(4), 44-49. https://doi.org/10.3386/w4478

Lam, C. C. C., Cheung, F., & Wu, A. (2019). Job insecurity, occupational future time perspective, and psychological distress among casino employees. *Journal of Gambling Studies*, *35*(4), 1177-1191. https://doi.org/10.1007/s10899-019-09855-y

Mihalache, M., & Mihalache, O. R. (2021). How workplace support for the COVID-19 pandemic and personality traits affect changes in employees' affective commitment to the organization and job-related well-being. *Human Resource Management, 1*, 1-20. https://doi.org/10.1002/hrm.22082

Newman, D. A. (2014). Missing data: Five practical guidelines. *Organizational Research Methods, 17*(4), 372-411. https://doi.org/10.1177%2F1094428114548590

Novoradovskaya, E., Mullan, B., & Hasking, P. (2020). Choose to reuse: Predictors of using a reusable hot drink cup. *Journal of Consumer Behaviour, 19*(6), 608-617. https://doi .org/10.1002/cb.1834

Oliveira, E. (2021). Age-inclusive HR practices and the thriving of older workers: the mediating role of occupational future time perspective, *Career Development International, 26*(3), 348-362. https://doi.org/10.1108/CDI-01-2021-0026

Orvis, K. A., Dudley, N. M., & Cortina, J. M. (2008). Conscientiousness and reactions to psychological contract breach: A longitudinal field study. *Journal of Applied Psychology, 93*(5), 1183–1193. https://doi.org/10.1037/0021-9010.93.5.1183

Pallant, J. (2010). *SPSS survival manual* (4th ed.). McGraw-Hill Education.

Park, I. J., Gu, M., & Hai, S. (2020). How Can Personality Enhance Sustainable Career Management? The Mediation Effects of Future Time Perspective in Career Decisions. *Sustainability, 12*(3), 1167-1187. https://doi.org/10.3390/su12031167

Rettie, H., & Daniels, J. (2021). Coping and tolerance of uncertainty: Predictors and mediators of mental health during the COVID-19 pandemic. *American Psychologist, 76*(3), 427-437. https://doi.org/10.1037/amp0000710

Rudolph, C. W., Kooij, D. T., Rauvola, R. S., & Zacher, H. (2018). Occupational future time perspective: A meta-analysis of antecedents and outcomes. *Journal of Organizational Behavior, 39*(2), 229-248. https://doi.org/10.1002/job.2264

Sender, A., Arnold, A., & Staffelbach, B. (2017). Job security as a threatened resource: Reactions to job insecurity in culturally distinct regions. *The International Journal of Human Resource Management*, *28*(17), 2403-2429. https://doi.org/10.1080/09585192.2015.1137615

Spector, P. E., & Brannick, M. T. (2011). Methodological urban legends: The misuse of statistical control variables. *Organizational Research Methods*, *14*(2), 287-305. https://doi.org/10.1177%2F1094428110369842

Sverke, M., Hellgren, J., & Näswall, K. (2002). No security: a meta-analysis and review of job insecurity and its consequences. *Journal of Occupational Health Psychology*, *7*(3), 242-264. https://doi.org/10.1037/1076-8998.7.3.242

Tessema, M. T., Tesfom, G., Faircloth, M. A., Tesfagiorgis, M., & Teckle, P. (2022). The "Great Resignation": Causes, Consequences, and Creative HR Management Strategies. *Journal of Human Resource and Sustainability Studies*, *10*(1), 161-178. https://doi.org/10.4236/jhrss.2022.101011

Topa, G., & Zacher, H. (2018). Occupational future time perspective: Psychometric properties of a Spanish scale. *Frontiers in Psychology*, 2237. https://doi.org/10.3389/fpsyg.2018.02237

Vander Elst, T., Baillien, E., De Cuyper, N., & De Witte, H. (2010). The role of organizational communication and participation in reducing job insecurity and its negative association with work-related well-being. *Economic and Industrial Democracy, 31*(2), 249-264. https://doi.org/10.1177%2F0143831X09358372

Vander Elst, T., De Witte, H., & De Cuyper, N. (2014). The Job Insecurity Scale: A psychometric evaluation across five European countries. *European Journal of Work and Organizational Psychology, 23*(3), 364-380. https://doi.org/10.1080/1359432X.2012.745989

World Health Organization. (2020, March 11). *WHO Director-General's opening remarks at the media briefing on COVID-19 - 11 March 2020* [Press release]. https://www.who.int/director-general/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020

Yang, Q., van den Bos, K., & Li, Y. (2021). Intolerance of uncertainty, future time perspective, and self-control. *Personality and Individual Differences, 177*, 110810. https://doi.org/10.1016/j.paid.2021.110810

Zacher, H. (2013). Older job seekers' job search intensity: The interplay of proactive personality, age and occupational future time perspective. *Ageing & Society*, *33*(7), 1139-1166. https://doi.org/10.1017/S0144686X12000451

Zacher, H., & Frese, M. (2009). Remaining time and opportunities at work: relationships between age, work characteristics, and occupational future time perspective. *Psychology and Aging*, *24*(2), 487 –493. https://doi.org/10.1037/a0015425

Zacher, H., & Rudolph, C. W. (2021). Relationships between psychological contract breach and employee well-being and career-related behavior: The role of occupational future time perspective. *Journal of Organizational Behavior*, *42*(1), 84-99. https://doi.org/10.1002/job.2495

Zimbardo P.G., & Boyd J.N. (2015). Putting Time in Perspective: A Valid, Reliable Individual-Differences Metric. In M. Stolarski, N. Fieulaine, W. van Beek (Eds.), *Time Perspective Theory; Review, Research and Application* (pp. 17-55). Springer. https://doi.org/10.1007/978-3-319-07368-2_2

Zimmerman, R. D. (2008). Understanding the impact of personality traits on individuals' turnover decisions: a meta-analytic path model. *Personnel Psychology*, *61*(2), 309-348. https://doi.org/10.1111/j.1744-6570.2008.00115.x

Appendix: Scales and items

Table A

Control variables

Question	**Answer options**
What is your age?	O 18-27 O 28-37 O 38-47 O 48-57 O 58-67 O 68 years and older
What is your gender?	O Male O Female O Non-binary O Prefer not to say
What is your highest level of completed education?	O Primary Education O Lower Vocational Education O General Secondary Education O Bachelor's or Equivalent O Master's or Equivalent O Doctoral or Equivalent
How long have you been at your current organization?	xx years xx months
How long have you been in your current job?	xx years xx months
What is the nature of your contract?	O Permanent contract O Temporary contract (including fixed-term contracts, contracts via a temporary work agency, trial contracts, internships, consultants/interims)

Table B

Items per OFTP dimension by Zacher (2013)

Scale and item
Perceived remaining time
1. Most of my occupational life lies ahead of me.
2. My occupational future seems infinite to me.
3. There is plenty of time left in my occupational life to make new plans.

Focus on opportunities

4. Many opportunities await me in my occupational future.
5. My occupational future is filled with possibilities.
6. I expect that I will set many new goals in my occupational future.

Focus on limitations

7. I have the sense that my occupational time is running out. *
8. As I get older, I begin to experience time in my occupational future as limited. *

* *Reverse coded*

Table C

Items per personality trait measured with the Big Five Inventory (BFI) developed by John & Srivastava (1999).

Scale and items
I see myself as someone who...
Neuroticism
1. Is depressed, blue.
2. Is relaxed, handles stress well. *
3. Can be tense.
4. Worries a lot.
5. Is emotionally stable, not easily upset. *
6. Can be moody.
7. Remains calm in tense situations. *
8. Gets nervous easily.
Conscientiousness
1. Does a thorough job.
2. Can be somewhat careless. *
3. Is a reliable worker.
4. Tends to be disorganized. *
5. Tends to be lazy. *
6. Perseveres until the task is finished.
7. Does things efficiently.
8. Makes plans and follows through with them.
9. Is easily distracted. *

* *Reverse coded*

Table D

Items measuring job insecurity by Vander Elst et al. (2014).

Item
1. Chances are I will soon lose my job
2. I am sure I can keep my job *
3. I feel insecure about the future of my job
4. I think I might lose my job in the near future.

** Reverse coded*