Psychological determinants of job application dishonesty

Psychological Determinants of Job Application Dishonesty

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Declaration

I hereby declare that this dissertation is the result of my own work. Except where specific reference is made to the work of others, the contents of this dissertation are original and have not been submitted in whole or in part for consideration for any other degree or qualification in this, or any other University. This dissertation contains 112364 words, excluding appendices and bibliography.

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Abstract

Job application forms and Curriculum Vita (CVs) often contain discrepant information that can result from some job candidates' intending to gain a dishonest advantage in selection processes. However, studies on the antecedents and consequences of job application dishonesty are scarce, despite its potential to influence organisational goals negatively if unqualified or fraudulent candidates are recruited. Therefore, this thesis has two aims. First, the thesis attempts to explain and predict job application dishonesty using a behaviour model containing personality traits and social-cognitive factors. Second, it examines whether job application dishonesty predicts occupational deviance in the form of counter-productive work behaviours. Two studies were conducted to achieve these objectives. Study One investigated whether the personality trait Conscientiousness, social-cognitive measures (i.e., Attitudes, Perceived Social Proof and Perceived Risk of job application dishonesty), and cultural differences between two countries (i.e., Brazil and the United Kingdom) predicted reported job application dishonesty in a sample containing 264 participants. Study Two replicated the first study's findings with an improved model, which contained the addition of the personality trait Honesty-Humility and a re-conceptualisation of the measure of risk perception with a sample of 376 participants. The second study also investigated whether job application dishonesty and personality traits are predictive of reported Counter-Productive Work Behaviours (CWBs). The results of the two studies indicated that the behavioural model adequately predicted reported job application lies and embellishments. Furthermore, the results of Study Two showed that job application lies predicted counter-productive work behaviours against other employees and organisations. Therefore, the thesis contributes to the Organisational Psychology literature and practice in presenting a model of behaviour that explains and predicts job application dishonesty and demonstrating that job application dishonesty correlates with deviant work behaviours.

Detailed Table of Contents

Summary Table of Contents

List of Figures

List of Tables

Chapter 1 Introduction

"The beginning is the most important part of the work" — Plato*, The Republic.*

This introduction presents the aims and context for developing the objectives and research questions in this thesis. It also concisely describes the theoretical approach that guided the answers to its research questions.

1.1 Aim

The efficiency of employee selection processes depends on the accuracy of the information job candidates present in their job applications. However, job applications often contain inaccuracies, many of which result from the intentional dishonesty of those seeking employment. When discrepancies are present in job applications, organisations risk introducing underperforming employees into their workforce. Moreover, if job candidates intentionally misinform the selection process, organisations risk hiring underperforming employees who are also dishonest. Despite its importance to organisational functioning, academic studies investigating job application dishonesty are scarce. As a result, the antecedents and outcomes of job application dishonesty are not well understood.

Therefore, the aims of this thesis are twofold. First, this thesis investigates factors that explain and predict job application dishonesty. More specifically, this thesis examines whether personality traits theoretically linked to dishonest behaviours (i.e.,

Conscientiousness and Honesty-Humility) and domain-specific beliefs (e.g., perceived seriousness, perceived social proof that job application dishonesty is common, and perceived risk of job application dishonesty) relate to job candidates' decision to misinform their job applications. Second, the thesis examines whether job application dishonesty predicts negative organisational consequences in the form of counter-productive work behaviours such as organisational and interpersonal deviance.

1.2 Thesis Organisation

In addition to Chapter 1, which contains the Introduction, this thesis adopts a structure comprising eight chapters. Four theoretical chapters (i.e., Chapters 2 to 6) provide a background to the research conducted in this thesis. More specifically, Chapter 2 contains a systematic review of job application dishonesty studies, while Chapter 3 contains a narrative review of the empirical and theoretical literature related to the study of dishonest behaviours. It consists of an overview of studies related to psychological factors that increase and decrease dishonesty in job applications and interviews and dishonesty research in general. Chapter 4 presents a theoretical model of dishonest behaviour based on the findings of the literature review. The chapter concludes with the statement of the leading research questions in this thesis and their related hypotheses. Chapter 5 contains the philosophical positions related to the ontology and epistemology of the psychological constructs included in the studies. Chapter 6 explains the methodological strategy for the studies in this thesis. It details the logic behind the design of the instruments, the rules of instrument administration, participant recruitment and data analysis. It also contains a summary of the studies' methodological limitations.

The following chapters (i.e., Chapters 7 and 8) contain the two studies of this thesis. Study One investigates whether a behavioural model containing social-cognitive factors (i.e., Attitudes, Perceived Social Proof and Perceived Risk) and the personality trait Conscientiousness predict self-reported job application dishonesty, including lies and embellishments. Study One also investigates whether participants from two countries with different levels of perceived national corruption (i.e., Brazil and the UK) differ in their reported job application dishonesty (i.e., lies and embellishments).

Chapter 8 includes Study Two, which replicates the findings related to the primary predictive model in Study One, but it contains further refinements of the theory and operationalisation of variables. Similarly to Study One, the predictive model in Study Two includes social-cognitive factors (i.e., Attitudes, Perceived Social Proof and Perceived Risk) and the personality trait Conscientiousness, which predicts self-reported job application dishonesty, including lies and embellishments. However, the model of behaviour in Study Two also investigates whether the personality trait Honesty-Humility, alongside Conscientiousness, explains further variance of job application dishonesty behaviours. In contrast to Study One, the risk perception measure includes a new conceptualisation, from a frequency perception of job application dishonesty verification to a probability judgement of job application dishonesty detection. Furthermore, all measures related to job application dishonesty have extra items that improve their content validity. Finally, Study Two investigates the possible implications of job application dishonesty to organisational behaviour. It examines whether the reported frequency of job application dishonesty relates to two forms of counter-productive work behaviours, namely, organisational and interpersonal deviance.

The thesis concludes with Chapter 9. The final chapter summarises and evaluates the findings of Studies One and Two. It also discusses the implication of the results to the field of Organisational Psychology's theory and organisational practice, the studies' limitations and lines of future research. The chapter ends by stating the thesis's contribution to knowledge and presenting arguments stating whether it has achieved its aims.

1.3 Background

In a competitive job market, finding a job can be a "job in itself." Even before taking part in a selection process, job candidates typically have to spend time and resources on education and training to increase their chances against equally or more qualified candidates (Spence, 1973). After gaining their qualifications, candidates will often have to research organisations, complete application forms or write personalised curriculum vita for a chance of being shortlisted for a job position. Once shortlisted, candidates might have to undergo intensive assessments, including taking part in interviews, completing psychometric tests and performing sample job tasks.

Still, despite the many barriers to gaining job positions, most adults in the UK will take part in job selection processes. According to the Office of National Statistics (2019), around 90% of working-age adults (i.e., aged 16-65) have been in some form of paid employment in their lifetimes. In contrast, the agency's report shows that out of the 10% of working-age adults who never had a paid job (i.e., 3.5 million), around 55% are young adults aged 16-24 and in full-time education, therefore, preparing to ingress the job market. The remaining 45% of working-age adults from those who never had a paid job present some justification for not seeking employment (e.g., disability). Only a small proportion of

individuals who never worked (i.e., around 10,000 or 0.03%) claims to have no interest in looking for a job.

Therefore, individuals seem motivated to be in employment, and consequently, participating in selection processes. Some of the reasons individuals seek employment are clear. For instance, within the current economic system, failing to secure a job position brings many detrimental consequences, such as an increase in the risk of psychological distress (Kokko, Pulkkinen, & Puustinen, 2000), poor health (McKee-Ryan, Song, Wanberg, & Kinicki, 2005), debt (Coughlan, 2017) and homelessness (Bramley & Fitzpatrick, 2018). Besides having a better financial situation, employed workers enjoy better mental and physical health and life and family satisfaction than unemployed individuals (McKee-Ryan, Song, Wanberg, & Kinicki, 2005).

Arguably, not every form of employment brings positive outcomes to workers. Job positions differ widely in how beneficial they are to employees, with some jobs even incurring costs to their well-being (Tinson, 2020). Still, compared to being unemployed or out of the workforce, the benefits of having a job will more often than not outweigh its costs. Jobs provide time structure, social contact, collective purpose, status, and activity, all of which strongly influence individuals' well-being (Paul & Moser, 2009). Therefore, the overall advantages of having a job not only motivate but compel individuals to seek employment.

1.3.1 Job Application Discrepancies

Being a motivated job seeker is not enough to secure a job position. In dynamic economies, the requirements for many job positions keep changing to suit the needs of employers and job candidates must invest time, energy and money to upgrade their

qualifications and keep pace with the job market (Boswell, Zimmerman, & Swider, 2012). Still, despite investing in education, employees are often unqualified for many job positions (Cedefop, 2016). Some of these changes demand constant upgrades of skills, knowledge and experience, which can be costly to employees; however, many individuals will lack the resources to compete for their desired positions (Lehmann, 2012).

Since job candidates with lower qualifications also need to find a job position, one alternative to increase their chances of being hired would be to lower their employment expectations, such as seeking jobs with lower requirements and rewards. Another option would be to withdraw from the job market entirely. However, some job candidates might not be willing to take these less desirable routes. Alternatively, they might attempt to cut corners and add inconsistent information to their job applications. According to a report from the Risk Advisory Group, job applications often contain discrepancies. For example, in 2017, the group reviewed 5,000 curriculum vita (CVs) in the UK and found that 80% of CVs had inconsistencies. More specifically, the report shows that 59% of CVs had discrepancies related to employment history, while 57% related to academic history (Whittington, 2017).

Although The Risk Advisory Group's report does not state that CV discrepancies are deliberate, the high incidence of incorrect information in CVs raises the possibility that they might result from dishonest intent. Furthermore, academic survey studies on job application dishonesty find that intentional deception in selection processes is relatively commonplace. For instance, in Henle, Dineen and Duffy's (2019) study on resume fraud, 34% of participants reported fabricating information in their job applications. Considering that participants in dishonesty studies might under-report the magnitude of their dishonest

acts (Peer, Acquisti, & Shalvi, 2014), a large percentage of job application discrepancies may result from fraudulent intent.

1.3.1.1.1 Performance Issues

Job application discrepancies should be a concern of organisations since their incidence and prevalence might be detrimental to organisational functioning. For example, it is logical to conclude that employees who present job applications with discrepancies lack the required characteristics to succeed in a particular role (e.g., skills, knowledge and experience). First, unqualified employees are likely to underperform in their specific functions (Quiñones, Ford, & Teachout, 1995). Second, the underperformance of employees will often affect the overall performance of organisations (Viswesvaran & Ones, 2018). Therefore, there is possibly an indirect link between job application discrepancies and overall organisational performance.

Furthermore, the behaviours of underperforming employees might also affect the behaviours and attitudes of high-performance employees. For instance, high-performance employees often compare their output and rewards to that of their colleagues. When high-performance employees notice that underperforming employees receive similar or better pay rates, they might become dissatisfied, demand higher pay rates, underperform as retaliation, or leave the organisation (Willliams & Livingstone, 1994).

Whether the organisation faces the turnover of high-performance employees or decides to replace low-performance employees, it will have to engage in a costly selection process. Considering a scenario where the organisation might have previously failed to detect unqualified job candidates, there is a risk that this new iteration of job selection might also be ineffective. Alternatively, the organisation might decide to retain both types of

employees. In this scenario, the organisation might have to raise the salaries of high-performance employees and, at the same time, cope with the lower output of the remaining unqualified employees. In any case, organisations might face complex and costly dilemmas because of undetected discrepancies.

1.3.1.1.2 Credential Inflation

Job application discrepancies can also be detrimental to honest job applicants. The selection process attempts to identify employee characteristics that correlate with job performance (Viswesvaran & Ones, 2018). However, when employees do not perform as expected from the information gathered from their job applications, an employer might reassess and increase the current job requirements. This process of credential inflation can be detrimental to honest job applicants, who will have to work unnecessarily harder to acquire qualifications for a specific job (Spence, 1973).

1.3.2 Employee Dishonesty

Therefore, job application discrepancies can potentially influence organisational performance negatively, strain the relationship between the organisation and high performing employees, raise the cost of selection processes and increase the barriers to entry for new job candidates. However, organisations might face additional challenges if these inconsistencies are the result of the intentional and dishonest behaviour of job candidates. For example, individuals often behave dishonestly in relatively consistent manner across situations and overtime (Gerlach, Teodorescu, & Hertwig, 2019). Furthermore, when candidates lie on their job applications, they are not only more likely to underperform but also more likely to behave unethically in other areas of organisational

life (Henle, Dineen, & Duffy, 2019). Consequently, when organisations hire candidates with job application discrepancies, they might be exposing themselves to counterproductive work behaviours which refers to different forms of interpersonal conflict, production deviance, and other forms of dishonesty, such as theft (Spector, et al., 2006).

Counterproductive work behaviours can adversely influence organisational goals (Mercado, Dilchert, Giordano, & Ones, 2018); however, dishonest deviant behaviours can be particularly detrimental to the performance of organisations. For instance, the Association of Certified Fraud Examiners (2016) estimates that the median amount lost in single instances of employee fraud is approximately $150,000. The losses can range between $62,000 and $450,000, depending on the industry. The report also states that 30% of single fraudulent cases occur in small businesses with 100 employees or less, which are less likely to survive such heavy losses.

Large corporations are also not immune to the devastating consequences of employee fraud. For example, WorldCom's CEO Bernard Ebbers' false financial reporting brought down the company in 2002. At the time, WorldCom was the second-largest long-distance telephone company in the USA (Romero & Atlas, 2002). In another example, a trader called Nick Leeson single-handedly caused the collapse of Barings Bank in 1995, the world's second-oldest merchant bank at the time. That is, Leeson took advantage of the bank's deficient and outdated financial controls and caused an estimated $1.3 billion loss through fraudulent and speculative investments (Beattie, 2018).

Moreover, the aggregated incidence of employee dishonesty can affect not only single organisations but also the economy. For instance, fraud examiners estimate that the aggregate estimated annual global loss from dishonest behaviours of single employees

(e.g., theft, larceny, and embezzlement) is $2.9 trillion (Wells, 2011). This figure is comparable to the GDP of California, which would rank as the fifth-largest economy in the world if it were a country (Segarra, 2018).

1.4 Statement of the Problem

A job application occurs when job candidates send documents containing a history of their qualifications to a hiring organisation. It is usually the earliest step in the selection process and the first interaction between the job candidate and the organisation. Job applications often have discrepancies, which result from human error. However, candidates might also intentionally add false information to their job applications. Therefore, job application dishonesty is possibly the first opportunity for a future employee to behave dishonestly against the hiring organisation.

Understanding job application dishonesty is vital in a practical sense because it can potentially affect organisational functioning. For example, job application dishonesty might misinform the selection process and increase the risk that organisations will add unfit employees to their workforce. Furthermore, job application dishonesty might affect organisational goals beyond the effects of hiring employees with a poor job-fit profile. For instance, once dishonest job applicants become employees, their deviancy might spill over to different organisational domains (Henle, Dineen, & Duffy, 2019).

Job application dishonesty also raises theoretical questions. The questions relate to what factors might explain and predict this form of counterproductive behaviour. The relationship between job application dishonesty and other forms of deviant work behaviours also requires a theoretical explanation. However, the literature on job

application dishonesty is scarce despite its importance to organisational practice and theory.

1.5 Theoretical Approach

This thesis investigates the factors that explain and predict job application dishonesty. Job application dishonesty occurs when job candidates include misleading information in their job applications to increase their chances of being hired during the job selection process. This behaviour is dishonest because when job candidates add false information to their job applications, they breach social norms related to competitiveness fairness and may cause harm to the organisation and other job candidates.

The literature on factors that increase or decrease the occurrence of job application dishonesty is scarce. In contrast, there is a wealth of research on other forms of dishonest behaviours which share similarities with job application dishonesty. For example, the literature contains studies that investigate interview faking, which relates to the different ways candidates distort their answers during interviews to create a favourable but misleading impression on interviewers. These dishonest behaviours range from impression management to straightforward lies. Such behaviours are relevant for the studies in this thesis since interview misinformation has to align with the information job candidates provide in their job applications. Consequently, job application lies precede interview dishonesty.

In addition to interview dishonesty, the literature also contains experimental and correlational studies investigating specific instances of dishonesty, such as cheating and lying for a reward. Conceptually, these behaviours are similar to job application dishonesty

because they occur in a social interaction in which an individual or group of individuals use socially proscribed tactics (i.e., lying, cheating and stealing) deliberately to gain from another party an unconsented advantage, often in detriment of the other party.

The theoretical framework of dishonesty studies comprises mainly of theories with either economics or psychological backgrounds. Economics studies often subscribe to and test the Rational Choice Theory. The Rational Choice theory contains the premise that individuals are rational because they make cost-benefit analyses of every situation and will always choose a course of action that maximises their outcomes (Baron, 2008). Therefore, dishonesty researchers often make an effort to create a risk-free experimental context in which participants can lie and cheat for a reward without the risk of negative consequences. However, despite the efforts from rational-choice researchers to provide incentives and opportunities for dishonesty, a large proportion of participants remain consistently honest across time and experimental manipulations. Furthermore, even when participants are dishonest, they often refrain from claiming the highest possible payoffs (Gerlach, Teodorescu, & Hertwig, 2019).

From a normative Rational Choice perspective, the participants should invariably take full advantage of a situation and maximise their profits. However, Rational Choice researchers cannot explain why many individuals behave against their supposed self-interest. In contrast, psychological studies contain functional explanations of behaviours. For example, psychological studies examine the role of personality traits in dishonest behaviours. Researchers hypothesise that personality traits are motivational systems, each representing a different evolutionary strategy that helps people navigate complex social environments (MacDonald, 1995), which imposes different evolutionary costs and benefits to individuals (Nettle, 2006). Therefore, personality psychologists hypothesise that behaviours under the

influence of personality traits occur with little input from the immediate environment (Funder, 2006).

The literature on dishonesty indicates that personality traits such as Conscientiousness (Giluk & Postlethwaite, 2015) and Honesty-Humility predict different forms of dishonest behaviours (Heck, Thielmann, Moshagen, & Hilbig, 2018). The Conscientiousness trait refers to a task-related conscience and people's tendency to behave in a precautionary manner. In contrast, the Honesty-Humility trait embodies a moral conscience that associates positively with social contracts (van Gelder & de Vries, 2016).

First, individual differences in Conscientiousness associates with different life outcomes related to academic and occupational success. Consequently, the trait Conscientiousness is theoretically linked to the capacity to meet job application requirements which often relate to academic and occupational credentials. Second, Honesty-humility is positively associated with cooperation in social dilemmas (Zettler, Hilbig, & Heydasch, 2013) and the fair division of resources (Hilbig, Thielmann, Hepp, & Zettler, 2015). The Honesty-humility trait theoretically links to job application dishonesty since job selections require that job candidates subscribe to fair competition rules. Therefore, the evolutionary goals underlying personality traits have distal functions or objectives related to human evolutionary history, making some decisions appear irrational from an economics point of view.

That being said, individuals also make decisions based on their evaluations of immediate behaviours and situations. These evaluations stem from external information and past experiences with specific behaviours and the context of these behaviours. For example, Attitudes refer to evaluative mental processes that dispose people to react favourably or

unfavourably toward entities in the world (Ajzen, 2005). Research indicates that attitudinal evaluations influence the decision to perform social behaviours, including dishonest behaviours. Furthermore, individuals also evaluate the social context of the behaviour; in other words, whether others perform the behaviour (Mazar, Amir, & Ariely, 2008) and whether the outcomes of the behaviour are achievable (Nagin & Pogarsky, 2003).

Therefore, in light of findings from the literature review on dishonesty behaviours, this thesis proposes a predictive model of job application dishonesty, which contains individual differences and social-cognitive elements. Specifically, the model includes the personality traits Honesty-humility and Conscientiousness, which are broad traits that influence a range of behaviours related to task morality and social contract, respectively. It also contains domain-specific psychological mechanisms such as attitudes, perceived social proof, and perceived risk of dishonesty. This thesis investigates whether these factors help explain and predict Job Application dishonesty.

Chapter 2 Systematic Literature Review

"Research is what I'm doing when I don't know what I'm doing." — Wernher von Braun

This chapter contains a systematic review of job application dishonesty that applies the Preferred Reporting Items for Systematic Reviews and Meta-analysis (PRISMA). The review contains empirical studies from 2003 to 2021, published in scholarly peer-reviewed journals investigating antecedents implicated in the decision to lie during job applications. The review identified 27 studies that matched the inclusion criteria, of which 25 examined interview dishonesty while two investigated both interview and resume dishonesty. The findings corroborate the conclusions of the narrative literature review in this thesis, which identified correlations between job application dishonesty and factors related to personality traits and social cognitive factors.

2.1 Introduction

During the job selection process, candidates often present their qualifications by submitting curriculum vita, completing job application forms and undergoing interviews. It is arguably an expectation from the organisational side of the process that candidates will present accurate information; it is also common for candidates to display a positive self-image to create a favourable impression in the minds of the recruiter (Levashina & Campion, 2007). Moreover, job candidates have incentives to use impression management tactics since it can influence the outcome of the selection process (Bourdage, Roulin, & Tarraf, 2018).

The use of honest impression management can help the decision-making of organisations. However, job candidates can also present misleading information in their job applications. For example, they may omit relevant information, such as lack of skill, or present qualifications and credentials for a position they are not qualified for (Henle, Dineen, & Duffy, 2019). When job candidates behave dishonestly, their behaviours may affect the selection process negatively as organisations risk hiring underperforming employees who are also dishonest.

2.1.1 Aim

The aim of this systematic literature review is to provide a structured synthesis of studies related to job selection dishonesty, which should help corroborate the findings of the narrative literature review in Chapter 3. The current chapter applies the Preferred Reporting Items for Systematic Reviews and Meta-analysis (PRISMA) to review studies on job application dishonesty. To the author's knowledge, there has never been a systematic review paper utilizing Systematic Reviews and Meta-analysis (PRISMA) to examine the relationship between job application dishonesty and psychological mechanisms, including social cognitive factors and individual differences. Therefore, this chapter's original contribution to knowledge lies in presenting a synthesis of the literature using the Preferred Reporting Items for Systematic Reviews and Meta-analysis (PRISMA).

2.1.2 Findings of the Narrative Review

The goal of the narrative review in Chapter 3 was to provide a comprehensive theoretical and methodological context for the thesis's investigation into job application dishonesty. It conceptualizes dishonesty as a broad behavioural strategy that exhibits some degree of consistency across situations and over time. Thus, this review delves into studies on job

application dishonesty and general dishonest behaviours. It examines key findings, evaluates suitable theories and methods, and contributes to synthesizing the existing dishonesty research.

Despite the limited number of studies directly addressing job application dishonesty, a body of research exists on different dishonest behaviours across multiple disciplines. Many of these studies share conceptual relevance with job application dishonesty, particularly those related to interview dishonesty, due to similar behavioural characteristics (see Chapter 3 for a technical definition of dishonesty). The review then examines the interplay between job applications and interviews in the selection process, highlighting instances where candidates repeat false information from written applications during interviews and underlining the connections between these behaviours (Henle, Dineen, & Duffy, 2019). Most importantly, the review examines the influence of personality traits and social-cognitive factors on candidates' dishonesty decisions during selection processes.

The review demonstrated that personality traits such as Conscientiousness, Honesty-humility (Bourdage, Schmidt, Wiltshire, Nguyen, & Lee, 2019) the Dark Triad, Social Desirability (Henle, Dineen, & Duffy, 2019; Levashina & Campion 2007), Moral Identity (Levashina & Campion, 2007), and Competitive Worldview (Roulin & Bourdage, 2017) predict interview dishonesty. However, these findings are typically derived from correlational analyses, with only one study investigating combined personality traits and the Theory of Planned Behaviour in predicting interview dishonesty (Bourdage, Schmidt, Wiltshire, Nguyen, & Lee, 2019). The results of the narrative review underscore the significance of factors like Honesty-humility and social-cognitive elements such as Attitudes and Perceived Social Proof and Risk Perceptions in predicting dishonesty, but

further exploration is needed to fully understand the role of these factors in predicting interview dishonesty.

In addition to job application dishonesty research, the review identified recurrent psychological themes in experimental dishonesty studies, including the roles of personality traits, dishonesty evaluations related to attitudes, social norms, and risk perceptions. The concept of honesty as a potential personality trait is explored, with experimental studies indicating that participants in risk-neutral situations tend to exhibit consistent tendencies toward honesty or dishonesty across time and situations (Gneezy, Rockenbach, & Serra-Garcia, 2013). Experimental studies on dishonesty often neglect the role of dispositions; however, when experimenters include personality traits in their studies, the results show that the personality traits Conscientiousness and Honesty-Humility often help explain the decision to behave, or to refrain from behaving, dishonestly, with the latter's moral conscience aspect being of particular importance (Hilbig & Zettler, 2015).

The review identifies stable behavioural patterns that influence the decision to act dishonestly, but it also highlights the importance of adaptive behaviours based on environmental cues and new information. Social-cognitive mechanisms, such as Attitudes, Subjective Norms (Yang, 2012; Beck & Ajzen, 1991) and Risk Perceptions (Thielmann & Hilbig, 2018), also shape dishonest behaviours. Attitudes reflect patterns of thoughts, feelings, and behaviours, while social norms govern conformity. Descriptive norms, which indicate perceptions of common behaviours among other individuals, often predict actions more accurately than subjective norms. Finally, the impact of risk perception on dishonesty is complex. While perceived risk seems to influence dishonest behaviour decisions, the relationship is not always straightforward. The interaction between personality traits and risk perceptions may contribute to this dynamic.

In conclusion, the narrative literature review identifies a combination of general and specific behavioural dispositions as contributors to dishonesty. Some individuals display consistent honesty or dishonesty, regardless of incentives, while others evaluate behaviours and social contexts before making decisions. A rational choice perspective underscores cost-benefit consideration. Therefore, explanations and predictions of job application dishonesty should incorporate general traits, specific dispositions like attitudes and social norms, and a cost analysis that factors in risk perceptions.

2.2 Method

2.2.1 Eligibility Criteria

All studies assessing the phenomenon of candidate job selection dishonesty, including interview and curriculum vita lies and embellishments were eligible for review. The inclusion criteria were: (i) being published in peer-reviewed journals, (ii) generating empirical data (i.e., self-report and observed dishonesty), and (iii) investigating antecedents or deterrence of job application dishonesty. Studies excluded from the review included (i) being a qualitative study, (ii) single case studies, (iii) unpublished thesis and dissertation studies, (iv) using mock job selection scenarios, and (v) not being published in a peer-reviewed journal.

2.2.2 Information Sources and Search

A literature search was conducted via EBSCO (which included the following academic databases: Academic Search Complete (PsycARTICLES, PsycINFO, ScienceDirect, Business Source Premier). The search strategy used the following terms: job application “OR” resume “OR” curriculum vitae “OR” application form “OR” interview “AND”

honesty “OR” dishonesty “OR” lying “OR” cheating “OR” deceit “OR” deception “OR” fraud “OR” faking.

2.2.3 Study Selection and Data Collection Processes

After the initial literature searches were conducted, the title and abstract of each study were screened and then potentially relevant studies were further assessed for eligibility. Detailed information about the study selection process is provided in the PRISMA flow diagram (Fig. 2.1). In the process of assessing the risk of bias in each study, sampling bias and measurement bias were also assessed.

2.3 Results

A total of 159 studies were identified via the initial search process. After the title and abstract of each study was examined, 132 studies were excluded due to unsuitability for the present review. Consequently, a total of 27 studies were selected for eligibility phase.

2.3.1 Study Characteristics

Information about the general characteristics and main methodological properties of all included 27 studies can be found in Tables 1 and 2.

2.3.2 Data Collected by Country

Regarding the geographic characteristics of the included studies, eight studies were from Canada: Amaral et al. (2019), Bourdage et al.’s (2018) Study 4, Bourdage et al.’s (2018) Study 5, Bourdage et al. (2019), Ho et al. (2019), Ho et al.’s (2020) Study 1, Powel et al. (2021), Roulin and Bourdage (2017).

Seven studies from USA: Donovan et al. (2003), Henle et al.'s (2017) Study 3, Henle et al. (2017); Study 4, Ho and Powell's (2021) Study 2, Hogue et al. (2013)(2013), Levashina & Campion's (2007) Study 4, and Roulin and Krings (2016).

Five studies from Germany: Bill et al.'s (2020) Study 1, Bill et al.'s (2020) Study 2, Bill et al.'s (2020) Study 3, Buehl & Melchers's (2017) Study 1, and Buehl & Melchers's (2017) Study 2.

One study from Australia: Lester et al. (2015). One from the United Arab Emirates: Husain et al. (2018). One from the United Kingdom: Ho et al.'s (2020) Study 2. One study with samples from the Canada and USA: Ho and Powell's (2021) Study 1.

Additionally, there were cross-cultural studies. One with participants from Iceland and Switzerland: Konig et al., (2011); One from China, Iceland and Switzerland: Konig et al. (2011); and one with participants from Austria, Belgium, Brazil, Canada, China, Fiji, Georgia, Germany, Iceland, India, Italy, Japan, Netherlands, New Zealand, Romania, Russia and Spain: Konig et al. (2021).

2.3.3 Participants

The reviewed studies included a total of 12,283 participants. The majority of studies recruited more female participants (n = 6818; 59%) than male participants (n = 4722; 41%). However, one study (Donovan et al., 2003) with 743 participants did not report on participants' sex.

Twelve studies reported a sample from the general public: Amaral et al. (2019), Bill et al.'s (2020) Study 2, Bill et al.'s (2020) Study 3, Bourdage et al.'s (2018) Study 5, Bourdage et al. (2019), Ho and Powell's (2021) Study 2, Ho et al.'s (2020) Study 1, Ho et al.'s (2020)

Study 2, Lester et al. (2015), Henle et al.'s (2017) Study 4, Ho and Powell's (2021) Study 1, Roulin and Krings (2016).

Fifteen studies that reported a sample as university students were: Bill et al.'s (2020) Study 1, Bourdage et al.'s (2018) Study 4, Buehl & Melchers's (2017) Study 1, Buehl & Melchers's (2017) Study 2, Donovan et al. (2003), Henle et al.'s (2017) Study 3, Ho et al. (2019), Hogue et al. (2013), Husain et al. (2018), Konig et al. (2011), Konig et al. (2012), Konig et al. (2021), Levashina & Campion's (2007) Study 4, Powel et al. (2021) and Roulin and Bourdage (2017).

Ten studies using student samples reported a sample with partial job application experience: Bill et al.'s (2020) Study 1, Bourdage et al.'s (2016) Study 4, Buehl & Melchers's (2017) Study 1, Buehl & Melchers's (2017) Study 2, Konig et al. (2011), Donovan et al. (2003), Henle et al. (2017); Husain et al.'s (2018) Study 3, Konig et al. (2021). Bourdage et al.'s (2016) Study 4 did not report on job application experience, but students reported on interview faking right after participating in a real interview.

Three studies did not report any job application experience for its student sample: Ho et al., (2019); Hogue et al. (2013), Ho and Powel et al. (2021). Two studies had a sample reporting on job application dishonesty right after the interview: Amaral et al. (2019) and Bourdage et al. (2018), while four studies contained samples reporting on the most recent interview: Buehl & Melchers' (2017) Study 1, Donovan et al. (2003), Ho and Powell's (2021) Study 2 and Konig et al. (2021)

Seven studies utilised online samples: Bill et al.'s 2020, Study 2 and Study 3; Bourdage et al., 2019; Henle et al.'s 2017, Study 4; Ho and Powel's (2021) Study 2; Ho et al.'s (2020), Study 1 and Study 2; Lester et al. 2015, Roulin and Krings 2016.

Figure 2.1 - *PRISMA Flow Diagram*

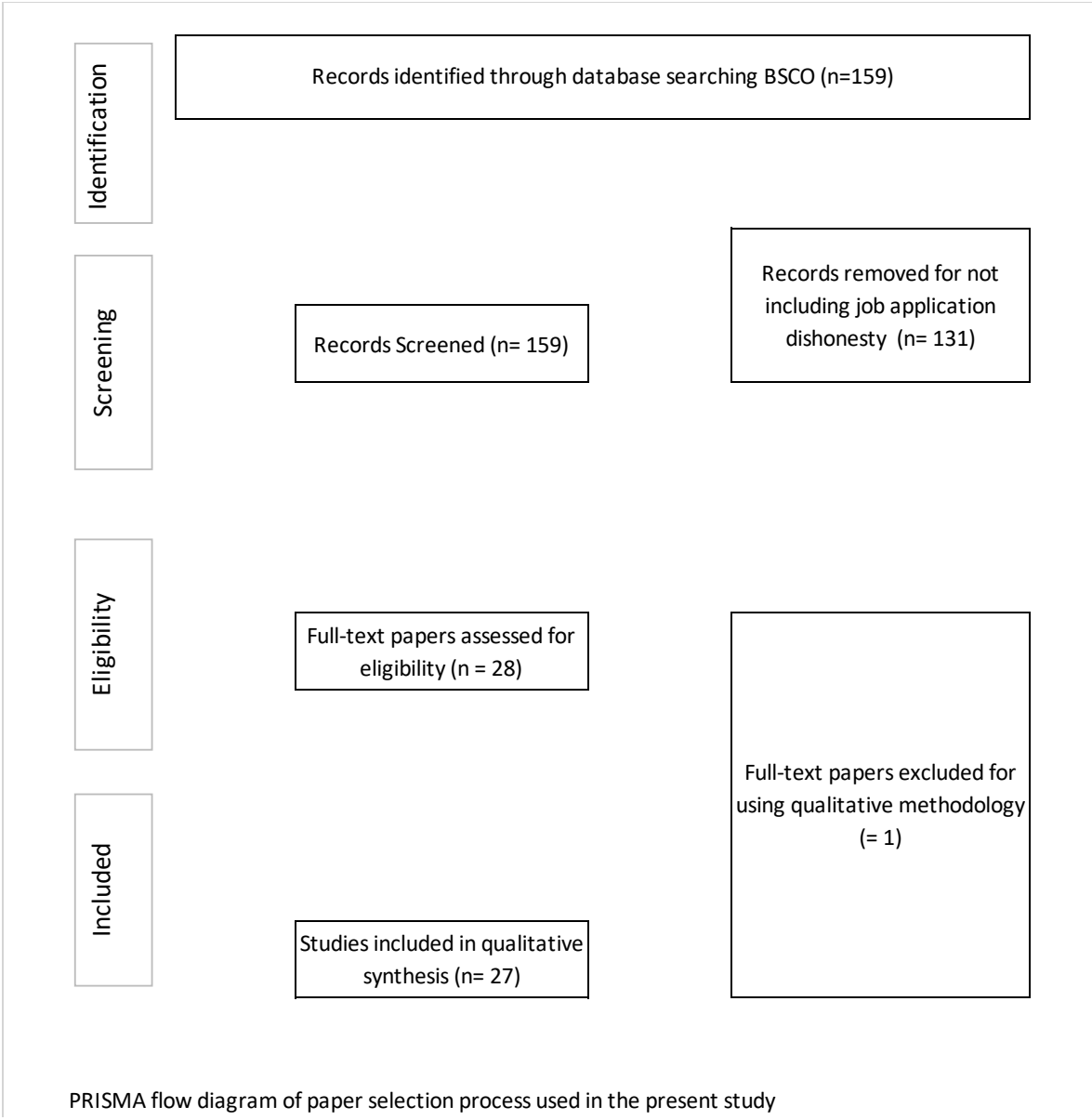


Table 2.1 - *Main characteristics of the studies reviewed (authors, sample size, gender distribution, age range, mean age, and sample characteristics (N = 27)*

Study	Sample size	Gender Distribution (%)	Age range and mean age (SD)	Sample Characteristics	Context	Country	Operationalisation of Job Application Dishonesty	Operationalization of Criterium variable
Amaral et al (2019)	123	Female: 82%	Range= NR; M*age*=21 (NR)	Job applicants (100%); previous interview experience (100%); at least 14-month work experience (100%)	Reporting on real job application; reporting at the time of the interview.	Canada	Short interview faking scale (Bourdage et al., 2018).	Interviewer ratings of competence and warmth, Honest IM.
Bill et al (2020), Study 1	96	Female: 90%	Range= NR; M*age*= 20.91 (2.42)	Undergraduate Students, interview experience (89.4%)	Intentions to fake in real job interviews.	Germany	Intentions to fake using Faking Behaviour Scale (Ingold et al, 2015)	Big Five Inventory (BFI-K) (Rammstedt and John, 2005); Honesty-Humility (Moshagen et al, 2014) adapted from (Ashton and Lee (2009), Competition and Verification.

Bill et al (2020), Study 2	114	Female: 73%	Range= NR; M*age*= 41.29 (10.29)	General Public (100%)	Intentions to fake in real job interviews.	Germany	Intentions to fake using Faking Behaviour Scale (Ingold et al, 2015).	Big Five Inventory (BFI-K) (Rammstedt and John, 2005); Honesty-Humility (Moshagen et al, 2014) Competition and Verification.
Bill et al (2020), Study 3	711	Female: 66%	Range= NR; M*age*= 30.77 (10.64)	General Public (100%)	Intentions to fake in real job interviews.	Germany	Intentions to fake using Faking Behaviour Scale Short (Bourdage et al., 2018).	Honesty-Humility (Moshagen et al, 2014) adapted from (Ashton and Lee (2009); Dark Triad (Kufner et al, 2015); Honest IM (Bourdage et al, 2018), Competition and Verification.
Bourdage et al (2018), Study 4	224	Female: 52.2%	Range= NR; M*age*= 22.22 (4.36)	University Students (100%); job applicants for co-op positions (100%)	Reporting on real job interview.	Canada	Deceptive Impression Management measured using 33 items from Interview Faking Behaviour scale.	HEXACO-PI-R (Lee & Ashton, 2004); Competitive World View Scale (Duckitt et al., 2002); Organisational Attraction and Motivation (Bourdage et al, 2016), Procedural Justice adapted from Chapman and Zweig (2005); Perceived interview

							(Levashina & Campion, 2007).	difficulty adapted from Chapman and Zweig (2005); Honest Impression Management (Bourdage et al, 2016).
Bourdage et al (2018), Study 5	751	Female: 48.9%	Range= NR; M*age*= 32.48 (10.97)	General Public (100%)	Reporting on real job interview.	Canada	Intentions to fake using Faking Behaviour Scale Short (Bourdage et al., 2018).	Honest IM Short (Bourdage et al, 2018).
Bourdage et al (2019)	198	Female: 51.5%	Range=NR; Mage= 37.21 (21.01)	Job seekers (100%)	Reporting on real job application; Job interview in the previous 3 months .	Canada	Extensive image creating measure from Faking Behaviour Scale Short (Bourdage et al., 2018).	HEXACO-PI-R (Lee & Ashton, 2018); Attitudes, Subjective Norms, Behavioural Control following Beck and Ajzen 's (1991) guidelines.

Buehl & Melchers (2017); Study 1	222	Female: 71%	Range=18 - 67; Mage= 31.89 (10.27)	University Students (100%); in employment (35.6%); Interview experience (100%; M=7.15 interviews).	Reporting on real job application; most recent job application.	Germany	Interview Faking Behaviour Scale (IFB) (Levashina & Campion, 2007.	Cognitive Ability 10-Min Test (Musch et al., 2011-unpublished); Honesty-humility from HEXACO-PI-R (Lee & Ashton, 2018); Core self-evaluation (Stumpp et al., 2010), Neuroticism, conscientiousness, Extraversion and Agreeableness from BFI-K (Rammstedt and John, 2005); Attitude toward faking following McFarland and Ryan's (2006) guidelines.
Buehl & Melchers (2017); Study 2	108	Female: 84.3%	Range=18 - 39; Mage= 22.69 (3.25)	Undergraduate Students (100%); in employment (35.6%); Interview experience (84.3%; M=3.56 interviews).	Mock interview, followed by self-report faking behaviour.	Germany	Interview Faking Behaviour Scale (IFB) (Levashina & Campion, 2007.	Cognitive Ability measured with Wonderlic (Wonderlic Inc, 2002); Social Skills measured with ISK-K (Kanning, 2009).

Donovan et al (2003)	743	NR	Range= 19-20; M*age*=NR (NR)	Undergraduate students (100%); Job Applicants (100%); part-time applicants (69%); full time applicants (31%).	Reporting on real job application; most recent job application.	USA	Interview Faking Questionnaire (Donovan, 2003).	Attitudes measured with Severity Rating Scale (Donovan, 2003); Verifiability rating scale (Donovan, 2003).
Henle et al (2017); Study 3	196	Female: 45%	Range= 19-46; M*age*=23.0 (NR)	Undergraduate business students (100%); Job seekers (49%); Full-time work experience (2.96 years); Part-time job experience (4.23 years), current employment (2.11 years), job search experience (8.92 searches).	Reporting on real job application.	USA	Interview Faking Behaviour Scale (IFB) (Levashina & Campion, 2007); Resume Fraud (Henle et al, 2017).	Short form of the Marlowe-Crowne social desirability scale (Reynolds, 1982); MACH IV SCALE (Christie & Geis, 1970); Moral Identity Measure (Aquino & Reed, 2002). Gender and GPA (Grade point average).

Henle et al (2017); Study 4	262	Female: 44%	Range= 19-83; M*age*=32.3 (NR)	Working adults (100%); completed a search for current job within 6 months; part-time work experience (5.15 years); full time work experience (10.77 years), job search experience (5.77 searches).	Reporting on real job application; job search within 6 months .	USA	Interview Faking Behaviour Scale (IFB) (Levashina & Campion, 2007; Resume Fraud (Henle et al, 2017).	Personality traits measured with Mini IPIP scales (Donnellan, 2006); Job performance (Williams & Anderson, 1991); Workplace Deviance (Bennett & Robinson, 2000).
Ho and Powell (2021), Study 1	542	Female: 43%	Range= 18-64; M*age*= NR	General Public (100%).	Reporting Intentions to fake in job interview.	USA, Canada	Expectancy of Faking.	Instrumentality of faking, instrumentality of honesty.
Ho and Powell (2021), Study 2	258	Female: 50%	Range= 18-72; M*age*= 36.99 (11.52)	General Public (100%).	Reporting on most recent interview.	USA	Faking Behaviour Scale Short (Bourdage et al., 2018).	Status Seeking (Highhouse et al, 2016); financial insecurity (Prawitz et al, 2006); Machiavellianism (Rauthmann, 2013); Valence (Andrewws & Withey, 1976); instrumentality (Ellingson & McFarland,

								2011), expectancy of honesty (Scott, 1965).
Ho et al (2019)	775	Female: 66.06%	Range= 18 - 48; M*age*= 19.01 (2.14)	Undergraduate Students	Intentions to fake in real job interviews.	Canada	Intentions to fake using Faking Behaviour Scale Short (Bourdage et al., 2018).	Perceived competition, adapted (Garcia & Tor, 2009); Honesty Humility (Lee & Ashton, 2006, 2006).
Ho et al (2020); Study 1	904	Female: 42.48%	Range= 18 - 82; M*age*= 33.77 (9.98)	General Public (100%)	Intentions to fake in real job interviews.	Canada	Intentions to fake using Faking Behaviour Scale Short (Bourdage et al., 2018).	Perceived Need for competitiveness (Ho et al, 2019).
Ho et al (2020); Study 2	544	Female: 66.90%	Range= 18 - 73; M*age*= 37.46 (10.66)	General Public (100%)	Intentions to fake in real job interviews.	United Kingdom	Intentions to fake using Faking Behaviour Scale Short (Bourdage et al., 2018).	Perceived Need for competitiveness (Ho et al, 2019); Competitive Worldviews (Perry et al, 2013).

Hogue et al (2013)	125	Female: 48%	Range= NR; M*age*= NR (NR)	Undergraduate Students	Intentions to fake in real job interviews.	USA	Intentions to fake in future employment, using Interview Faking Behaviour Scale (IFB) (Levashina & Campion, 2007).	Self-monitoring of Expressive Behaviour Scale (Snyder, 1974); Machiavellianism Scale (Allsopp et al, 1991).
Husain et al, (2018)	111	Female: 51.4%	Range= NR; M*age*= 30.31(3.89)	University Students (100%); job interview experience (100%)	Reporting on real job interview.	United Arab Emirates	Interview Faking Questionnaire (Donovan, 2003).	Comparison results with other nationalities (previous studies) China, Switzerland, Iceland, USA.
Konig et al, (2011)	345	Female: 34%	Range= NR; M*age*= 27.7(4.1)	University students; job interview experience (100%)	Reporting on real job interview	Iceland and Switzerland	Interview Faking Questionnaire (Donovan, 2003).	Comparison results between nationalities: Switzerland, Iceland, China.
Konig et al, (2012)	307	Female: 62.4%	Range= 19 - 36; M*age*= 24.8(3.89)	University students; job interview experience (96.1%); 3.9% non-respondents.	Reporting on real job interview	China	Interview Faking Questionnaire (Donovan, 2003).	Comparison results with other nationalities (previous studies): Switzerland, Iceland, USA.

Konig et al (2021)	3389	Female: 59.9%	Range= NR; M*age*=23.3 (6.1)	University Students (100%); Undergraduates (31.8%); Graduate students (36.8%), master's degree (10.2%), Job interview experience (72%).	Reporting on real job application; reporting on most recent interview.	Austria, Belgium, Brazil, Canada, China, Fiji, Georgia, Germany, Iceland, India, Italy, Japan, Netherlands, New Zealand, Romania, Russia and Spain.	Interview Faking Questionnaire (Donovan, 2003).	Economic indicators (i.e., GDP per capita, Unemployment, Income Inequality.
Lester et al (2015)	313	Female: 71%	Range= 18 -65; M*age*= 33.3 (12.1)	General Public (100%)	Intentions to fake in real job interviews.	Australia	Intentions to fake in job interviews..	Five Factor Inventory (NEO) (Costa & McCrae, 1992); Revised Self-Monitoring Scale (Snyder, 1974); Balanced Inventory of Desirable Responding (BIDR) (Paulhus, 1991); Attitudes toward faking,

								Subjective norms, Perceived Behavioural control adapted from McFarland and Ryan (2006).
Levashina & Campion, (2007); Study 4	*156*	Female: 39%	Range= NR; M*age*= NR(NR)	University students; job interview experience (100%)	Reporting on real job interview.	USA	Interview Faking Behaviour Scale (IFB) (Levashina & Campion, 2007).	SDS, BIDR-7, BIDR-7_SD, BIDR-7-IM, Honesty scale, Trustworthiness scale, Interview Trustworthiness scale, Self-Monitoring scale, Machiavellianism scale.
Powel et al, (2021)	202	Female: 82.7%	Range= NR; M*age*= 21.12(4.06)	University Students (100%)	Reporting on real interview; reporting at the time of the interview (research assistant position).	Canada	Interview Faking Behaviour Scale - Shortened (IFB_S) (Bourdage et al, 2018).	Honest IM (Bourdage et al, 2018); Measure of Anxiety in Selection Interviews (McCarthy & Goffin, 2004); Honesty-Humility, Extraversion (Lee & Ashton, 2004, 2006).

Roulin and Krings (2016)	484	Female: 38.3%	Range= NR; M*age*= 30.6(10.2)	General Public (100%)	Reporting on real faking and Intentions to fake in future job interview.	USA	Intentions to fake in future employment, using Interview Faking Behaviour Scale (IFB) (Levashina & Campion, 2007).	Competitive World View (Duckitt et al, 2002); Dark Triad of Personality (Jonason & Webster, 2010).
Roulin and Bourdage (2017)	80	Female: 73%	Range= NR; Mage= 20.57(1.38)	University Students (100%)	Reporting on real job interview.	Canada	Interview Faking Behaviour Scale (IFB) (Levashina & Campion, 2007).	HEXACO-PI-R (Lee and Ashton, 2004; Honest IM (Bourdage et al, 2018); Competitive World View (Duckitt et al, 2002); Dark Triad of Personality (Jonason & Webster, 2010), Self-monitoring of Expressive Behaviour Scale (Snyder, 1974), Competitive World View (Duckitt et al, 2002); core self-evaluations scale (Judge et al., 2003).

Table 2.2 - *Main findings, study limitations, and risk of biases in the studies reviewed (N = 27)*

Study	Main Findings	Study Limitations	Risk of Biases
Amaral et al (2019)	The study used three of the four factors of the Interview Faking Behaviour Scale - Shortened (IFB_S) (Bourdage et al, 2018), including Extensive Image Creations, Slight Image Creation and Deceptive Ingratiation. It investigated the relationship between faking behaviour and honest image management. First, self-reported extensive Image Creation (which corresponds to lies) was positively correlated with self-reported Slight Image Creation (which corresponds to embellishments). Self-reported Extensive Image Creation correlated positively with self-reported Slight Image Creation and Deceptive Ingratiation. Slight Image Creation correlated positively with Deceptive Ingratiation, self-reported Honest Self-Promotion and honest-Ingratiation. The study also had observer rated measures (interviewer rate), including coded self-promotion, coded honest ingratiation, interviewee warmth and	The study does not investigate determinants of faking. Sample was not randomly selected. The study utilises questionnaires instead of directly observable measures of faking. Confirmatory factor analysis was not performed. The study is correlational; it is not possible to determine the direction of the causality for the measures of interest of this review.	Participants were not randomly selected; there is a risk of selection bias. The study utilises questionnaires, which may lead to measurement errors. The study is retrospective; there is a risk of retrospective bias. The study does not contain a CFA to validate the underlying structure of a measurement of the questionnaire which may reduce confidence of match between items and constructs in the questionnaires.

	competence. Extensive image creation correlated negatively with coded ingratiation. Slight image creation correlated positively with Warmth. There were no significant correlations between faking and the variables gender, age and interview ratings (interviewer rate).		
Bill et al (2020), Study 1	The study used an aggregated measure of the four factors in Faking Behaviour Scale (Ingold et al, 2015). Independent variables were six factors form the HEXACO-PI-R (Lee & Ashton, 2004). Honesty-Humility was negatively correlated with Faking Intentions and Competition priming was positively correlated with Faking Intentions, with a high competition scenario resulting in higher faking intentions, compared to low competition scenario. There was a non-significant negative correlation between Conscientiousness and Faking Intentions. Finally, verification warnings, age and gender were not correlated with Faking Intentions.	The study measures intentions instead of reported behaviours. Sample composed of students; the findings may not be generalizable beyond the specific sample. The study utilises questionnaires instead of directly observable measures of faking. Confirmatory factor analysis was not performed. The study uses a quasi-experimental design manipulating the variables competition and verification warnings; therefore, it is not possible to determine the direction of the causality.	The study measures Intentions, instead of behaviours; there can be a disconnect between intentions and actual behaviours. The study is retrospective; there is a risk of retrospective bias such as memory distortions. Student samples are not representative of the broader population, the findings may not be generalizable beyond the specific sample. Risk of cultural bias; self-report measures might be developed in one cultural context and might not be equally applicable or valid in other. The study utilises questionnaires, which may lead to measurement errors. The study does not contain a CFA to validate the underlying structure of a measurement of the questionnaire, which may reduce confidence of match between items and constructs in the questionnaires.

Bill et al (2020), Study 2	The study used an aggregated measure of the four factors in faking Behaviour Scale (Ingold et al, 2015). Honesty-Humility was negatively correlated with Faking Intentions. There was a significant negative correlation between Conscientiousness and Faking Intentions. Differently from Study 1, Competition priming was not correlated with Faking Intentions, and verification warnings was negatively correlated with Faking Intentions. Age and gender were not correlated with Faking Intentions.	The study measures intentions instead of reported behaviours. Sample composed of general public; participants were not randomly selected; there is a risk of selection bias. The study utilises questionnaires instead of directly observable measures of faking. Confirmatory factor analysis was not performed. The study is correlational; it is not possible to determine the direction of the causality. The study does not report multiple regressions for the measures of interest in this review.	The study measures Intentions, instead of behaviours; there can be a disconnect between intentions and actual behaviours. The study is retrospective; there is a risk of retrospective bias such as memory distortions. The study utilizes a non-random sample of the general population, which can lead to selection bias. Risk of cultural bias; self-report measures might be developed in one cultural context and might not be equally applicable or valid in other. The study utilises questionnaires, which may lead to measurement errors. The study does not contain a CFA to validate the underlying structure of a measurement of the questionnaire, which may reduce confidence of match between items and constructs in the questionnaires.
Bill et al (2020), Study 3	The study used an aggregated measure of the four factors in Interview Faking Behaviour Scale - Shortened (IFB_S) (Bourdage et al, 2018). Honesty-Humility and Conscientiousness were negatively correlated with Faking Intentions. There were significant negative correlations between the three dark triad traits (i.e.,	The study measures intentions instead of reported behaviours. Sample composed of students; the findings may not be generalizable beyond the specific sample. The study utilises questionnaires instead of directly observable measures of faking. Confirmatory factor analysis	The study measures Intentions, instead of behaviours; there can be a disconnect between intentions and actual behaviours. The study is retrospective; there is a risk of retrospective bias such as memory distortions. The study utilizes a sub-sample composed of students, which may not be representative of the

	Machiavellianism, Psychopathy and Narcissism) and Faking Intentions. Differently from Study 1, Competition priming, and verification warnings were not correlated with Faking Intentions. Age was negatively correlated with Faking Intentions.	was not performed. The study is correlational; it is not possible to determine the direction of the causality. The study does not report multiple regressions for the measures of interest in this review.	broader population, and a non-random sub-sample from general population, which can lead to selection bias. Risk of cultural bias; self-report measures might be developed in one cultural context and might not be equally applicable or valid in other. The study utilises questionnaires, which may lead to measurement errors. The study does not contain a CFA to validate the underlying structure of a measurement of the questionnaire and does not contain a Multiple-Group Confirmatory Factor Analysis for the different subsamples, which may reduce confidence of match between items and constructs in the questionnaires.
Bourdage et al (2018), Study 4	The study measured the four factors of the Interview Faking Behaviour Scale - Shortened (IFB_S) (Bourdage et al, 2018). Honesty-Humility was negatively correlated with the four factors (i.e., Deceptive Ingratiation, Slight Image Creation, Extensive Image Creation and Image Protection. Conscientiousness and Extraversion were negatively correlated only with Slight Image Creation, Extensive Image Creation and Image Protection. Competitive World Views was positively	Sample composed of students; the findings may not be generalizable beyond the specific sample. The study utilises questionnaires instead of directly observable measures of faking. The study is correlational; it is not possible to determine the direction of the causality. The study does not use multiple regressions.	The study is retrospective; there is a risk of retrospective bias such as memory distortions. T Student samples are not representative of the broader population, the findings may not be generalizable beyond the specific sample. The study utilises questionnaires, which may lead to measurement errors.

	correlated with the four factors of the IFB_S. Attraction was positively correlated with Deceptive Ingratiation, Motivation was positively correlated with Extensive Image Creation, Procedural Justice was negatively correlated with Extensive Image Creation. Finally, Interview Difficulty was positively correlated with the four factors of the IFB_S. Age and gender were not correlated with Faking Intentions.		
Bourdage et al (2018), Study 5	The study measured the four factors of the Interview Faking Behaviour Scale - Shortened (IFB_S) (Bourdage et al, 2018). First, Extensive Image Creation was positively correlated with Slight Image Creation. Extensive Image Creation was positively correlated with Honest ingratiation and Honest defensive IM. Slight Image Creation correlated positively with HOnest Defensive IM.	Sample composed of general public; Participants were not randomly selected; there is a risk of selection bias. The study utilises questionnaires instead of directly observable measures of faking. The study is correlational; it is not possible to determine the direction of the causality. The study does not use multiple regressions.	The study is retrospective; although participants are asked to report on job interview experiences in the past 6 months from the time of the study, there is a risk of retrospective bias such as memory distortions. The study utilizes a non-random sample of the general population, which can lead to selection bias. The study utilises questionnaires, which may lead to measurement errors.
Bourdage et al (2019)	The study measured the factor Extensive Image Creation of the Interview Faking Behaviour Scale - Shortened (IFB_S) (Bourdage et al, 2018). Extensive Image	Sample composed of general public; Participants were not randomly selected; there is a risk of selection bias. The study utilises	The study is retrospective; although participants are asked to report on job interview experiences in the past 3 months from the time of the study, there

	Creation was negatively correlated with the personality traits Honesty-Humility, Agreeableness and Conscientiousness and Openness to Experience. Extensive Image Creation was positively correlated with Attitudes, Subjective Norms and Perceived Behavioural Control. Similarly, Intentions to fake was negatively correlated with the personality traits Honesty-Humility, Agreeableness and Conscientiousness and Openness to Experience. Intentions to fake was also negatively correlated with Attitudes, and positively correlated with Subjective Norms and Perceived Behavioural Control. Finally, Intentions were positively correlated with Extensive Image Creation.	questionnaires instead of directly observable measures of faking. The study is correlational; it is not possible to determine the direction of the causality. The study does not use multiple regressions.	is a risk of retrospective bias such as memory distortions. The study utilizes a non-random sample of the general population, which can lead to selection bias. The study utilises questionnaires, which may lead to measurement errors.
Buehl & Melchers (2017); Study 1	The study used an aggregated measure of the four factors from the Interview Faking Behaviour Scale (IFB) (Levashina & Campion, 2007). Interview Faking Behaviour Scale was positively correlated with Attitude Toward Faking and negatively correlated with Cognitive Ability and Core Self-Evaluation. Interview Faking Behaviour Scale was negatively correlated with the four facets of the Honesty-Humility trait (i.e., Sincerity,	The study used an aggregated measure of the four factors from the Interview Faking Behaviour Scale (IFB) (Levashina & Campion, 2007). Interview Faking Behaviour Scale was positively correlated with Attitude Toward Faking and negatively correlated with Cognitive Ability and Core Self-Evaluation. Interview Faking Behaviour Scale was negatively correlated with the four facets of the Honesty-Humility	The study measures Intentions, instead of behaviours; there can be a disconnect between intentions and actual behaviours. The study is retrospective; there is a risk of retrospective bias such as memory distortions. The study utilizes a sub-sample composed of students, which may not be representative of the broader population, and a non-random sub-sample from general population, which can lead to selection bias. The study utilises questionnaires, which may

	Fairness, Greed Avoidance and Modesty), and positively correlated with Neuroticism.	trait (i.e., Sincerity, Fairness, Greed Avoidance and Modesty), and positively correlated with Neuroticism.	lead to measurement errors. The study does not contain a CFA to validate the underlying structure of a measurement of the questionnaire and does not contain a Multiple-Group Confirmatory Factor Analysis for the different subsamples, which may reduce confidence of match between items and constructs in the questionnaires.
Donovan et al (2003)	The study used the Interview Faking Questionnaire (Donovan, 2003). Results show negative correlations between prevalence of faking and perceived severity of the deceptive behaviour and verifiability of the deception behaviours.	Sample composed of general public; Participants were not randomly selected; there is a risk of selection bias. The study utilises questionnaires instead of directly observable measures of faking. Confirmatory factor analysis was not performed. The study is correlational; it is not possible to determine the direction of the causality. The study does not report multiple regressions for the measures of interest in this review.	Sample composed of general public; Participants were not randomly selected; there is a risk of selection bias. The study utilises questionnaires instead of directly observable measures of faking. Confirmatory factor analysis was not performed. The study is correlational; it is not possible to determine the direction of the causality. The study does not report multiple regressions for the measures of interest in this review.

Henle et al (2017); Study 3	The study measured interview faking, creating three factors (i.e., IFB inventing, IFB Embellishing and IFB omitting) adapted using items from the Interview Faking Behaviour Scale (IFB) (Levashina & Campion, 2007). The study also measured resume fraud with three measures (i.e., Fabrication, Embellishment and Omission). There were positive correlations between the IFB measures and the Resume Fraud measures. Both the IFB measures and the Resume Fraud measures correlated positively with Machiavellianism. There was non-significant correlations between Gender and the variables related to interview and resume dishonesty.	Sample composed of students; the findings may not be generalizable beyond the specific sample. The study utilises questionnaires instead of directly observable measures of faking. The study is correlational; it is not possible to determine the direction of the causality. The study does not use multiple regressions.	The study is retrospective; there is a risk of retrospective bias such as memory distortions. T Student samples are not representative of the broader population, the findings may not be generalizable beyond the specific sample. The study utilises questionnaires, which may lead to measurement errors.
Henle et al (2017); Study 4	The study measured interview faking, creating three factors (i.e., IFB inventing, IFB Embellishing and IFB omitting) adapted using items from the Interview Faking Behaviour Scale (IFB) (Levashina & Campion, 2007). The study also measured resume fraud with three measures (i.e., Fabrication, Embellishment and Omission). There were positive correlations between the IFB measures and the Resume Fraud measures. Both the IFB measures and the Resume Fraud measures positively correlated with Machiavellianism,	Sample composed of general public; participants were not randomly selected; there is a risk of selection bias. The study utilises questionnaires instead of directly observable measures of faking. The study is correlational; it is not possible to determine the direction of the causality. The study does not use multiple regressions.	The study is retrospective; although participants are asked to report on job interview experiences in the past 3 months from the time of the study, there is a risk of retrospective bias such as memory distortions. The study utilizes a non-random sample of the general population, which can lead to selection bias. The study utilises questionnaires, which may lead to measurement errors.

	Organisational Deviance and Interpersonal Deviance. Both the IFB measures and the Resume Fraud measures negatively correlated with measures of Moral Identity, Conscientiousness, Agreeableness and Emotional Stability. Finally, both set of measures correlated negatively with job performance. Gender (Female = 1) correlated negatively with the variables IFB Inventing and resume Embellishment.		
Ho and Powell (2021), Study 1	The study measured intention of faking as expectancy. The results show that expectancy of faking was negatively correlated with instrumentality of faking, Gender (Male=1), and age group.	The study measures intentions instead of reported behaviours. Sample composed of general public; Participants were not randomly selected; there is a risk of selection bias. The study utilises questionnaires instead of directly observable measures of faking. Confirmatory factor analysis was not performed. The study is correlational; it is not possible to determine the direction of the causality. The study does not report multiple regressions for the measures of interest in this review.	The study measures Intentions, instead of behaviours; there can be a disconnect between intentions and actual behaviours. The study is retrospective; there is a risk of retrospective bias such as memory distortions. The study utilizes a non-random sub-sample from general population, which can lead to selection bias. The study utilises questionnaires, which may lead to measurement errors. The study does not contain a CFA to validate the underlying structure of a measurement of the questionnaire and does not contain a Multiple-Group Confirmatory Factor Analysis for the different subsamples, which may reduce confidence of match between items and constructs in the questionnaires.

Ho and Powell (2021), Study 2	The study measured interview faking with Faking Behaviour Scale Short (Bourdage et al., 2018). The results show that interview faking was positively correlated with Instrumentality, Valence and Expectancy of faking and negatively correlated with Instrumentality, expectancy and valence of honesty. Interview faking behaviour was also positively correlated with Positively Correlated with Machiavellianism, Status Seeking, Financial Insecurity, positively and Self-reported honest IM behaviour. Finally, Interview faking was negatively correlated with age and Income.	The study measures intentions instead of reported behaviours. Sample composed of general public; participants were not randomly selected; there is a risk of selection bias. The study utilises questionnaires instead of directly observable measures of faking. Confirmatory factor analysis was not performed. The study is correlational; it is not possible to determine the direction of the causality. The study does not report multiple regressions for the measures of interest in this review.	The study measures intentions instead of reported behaviours. Sample composed of general public; participants were not randomly selected; there is a risk of selection bias. The study utilises questionnaires instead of directly observable measures of faking. Confirmatory factor analysis was not performed. The study is correlational; it is not possible to determine the direction of the causality. The study does not report multiple regressions for the measures of interest in this review.
Ho et al (2019)	The study measured intentions to fake in interviews as an aggregated measure and as factors (i.e., Slight Image Creation, Extensive Image Creation, Deceptive Ingratiation and Image Protection) using Faking Behaviour Scale Short(Bourdage et al., 2018). The aggregate measure, as well as all the factors of Faking intentions were negatively correlated with Honesty-Humility.	The study measures intentions instead of reported behaviours. Sample composed of students; the findings may not be generalizable beyond the specific sample. The study utilises questionnaires instead of directly observable measures of faking. Confirmatory factor analysis was not performed. The study is correlational; it is not possible to determine the direction of the causality. The study does not report	The study measures Intentions, instead of behaviours; there can be a disconnect between intentions and actual behaviours. The study is retrospective; there is a risk of retrospective bias such as memory distortions. The study utilizes a sub-sample composed of students, which may not be representative of the broader population, and a non-random sub-sample from general population, which can lead to selection bias. Risk of cultural bias; self-report measures might

		multiple regressions for the measures of interest in this review.	be developed in one cultural context and might not be equally applicable or valid in other. The study utilises questionnaires, which may lead to measurement errors. The study does not contain a CFA to validate the underlying structure of a measurement of the questionnaire, which may reduce confidence of constructs in the questionnaires.
Ho et al (2019); Study 1	The study measured willingness to fake as factors (i.e., Slight Image Creation, Extensive Image Creation, Deceptive Ingratiation and Image Protection) using Faking Behaviour Scale Short (Bourdage et al., 2018). All the factors of Faking willingness were negatively correlated with Honesty-Humility. The study also measures an interaction between Honesty-Humility and Perceived Competitiveness (in selection processes) in which as Perceived Competitiveness increases, and Honesty-Humility decreases, willingness of faking increases.	The study measures intentions instead of reported behaviours. Sample composed of general public; participants were not randomly selected; there is a risk of selection bias. The study utilises questionnaires instead of directly observable measures of faking. Confirmatory factor analysis was not performed. The study is correlational; it is not possible to determine the direction of the causality. The study does not report multiple regressions for the measures of interest in this review.	The study measures Intentions, instead of behaviours; there can be a disconnect between intentions and actual behaviours. The study is retrospective; there is a risk of retrospective bias such as memory distortions. The study utilizes a non-random sub-sample from general population, which can lead to selection bias. The study utilises questionnaires, which may lead to measurement errors. The study does not contain a CFA to validate the underlying structure of a measurement of the questionnaire, which may reduce confidence of constructs in the questionnaires.

Ho et al (2019); Study 2	The study measured willingness to fake as factors (i.e., Slight Image Creation, Extensive Image Creation, Deceptive Ingratiation and Image Protection) using Faking Behaviour Scale Short (Bourdage et al., 2018). The study measured an interaction between Perceived Competitiveness (in selection processes) and Competitive Worldview in which as Perceived Competitiveness increases, and Competitive Worldview increases, willingness of faking increases.	The study measures intentions instead of reported behaviours. Sample composed of general public; Participants were not randomly selected; there is a risk of selection bias. The study utilises questionnaires instead of directly observable measures of faking. Confirmatory factor analysis was not performed. The study is correlational; it is not possible to determine the direction of the causality. The study does not report multiple regressions for the measures of interest in this review.	The study measured willingness to fake as factors (i.e., Slight Image Creation, Extensive Image Creation, Deceptive Ingratiation and Image Protection) using Faking Behaviour Scale Short (Bourdage et al., 2018). The study measured an interaction between Perceived Competitiveness (in selection processes) and Competitive Worldview in which as Perceived Competitiveness increases, and Competitive Worldview increases, willingness of faking increases.
Hogue et al (2013)	The study measured Intention to fake in future employment, using Interview Faking Behaviour Scale (IFB) (Levashina & Campion, 2007). Machiavellianism was positively correlated with Extensive Image Creation, Image Protection, Slight Image Creation, and Ingratiation. Self-monitoring was positively correlated with mage Protection, Slight Image Creation, and Ingratiation. Self-monitoring had a non-	The study measures intentions instead of reported behaviours. Sample composed of students; the findings may not be generalizable beyond the specific sample. The study utilises questionnaires instead of directly observable measures of faking. Confirmatory factor analysis was not performed. The study is correlational; it is not possible to determine the direction of the causality. Although the study utilizes	The study measures Intentions, instead of behaviours; there can be a disconnect between intentions and actual behaviours. The study is retrospective; there is a risk of retrospective bias such as memory distortions. The study utilizes a sample composed of students, which may not be representative of the broader population. The study utilises questionnaires, which may lead to measurement errors. The study does not contain a CFA to validate the underlying

	significant positive relationship with Extensive Image Creation.	SEM, SEM can suggest causal relationships between variables, but establishing causality requires a combination of theoretical grounding, experimental design, and other methods like randomized controlled trials.	structure of a measurement of the questionnaire, which may reduce confidence of constructs in the questionnaires.
Husain et al, (2018)	The study used the Interview Faking Questionnaire (Donovan, 2003). The predictor was nationality.	No Interpretable as the items in the measure of interview faking were not aggregated; instead, the authors reported incidence for each item which showed heterogeneous percentages for each country. Correlations were not reported.	The study is retrospective; there is a risk of retrospective bias such as memory distortions. Sample composed of students; the findings may not be generalizable beyond the specific sample. T. The study utilises questionnaire with no aggregated items. The study does not contain a CFA to validate the underlying structure of a measurement of the questionnaire and does not contain a Multiple-Group Confirmatory Factor Analysis for the different subsamples, which may reduce confidence of match between items and constructs in the questionnaires.
Konig et al (2011)	The study used the Interview Faking Questionnaire (Donovan, 2003). The predictor was nationality.	No Interpretable as the items in the measure of interview faking were not aggregated; instead, the authors reported incidence for each item	The study is retrospective; there is a risk of retrospective bias such as memory distortions. Sample composed of students; the findings may not be

		which showed heterogeneous percentages for each country. Correlations were not reported.	generalizable beyond the specific sample. T. The study utilises questionnaire with no aggregated items. The study does not contain a CFA to validate the underlying structure of a measurement of the questionnaire and does not contain a Multiple-Group Confirmatory Factor Analysis for the different subsamples, which may reduce confidence of match between items and constructs in the questionnaires.
Konig et al (2012)	The study used the Interview Faking Questionnaire (Donovan, 2003). The predictor was nationality.	No Interpretable as the items in the measure of interview faking were not aggregated; instead, the authors reported incidence for each item which showed heterogeneous percentages for each country. Correlations were not reported.	The study is retrospective; there is a risk of retrospective bias such as memory distortions. Sample composed of students; the findings may not be generalizable beyond the specific sample. T. The study utilises questionnaire with no aggregated items. The study does not contain a CFA to validate the underlying structure of a measurement of the questionnaire and does not contain a Multiple-Group Confirmatory Factor Analysis for the different subsamples, which may reduce confidence of match between items and constructs in the questionnaires.

Konig et al (2021)	The study used the Interview Faking Questionnaire (Donovan, 2003). Interview faking was positively correlated with income inequality, and negatively correlated with unemployment. There was a non-significant negative relationship between interview faking and GDP per capita.	No Interpretable as the items in the measure of interview faking were not aggregated; instead, the authors reported incidence for each item which showed heterogeneous percentages for each country. Correlations were not reported.	The study is retrospective; there is a risk of retrospective bias such as memory distortions. Sample composed of students; the findings may not be generalizable beyond the specific sample. The study utilises questionnaire with no aggregated items. The study does not contain a CFA to validate the underlying structure of a measurement of the questionnaire and does not contain a Multiple-Group Confirmatory Factor Analysis for the different subsamples, which may reduce confidence of match between items and constructs in the questionnaires.
Lester et al (2015)	Intention to fake was measured using items related to general statements regarding faking in interviews. Intentions to fake were positively correlated with positive attitudes toward faking, subjective norms and perceived behavioural control. Intention to fake correlated negatively with the personality traits conscientiousness, and positively with extraversion and neuroticism. Finally, intention to fake correlated positively with self-monitoring.	The study measures intentions instead of reported behaviours. Sample composed of general public; participants were not randomly selected; there is a risk of selection bias. The study utilises questionnaires instead of directly observable measures of faking. Confirmatory factor analysis was not performed. The study is correlational; it is not possible to determine the direction of the causality.	The study measures Intentions, instead of behaviours; there can be a disconnect between intentions and actual behaviours. The study is retrospective; there is a risk of retrospective bias such as memory distortions. The study utilizes a non-random sub-sample from general population, which can lead to selection bias. The study utilises questionnaires, which may lead to measurement errors. The study does not contain a CFA to validate the underlying structure of a measurement of the questionnaire, which

			may reduce confidence of constructs in the questionnaires. Although the study utilizes SEM which suggests causal relationships between variables, establishing causality requires a combination of theoretical grounding, experimental design, and other methods like randomized controlled trials.
Powel et al, (2021)	The study measured intentions to fake in interviews as an aggregate measure and separate factors (i.e., Slight Image Creation, Extensive Image Creation, Deceptive Ingratiation and Image Protection) from the Interview Faking Behaviour Scale (IFB) (Levashina & Campion, 2007). The aggregated measure of faking was positively correlated with different measures of anxiety and anxiety's aggregated measure. Interview faking was negatively correlated with the personality trait Honesty-Humility.	The study measures intentions instead of reported behaviours. Sample composed of students; the findings may not be generalizable beyond the specific sample. The study utilises questionnaires instead of directly observable measures of faking. Confirmatory factor analysis was not performed. The study is correlational; it is not possible to determine the direction of the causality. The study does not report multiple regressions for the measures of interest in this review.	The study utilizes a sub-sample composed of students, which may not be representative of the broader population. The study utilises questionnaires, which may lead to measurement errors. The study does not contain a CFA to validate the underlying structure of a measurement of the questionnaire and does not contain a Multiple-Group Confirmatory Factor Analysis for the different subsamples, which may reduce confidence of match between items and constructs in the questionnaires.
Roulin and Krings (2016), Study 1	Intention to fake in future employment, using an aggregate of the factors in Interview Faking Behaviour Scale (IFB) (Levashina & Campion, 2007). Intention to	The study measures intentions instead of reported behaviours. Sample composed of general public; participants were not randomly	The study measures Intentions, instead of behaviours; there can be a disconnect between intentions and actual behaviours. The study is retrospective;

	fake was positively correlated with Psychopathy, Machiavellianism, Narcissism and Competitive Worldviews.	selected; there is a risk of selection bias. The study utilises questionnaires instead of directly observable measures of faking. Confirmatory factor analysis was not performed. The study is correlational; it is not possible to determine the direction of the causality. The study does not report multiple regressions for the measures of interest in this review.	there is a risk of retrospective bias such as memory distortions. The study utilizes a non-random sub-sample from general population, which can lead to selection bias. The study utilises questionnaires, which may lead to measurement errors. The study does not contain a CFA to validate the underlying structure of a measurement of the questionnaire, which may reduce confidence of constructs in the questionnaires.
Roulin and Krings (2016), Study 2	Self-reported faking and Intention to fake in future employment, using an aggregate of the factors in Interview Faking Behaviour Scale (IFB) (Levashina & Campion, 2007). Intention to fake was negatively correlated with five facets of the personality trait conscientiousness (i.e., competence, order, dutifulness, achievement striving, self-discipline). the correlation with deliberation was not significant. Finally, intention to fake was positively correlated with Competitive Worldviews.	The study measures intentions and reported behaviours. Sample composed of general public; participants were not randomly selected; there is a risk of selection bias. The study utilises questionnaires instead of directly observable measures of faking. Confirmatory factor analysis was not performed. The study is correlational; it is not possible to determine the direction of the causality. The study does not report multiple regressions for the measures of interest in this review.	The study measures Intentions, instead of behaviours; there can be a disconnect between intentions and actual behaviours. The study is retrospective; there is a risk of retrospective bias such as memory distortions. The study utilizes a non-random sub-sample from general population, which can lead to selection bias. The study utilises questionnaires, which may lead to measurement errors. The study does not contain a CFA to validate the underlying structure of a measurement of the questionnaire, which may reduce confidence of constructs in the questionnaires.

Roulin and Bourdage (2017),	Self-reported faking using the four factors in Interview Faking Behaviour Scale (IFB) (Levashina & Campion, 2007). Honesty-humility associated negatively with Slight image creation, extensive image creation, deceptive ingratiation and image protection. Conscientiousness associated negatively with Slight image creation and extensive image creation. Psychopathy associated positively with Slight image creation and extensive image creation. Machiavellianism associated positively with Slight image creation, extensive image creation and image protection. Narcissism associated positively with Slight image creation. Competitive world view associated positively with slight image creation, extensive image creation and image protection.	Sample composed of students; the findings may not be generalizable beyond the specific sample. The study utilises questionnaires instead of directly observable measures of faking. Confirmatory factor analysis was not performed. The study is correlational; it is not possible to determine the direction of the causality. The study does not report multiple regressions for the measures of interest in this review.	Sample composed of students; the findings may not be generalizable beyond the specific sample. The study utilises questionnaire with no aggregated items. The study does not contain a CFA to validate the underlying structure of a measurement of the questionnaire and does not contain multiple regressions to evaluate the unique variance of each variable.

2.3.4 Operationalisation of Job Application Dishonesty

Operationalisations relate to expressing concepts in a format that allows measurement (Bogen, 2017). Job applications often entail submitting application forms, curriculum vitae, or both. This review only found two studies focusing on curriculum vitae dishonesty. Both studies operationalised job application dishonesty with measures related to lies, embellishments and omissions: Henle et al.'s (2017) Study 3 and Study 4.

The remaining studies on job candidates' dishonesty during selection processes investigate interview dishonesty. The most common operationalisation of interview dishonesty is the Interview Faking Behaviour scale (Levashina & Campion, 2007). The authors identified two distinct forms of dishonesty during interviews relevant to this thesis: Extensive Image Creation and Slight Image Creation. For instance, Extensive Image Creation relates to lying and deception, while Slight Image Creation corresponds to different forms of embellishment, which authors conceptualise as a mild form of dishonesty. The measure also contains two factors specific to the interview context: Image Protection and Deceptive Ingratiation.

This review identified nine studies that used Levashina and Campion's (2007) Interview Faking Behaviour scale: Bourdage et al.'s (2016) Study 4, Hogue et al. (2013), Levashina & Campion (2007), Roulin and Krings (2016), Buehl & Melchers's (2017) Study 1 and Study 2, and Roulin and Bourdage 2017.

Henle et al.'s (2017) Study 3 and Study 4 contain a rearrangement of the items in which the factors IFB lies, IFB embellishments and IFB omissions emerge.

Eight studies used a shortened version of used Levashina and Campion's (2007) Interview Faking Behaviour scale called Faking Behaviour Scale Short (2018): Amaral et al. (2019); Bill et al.'s (2020) Study 3, Bourdage et al. (2019), Ho and Powell's (2021) Study 2, Ho et al. (2019) Ho et al.'s (2020) Study 1 and Study 2 and Powel et al. (2021)

Five studies contained the Interview Faking Questionnaire (Donovan, 2003): Konig et al., (2011); Donovan et al. (2003); Husain et al. (2018), Konig et al. (2012) and Konig et al. (2021). Two studies used Ingold et al.'s (2015) Faking Behaviour Scale: Bill et al.'s (2020), Study 1 and Study 2. Finally, two studies had measures of interview dishonesty developed to fit their theoretical models related to expectancy theory and The Theory of Planned Behaviours, respectively: Ho and Powell's (2021) Study 1 and Lester et al. (2015).

2.3.4.1 Intentions and Behaviours

One study reported on real faking in interviews and intention to fake in future job interviews: Roulin and Krings (2016). Nine studies measured only intentions to fake in future interviews: Bill et al.'s (2020), Study 1, Study 2 and Study 3, Ho et al (2019), Ho et al.'s (2020) Study 1 and Study 2, Ho and Powell's (2021) Study 1, Hogue et al. (2013) and Lester et al. (2015)

Fifteen studies measured self-reported job application dishonesty: Amaral et al. (2019), Bourdage et al.'s (2016) Study 4, Bourdage et al. (2019), Buehl & Melchers' (2017) Study 1 and Study 2, Konig et al. (2011), Donovan et al. (2003), Henle et al.'s (2017) Study 3 and Study 4; Ho and Powell's (2021) Study 2, Husain et al. (2018), Konig et al. (2012), Konig et al. (2021), Levashina & Campion's (2007) Study 4 and Powel et al. (2021).

2.3.5 Job Application Dishonesty as Independent Variable

One study used job application dishonesty as an independent variable. However, they were included in this review for reporting on correlations between job application dishonesty and variables of interest in this thesis: Amaral et al. (2019).

2.3.6 Operationalisation of Criterium Variables

The predictors of job application dishonesty were relatively heterogeneous across studies. However, they can be clustered into atheoretical and theoretical themes. Atheoretical themes are often related to demographic information. Theoretical themes included variables hypothesised to influence job application dishonest were Ability, Personality, Attitudes, Social Norms and Behavioural Control.

2.3.6.1 Age and Gender

Three studies reported on only gender: Henle et al.' (2017) Study 3 and Study 4, and Hogue et al. (2013). Twelve studies investigated both Age and Gender as an independent variable: Amaral et al. (2019), Bourdage et al.'s (2018) Study 4, Bill et al.'s (2020) Study 1, Study 2 and Study 3, Ho et al (2019), Ho et al.'s (2020) Study 1 and Study 2, Ho and Powell's (2021) Study 1 and Study 2, Powel et al. (2021) and Roulin and Krings (2016).

2.3.6.2 Personality

2.3.6.2.1 Big Five and HEXACO

Eleven studies used measures from the inventories based on the trait theory. Despite measuring constructs based on the trait theory, the studies above used different inventories to investigate the role of personality on the decision to be dishonest in job applications. One study used the BFI-K (Rammstedt and John, 2005): Buehl & Melchers' (2017) Study 1. Six studies used the HEXACO-PI-R (Lee & Ashton, 2004): Powel et al. (2021) and Bill et al.'s (2020) Study 1, Study 2 and Study 3, Bourdage et al.'s (2018) Study 2, Bourdage et al. (2019) and Roulin and Bourdage (2017). One study used Mini IPIP scales (Donnellan, 2006): Henle et al. (2017); and two studies used Five Factor Inventory (NEO) (Costa & MacCrae, 1992): Lester et al. (2015) and Roulin and Krings' (2016) Study 2.

2.3.6.2.1.1 Extraversion

Eight studies investigated correlations between job application dishonesty and Extraversion: Bill et al.'s (2020) Study 1, Study 2, Bourdage et al.'s (2018) Study 2, Bourdage et al. (2019); Buehl & Melchers' (2017) Study 1, Powel et al. (2021), Lester et al. (2015) and Roulin and Bourdage (2017).

2.3.6.2.1.2 Conscientiousness

Nine studies investigated correlations between job application dishonesty and Conscientiousness: Bill et al.'s (2020) Study 1 and Study 2, Bourdage et al.'s (2018) Study 2, Bourdage et al (2019); Buehl & Melchers' (2017) Study 1, Henle et al. (2017) Study 4,

Lester et al. (2015), Roulin and Krings (2016) and Roulin and Bourdage (2017). Please note that Roulin and Krings (2016) used facets instead of the aggregated measure of Conscientiousness.

2.3.6.2.1.3 Agreeableness

Seven studies investigated correlations between job application dishonesty and Agreeableness: Bill et al.' (2020) Study 1 and Study 2, Bourdage et al.' (2018) Study 2, Bourdage et al. (2019); Buehl & Melchers' (2017) Study 1, Henle et al.'s (2017) Study 4 and Roulin and Bourdage (2017).

2.3.6.2.1.4 Neuroticism

Eight studies investigated correlations between job application dishonesty and Neuroticism: Bill et al.'s (2020) Study 1 and Study 2, Bourdage et al.' (2018) Study 2, Bourdage et al. (2019); Buehl & Melchers' (2017) Study 1, Henle et al.'s (2017) Study 4, Lester et al. (2015) and Roulin and Bourdage (2017).

2.3.6.2.1.5 Openness to Experience

Five studies investigated correlations between job application dishonesty and Openness to Experience: Bill et al.'s (2020) Study 1 and Study 2, Bourdage et al.'s (2018) Study 2, Bourdage et al. (2019) and Roulin and Bourdage (2017).

2.3.6.2.1.6 Honesty-Humility

Nine studies investigated correlations between job application dishonesty and Honesty-Humility: Powel et al. (2021), Bill et al.'s (2020) Study 1, Study 2 and Study 3, Bourdage et al.'s (2018) Study 2, Bourdage et al. (2019); Buehl & Melchers's (2017) Study 1, Ho et al. (2019), Ho et al.'s (2020) Study 1 and Roulin and Bourdage (2017). Note that Buehl and Melchers' (2017) Study 1 used facets Honesty-Humility instead of the aggregated measure.

2.3.6.2.2 The Dark Triad

2.3.6.2.2.1 Machiavellianism

Seven studies investigated correlations between Machiavellianism and job application dishonesty. Three studies used The Naughty Nine (Jonason & Webster, 2010): Bill et al.'s (2020) Study 3, Roulin and Krings' (2016) Study 1 and Roulin and Bourdage (2017). Two studies used the Machiavellianism Scale (Allsopp et al, 1991): Hogue et al. (2013) and Levashina & Campion's (2007) Study 4. One study used the MACH IV SCALE (Christie & Geis, 1970): Henle et al.'s (2017) Study 3, and one study used Machiavellianism (Rauthmann, 2013): Ho and Powell's (2021) Study 2.

2.3.6.2.2.2 Psychopathy and Narcissism

Three studies used The Naughty Nine (Jonason and Webster, 2010): Bill et al.'s (2020) Study 3, Roulin and Krings' (2016) Study 1, and Roulin and Bourdage (2017).

2.3.6.3 Socially Desirable Behaviours

Three studies used several measures to examine correlations between socially desirable behaviours and job application dishonesty. One study used the Honesty scale (Scott, 1965): Levashina and Campion's (2007) Study 4. One study used a measure of Moral Identity (Aquino & Reed, 2002): Henle et al.'s (2017) Study 3. One study used a measure of warmth: Amaral et al (2019). One study used measures of socially undesirable behaviours in the form of Workplace Deviance (Bennett & Robinson, 2000): Henle et al.'s (2017), Study 4

2.3.6.3.1 Socially Desirable Scale

Three studies used social desirability scales. Two studies used BIDR-7 (Paulhus, 1991): Levashina & Campion's (2007) Study 4 and Lester et al. (2015). One study used the short form of the Marlowe-Crowne social desirability scale (Reynolds, 1982): Henle et al.'s (2017) Study 3.

2.3.6.3.2 Honest Impression Management

Six studies used measures of honest impression management: Amaral et al. (2019), Bourdage et al.'s (2018) Study 4 and Study 5, Bill et al.'s (2020) Study 3, Powel et al. (2021) and Roulin and Bourdage (2017)

2.3.6.4 Social Cognitive Factors

2.3.6.4.1 Attitudes

Six studies investigated attitudes toward faking: Bourdage et al. (2019), Buehl and Melchers' (2017) Study 1, Lester et al. (2015), Donovan et al. (2003), Ho and Powell's (2021) Study 1 and Study 2. One study investigated attitudes toward the organisation: Bourdage et al.' (2018) Study 4. Six studies examined attitudes toward competition: Duckitt et al. (2002), Bourdage et al.'s (2018) Study 4, Roulin and Krings (2016), Ho et al (2019), Ho et al.'s (2020) Study 1 and Study 2.

2.3.6.4.2 Social Norms

Three studies investigated social norms. Two studies examined the role of Subjective Norms: Bourdage et al. (2019) and Lester et al. (2015). One study investigated the role of perceived Social Proof: Levashina & Campion's (2007) Study 4.

2.3.6.4.2.1 Nationality

Four studies examined the role of national differences in job application dishonesty: Husain et al., (2018), Konig et al., (2011), Konig et al., (2012) and Konig et al. (2021)

2.3.6.4.3 Behavioural Control

Eleven studies investigated relationships between job application dishonesty and measures of behavioural control. Two studies used the Theory of Planned Behaviour conceptualisation of behavioural control: Bourdage et al. (2019) and Lester et al. (2015).

One study measured perceived interview difficulty: Bourdage et al.'s (2018) Study 4. Two studies measured cognitive ability: Buehl & Melchers' (2017) Study 1 and Study 2. One study measured interviewee competence: Amaral et al (2019). One study measured Core Self-Evaluation: Buehl & Melchers' (2017) Study 1. Four studies used a measure of risk of verification: Donovan, 2003 and Bill et al.'s (2020), Study 1, Study 2 and Study 3

2.3.7 Risk of Bias of individual studies

The process of assessing the risk of bias in each study included analysing sampling bias and measurement bias. Apart from the studies by Amaral et al. (2019) and Powel et al. (2021), in which participants reported job application dishonesty right after specific selection processes, and Roulin and Bourdage's (2017) study, in which participants self-reported after each of several interviews, all remaining studies were retrospective. Four studies requested participants to report on their most recent job application: Buehl & Melchers' (2017) Study 1, Donovan et al. (2003), Ho and Powell's (2021) Study 2 and Konig et al. (2021). In one study participants reported on job applications within a previous time period of three months: Bourdage et al. (2019); and in one study, participants reported on the previous six months: Henle et al. (2017). The remainder of the studies did not set a time span for reporting.

All the studies were rated as having a risk of sampling bias due to (i) adopting nonprobability sampling techniques and/or self-selected samples, or (ii) having samples composed of students.

2.3.8 Methodological Features of Studies

Regarding the key methodological features of studies, all studies reviewed were empirical and quantitative in nature. Most studies employed a cross-sectional design, while three studies used a mixed cross-sectional and quasi-experimental: Bill et al.'s (2020) Study 1, Study 2 and Study 3.

All studies measured job application dishonesty using questionnaires. None of the studies used direct measures of dishonesty, such as verifying claims against job experience, qualifications and skills. One study combined both self-report questionnaires and real interviews: Amaral et al. (2019). The remaining studies used self-report questionnaires to collect data.

Five studies utilised the Randomized Response Technique (RRT) methodology to collect data: Konig et al. (2011), Konig et al. (2012), Konig et al. (2021), Donovan et al. (2003) and Husain et al. (2018).

This review also evaluated measurement biases in the studies. For instance, some of the reviewed studies due to using non-validated measures: Donovan et al. (2003), Husain et al. (2018), Konig et al. (2011), Konig et al. (2012), Konig et al. (2021) and Lester et al. (2015).

2.3.9 Measurement Bias

Measurement bias may be an issue for studies failing to aggregate measures. Three studies did not aggregate items in measures of interview faking: Husain et al. (2018), Konig et al. (2011) and Konig et al. (2012).

Measurement bias may be an issue for studies failing to conduct Confirmatory Factor Analysis (CFA) on validated measures. Studies using CFA were Henle et al. (2017) and Levashina & Campion (2007). The remaining studies did not use CFA to validate measures of job application dishonesty.

Measurement bias may be an issue for studies failing to use multiple regression or SEM to control for third variables: Bourdage et al.'s (2018) Study 4, Donovan et al. (2003), Henle et al.'s (2017) Study 3, Hogue et al. (2013), Husain et al. (2018), Konig et al. (2011) and Konig et al. (2012), Konig et al. (2021).

2.3.10 Limitations

Several types of limitations were identified across all 27 studies (see Table 2), and they can be grouped within three types:

(a) sampling problems,

(b) measurement problems

(c) lack of longitudinal studies (i.e., all studies were cross-sectional).

(d) lack of observed measures of job application dishonesty

Sampling problems included: (i) employing non-probability sampling methods and (ii) sampling homogeneity due to including student samples within some of the studies. Measurement problems included: (i) non-validated measures, (ii) lack of Confirmatory Factor Analysis (CFA) for non-validated and validated measures, and (iii) the lack of multiple regression and/or SEM.

2.4 Discussion

2.4.1 Characteristics of the Studies

The present review identified peer-reviewed published studies examining concepts related to personality traits and social cognitive factors as antecedents of job application dishonesty. The present review also extracted data from the 27 reviewed studies including (i) the country in which data were collected, (ii) the main characteristics of participants, (iii) the operationalisation of job application dishonesty (iv) variables correlated with job application dishonesty (v) risk of bias in individual studies and (vi) methodological features of studies.

The geographic dispersion of studies comprises sixteen (59%) that were conducted in North America. Eight studies were conducted in Canada, seven in the USA, and one study was conducted with USA and Canada participants.

Seven studies (26%) were conducted in Europe.

The figure includes five studies in Germany, one study with participants from both Iceland and Switzerland and one from the United Kingdom.

Four studies (15%) were conducted in countries around the eastern world. One study was conducted in the United Arab Emirates, one study was conducted in China, and one study was conducted in Australia. One study had multinational participants from Austria, Belgium, Brazil, Canada, China, Fiji, Georgia, Germany, Iceland, India, Italy, Japan, Netherlands, New Zealand, Romania, Russia and Spain.

2.4.2 Sampling

Common patterns of participant selection emerged from the review. More specifically, studies tended to comprise: (i) adult samples, (ii) more female participants than males, (iii) more student samples rather than samples with individuals from the more general population, (iv) more participants with job interview experience and more participants with work experience than participants without those experiences, and (v) more participants from North America than other continents.

These observations allow for the following recommendations: future studies examining job application dishonesty should employ only samples with job application experience, as having such experience is a requirement to answer questions related to past behaviours. There could be more comparative studies to examine whether the influence variables identified as antecedents of job application dishonesty occur across nationalities.

2.4.3 Operationalisation

Regarding the operationalization of Job Application Dishonesty, 16 studies (64%) used versions of Levashina and Campion's (2007) interview faking behaviour (IFB) measure. However, while eight of the reviewed studies used the full version of Levashina and Campion's eight adopted a modified shortened measurement that was based on Levashina and Campion's (2007) IFB measure.

One study used a measure of job application dishonesty with elements taken from Levashina and Campion's (2007) interview faking behaviour (IFB) measure, but which focused on curriculum vitae dishonesty instead of interview faking.

Five studies (20%) used Donovan et al.'s (2003) measurement of interview faking, two studies (8%) used Ingold et al.'s (2015) Faking Behaviour Scale and two studies (8%) developed measures of interview dishonesty to fit their theoretical models.

Cross-cultural studies used Donovan et al.'s (2003) measurement of interview faking. However, none of these studies validated the measure using CFA or Multi-Group CFA. Most importantly, excluding Donovan et al.'s (2003) study, none of the studies aggregate the items into a single measure. Therefore, the use of such scales severely restricts the reliability of cross-cultural studies.

2.4.4 Results

The main objective of the present review was to identify studies examining the relationship between individual differences in personality and social cognitive factors with job application dishonesty.

2.4.4.1 Personality

Results show that nine distinct personality traits have been examined in relation to Job Application Dishonesty and that some of these traits were determined as risk factors for job application dishonesty.

2.4.4.1.1 Honesty-Humility

Eight studies investigated correlations between job application dishonesty and Honesty-Humility: Powel et al., (2021), Bill et al. (2020) Study 1, Study 2 and Study 3, Bourdage et al.'s (2018) Study 4, Bourdage et al. (2019), Buehl and Melchers's (2017) Study 1, Ho

et al. (2019) and Ho et al.'s (2020) Study 1. Please note that Buehl and Melchers's (2017) Study 1 used facets Honesty-Humility instead of the aggregated measure.

2.4.4.1.1.1 Intentions

Studies that examined personality using Trait Theory, and its relationship with intentions to lie in a job application found a negative relationship between Honesty-Humility with intentions to lie in interviews.

Bourdage et al.'s (2018) Study 4 found a negative relationship between the trait Honesty-Humility and all four facets of interview faking (deceptive ingratiation slight image creation, extensive image creation and image protection). Bourdage et al. (2019) found a negative relationship between Honesty-humility and extensive image creation, which was the only facet measured using Levashina and Campion's (2007) interview faking behaviour (IFB) measure. Bill et al.'s (2020) Study 1, Study 2 and Study 3 found a negative relationship between Honesty-Humility and job application dishonesty controlling for other personality traits (non-significant).

Buehl and Melchers's (2017) Study 1 found a negative relationship between the facets of the trait Honesty-Humility (sincerity, fairness, greed avoidance and modesty) and job application dishonesty. Ho et al. (2019) found a negative relationship between the trait Honesty-humility and all four facets of interview faking (deceptive ingratiation slight image creation, extensive image creation and image protection), as well as an aggregate measure of interview faking. Finally, Ho et al.'s (2020) Study 1 found a negative relationship between the trait Honesty-Humility and all four facets of interview faking

(deceptive ingratiation slight image creation, extensive image creation and image protection), as well as an aggregate measure of interview faking.

2.4.4.1.1.2 Self-reported Behaviour

Studies that examined personality traits with measures based on trait theory, and its relationship with self-reported lie in a job application found a negative relationship between Honesty-Humility with intentions to lie in interviews and reported dishonest behaviours during interviews.

Bourdage et al.'s (2018) Study 4 found a positive relationship between Honesty-humility the four facets of Levashina and Campion's (2007) interview faking behaviour (IFB) (i.e., deceptive ingratiation, slight image creation, extensive image creation and image protection). Bourdage et al. (2019) found a negative relationship between Honesty-humility and extensive image creation, which was the only facet measured using Levashina and Campion's (2007) interview faking behaviour (IFB) measure. Buehl and Melchers's (2017) Study 1 found a negative relationship between the facets of the trait Honesty-Humility (sincerity, fairness, greed avoidance and modesty) and job application dishonesty.

2.4.4.1.1.3 Multiple Regressions

The results of studies that utilised multiple regressions indicate that the trait Honesty-humility is a better predictor of job application dishonesty than other personality traits.

For example, Bill et al.'s (2020) Study 1 used hierarchical multiple regression adding the variables Extraversion, Conscientiousness, Neuroticism, Agreeableness, Honesty-humility, Competition and Verification Warnings as dependent variables and faking intention as an independent variable. The results showed that only Honesty-humility remained significant as a predictor of faking intentions.

Bill et al.'s (2020) Study 2 used hierarchical multiple regression adding the variables Extraversion, Conscientiousness, Neuroticism, Agreeableness, Honesty-humility, Competition and Verification Warnings as dependent variables and faking intentions as an independent variable. The results showed that only Honesty-humility remained significant as a predictor of faking intentions.

Bill et al.'s (2020) Study 3 used hierarchical multiple regression adding the variables Honesty-humility, Machiavellianism, Psychopathy, Narcissism, Competition and Verification Warnings as dependent variables and faking intentions as an independent variable. The results showed that Honesty-humility, Machiavellianism and Verification Warnings remained significant as a predictor of faking intentions.

2.4.4.1.1.4 Defining Honesty-Humility

The process of job selection is a social contract between organisational and job candidates in which the latter presents qualifications and credentials in exchange for a rewarding job position. From the candidates' position in this social contract, there is an expectation that they will cooperate with the process by being honest, therefore, allowing the organisation to make informed decisions whilst avoiding unfairness in processing the information of

different candidates. The negative association between Honesty-humility is theoretically sound since research found that this trait is often associated with an overall tendency to maintain social contract behaviours (Fiddick, et al., 2016), and to behave fairly (Hilbig, Thielmann, Hepp, & Zettler, 2015) and to display cooperation (Zettler, Hilbig, & Heydasch, 2013).

Furthermore, the trait sub-divides into facets corresponding to sincerity, fairness, greed avoidance and modesty (Lee & Ashton, 2004). Consequently, the trait of Honesty-humility is theoretically related to reciprocal altruism. According to Trivers (1971), in nature, individuals have patterns of behaviours that temporarily reduce their fitness while improving that of other individuals, providing that other individuals reciprocate and help those who helped them initially. The authors explain that reciprocal altruism evolves because cooperation is beneficial to individuals. In the context of job selection, cooperation with the process benefits the organisation and other candidates who behave in an honest manner. However, individuals also have an incentive to cheat and not reciprocate which may increase their individual chances of being selected.

Trivers' (1971) theory may explain why under relatively similar conditions, some individuals behave honestly while others behave dishonestly. Individuals participating in job selection as job candidates have the goal of getting a job position. In a hypothetical condition in which all job candidates have similar characteristics, it would be rational for candidates to attempt to present themselves in a better, albeit deceptive manner, to increase their chances of being selected. Rational choice theories would contain the argument that under such circumstances, rational individuals should cheat to improve their chances of

success. However, individuals who score higher on the trait Honesty-humility are less likely, while individuals low on this trait, are more likely to use deceptive tactics during selection processes.

The reciprocal altruism hypothesis partially explains this honest-dishonest pattern of behaviour as a distal motivational force, which compels certain individuals to behave honestly even though other competitors behave dishonestly. According to Trivers (1971), patterns of altruistic and selfish behaviours develop slowly through evolutional mechanisms. It states that every individual organism should strive for its own benefit and survival. However, competition for resources can be costly as every individual will be fighting for resources but also defending their positions from other competitors. Alternatively, another set-up is possible in which individuals display cooperation instead of competition. The benefits of cooperation for the individual will be less than competition, but it will also diminish the costs associated with individual competitiveness, therefore creating a cooperative equilibrium amongst individuals. However, in such a scenario, individuals can gain an advantage if they behave selfishly while all other individuals cooperate. For example, if most humans are truthful in their communications, then they will also believe that most other members of the species are also truthful. In this situation, a dishonest individual can gain an advantage by being untruthful.

As more individuals try to take advantage of an honest communication system, there will be a point when individuals will not believe information from other individuals and the system will collapse. In such a scenario, both honest and dishonest individuals will be at a disadvantage since both benefit from an honest communication system. Therefore, while

most individuals will behave honestly, some will behave dishonestly to the extent that it does not cause the system to collapse.

Another way the groups of individuals maintain reciprocal altruism is through the punishment of cheaters. However, detection and the actualisation of punishment are also costly, therefore, the cheating will occur proportionally to the capacity of the group to maintain countermeasures to dishonesty. Over the course of evolution, the system will reach an equilibrium in which the proportion of altruistic and selfish individuals will depend on an equilibrium between the cost and benefits of honest or dishonest strategies. In summary, the theory posits that the proportion of honesty and dishonesty depends on distal evolutionary mechanisms and more proximal interactional mechanisms related to the capacity to detect and punish transgressors. At the same time, individuals have incentives to adopt an altruistic and selfish depending on their dispositions, the dispositions of others and the cost and benefits of adopting either strategy.

According to MacDonald (1995), personality traits are compartmentalised motivational systems which differ from each other in terms of their adapted strategic survival goals. If Triver's (1971) theory is correct, it may explain, in terms of an evolutionary motivational system, why individuals high on the Honesty-humility trait will be more likely to behave honestly while individuals low on this trait will be more likely to behave dishonestly, in social situations such as selection processes, in which individuals will have on average similar cost and benefits to behave honestly or dishonestly.

2.4.4.1.2 Conscientiousness

2.4.4.1.2.1 Intentions

Studies that examined personality traits from the trait theory, and its relationship with intentions to lie in a job application found a negative relationship between Conscientiousness with intentions to lie in interviews.

Bourdage et al.'s (2018) Study 4 found a positive with three facets of Levashina and Campion's (2007) interview faking behaviour (IFB) (i.e., slight image creation, extensive image creation and image protection. Bourdage et al. (2019) found a negative relationship between Conscientiousness and extensive image creation, which was the only facet measured using Levashina and Campion's (2007) interview faking behaviour (IFB) measure. Lester et al. (2015) found negative relationships between Conscientiousness and a four-item measure of interview dishonesty. Bill et al.'s (2020) Study 2 found a negative relationship between Conscientiousness and intentions to fake using the Faking Behaviour Scale (Ingold et al, 2015).

2.4.4.1.2.2 Self-reported Lies

Studies that examined personality traits from the trait theory and its relationship with self-reported lie in a job application found a negative relationship between Conscientiousness with intentions to lie in interviews and reported dishonest behaviours during interviews.

Bourdage et al.'s (2018) Study 4 found a negative relationship between Conscientiousness and three facets of Levashina and Campion's (2007) interview faking behaviour (IFB) (i.e., slight image creation, extensive image creation and image protection). Bourdage et al.

(2019) found a negative correlation between Conscientiousness and extensive image creation.

Henle et al.'s (2017) Study 4 found negative relationships between Conscientiousness and three forms of Interview faking (i.e., IFB inventing, IFB embellishing and IFB omitting) and negative relationships between Conscientiousness and three forms of resume fraud (inventing, embellishing and omitting).

Nine studies investigated correlations between job application dishonesty and Conscientiousness: Bourdage et al.'s (2018) Study 2, Bourdage et al. (2019), Buehl and Melchers's (2017) Study 1, Henle et al.'s (2017) Study 4, Lester et al. (2015) and Roulin and Krings (2016). Please note that Roulin and Krings (2016) used facets of the Conscientiousness trait instead of the aggregated measure.

2.4.4.1.2.3 Defining Conscientiousness

Gelder and de Vries (2016) explain that while Honesty-humility relates to moral conscience, conscientiousness relates to people's task-related conscience. On the surface, the terms may appear interchangeable as honest and conscientious individuals may perform tasks well and present information accurately; however, the motivational mechanisms behind each trait may serve a different purpose. For example, dishonesty studies hypothesise that individuals high on Conscientiousness and Honesty-Humility traits are less likely to cheat in social interchange than those low on both traits. Consequently, such studies imply that Conscientiousness and Honesty-Humility share similar motivational antecedents if the outcomes are similar. However, the similarity of behaviours

is possibly an artefact of choosing associations between these traits with target behaviours for which the consequences of being honest and conscientious converge. One example that disproves the homogeneous motivational nature of Conscientiousness and Honesty-Humility would be a hypothetical instance in which an art fraudster is meticulous in producing a fake painting. The acceptance of a fraudulent piece of art as an original requires extreme zeal on the part of the agent; at the same time, it requires a clear motivation to defraud others for personal gain.

Studies on job application dishonesty identified negative associations between Conscientiousness and both self-reported behaviours and intentions to cheat during job selection. One explanation why individuals high on the trait Conscientiousness are less likely to report cheating in selection contexts than those low in this trait may be for the reason that those high in this trait should be less likely to use dishonesty to succeed in a selection process since they are under less pressure to meet job requirements. For example, lies on job applications and interviews depend on credentials that job candidates do not possess. Individuals high on Conscientiousness are more likely to be higher achievers academically Individuals high on Conscientiousness are more likely to be higher achievers academically (Schneider & Preckel, 2017; Wingate & Tomes, 2017), including highly selective and competitive settings (Chamorro-Premuzic & Furnham, 2003), and occupationally success (Spengler, Lüdtke, Martin, & Brunner, 2014).

However, when studies using multiple regression analysis which includes the trait Honesty-humility, the association between Conscientiousness and job application dishonesty becomes non-significant (Bill et al.'s 2020 Study 1, Study 2 and Study 3).

Furthermore, similar results occur when studies predict broader forms of dishonest behaviours. Correlational studies indicate that Honesty-humility outperforms Conscientiousness in predicting different forms of real-life dishonest behaviours including academic dishonesty (De Vries, De Vries, & Born, 2011), counter-productive work behaviours (Marcus, Lee, & Ashton, 2007), adolescent delinquency (Dunlop, Morrison, Koenig, & Silcox, 2012) and adult offending (Rolison, Hanoch, & Gummerum, 2013). Finally, Hilbig & Zettler (2015) argue that the trait Honesty-humility is theoretically a more adequate trait to account for differences in dishonest behaviours. Despite the limited number of studies, those that investigate job application dishonesty which measures the influence of personality traits on such behaviour indicate that Honesty-humility is a better predictor of dishonest behaviours than Conscientiousness.

2.4.4.1.3 Big Five Traits

Besides Conscientiousness, other traits from various versions of the Big Five model are associated with job application dishonesty; however, the results have been mixed. Furthermore, the lack of studies conducting multiple regressions makes the interpretation of the unique influence of each individual trait on dishonest behaviours difficult.

2.4.4.1.3.1 Intentions

Studies that examined personality traits from the trait theory, and its relationship with intentions to lie in a job application found negative relationships between Agreeableness with intentions to lie in interviews. Bourdage et al. (2019) found a negative correlation between Agreeableness and extensive image creation. Studies found a positive relationship

between Extraversion and intentions to lie in interviews. Buehl and Melchers's (2017) Study 1 and Bourdage et al.'s (2018) Study 4 found positive relationships with three of the four facets (i.e., Extensive Image Creation, Slight Image Creation and Image Protection). Studies found a negative relationship between Neuroticism and job application dishonesty. Buehl and Melchers' (2017) Study 1 found a negative correlation between Neuroticism and job application dishonesty. Finally, Bourdage et al. (2019) found a negative relationship between Openness to Experience and extensive image creation.

2.4.4.1.3.2 **Self-reported Lies**

Studies that examined personality traits from the trait theory, and its relationship with self-reported lie in a job application found a negative relationship between Agreebleness and job application dishonesty. Bourdage et al. (2019) found a negative correlation between Agreeableness and extensive image creation. Buehl and Melchers' (2017) Study 1 found a positive relationship between Neuroticism and interview faking. Bourdage et al. (2019) found a negative correlation between Openness to Experience and extensive image creation.

2.4.4.1.4 The Dark Triad

Studies that examined the Dark Triad, comprising of the traits Psychopathy, Machiavellianism and Narcissim, and their relationships with self-reported lies in job applications found a positive relationships between the three traits and both interview and resume dishonesty.

2.4.4.1.4.1 **Intentions**

Bill et al.'s (2020) Study 3 examined the relationship between the three factors of the Dark Triad (i.e., Psychopathy, Machiavellianism and Narcissism) and Interview Faking. The results show positive significant relationships between intentions to fake and the variables Psychopathy, Machiavellianism and Narcissism.

Roulin and Krings's (2016) Study 1 examined the relationship between the three factors of the Dark Triad (i.e., Psychopathy, Machiavellianism and Narcissism) and Interview Faking. The results show positive significant relationships between intentions to fake and the variables Psychopathy, Machiavellianism and Narcissism.

2.4.4.1.4.2 **Self-reported Behaviour**

Studies that examined the Dark Triad traits and its relationship with self-reported lies in a job application found a positive relationship between Psychoticism, Machiavellianism and Narcissism with reported dishonest behaviours in interviews and curriculum vitae writing.

Roulin and Bourdage (2017) examined the relationship between the three factors of the Dark Triad (i.e., Psychopathy Machiavellianism and Narcissism) and Interview Faking. The results show positive significant relationships between Psychopathy and Extensive Image Creation Slight Image Creation; however, despite being in the hypothesised direction, the associations of Psychopathy with Image Protection and Ingratiation were not significant.

Machiavellianism was associated negatively with Extensive Image Creation, Slight Image Creation and Image Protection; however, the association with Ingratiation was not

significant. Finally, Narcissism was only associated significantly with Slight Image Creation. The associations between Narcissism and Extensive Image Creation, Image Protection, and Ingratiation were not significant, despite being in the hypothesised directions.

Levashina and Campion's (2007) Study 4 investigates the relationship between Machiavellianism and a measure of Interview faking, including its subfactors. Machiavellianism associated negatively with Extensive Image Creation, Slight Image Creation, Image Protection and Ingratiation. Machiavellianism also correlated positively with an aggregate measure of interview faking containing items from the four facets aforementioned.

Ho et al.'s (2020) Study 2 investigating the relationship between Machiavellianism and a measure of Interview faking, Machiavellianism also correlated positively with an aggregate measure of interview faking containing items from the four facets (i.e., Extensive Image Creation, Slight Image Creation, Image Protection and Ingratiation).

Henle et al. (2019) conducted two separate studies (Study 3 and Study 4) using a measure of Machiavellianism. The Results of Study 3 with a student sample show that Machiavellianism correlated positively with IFB Inventing IFB Embellishing and IFB Omitting. The results also showed moderate relationships between Machiavellianism and RF Fabrication, RF embellishing and RF Omitting. The results of Study 4 show similar results to Study 3. In study 4, with an adult and employed sample, Machiavellianism correlated positively with IFB Inventing IFB embellishing and IFB Omitting. The results also showed moderate relationships between Machiavellianism and RF Fabrication, RF

embellishing and RF Omitting. Therefore, Machiavellianism associated positively will all the measures in a similar way between samples with students and adult workers.

2.4.4.1.4.3 **Defining The Dark Triad**

The Dark Triad measures personality traits associated with callous and manipulative behavioural patterns (Paulhus & Williams, 2002). The measure consists of three overlapping but conceptually distinct traits (Furnham, Richards, & Paulhus, 2013). The first trait, Psychopathy, is exemplified by high levels of impulsivity, thrill-seeking and low levels of empathy (Lilienfeld & Andrews, 1996). The second trait, Machiavellianism, contains items related to the manipulation and exploitation of others. Finally, the third trait, Narcissism, refers to items expressing feelings of grandiosity, entitlement, dominance, and superiority (Paulhus & Williams, 2002).

Research indicates that individuals high in the Dark Triad are more likely to behave dishonestly (Jones & Paulhus, 2017) and in a deviant manner (Ellen III, Alexander, Mackey, McAllister, & Carson, 2021). Furthermore, the separate Dark Triad measures correlate negatively and strongly with the HEXACO Honesty-Humility factor (Lee & Ashton, 2005). The relationships make logical sense since the Dark Triad traits contain items theoretically opposed to the definitional construct behind the Honesty-Humility trait, which comprises characteristics related to sincerity, fairness, greed avoidance, and modesty (Ashton & Lee, 2008).

2.4.4.1.5 Socially Desirable and Undesirable Behaviours

2.4.4.1.5.1 Honesty

Levashina and Campion (2007) conducted a study (Study 4) investigating the relationship between the Honesty Scale (Scott, 1965) and a measure of Interview faking, including its subfactors. The results showed negative relationships between the measure of Honesty and Extensive Image Creation, Slight Image Creation, Ingratiation, Image Protection and a complete measure of interview faking composed of all four factors.

The measure of Honesty was adapted from Scott's 1965 Personal Value Scale (PVS). The complete inventory attempts to measure beliefs about ideal relationships and ideal personal traits. The author of this review is not aware of any peer-reviewed examination of the validity and reliability of the Personal Value Scale (PVS). Levashina and Campion (2007) provide an example of an item from the scale: "Always representing one's own true thoughts and feelings honestly." The authors also report a Cronbach's alpha of .80 in their study. Integrity tests often correlate positively with the Honesty-humility trait (Marcus, Lee, & Ashton, 2007); therefore, it is plausible that Scott's scale refers to a similar concept to Honesty-humility.

2.4.4.1.5.2 Moral Identity

In two studies (Study 3 and 4), Henle et al. (2019) investigated the relationship between Moral identity and their measure of resume fraud, as well as Levashina and Campion's (2007) Interview Faking Behaviour (IFB). The results of study 3 show that Moral Identity correlates negatively with the Interview Faking Behaviours (IFB) factors Inventing,

Embellishing and Omitting. The results also show negative relationships between Moral Identity and Resume Fraud (RF) Fabrication, Embellishing and Omitting.

2.4.4.1.5.3 Defining Moral Identity

Moral identity refers to people's levels of moral development and moral reasoning. For example, individuals high in moral identity view morality as an essential feature of their identity. Furthermore, differences in Moral Identity relate to judgments of the rectitude of different acts, which, in turn, might influence the tendency to behave ethically (Hardy & Carlo, 2011). For instance, moral identity correlates positively with prosocial behaviours, such as volunteering and donating to food banks (Aquino & Reed, 2002) and is negatively related to antisocial behaviours, such as cheating, lying, and stealing (Moore, 2012).

Moral Identity shares conceptual similarities with the Honesty-humility trait. While the moral identity construct captures a form of ethical information processing system, it also shares similarities to an honest personality trait since it is associated with moral behaviour tendencies. In turn, the construct behind the Honesty-Humility trait captures individuals' views related to their sincerity, fairness, greed avoidance, and modesty (Ashton & Lee, 2008), which are forms of moral reasoning and moral identity. Furthermore, similarly to the Honesty-humility trait, Moral Identity predicts unethical behaviours, including interview dishonesty.

2.4.4.1.5.4 Socially Desirable Responding

Levashina and Campion (2007) conducted a study (Study 4) investigating the relationship between interview dishonesty and two measures of social desirability, namely, The

Marlowe-Crowne Social Desirability Scale (Reynolds, 1982) and Paulhus's (1984) BIDR-7 (Balanced Inventory of Desirable Responding).

The results showed negative relationships between the Marlowe-Crowne Social Desirability Scale and Extensive Image Creation, Slight Image Creation, Ingratiation, Image Protection, and a complete measure of faking composed of all four factors, meaning that participants low in social desirability were more likely to be dishonest in interviews than those high in this trait.

However, the results of the analysis including BIDR-7 were in the opposite direction meaning that people high in social desirability were more likely to be dishonest. The results showed positive relationships between BIDR-7 and Slight Image Creation, Ingratiation, Image Protection, and a measure of faking composed of all four factors.

Paulhus's (1984) study shows that subfactors within BIDR positively relate to the Marlowe-Crowne Social Desirability Scale. Therefore, Levashina and Campion's (2007) findings are counterintuitive since the two measures correlate with Interview Faking in different directions in their study. However, the authors do not report the correlation between the Marlowe-Crowne Social Desirability Scale and the BIDR-7 scale and comparisons between the measures in this study are not possible.

Henle et al. (2019) also investigated the relationship between the Marlowe-Crowne Social Desirability Scale (Reynolds, 1982) and their measure of resume fraud, as well as Levashina and Campion's (2007) Interview Faking Behaviour (IFB) in Study 3 and Study 4. The results of Henle et al. (2019) studies are similar to Levashina and Campion's (2007)

results on the relationship between the Marlowe-Crowne Social Desirability Scale and Interview Faking Behaviour (IFB).

The results of Study 3 results showed negative relationships between the Marlowe-Crowne Social Desirability Scale and IFB Inventing, IFB embellishing and RF Omitting. The results showed negative relationships between Social Desirability and RF Fabrication, RF embellishing and RF Omitting.

Henle et al.'s Study 4 shows similar results to Study 3. The results show negative relationships between Social Desirability and IFB Inventing, IFB embellishing, and RF Omitting. Similarly, the results show negative relationships between Social Desirability and the measures of RF Fabrication and RF embellishing. However, the relationship between social desirability and RF Omitting was not significant. Therefore, people low in social desirability are more likely to be dishonest during interviews and job applications, at least when the social desirability measure is the Marlowe-Crowne Social Desirability Scale.

2.4.4.1.5.5 Defining Socially Desirable Responding

Self-report studies ask participants to provide information about their opinions and behaviours. Some of the questions in self-report questionnaires might request answers that participants find socially unacceptable; therefore, participants might give distorted answers, which present a more positive, despite inaccurate, image of themselves (Mabe III & West, 1982). Social desirability scales attempt to measure the degree of distortion of participants' answers in self-reports that ask questions related to socially undesirable

characteristics. In other words, such measures attempt to measure the extent to which participants distort their answers to present a socially desirable image (Vésteinsdóttir et al. 2023)

However, some researchers are sceptical about social desirability scales' capacity to measure self-report distortions (Griffith and Peterson, 2008). Instead, Studies show that socially desirable responding correlates with personality traits related to honesty. Ones, Viswesvaran and Reiss (1996) conducted a meta-analysis of social desirability studies and concluded that social desirability is related to individual differences in emotional stability and conscientiousness. De Vries, Zettler and Hilbig (2014) also examined the claim that most social desirability scales seem to measure personality traits. The authors found that in both self-ratings and other-rating studies using the Balanced Inventory of Desirable Responding (BIDR) questionnaire, the most important predictors of Self-Deceptive Enhancement (SDE) were (low) Emotionality, Extraversion, and Conscientiousness. At the same time, Impression Management (IM) is associated positively with Conscientiousness, Agreeableness, and Honesty-humility. However, Honesty-humility was the most important predictor.

Additionally, Zettler, Hilbig, Moshagen, and De Vries (2015) tested the hypothesis that scores on impression management correlate positively with honesty. The authors used a measure of impression management which is part of a social desirability inventory called the Balanced Inventory of Desirable Responding. The results show that impression management scores correlated positively with the trait Honesty-humility and that the measure also predicted actual cheating behaviour in an experimental cheating task.

Therefore, the authors concluded that high Impression Management scores might reflect honesty and true virtue, and not faking behaviour.

2.4.4.2 Honest impression Management

2.4.4.2.1 Self-Reported Behaviour

Studies that examined honest Impression Management (HIM) and its relationship with self-reported lie in job applications found a positive relationship between honest Impression Management (HIM) and interview faking.

Amaral et al (2019) found positive relationships between Self-reported honest self-promotion and interview dishonest behaviours including slight image creation, and deceptive ingratiation. The study also found positive relationships between Self-reported honest ingratiation slight image creation, and deceptive ingratiation.

Bourdage et al.' (2018) Study 5 found positive relationships between honest self-promotion and both deceptive ingratiation and image protection. The study also reports found positive relationships between Honest ingratiation and the four facets of interview faking (i.e., Slight image creation, extensive image creation deceptive ingratiation and image protection). Similarly, the study also found positive relationships between Honest defensive Image Management and the four facets of interview faking (i.e., Slight image creation, extensive image creation deceptive ingratiation and image protection).

Ho and Powel 2021 found positive relationships between Self-reported honest IM Behaviour and Self-reported faking behaviour containing an aggregate measure of all items of DIM.

Powel et al, (2021) study found positive relationships between Honest Self-Promotion (HIM) and two facets of Dishonest Image Management (DIM), DIM slight image creation and DIM deceptive ingratiation, as well as DIM overall, which is an aggregate measure of all items of DIM. The study found a positive relationship between HIM ingratiation and the four facets of DIM (i.e., Slight image creation, extensive image creation deceptive ingratiation and image protection), as well as an aggregate measure of all items of DIM. Finally, the study reports positive relationships between HIM defensive and three facets of DIM (i.e., DIM slight image creation, DIM deceptive ingratiation and DIM image protection), as well as with an aggregate measure of all items of DIM.

2.4.4.2.2 Defining Honest Image Management

Conceptually, interview honest image management refers to a tactic in which job candidates highlight their skills, qualifications, and credentials during the selection process. The strategy behind this approach is to present true capabilities to employers in an honest and transparent manner (Bourdage et al, 2018). Alternatively, job candidates may use dishonest image management tactics to misrepresent their qualifications and experiences with the aim of improving their chances of being hired (Levashina & Campion, 2007). The tactics involved in dishonest image management may include creating a more favourable impression on the interviewer through exaggerations that

misrepresent credentials, bald-faced lies and even ingratiation based on false characteristics of the interviewer.

The concepts of Honest and Dishonest image management are arguably opposites; therefore, logically their use as job application strategies should either have a negative relationship or, at least, work independently of each other. However, the results of the studies in this review suggest that individuals who engage in dishonest image management are also more likely to use honest image management tactics. It is important to note that according to the results of the studies, honest image management behaviours only correlate with less serious forms of dishonest image management (e.g., DIM slight image creation, DIM deceptive ingratiation and DIM image protection) which are conceptually similar to embellishments or exaggerations of credentials and characteristics, than with more serious lies (e.g., Extensive Image Creation), which refers to the addition of false information during interviews. Therefore, there is a need for more research which could investigate the similarities and differences between honest and dishonest image management, in terms of its conceptualisation, operationalisation, antecedents and consequences.

2.4.4.3 Counterproductive Work Behaviours

Henle et al. (2019) examined the relationship between Resume Fraud (RF), Interview Faking Behaviour (IFB) and a measure of counterproductive work behaviours (Bennett & Robinson, 2000) as a dependent variable in Study 4. Counterproductive work behaviours refer to different forms of workplace deviant behaviours, including organisational deviance (e.g., “Taken property from work without permission”) and interpersonal deviance (e.g.,

"acted rudely toward or argued with someone at work"). The results show that Organisational Deviance correlates positively with IFB inventing, IFB embellishing IFB omitting, as well as with RF inventing, RF embellishing, and RF omitting.

The authors further analysed the data using multiple regressions, with three factors of Resume Fraud (RF) and three factors of Interview Faking Behaviour (IFB) as predictors and two factors of counterproductive work behaviours as independent variables (i.e., Organisational Deviance and Interpersonal Deviance). The results show that only Fabrication (RF) and IFB omitting remained significant when predicting Organizational Deviance, and that only Fabrication (RF) remained significant when predicting Interpersonal Deviance.

The measure of Fabrication (RF) closely resembles the concept of dishonesty since it includes job candidates' intentional additions of false information. The results of Henle et al.'s study indicate that those job applicants who fabricate information (i.e., add straightforward lies) in their job applications are more likely to behave in a deviant manner once they become employees. Therefore, serious deviant behaviours show consistency across different domains of organisational functioning.

2.4.4.4 Social Cognitive Factors

2.4.4.4.1 Attitudes

Studies that examined the Attitudes toward job application dishonesty found relationships between measures of Attitudes and intentions to lie in job applications.

2.4.4.4.1.1 Intentions

Bourdage et al. (2019) found a positive relation between attitudes toward faking and interview faking behaviours. Lester et al. (2015), found a positive relationship between attitudes toward faking and interview faking behaviours.

2.4.4.4.1.2 Reported Behaviours

Studies that examined the Attitudes toward job application dishonesty found relationships between Attitudes and self-reported lies in job applications.

Bourdage et al. (2019) found a positive relationship between attitudes toward faking and interview faking behaviours. Buehl & Melchers (2017) found a positive relationship between attitudes toward faking and interview faking behaviours. Ho and Powell's (2021) Study 2. found a positive relationship between attitudes (i.e., Valence of Faking) and interview faking behaviours.

Donovan et al. (2003) found a negative relationship between attitudes (Perceived Severity) toward faking and interview-faking behaviours. Please note that perceived severity inverts the operationalisation of attitudes from a negative-positive direction to a positive-negative. A more "severe" evaluation of a behaviour equates to a negative attitude toward the same behaviour. Consequently, the results of Donovan et al. (2003) study align with the studies above.

2.4.4.4.1.3 Defining Attitudes

The studies examined in this section indicate that the decision to behave dishonestly involves evaluations regarding the behaviour, such as whether or not an act is dishonest and to what extent. Decision-making is a psychological process in which people choose particular courses of action amongst different alternative options (Baron, 2008, pp. 6-8). In other words, people make decisions on how to behave after evaluating different forms of information and beliefs, which, in turn, influence their behaviours. Researchers theorise that evaluations of behaviours occur through the psychological construct named Attitudes, which refers to a mental mechanism that helps people decide how to behave in specific situations (Ajzen, 2005, p. 03). However, as the results of this literature review indicate, dishonest decision-making might also involve judgements related to the context in which the behaviours occur, such as evaluations of social norms and outcome expectancies.

Attitudes contrast with personality traits, which are broad behaviour strategies, which influence similar behaviours across situations. An Attitude is a mental process that disposes people to react favourably or unfavourably toward specific objects in the world (Ajzen, 2005, p. 03). It is a domain-specific function that allows individuals to form favourably or unfavourably evaluations of particular behaviours, which in turn influences their decision to perform the behaviour (Ajzen, 1991) and helps people decide how to behave in specific situations (Ajzen, 2005, p. 181). The results of the studies in this review indicate that having favourable or unfavourable attitudes toward job application dishonesty predicts whether job candidates are more likely to perform or refrain from performing dishonest acts during the selection process.

2.4.4.4.2 Social Norms

2.4.4.4.2.1 Intentions

Studies that examined the perceived social norms related to job application dishonesty found relationships between Subjective Norms and Social Proof with intentions to lie in job applications.

Bourdage et al. (2019) found a positive relationship between Subjective Norms and Extensive Image Creation. Lester et al. (2015) found positive relationships between Subjective Norms toward faking and interview faking behaviours.

2.4.4.4.2.2 Self-reported Behaviours

Studies that examined the perceived social norms related to job application dishonesty found relationships between Subjective Norms and Social Proof with self-reported lies in job applications.

Bourdage et al. (2019) found a positive relationship between Subjective Norms and Extensive Image Creation. Levashina and Campion's (2007) Study 4 found positive relationships between Perceived Social Proof and the four facets of interview faking (i.e., slight image creation, extensive image creation, deceptive ingratiation and image protection) and an aggregated measure of interview faking.

2.4.4.4.2.3 Nationality

Four studies examined the role of national differences in job application dishonesty: Husain et al. (2018), Konig et al. (2011), Konig et al. (2012) and Konig et al. (2021).

The studies report differences between the scores of different items related to Donovan's 2003 measure of interview faking. However, despite the efforts of authors to display tables with the scores in each item, the results are not interpretable as the differences are heterogeneous, with some items having higher or lower scores regardless of the nationality of the samples. In other words, while for one nationality the participants scored higher than participants from other nationalities, for another item, the opposite was true. The studies could benefit from factor analysis to identify which items belong to a particular measure, and aggregation of items into factors or a complete measure, depending on the results of the factor analysis.

2.4.4.4.2.4 Defining Social Norms

Social psychological studies show that the need to conform to the behaviour of others influences many aspects of people's behaviours. People will not only change their behaviours under social pressure, but they will also change their beliefs to align them with that of the group. Perceived Subjective Norms contain beliefs about the expectations of peers regarding the performance of the behaviour and beliefs about complying with such expectations. Despite being a core element of the Theory of Planned Behaviour model, which on the whole often predicts different forms of social behaviours, Subjective Norms do not consistently predict behaviours in general and dishonest behaviours more specifically.

Alternatively, Descriptive Norms is a simple concept of social influence which relates to the perception of how most people behave. Furthermore, perceived social proof can form

even when there is no social proof. Consequently, research has demonstrated that Descriptive Norms are a reliable predictor of different forms of behaviours, including dishonest behaviours. First, both perceived and implied Social Proof will prompt people to make social comparisons. Then, people will increase their dishonesty if they perceive that others are behaving more dishonestly, or they will decrease their behaviours if they perceive others are behaving more honestly.

2.4.4.4.3 Behavioural Control

2.4.4.4.3.1 Intentions

Studies that examined how Perceive Behavioural Control related to job application dishonesty found relationships between Perceive Behavioural Control with intentions to lie in job applications.

Bourdage et al. (2019) found a positive relationship between Behavioural Control and Extensive Image Creation. Lester et al. (2015) found a positive relationship between Behavioural Control and interview faking behaviours.

2.4.4.4.3.2 Self-reported Behaviours

Studies that examined how Perceive Behavioural Control related job application dishonest found relationships between Perceive Behavioural Control and reported lies on job applications.

Bourdage et al. (2019) found a positive relationship between Behavioural Control and Extensive Image Creation.

Studies also investigated the role of measures conceptually related to behavioural control in predicting job application dishonesty. Ho and Powell's 2021 Study 2 found a positive relationship between Expectancy and self-reported faking behaviour. Bourdage et al.'s (2018) Study 4 reported a positive relationship between perceived interview difficulty and job application dishonesty in all four deceptive IM tactics. Buehl & Melchers' (2017) Study 1 found a negative relationship between cognitive ability and interview faking.

2.4.4.4.3.3 **Defining Perceived Behavioural Control**

The Theory of Planned Behaviour (TPB) contains the concept of Perceived Behavioural Control that relates to perceptions of real barriers to performing a particular behaviour. Perceived Behaviour Control refers to people's beliefs about their capacity to perform a particular behaviour, including assumptions about resources, opportunities, and other factors that facilitate or obstruct behavioural performance (Ajzen, 2002). However, perceived behaviour control can only predict real behaviours if they are under the real voluntary control of the individual (Ajzen & Madden, 1986). Therefore, intentions will only materialise into behaviours if the perceived behaviour control correlates with real behaviour control (Sheeran, Trafimow, & Armitage, 2003).

In interview situations, job candidates might have some control over the information they provide; however, the capacity of interviewers to scrutinise statements limits candidates' ability to lie. Therefore, the limited power of candidates over real interview situations might influence the degree to which Perceived Behavioural control influences candidates' execution of the lies.

2.4.4.4.4 Rational choice

2.4.4.4.4.1 Intentions

Bill et al.'s (2020) Study 2 found a negative relationship between verification warning and interview faking intentions.

2.4.4.4.4.2 Self-reported Behaviours

Ho and Powell's 2021 Study 2 found a positive relationship between Instrumentality and self-reported faking behaviour. Donovan (2003) found a negative relationship between perceived verifiability and reported interview lies.

2.4.4.4.4.3 Defining Elements of The Rational Choice Theory

The Rational Choice Theory contains the premise that individuals are rational in the sense that they will always choose a course of action that maximises their outcomes (Baron, 2008, p. 44). When faced with an opportunity in which the benefits of being dishonest are higher than its costs, the theory states that individuals should invariably act dishonestly (Becker, 1968).

Dishonest behaviours are socially proscribed behaviours that present many barriers, both physical and procedural. Most importantly, dishonest behaviours are risky since they imply that the behaviours incur the risk of retaliation on the part of the victims and of society in general. Risk is a concept related to personal probabilities, which includes calculations that an outcome will be unfavourable or end in adverse consequences (Short, 1984). Research shows that perceptions of dishonesty risk correlate with observed dishonest behaviours as

well as self-reported dishonest behaviours (Donovan, 2003; Thielmann & Hilbig, 2018). Furthermore, the expectation of a reward also appears to play a role in the decision to lie in job applications. However, the number of studies investigating the role of rational choice in the decision to lie in job applications is insufficient for robust conclusions.

2.4.5 Bias

This review examined the risk of bias in individual studies. It found a high risk of sampling bias found in all of the studies in this review and closely followed by measurement bias. Additionally, most of the studies employed cross-sectional designs, and only five studies adopted a mixed-method design (Roulin & Bourdage, 2017) All studies used self-report questionnaires to collate data. all studies adopted a nonprobability-sampling method such as convenience or self-selected sampling methods to recruit participants. Overall, these findings arguably restrict the generalizability of the results of the reviewed studies. Consequently, future studies should utilize longitudinal and experimental designs, probability-sampling methods, and verifiable data related to job application claims.

Furthermore, seven studies used online surveys. Gosling et al. (2004) argue that online questionnaires are more convenient and cheaper than conventional questionnaires since there is less need for personnel or special facilities. The authors also explain that online questionnaires are easy to distribute; therefore, internet samples usually contain considerable diversity in geographic location, age, gender, and socioeconomic status. Online questionnaires are also time-effective since the data is collectable immediately after participants complete the survey. However, a potential problem with using an online

platform for research, in contrast to other delivery modes, is the risk that this difference might influence participants' response patterns. However, Gosling et al. (2004) study on the advantages of online questionnaires indicates that internet findings are often similar to those of other presentation formats, including traditional methods. Similarly, the results of Klein et al.'s (2014) and Klein et al.'s (2018) meta-analyses on the replicability of psychological studies show that the results of experimental studies are similar whether they are performed online in laboratories.

2.4.6 Limitation of Studies

Finally, several types of limitations identified in this review can be broadly grouped into three types: (i) sampling problems, (ii) measurement problems, and (iii) lack of longitudinal studies (i.e., only one study was longitudinal). Attention should be paid to these in order to improve the quality of studies published in the job application dishonesty field.

2.5 Limitations of This Review

Despite the comprehensive search across databases, some related papers might be missed due to including only studies published on English. selected search terms, and database limitations. Additionally, important data might be contained in non-peer-reviewed studies, unpublished theses, and dissertation studies.

2.6 Conclusions

As a concluding note, the findings obtained in the present review make evident the usefulness of examining the role of personality traits and social cognitive factors as antecedents of Job Application Dishonesty. According to the findings, personality traits should continue to be researched. Future research might enhance the understanding of Job Application Dishonest by providing (i) findings on verifiable data related to job application dishonesty (ii) cross-cultural data concerning Job Application dishonesty (iii) examining the unique variance of personality traits and different social cognitive factors using multiple regression methods when predicting job application dishonesty and (iv) studies on curriculum vitae dishonesty.

Chapter 3 Literature Review

This chapter contains a narrative review of the empirical and theoretical literature related to the study of dishonest behaviours. The first section includes an overview of studies on dishonesty in job applications and interviews. The remaining five sections organise the broader literature on dishonesty research according to theoretical themes. The themes relate to personality traits and social-cognitive factors that help explain individuals' decisions to behave dishonestly in different contexts. The chapter ends with a summary of the literature review's findings.

3.1 Introduction

Job applications usually contain one or more documents (e.g., cover letters, curriculum vita or application forms) that job candidates can use to present their credentials, such as qualifications, skills, knowledge and experience, to a hiring organisation. After receiving a job application, the hiring organisation then analyses such documents to shortlist candidates for interviews. Therefore, from an organisational point of view, job application information's trustworthiness is essential for good decision-making within a selection process.

However, job applications often contain discrepancies. These inconsistencies misinform the selection process (Roulin & Krings, 2016), which, in turn, may bring many negative

consequences to organisations. For example, job application discrepancies may lead organisations to introduce unqualified employees into their workforce. It can also increase the risk organisations will hire deviant employees if the errors are intentional (Henle, Dineen, & Duffy, 2019).

Despite its importance to organisational functioning, this literature survey shows that studies on job application dishonesty are scant, identifying only one research paper investigating factors involved in the incidence and magnitude of job application dishonesty. The study by Henle et al.'s (2019) describes the development of a measure of job application dishonesty which the authors validated using factor analyses and comparisons with other measures related to attitudes, personality traits and workplace deviant behaviours. The study explores empirically some of the factors implicated in job candidates' decision to behave dishonestly during the selection process. However, the study's primary goal was to validate a measure of job application dishonesty, in contrast to the prediction of behaviours.

The theoretical underpinning of Henle et al.'s (2019) measure of job application dishonesty stems from the literature on interview dishonesty. Since interview dishonesty and job application dishonesty share important conceptual similarities, the findings of such studies should be relevant for this thesis. For instance, Levashina and Campion (2007, p. 1639) define interview faking as "the conscious distortions of answers to the interview questions in order to obtain a better score on the interview and/or otherwise create favourable impressions," while Henle, Dineen and Duffy's (2019, p. 88) define resume fraud as "as

the intentional misrepresentation of information on a resume in an effort to present oneself more favourably than is accurate."

Therefore, in both job applications and interviews faking, job candidates can present misleading information to gain an unconsented and unfair advantage in the selection process over the organisation and other job candidates. Furthermore, during interviews, the interviewer often examines information candidates have previously presented in their job applications. Consequently, lies in job applications should correlate with lies presented during interviews (Henle, Dineen, & Duffy, 2019). Moreover, due to the similarity and connection between job application dishonesty and interview faking, it is theoretically plausible that factors that predict interview faking might also predict job application dishonesty.

Arguably, one study does not provide enough theoretical and empirical background for developing a behavioural model of job application dishonesty. Therefore, this literature review begins with analysing and synthesising interview dishonesty research because of its similarities with job application dishonesty. This chapter also reviews studies on other forms of dishonest behaviours that share similarities to job application dishonesty. One example is the research on academic dishonesty. Academic dishonesty includes tactics such as cheating, plagiarism, and different forms of data falsification. This form of behaviour is similar to job application dishonesty since it gives the perpetrator an unfair advantage over other competitors. Studies on academic dishonesty also identify personality traits, beliefs related to dishonesty and social context as predictor factors.

Nevertheless, interview and academic dishonesty studies are often correlational; consequently, they are limited in establishing a clear causal link between theory and behaviours. Therefore, this literature review also examines a selection of experimental studies on dishonest behaviours, which helps establish a causal link between dishonest behaviours and beliefs about the behaviours and their social context. Empirical studies often manipulate variables related to participants' attitudes, normative beliefs and risk perceptions and show evidence that these factors affect participants' decision to behave dishonestly. However, the effects of experimental manipulations on participants' behaviours are not always heterogeneous. In other words, the manipulations influence the behaviours of only some of the participants. Others remain consistently honest or dishonest across experimental tasks, context and time. However, dishonesty researchers often ignore the role of dispositions in participants' decision-making and behaviours.

This consistency in patterns of behaviours of some participants might indicate that personality could be involved in individuals' decision to behave dishonestly. The results of the few studies investigating the influence of individual differences on dishonesty indicate that personality traits theoretically linked to dishonesty, such as the conscientiousness and honesty-humility traits, might also influence dishonest behaviours.

3.1.1 Aim

Job application dishonesty shares many conceptual elements with other forms of dishonest behaviours; however, the literature on the antecedents of job application dishonesty is scarce. Therefore, this chapter aims at reviewing and synthesising the literature on

dishonest behaviours into a testable job application dishonest behaviour model and focuses on investigating studies addressing what factors increase or decrease the incidence and magnitude of dishonesty behaviours.

3.1.2 Search Strategy

This literature review employed an iterative semi-structured search strategy. The search included peer-reviewed quantitative academic studies from 1960 to 2021 found in the electronic databases ScienceDirect, Web of Science, PsycInfo, PsycArticles, Business Source Premier and Jstor.

In its first iteration, the search had a bottom-up approach, which comprised querying the scholarly databases using keywords, followed by backward or forward searches on the references and citations of relevant articles. The keywords included the following words: honesty, dishonesty, cheating, theft, larceny, lying, deception, deceit, fraud, delinquency, cv, curriculum vitae, resume and application form.

The search also included different combinations of search terms based on the requirements or limitations of each database. The search strategy for PsycArticles was for example: job application “OR” resume “OR” curriculum vitae “OR” application form “OR” interview “OR” honesty “OR” dishonesty “OR” lying “OR” cheating “OR” theft “OR” deceit “OR” deception “OR” fraud “OR” delinquency.

3.1.3 Selection Criteria

With the relevant studies identified, the selection process began with examining titles and abstracts to ensure the inclusion of studies related to the main topic, which investigated behaviours similar to job application dishonesty or fit the technical definition of dishonesty. For example, in this thesis, dishonesty is defined as an act within a social interaction in which an agent (i.e., an individual or group of people) voluntary and intentionally uses socially proscribed tactics (i.e., covert acts, deception or coercion) to gain an unconsented advantage in detriment of another party (i.e., a person or group of people). In turn, Job application dishonesty occurs when job candidates dishonestly add false information to their job applications. Therefore, this review selected studies that investigated behaviours that fit its technical definition.

Since this thesis focuses on developing a behavioural model of dishonesty, it excluded studies investigating intentions instead of behaviours. The literature search also focused on examining studies investigating factors that increase or decrease the incidence and magnitude of dishonest behaviours. The review only included studies that generated empirical data, investigated antecedents or deterrence of dishonesty and had dishonest behaviours as a criterion or dependent variable. However, the review also included qualitative texts when they provided a theoretical background to explain the behaviours of interest in this thesis.

Finally, during the study selection stage, preference was given to journals with a high reputation; but studies were also included if they met the other selection criteria, and after a

critical analysis showed that they could contribute theoretically or methodologically to the aims of this thesis.

3.1.4 Analysis

The first step in the analysis consisted of examining how well the conceptualisation of the behaviour of interest in each study compared to the technical definition of dishonesty in this thesis. The next step included an evaluation of the studies' potential contribution to this thesis. For example, the analysis included assessing the main methodological and theoretical approaches on how successful they explained and predicted dishonesty.

Then a secondary search and analysis iteration was conducted, focusing on identifying established theories that complemented the theoretical background of the individual studies. The analysis of the studies was supplemented with references to academic texts and articles that further elucidate the appropriateness of the theories to explain Job Application Dishonesty.

3.1.5 Chapter Organization

This chapter's introduction included a statement of the literature review aim, the selection criteria for the different texts, including research studies, and a description of the strategy for analysing the literature texts. The chapter also contains two sections focusing on studies related to job application dishonesty and dishonest behaviours in general.

The first section reviews, primarily, studies on predictors of job application dishonesty and interview dishonesty. It contains sub-sections related to personality traits, social-cognitive

factors such as attitudes, perceptions of norms, behavioural control and risk, and cultural differences in dishonesty. The second section investigates predictors of a variety of dishonest acts. Similarly to the first section, the second section examines predictors such as personality traits and social-cognitive factors. The chapter ends with a summary of the findings of the literature review.

3.2 Job Applicant Dishonesty

This section reviews studies on job application dishonesty and interview faking. Job applications and interviews share essential similarities. For instance, during a job application and interview, candidates present similar information about their qualifications. Moreover, after interviewers examine job applications, they might request that job candidates re-state the job application information during the interview. Therefore, when candidates lie on their job applications, they will probably present similar lies during the interview (Henle, Dineen, & Duffy, 2019); otherwise, an observant interviewer will likely uncover discrepancies in a candidate's job application.

Nevertheless, job application dishonesty and interview dishonesty also have differences worth noting. Differences relate to the context and to the medium in which candidates can present their information. For instance, a job interview typically precedes the hiring decision, while a job application often occurs at the very start of the selection process. Furthermore, job candidates present information verbally during job interviews while job applications contain written statements about a candidate's qualification, which has a relatively fixed format across this form of document.

Interviews also differ from job applications on the extent of participant's informational control. For example, interviews contain an asymmetric verbal interaction between candidates and interviewers. In other words, during interviews, the interviewer has greater control over what information the job candidate can present. Interviews also allow interviewers to scrutinise the truthfulness of different statements while the candidate is present.

In contrast, the verbal nature of the interaction during interviews gives job candidates considerable freedom in how they will present this information, while job applications usually follow relatively standard written formats. Consequently, the success of an interview might depend on the candidates' verbal skills and cognitive ability. Alternatively, a successful job application might only depend on how well its information matches the job description.

Still, despite the differences between job applications and interviews, factors involved specifically in the decision to lie on a job application should indirectly affect the decision to lie on a job interview. For example, Henle, Dineen and Duffy's (2019) study results indicate that job application dishonesty correlates moderately with interview dishonesty.

Therefore, since job application and interview lies are interlinked, factors involved in job applications' decision to lie on a job application might also influence the decision to lie during a job interview. The authors also identified factors associated with job application and interview dishonesty including Machiavellianism, Social Desirability, Moral Identity and Counter-Productive Work Behaviours.

This literature also examined a series of studies that investigate interview dishonesty using Levashina and Campion's (2007) measure of interview faking. Factors often associated with interview dishonesty include the personality traits Conscientiousness Honesty-Humility, The Dark Triad, Social Desirability, as well as social-cognitive factors related to Attitudes, Social Norms, Behavioural Control and Competitive World View.

3.2.1 Personality and Job Application Dishonesty

Personality psychologists theorise the existence of personality traits that dispose individuals to manifest stable patterns of behaviours (Ajzen, 2005). Personality traits not only describe and differentiate individuals (Mischel, 1968), but they also influence a series of behaviours relevant to that specific trait (Ajzen, 2005). Researchers also hypothesise that personality traits are part of motivational systems with particular goals which influence appropriate behaviours across different situations (MacDonald, 1995) and over time (Chaplin, John, & Goldberg, 1988). This section investigates research containing job application and interview dishonesty measures and examines their relationship with patterns of unethical behaviours and personality traits.

3.2.1.1 Behavioural Consistency between Job Application Dishonesty and Interview Faking

Levashina and Campion's (2007) developed the Interview Faking Behaviour (IFB) scale and identified four main factors related to interview dishonesty. Two factors of the Interview Faking Behaviour (IFB) scale conceptually resemble the definition of dishonesty

in this thesis. They also correspond to behaviours that can occur in both interview faking and job application dishonesty (Henle, Dineen, & Duffy, 2019).

The first of these dishonest factors is Extensive Image Creation which measures behaviours related to lying and deception (e.g., "I claimed that I have skills that I do not have"). The second dishonest factor, termed Slight Image Creation, relates to different forms of embellishment, which the authors conceptualise as a mild form of dishonesty (e.g., "I exaggerated my responsibilities on my previous jobs"). The remaining two factors are Deceptive Ingratiation (e.g., "I tried to show that I shared the interviewer's views and ideas even if I did not") and Image Protection (e.g., "When asked directly, I did not mention some problems that I had in past jobs").

While Extensive Image Creation and Slight Image Creation closely resemble lying and embellishing in job applications, Image Protection contain items related omissions that can occur when job candidates write their job applications (e.g., "I tried to avoid discussing my lack of skills or experiences"). In turn, Deceptive Ingratiation contain items not directly applicable to job application dishonesty since they refer to attempts to influence the interviewers' perceptions during the interview.

Henle et al.'s (2019) developed a measure of job application dishonesty (i.e., Resume Fraud) containing three factors with elements that resemble Levashina and Campion's (2007) factors related to interview faking: fabrication, embellishment and omission. Two factors (i.e., Fabrication and Embellishment) contain items conceptually compatible with Levashina and Campion's (2007) factors, Extensive Image Creation and Slight Image Creation, respectively. Fabrication (e.g., "Listed knowledge or skills you do not possess")

refers to straightforward lies. At the same time, embellishments (e.g., "Exaggerated your responsibilities on previous jobs or your current one") and Omissions (e.g., "Left information off that might hurt your chances of getting a job") are mild forms of untruths.

Henle et al.'s (2019) also operationalised the Interview Faking Behaviour (IFB) measure adding only the items that corresponded conceptually to their measure of Resume Fraud (RF) and renamed the measures into IFB inventing, IFB embellishing, and IFB omitting. The authors then examined whether reported interview faking predicted reported job application dishonesty and measures of reported job application dishonesty correlated positively with measures of reported interview faking.

In one study (Study 3), Henle et al.'s (2019) investigated the relations between their measure of resume fraud and the compatible Levashina and Campion's (2007) Interview Faking Behaviour (IFB) measure with 176 university students who were either employed or job seekers. The results show strong positive relationships between IFB inventing and RF Fabrication ($r = .64$, $p < .01$), IFB embellishing and RF embellishing ($r = .61$, $p < .01$) and a moderate positive relationship between IFB omitting and RF Omitting ($r = .54$, $p < .01$).

Henle et al.'s (2019) study 4 replicates the findings of study 3, this time sampling 262 working adults. The results show strong positive relationships between IFB inventing and RF Inventing ($r = .78$, $p < .01$), IFB embellishing and RF embellishing ($r = .85$, $p < .01$) and between IFB omitting and RF Omitting ($r = .71$, $p < .01$). Therefore, the results of Study 3 and Study 4 indicate that those job applicants who lie on their job applications are more likely to lie during interviews compared to honest job applicants.

3.2.1.1.1 Job Application Dishonesty and CWBs

Henle et al.'s (2019) also examined the relationship between Resume Fraud (RF), Interview Faking Behaviour (IFB) and a measure of counterproductive work behaviours (Bennett & Robinson, 2000) as a dependent variable in Study 4. Counterproductive work behaviours refer to different forms of workplace deviant behaviours, including organisational deviance (e.g., "Taken property from work without permission") and interpersonal deviance (e.g., "acted rudely toward or argued with someone at work").

The results show that Organisational Deviance correlates positively with IFB inventing ($r = .50$, $p < .01$), IFB embellishing ($r = .44$, $p < .01$), IFB omitting ($r = .49$, $p < .01$), RF inventing ($r = .55$, $p < .01$), RF embellishing ($r = .46$, $p < .01$) and RF omitting ($r = .40$, $p < .01$). Moreover, the results also show that Interpersonal Deviance associates positively with IFB inventing ($r = .52$, $p < .01$), IFB embellishing ($r = .43$, $p < .01$), IFB omitting ($r = .46$, $p < .01$), RF Fabrication ($r = .63$, $p < .01$), RF embellishing ($r = .46$, $p < .01$) and RF omitting ($r = .37$, $p < .01$).

The authors further analysed the data using multiple regressions, with three factors of Resume Fraud (RF) and three factors of Interview Faking Behaviour (IFB) as predictors and two factors of counterproductive work behaviours as independent variables (i.e., Organisational Deviance and Interpersonal Deviance). The results show that only Fabrication (RF) ($\beta = .40$, $p < .01$) and IFB omitting ($\beta = .24$, $p < .05$) remained significant when predicting Organizational Deviance, and that only Fabrication (RF) remained significant when predicting Interpersonal Deviance ($\beta = .40$, $p < .01$).

The measure of Fabrication (RF) closely resembles the concept of dishonesty since it includes job candidates' intentional additions of false information. The results of Henle et al.'s study indicate that those job applicants who fabricate information (i.e., add straightforward lies) in their job applications are more likely to behave in a deviant manner once they become employees. Therefore, serious deviant behaviours show consistency across different domains of organisational functioning.

3.2.1.2 Conscientiousness

Job application dishonesty shares close conceptual similarities with Interview Faking. Therefore, the dishonest behaviour of job candidates in their job applications should correlate with the extent of dishonesty they display during interviews. Furthermore, if personality traits influence dishonest behaviours, measures of traits theoretically linked to dishonesty should associate with both job application dishonesty and interview dishonesty.

The results of experimental studies in dishonesty show that many individuals behave consistently honestly, while others behave dishonestly across situations and time despite changes in levels of rewards (Gerlach, Teodorescu, & Hertwig, 2019). Consequently, it is plausible to infer that traits modulate levels of dishonesty among individuals. However, experimental studies rarely measure personality traits and evidence of the influence of personality traits often comes from correlational studies. For example, the literature shows that Conscientiousness is a trait commonly associated with different forms of dishonest behaviours (Giluk & Postlethwaite, 2015).

The personality trait Conscientiousness contains facets linked theoretically to the decision to lie on job applications and interviews. For instance, Conscientiousness negatively correlates with risk-taking behaviours (Fiddick, et al., 2016; Kennison & Messer, 2017). Since dishonest behaviours are intrinsically risky, it is theoretically plausible that they should negatively correlate with measures of Conscientiousness.

Furthermore, measures of Conscientiousness contain facets that relate positively with different forms of achievement (e.g., Competence and Self-Discipline). Lies on job applications and interviews depend on credentials that job candidates do not possess. Individuals high on Conscientiousness are more likely to be higher achievers academically (Schneider & Preckel, 2017; Wingate & Tomes, 2017), including highly selective and competitive settings (Chamorro-Premuzic & Furnham, 2003), and occupationally success (Spengler, Lüdtke, Martin, & Brunner, 2014). Therefore, compared to individuals low in Conscientiousness, those high in this trait should be less likely to use dishonesty to succeed in a selection process since they are under less pressure to meet job requirements.

Roulin and Krings (2016) examined the role of different facets of the conscientiousness trait in predicting interview faking in a sample of 413 job applicants who participated in at least one employment interview 12 months prior to their participation in the study and resided in four different European countries (i.e., Germany, Switzerland, Spain and Greece). The authors measured the separate facets (i.e., Competence, Dutifulness, Achievement striving and Self-discipline) from the NEO-PI-R Conscientiousness scale (Costa & McCrae, 1992). The authors measured Interview Faking using two factors from

Levashina and Campion's (2007) Interview Faking Behaviour (IFB) measure (i.e., Extensive Image creation, Slight Image Creation), combining them into a single measure.

The results showed a statistically significant negative relationship between Interview Faking and the NEO-PI-R Conscientiousness facets Competence ($r = -.36$, $p < .01$) Order ($r = -.29$, $p < .01$), Dutifulness ($r = -.35$, $p < .01$), Achievement striving ($r = -.24$, $p < .01$) and Self-discipline ($r = -.30$, $p < .01$). Although the facet Deliberation did not correlate significantly with Interview Faking, the remaining items that compose the measure of Conscientiousness negatively correlated with interview dishonesty.

Roulin and Bourdage (2017) conducted a study with 80 senior business students from a Canadian university who were interviewing to obtain a three-month-long job placement with local organizations. The study measured participants' Conscientiousness Trait with Costa and McCrae's (1992) NEO-PI Inventory and Interview Faking using three factors from Levashina and Campion's (2007) Interview Faking Behaviour (IFB) measure (i.e., Extensive Image creation, Slight Image Creation, Image Protection and Deceptive Ingratiation) after students participated in their interviews.

The results showed a statistically significant negative relationship between Conscientiousness and Extensive Image Creation ($r = -.34$, $p < .01$), Slight Image Creation ($r = -.31$, $p < .01$) and Image Protection ($r = -.20$, $p < .05$). The relationship between Conscientiousness and Ingratiation was not significant ($r = -.18$, $p > .05$), but it was in the hypothesised direction. The lack of a significant relationship between Conscientiousness and Ingratiation makes sense since Ingratiation is a construct that does not refer to

participants presenting qualifications that they do not possess. In turn, the construct refers to attempts to influence the interviewers' perceptions during the interview.

Bourdage, Roulin and Tarraf (2018) conducted a study in which job-seeking students participated in 45-minute interviews for different hiring companies. After the interviews, participants completed a questionnaire that included Levashina and Campion's (2007) Interview Faking Behaviour (IFB) measure and Costa and McCrae's (1992) NEO-PI inventory. The results show that Conscientiousness was negatively related to three of the four deceptive IM behaviours, including Slight Image Creation ($r = -.18$, $p < .01$), Extensive Image Creation ($r = -.35$, $p<0.01$), and Image Protection ($r = -.19$, $p < .01$).

Alternatively, Buehl and Melchers (2017) found that Conscientiousness did not correlate significantly with IFB Interview Faking ($r = -.04$, $p > 0.05$). The study recruited 222 students from a German university who completed a short version of the Big Five Inventory (Rammstedt and John, 2005). However, a large proportion of the participants did not hold a job position and were not job seekers (36%). Although the authors conducted a chi-square test of the correlation matrix to determine significant differences in responses between working and non-working participants, the substantial number of non-working participants might have influenced the results.

The study does not provide information on whether non-working participants have ever participated in job interviews. Moreover, the short version of the BFI contains only two items for each trait, while the complete BFI contains nine items for the trait Conscientiousness instead. Consequently, the small number of items might have affected the validity and reliability of the results.

3.2.1.3 Honesty-Humility Trait

The HEXACO is a personality inventory similar to other Five-Factor personality models but contains an additional trait called Honesty-Humility. The Honesty-Humility trait measures individual differences in peoples' sincerity, fairness, greed avoidance, and modesty which predicts different forms of dishonest behaviours (Ashton & Lee, 2008). The Honesty-humility trait commonly associates with different forms of dishonest behaviours (Heck, Thielmann, Moshagen, & Hilbig, 2018), including interview faking.

For example, when measuring the relationship between Honesty-humility and IFB Interview faking, Buehl and Melchers (2017) used the total measure of the Honesty-humility scale. The authors also reported results with each facet of the Honesty-humility scale and the complete single measure. In this study, the authors also measured Levashina and Campion's (2007) interview faking measure as a single factor and do not include in their report results related to the measure's subfactors. The results show a significant negative relationship between the main factor of IFB Interview faking and the facets sincerity (r = -.38), fairness (r= -.45) and greed avoidance (r = -.35), modesty (r= -.41). The relationship between IFB Interview faking and the complete Honesty-Humility factor was high (r = - .71).

However, Buehl and Melchers's (2017) study contains important limitations. For instance, since a considerable proportion of the sample were students with no working experience, it is possible that participants were reporting intentions to lie instead of their actual behaviour. The authors also state that the relationships remained unchanged even after they

were included in a moderation analysis which contained other control variables. Nevertheless, the authors only mentioned but did not report these results.

Alternatively, Roulin and Bourdage (2017) examined the relationship between the complete measure of the Honesty-Humility trait and Interview Faking using all factors from Levashina and Campion's (2007) Interview Faking Behaviour (IFB) measure (i.e. Extensive Image creation, Slight Image Creation, Image Protection and Deceptive Ingratiation) using a sample of 80 senior business students completing a total of 448 real job interviews. Participants completed the individual difference measures two weeks before the interviews, and the Interview Faking Behaviour (IFB) measure the day after each interview.

The results showed a statistically significant negative relationship between a complete measure of Honesty-Humility and the Interview Faking subfactors Extensive Image Creation ($r = -.25$, $p < .05$), Slight Image Creation ($r = -.39$, $p < .01$), Ingratiation ($r = -.36$, $p < .01$) and Image Protection ($r = -.30$, $p > .01$).

Similarly, Bourdage, Roulin and Tarraf (2018) examined the relationship between the Honesty-humility and interview dishonesty using all factors from Levashina and Campion's (2007) Interview Faking Behaviour (IFB) measure (i.e., Extensive Image creation, Slight Image Creation, Image Protection and Deceptive Ingratiation). The sample contained 224 senior business students who participated in mock interviews, but professional interviewers from different organisations conducted the interviews. The results show that Honesty-Humility was negatively correlated with all four types of

deceptive IM, including Slight Image Creation (r = -.19, p < .01), Extensive Image Creation (r = -.20, p < .01), Image Protection (r = -.15, p < .05), and Ingratiation (r=-.25, p < .01). Although the effect sizes were small, the results indicate that participants are dishonest even with no material gain and that the personality trait Honesty-Humility is predictive of such behaviours.

3.2.1.4 Integrity

The Honesty-humility trait correlates with different measures of integrity (Marcus, Lee, & Ashton, 2007). Instead of using a measure of honesty from the Hexaco personality inventory (Ashton & Lee, 2008), Levashina and Campion (2007) conducted a study (Study 4) investigating the relationship between the Honesty Scale (Scott, 1965) and a measure of Interview faking, including its subfactors. The study had a sample of 156 undergraduate students who were employed or job seekers. Participants completed all measures at the beginning of the 16-week semester, except for the IFB scale, which they completed at the end of that semester.

The results showed negative relationships between the measure of Honesty and Extensive Image Creation (r = -.36 p < .0001), Slight Image Creation (r = -.35, p < .0001), Ingratiation (r = - 0.27, p < .001), Image Protection (r = -.31, p < .0001) and a complete measure of interview faking composed of all four factors (r = -.39 p < .0001).

3.2.1.4.1 Dark Triad

The Dark Triad measures personality traits associated with callous and manipulative behavioural patterns (Paulhus & Williams, 2002). The measure consists of three overlapping but conceptually distinct traits (Furnham, Richards, & Paulhus, 2013). The first trait, Psychopathy, is exemplified by high levels of impulsivity, thrill-seeking and low levels of empathy (Lilienfeld & Andrews, 1996). The second trait, Machiavellianism, contains items related to the manipulation and exploitation of others. Finally, the third trait, Narcissism, refers to items expressing feelings of grandiosity, entitlement, dominance, and superiority (Paulhus & Williams, 2002).

Research indicates that individuals high in the Dark-Triad are more likely to behave dishonestly (Jones & Paulhus, 2017) and in a deviant manner (Ellen III, Alexander, Mackey, McAllister, & Carson, 2021). Furthermore, the separate Dark Triad measures correlate negatively and strongly with the HEXACO Honesty-Humility factor (Lee & Ashton, 2005). The relationships make logical sense since the Dark Triad traits contain items theoretically opposed to the definitional construct behind the Honesty-Humility trait, which comprises characteristics related to sincerity, fairness, greed avoidance, and modesty (Ashton & Lee, 2008).

Roulin and Bourdage (2017) examined the relationship between the three factors of the Dark Triad (i.e., Psychopathy Machiavellianism and Narcissism) and Interview Faking. The results show positive significant relationships between Psychopathy and Extensive Image Creation ($r = .30$, $p < .01$), Slight Image Creation ($r = .37$, $p < .01$); however,

despite being in the hypothesised direction, the associations of Psychopathy with Image Protection ($r = .15$, $p > .05$) and Ingratiation were not significant ($r = .09$, $p > .05$).

Machiavellianism associated negatively Extensive Image Creation ($r = .31$, $p < .01$), Slight Image Creation ($r = .43$, $p < .01$) and Image Protection ($r = .17$, $p < .05$); however, the association with Ingratiation was not significant ($r = .17$, $p > .05$). Finally, Narcissism only associated significantly with Slight Image Creation ($r = .26$, $p < .05$). The associations between Narcissism and Extensive Image Creation ($r = .23$, $p > .05$), Image Protection ($r = .23$, $p > .05$) and Ingratiation ($r = .17$, $p > .05$) were not significant, despite being in the hypothesised directions.

3.2.1.4.1.1 Machiavelianism

Despite being in the hypothesised direction, the non-significant association between Machiavellianism and Ingratiation in Roulin and Bourdage's (2017) study is counter-intuitive since Machiavellianism refers to a tendency to manipulate others. One of the reasons my related to the measure the authors used which are not as extensive as other measures of the same trait. Second, the interviews had consequences as the outcomes could lead to job placement offers to the top candidates. Therefore, participants might attempt to present a social-desirable image to the interviewers.

Alternatively, Levashina and Campion (2007) conducted a study (Study 4) investigating the relationship between Machiavellianism (Allsopp, Eysenck, & Eysenck, 1991) and a measure of Interview faking, including its subfactors. The study had a sample of 156 undergraduate students who were employed or job seekers. Participants completed all

measures except for the IFB scale at the beginning of the 16-week semester, and the IFB scale was completed at the end of that semester. Therefore, the study contained a research setting, as opposed to a job selection one.

Differently from Roulin and Bourdage' (2017) study, the results showed negative relationships between Machiavellianism and Extensive Image Creation ($r = .23$ $p < .01$), Slight Image Creation ($r = .33$, $p < .0001$), Ingratiation ($r = .40$, $p < .001$), Image Protection ($r = .35$, $p < .0001$) and a measure of faking composed of all four factors ($r = .38$ $p < .0001$). Therefore, Machiavellianism associated positively with all the criterion variables.

Furthermore, in two separate studies (Study 3 and study 4), Henle et al. (2019) investigated the relations between Machiavellianism using the MACH IV scale (Christie & Geis, 1970) and their own measure of resume fraud, containing the factors Resume Fraud (RF) Fabrication, embellishing and Omitting, as well as a reworked measure of Levashina and Campion's (2007) Interview Faking Behaviour (IFB) containing equivalent factors and items.

In Study 3, participants were 176 university students who were either employed or jobseekers, while Study 4 had a sample of 262 working adults. Testing the relationships with different samples, first with students and then with adult workers, is important since students having less experience with interviews may report dishonest intentions instead of actual behaviours. First, the Results of Study 3 shows that Machiavellianism correlated positively with IFB Inventing ($r = .29$, $p < .01$), IFB Embellishing ($r = .27$, $p < .01$) and

IFB Omitting (r = -.18, p < .05). The results also showed moderate relationships between Machiavellianism and RF Fabrication (r = .16, p < .05), RF embellishing (r = .25, p < .01) and RF Omitting (r = .23, p < .01).

Second, the results of Study 4 shows similar results to Study 3. In study 4, Machiavellianism correlated positively with IFB Inventing (r = .25, p < .01), IFB embellishing (r = .27, p < .01) and IFB Omitting (r = .30, p < .05). The results also showed moderate relationships between Machiavelianism and RF Fabrication (r = .20, p < .05), RF embellishing (r = .21, p < .01) and RF Omitting (r = .23, p < .01). Therefore, Machiavellianism associated positively will all the measures in a similar way between samples with students and adult workers.

3.2.1.5 Moral Identity

Moral identity refers to people's levels of moral development and moral reasoning. For example, individuals high in moral identity view morality as an essential feature of their identity. Furthermore, differences in Moral Identity relate to judgments of the rectitude of different acts, which, in turn, might influence the tendency to behave ethically (Hardy & Carlo, 2011). For example, moral identity correlates positively with prosocial behaviours, such as volunteering and donating to food banks (Aquino & Reed, 2002) and negatively related to antisocial behaviours, such as cheating, lying, and stealing (Moore, 2012).

Therefore, Moral Identity shares conceptual similarities to the Honesty-humility trait. While the moral identity construct captures a form of ethical information processing system, it also shares similarities to an honesty personality trait since it associates with

moral behaviour tendencies. In turn, the construct behind the Honesty-Humility trait captures individuals' views related to their sincerity, fairness, greed avoidance, and modesty (Ashton & Lee, 2008), which are forms of moral reasoning moral identity. Furthermore, similarly to the Honesty-humility trait, Moral Identity predicts unethical behaviours, including interview dishonesty.

For instance, in two studies (Study 3 and 4) Henle et al.'s (2019) investigated the relations between Moral identity and their measure of resume fraud, as well as Levashina and Campion's (2007) Interview Faking Behaviour (IFB). The results of study 3, with 176 student participants, show that Moral Identity correlates negatively with the Interview Faking Behaviours (IFB) factors Inventing ($r = -.25$, $p < .01$), Embellishing ($r = -.18$, $p < .01$) and Omitting ($r = -.24$, $p < .01$). The results also show negative relationships between Moral Identity and Resume Fraud (RF) Fabrication ($r = -.21$, $p < .01$), Embellishing ($r = -.20$, $p < .01$) and Omitting ($r = -.21$, $p < .01$).

Similarly, in Henle et al.'s Study 4, which had a sample of 262 working adult participants, Moral Identity negatively correlated with IFB Inventing ($r = -.25$, $p < .01$), IFB embellishing ($r = -.18$, $p < .01$) and RF Omitting ($r = -.24$, $p < .01$). Moral Identity also negatively correlated with RF Fabrication ($r = -.33$, $p < .01$), RF embellishing ($r = -.21$, $p < .01$) and RF Omitting ($r = -.17$, $p < .01$).

3.2.1.6 Social Desirability

Self-report studies ask participants to provide information about their opinions and behaviours. Some of the questions in self-report questionnaires might request answers that

participants find socially unacceptable; therefore, participants might give distorted answers, which presents a more positive, despite inaccurate, image of themselves (Mabe III & West, 1982).

Researchers often identify distortions when they request participants to answer similar measures in research contexts, which provide participants with anonymity and low stakes, and situations in which the results of the measurements might have consequences to the participants, such as in job selection contexts. They use the term Faking to refer to the differences in scores between self-report measures that participants complete in these different contexts (Griffith & Peterson, 2008).

Since measuring Faking requires that researchers measure the same instrument multiple times in different contexts, the use of the measure is often not practical. Attempts to mitigate inaccuracies on the participants occur with the use of social desirability scales. In principle, social desirability scales should correlate strongly and positively with measures of Faking. Therefore, if researchers add a measure of social desirability to their studies, and the results indicate that some participants have high scores, researchers should conclude that the measure of social desirability is detecting, by proxy, participants who might be providing fake responses to the other measures.

However, in Griffith and Peterson's (2008) study on the capacity of social desirability scales to capture faking behaviour, social desirability measures failed to correlate with measures of Faking. Consequently, the use of social desirability scales to detect faking participants is questionable. Griffith and Peterson (2008) argue, instead, that through an

examination of the substantive content of social desirability items, one may conclude that they reflect high levels of conscientiousness or integrity. Therefore, instead of capturing participants' faking behaviour, social desirability scales might be measuring personality traits.

For example, studies show that social desirability responding correlates with personality traits related to honesty. Ones, Viswesvaran and Reiss (1996) conducted a meta-analysis of social desirability studies and concluded that social desirability is related to individual differences in emotional stability and conscientiousness. De Vries, Zettler and Hilbig (2014) also examined the claim that most social desirability scales seem to measure personality traits. The authors found that in both self-ratings and other-rating studies using the Balanced Inventory of Desirable Responding (BIDR) questionnaire, the most important predictors of Self-Deceptive Enhancement (SDE) were (low) Emotionality, Extraversion, and Conscientiousness. At the same time, Impression Management (IM) is associated positively with Conscientiousness, Agreeableness, and Honesty-humility. However, Honesty-humility was the most important predictor.

Additionally, Zettler, Hilbig, Moshagen, and De Vries (2015) tested the hypothesis that scores on impression management correlate positively with honesty. The authors used a measure of impression management which is part of a social desirability inventory called the Balanced Inventory of Desirable Responding. The results show that impression management scores correlated positively with trait Honesty-humility and that the measure also predicted actual cheating behaviour in an experimental cheating task. Therefore, the

authors concluded that high Impression Management scores might reflect honesty and true virtue, and not faking behaviour.

Social desirability scales also predict interview dishonesty. Levashina and Campion (2007) conducted a study (Study 4) investigating the relationship between interview dishonesty and two measures of social desirability, namely, The Marlowe-Crowne Social Desirability Scale (Reynolds, 1982) and BIDR-7 (Balanced Inventory of Desirable Responding). The study had a sample of 156 undergraduate students who were either employed or job seeking. Participants completed all the predictive measures at the beginning of their university's 16-week semester and then the Interview Faking Behaviour (IFB) questionnaire at the end of that semester.

The results showed negative relationships between Marlowe-Crowne Social Desirability Scale and Extensive Image Creation (r= -.18, $p < .05$), Slight Image Creation (r = -.29, $p < .001$), Ingratiation (r = -.23, $p < .01$), Image Protection (r =-.26, $p < .001$) and a complete measure of faking composed of all four factors (r = -.29 $p < .001$), meaning that participants low in social desirability were more likely to be dishonest in interviews than those high in this trait.

However, the results of the analysis including BIDR-7 were in the opposite direction meaning that people high in social desirability were more likely to be dishonest. The results showed positive relationships between BIDR-7 and Slight Image Creation (r = .27, $p < .001$), Ingratiation (r = .31, $p < .0001$), Image Protection (r =.19, $p < .05$) and a measure of faking composed of all four factors (r = .27 $p < .001$).

Paulhus's (1984) study shows that subfactors within BIDR positively relate with Marlowe-Crowne Social Desirability Scale with correlations ranging from r = 40 to 49. Therefore, Levashina and Campion's (2007) findings are counterintuitive since the two measures correlate with Interview faking in different directions in their study. However, the authors do not report the correlation between the Marlowe-Crowne Social Desirability Scale and the BIDR-7 scale. Therefore, comparisons between the measures in this study are not possible.

Henle et al.'s (2019) also investigated the relations between the Marlowe-Crowne Social Desirability Scale (Reynolds, 1982) and their measure of resume fraud, as well as Levashina and Campion's (2007) Interview Faking Behaviour (IFB) in Study 3 and Study 4. The results of Henle et al.'s (2019) are similar to Levashina and Campion's (2007) results on the relationship between the Marlowe-Crowne Social Desirability Scale and Interview Faking Behaviour (IFB).

The results of Study 3 results showed negative relationships between Marlowe-Crowne Social Desirability Scale and IFB Inventing (r = -.26, p < .01), IFB embellishing (r = -.29, p < .01) and RF Omitting (p = -.23, p < .01). The results showed negative relationships between Social Desirability and RF Fabrication (r = -.15, p < .05), RF embellishing (r = -.25, p < .01) and RF Omitting (r = -.07, p > .05).

Henle et al.'s Study 4 show similar results. The results show negative relationships between Social Desirability and IFB Inventing (r = -.16, p < .01), IFB embellishing (r = -.21, p < .01) and RF Omitting (r = -.27, p < .01). Similarly, the results show negative relationships between Social Desirability and RF Fabrication (r = -.15, p < .05), RF

embellishing (r = -.25, p < .01). However, the relationship between social desirability and RF Omitting was not significant (r = -.07, p > .05). Therefore, people low in social desirability are more likely to be dishonest during interviews and job applications, at least when the social desirability measure is the between Marlowe-Crowne Social Desirability Scale.

3.2.1.7 Competitive World View

The Competitive worldviews (CWs) measure is composed of items related to Right-Wing Authoritarianism, Social Dominance Orientation, and items relating to a view that the social world is a dangerous competitive jungle. Therefore, Competitive worldviews (CWs) measures two factors. The first factor is termed The Dangerous and Threatening Social Worldview and relates to the view that the social world is a dangerous and threatening place. The second factor, termed Competitive Jungle Social World, which appears in the studies in this review, is a measure of the extent to which people believe the social world constitute an environment in which individuals struggle and compete for resources in a ruthless and amoral manner, in contrast to a place where individuals cooperate, care and help for each other (Duckitt, Wagner, du Plessis, & Birum, 2002).

Although the measure Competitive Jungle Social World, is described as representing a view of the social world (e.g., My knowledge and experience tell me that the social world we live in is basically a competitive "jungle" in which the fittest survive and succeed, in which power, wealth, and winning are everything, and might is right), the other items appear to represent individuals' self-view as moral individuals.

Furthermore, some of the items (e.g., "It is much more important in life to have integrity in your dealings with others than to have money and power;" "There is really no such thing as "right" and "wrong. It all boils down to what you can get away with;" " Money, wealth and luxury are what really counts in life;" " All in all, it is better to be humble and honest than important and dishonest.") resemble the labels of facets within Honesty-humility trait (i.e., Sincerity, Fairness, Greed Avoidance and Modesty). Indeed, Leone, Desimoni, and Chirumbolo (2012) found in a study with 297 participants that the Competitive Jungle Social World measurewas strongly negatively associated with Honesty–humility (r = -.59, p < .01).

Competitive Jungle Social World also correlates positively with interview dishonesty. For example, Roulin and Krings (2016) conducted a study (Study 1) with 413 respondents who had participated in at least one employment interview in the 12 months prior to the study. The results show that Competitive Jungle Social World correlated positively with Laveshina and Campion's (2007) interview faking measure (r = .46, p < .01). After conducting a multiple regression analysis, the authors found that Competitive Jungle Social World remained significant above and beyond the Conscientiousness facets (b = 52.18, SE = .08, p <.001).

Roulin and Bourdage (2017) conducted a study with 80 senior business students from a Canadian university who were interviewing to obtain a three-month-long job placement with local organizations which examined the relationship between the Competitive Jungle Social World and the four factors of Laveshina and Campion's (2007) Interview Faking measure. The results show that competitive worldviews positively correlated with all four

deceptive interview faking measures, including Extensive Image Creation ($r = .18$, $p < .01$), Slight Image Creation ($r = .16$, $p < .05$), and Deceptive Ingratiation ($r = .17$, $p < .05$), and Image Protection ($r = .20$, $p < .01$).

3.2.1.8 Section Summary

Job application and interview dishonesty occur at different stages of the selection process; however, they share many similarities since misrepresentations in job application might resurface when job candidates participate in interviews. One reason job candidates are consistent in their dishonesty is the need to align their statements throughout the selection process; otherwise, the hiring organisation might uncover their deception. However, the consistency of misrepresentations during the job application and interview processes might also result from an underlying stable pattern of honesty-dishonesty behaviour that extends to different domains related to unethicality. For example, individuals who misrepresent their information during job selection are also likely to display deviant actions in the form of counterproductive work behaviours once they are part of an organisation. Therefore, it is plausible to assume that a personality trait related to dishonesty influences unethical behaviours before and after individuals join the workforce of an organisation.

This section examined studies that investigated the influence of different personality traits that might influence the dishonest behaviours of job candidates during the selection process. The literature shows that a variety of measures of personality are implicated in job selection dishonesty. They come from different theoretical lines, including the lexical hypothesis (e.g., Conscientiousness and Honesty-Humility), psychiatry (e.g., The Dark

Triad) and Social Psychology (e.g., Social Desirability). However, conceptually most of these measures seem to tap into a latent moral conscience which might be subsumed into the personality trait Honesty-Humility. The main exception is the trait Conscientiousness which, although correlated with Honesty-Humility, contains items that refer to a task-related conscience. An important limitation of studies investigating the relationship between personality traits and the dishonesty of job candidates during the selection process is the lack of multiple regression containing different personality traits as independent variables. Multiple regressions could help uncover whether theoretically different but conceptually similar personality measures contribute unique variance in the prediction of selection process dishonest behaviours.

3.2.2 Theory of Planned Behaviour

The Theory of Planned Behaviour (TPB) is a social-cognitive theory that explains intentions and behaviours through the workings of internal psychological mechanisms (Ajzen & Fishbein, 2004). These psychological mechanisms include Attitudes, Subjective Norms and Perceived Behavioural Control. Within the TPB model, Attitudes are people's evaluations of a particular behaviour, and Subjective Norms are their beliefs of the extent to which others approve or support a course of action. Finally, Perceived Behavioural Control is perceptions of real barriers to performing a particular behaviour. Therefore, the model hypothesises that these three factors combine to form a super-factor or construct related to intentions to behave, which is the key element of the model and the principal predictor of actual behavioural acts (Ajzen, 1991).

Bourdage et al. (2019) examined the role of the TPB model in participants' decision to lie during interviews (i.e., Extensive Image Formation). The study had a sample of 198 recent interviewees at the time of data collection. The study also examined whether the TPB factors predicted interview faking after controlling for personality traits, such as the Honesty-humility trait and the Big Five personality traits, and the time interval between participants' last interview and the time they participated in the study.

The results of the correlational analyses show that reported interview lies correlated positively with Attitudes ($r = .50$, $p < .01$), Subjective Norms ($r = .50$, $p < .01$), Perceived Behaviour Control ($r = .43$, $p < .01$), and Intentions ($r = .55$, $p < .01$), The results also showed that reported interview lies correlated negatively with Honesty-humility ($r = -.34$, $p < .01$), and the Big Five factors Conscientiousness ($r = -.32$, $p < .01$) and Agreeableness ($r = -.18$, $p < .05$).

Bourdage et al. also conducted a multiple regression analysis with Honesty-Humility, Conscientiousness, Attitudes, Subjective Norms and Perceived Behavioural Control as independent variables and Extensive Image Formation, which measures behaviours related to lying and deception (e.g., "I claimed that I have skills that I do not have") as dependent variables. Variables measuring time since interview, interview recall, whether participants received an offer, moved to the next stage and interview success were used as controls. The results of the analyses showed that only Honesty-Humility ($b = -.18$, $SE = .08$, $p > .05$), Attitudes ($b = .15$, SE= .07, $p = .05$) and Subjective Norms ($b = .17$, $SE = .07$, $p > .01$) significantly predicted Extensive Image Formation. However, Perceived Behaviour

Control from the Theory of Planned Behaviour Model did not predict Extensive Image Formation.

Perceived Behaviour Control refers to people's beliefs about their capacity to perform a particular behaviour, including assumptions about resources, opportunities, and other factors that facilitate or obstruct behavioural performance (Ajzen, 2002). However, perceived behaviour control can only predict real behaviours if they are under the real voluntary control of the individual (Ajzen & Madden, 1986). Therefore, intentions will only materialise into behaviours if the perceived behaviour control correlates with real behaviour control (Sheeran, Trafimow, & Armitage, 2003).

In interview situations, job candidates might have some control over the information they provide; however, the capacity of interviewers to scrutinise statements limits candidates' ability to lie. Therefore, the limited power of candidates' over real interview situations might influence the degree to which Perceived Behavioural control influences candidates' execution of the lies.

3.2.2.1 Social-Cognitive Factors

Some studies investigate variables associated with the TPB model to predict job application independently of the model. Despite not theorising that the TPB model predicts behaviours, the findings can provide evidence that the model might be useful for predicting dishonest behaviours. For example, Buehl and Melchers (2017) investigated the relationship between attitudes towards faking in interviews and interview dishonesty in a

study with 222 participants. The results show that attitudes towards faking in interviews correlated positively with interview dishonesty ($r = .58$, $p < .01$).

In contrast, Laveshina and Campion (2007) investigated the relationship between perceive social proof and interview dishonesty in a study with 156 participants. Although perceived social proof that the dishonest behaviour is common is a different concept from subjective norms, it still captures perceptions of social norms. The results showed positive relationships between perceived social norms and Extensive Image Creation ($r = .24$, $p < .01$), Slight Image Creation ($r = .20$, $p < .01$), Ingratiation ($r = .18$, $p < .05$), Image Protection ($r = .23$, $p < .01$) and a complete measure of faking composed of all four factors ($r = .26$ $p < .001$).

3.2.3 Summary

Job applications and job interviews occur at different stages of the selection process. Job applications happen at the earliest stages of the process and are formal written documents in which job candidates present their credentials to hiring organisations. After an initial evaluation of job applicants' credentials, the hiring organisation might invite pre-selected candidates for interviews. During interviews, members of the hiring organisation further scrutinise the information candidates have presented in their job applications before deciding to make a job offer. Therefore, the information job candidates present in their job applications and during interviews are interlinked. Similarly, when job candidates add false information to their job applications, they often repeat the same discrepant information during the interview.

This section reviewed studies investigating factors involved in job candidates' decision to lie in their job applications and during interviews. This review identified only one study examining dishonesty in job applications that matched its inclusion criteria. The literature also identified studies on interview dishonesty. Since job application and interview dishonesty are interconnected, the findings of interview dishonesty studies might help the development of a testable model of job application dishonesty within this thesis.

For example, the findings of Henle et al.'s (2019) suggests that job candidates who are dishonest in one situation within the job selection context (i.e., Job Application Stage) are more likely to be dishonest in a different job selection context (i.e., Interview Stage). The similarities in behaviours could be due to the interconnection between the information candidates provide during job applications and interviews. For instance, job candidates usually have to corroborate the information they provide in job applications verbally during interviews. That being the case, job application dishonesty modulates candidates' interview dishonesty since the former occurs in an earlier stage of the selection process.

Consequently, factors involved in the decision to lie in interviews might be related to the decision to lie in job applications. Overall, the combined results of the studies reviewed in this section indicate that personality traits and social-cognitive factors influence job candidates' decisions to lie during the selection process. Studies on interview faking show that personality traits theoretically linked to dishonesty, such as Conscientiousness and Honesty-humility, predict different facets of interview dishonesty. Other personality measures, such as the Dark Triad and dispositional measures, such as Moral Identity, Social Desirability and Competitive World view, also predict interview faking. The

relationship between these dispositional measures and interview faking is not surprising since they share considerable conceptual and operational similarities to the Honesty-humility trait.

However, job application dishonesty and interview faking studies usually only report simple correlational analyses. Therefore, it is not possible to evaluate the unique variance explained from each dispositional measure. One exception is Bourdage et al.'s. (2019) study which investigated the combined role of personality traits and the Theory of Planned behaviour in predicting interview faking. The result of this study indicates that only the personality trait Honesty-humility significantly predicts Extensive Image Formation, which is the factor within the interview faking inventory that most closely resembles the concept of lying.

The results of this section also show that two social-cognitive factors from the Theory of Planned Behaviour (i.e., Attitudes and Subjective Norms) predicted interview faking. However, it is important to note that Bourdage *et al.* operationalised the measure of Subjective Norms using items related to Descriptive Norms. Therefore, there is a need for more research into the role of the Theory of Planned Behaviour in predicting interview faking.

3.3 Dishonesty Studies

This section reviews studies that contain measures of factors that increase or decrease the incidence or magnitude of participants' dishonest behaviours. However, it contrasts with

the previous section, focusing on dishonesty studies other than job application dishonesty. It also includes both the review of studies with experimental and correlational designs.

Experimental studies are helpful for the development of a model of dishonesty behaviours because they contain procedures that can identify causal relationships (Kirk, 2009). Experiments compare, within a particular context, the results of a treatment given to a group of participants with the results of a control group that does not receive the treatment; therefore, the differences between the treatment group and the control group should reveal whether the treatment had a real effect (Mark & Reichardt, 2009).

However, not all scientific enquiries can be studied with experimental designs because the independent variables (e.g., personality traits) are not under their control (Kirk, 2009). Therefore, when variables are not amenable to manipulation, researchers often use correlational designs and merely assign different values to variables within a continuous scale (Mark & Reichardt, 2009). Correlational studies offer the advantage of external validity since it investigates events can be observed in their natural context.

3.3.1 Experimental Studies

Dishonesty experiments often test the rational choice theory (Gerlach, Teodorescu, & Hertwig, 2019). Economic theories such as the rational choice theory often contain normative models which state how individuals should make decisions and behave instead of how they, in reality, behave (Baron, 2008, pp. 31-32). The theory's premise is that individuals are rational in the sense that will always choose a course of action that maximises their outcomes (p. 44). Consequently, when faced with an opportunity in which

the benefits of being dishonest are higher than its costs, the theory states that individuals will always act dishonestly (Becker G. , 1968).

3.3.1.1 Dishonesty Operationalisation

Testing the rational choice theory in the lab includes giving participants opportunities and incentives to behave dishonestly in different tasks. The most common type of tasks include set ups in which participants can misreport randomly generated outcomes (e.g., coin-toss and die-under-the-cup tasks), misreport performance (e.g., mathematical matrices and work unscrambling tasks) and false-message tasks (e.g., sender-receiver tasks) for a payoff. Tasks differ in their dishonesty measures, rate of payoff and the degree with which a victim of the dishonesty is clearly identifiable.

For example, a defining characteristic of coin-toss tasks is that participants can misreport their randomly generated outcomes. The participant throws a coin in private and can report any result to the experimenter. In die-under-the-cup tasks, subjects are asked to roll a six-sided fair die under a cup or at a remote corner of the room. Then they receive a payoff according to the roll's outcome (e.g., 1, 2, 3, 4, 5 or 6 dollars for the corresponding die number rolled), which they report to the experimenter.

In tasks with randomly generated outcomes, the experimenter implies dishonesty if the aggregated reported results differ from truly randomly generated results (Hilbig & Zettler, 2015). Furthermore, the total payoffs are constant since the measure of dishonesty is dichotomous (i.e., lie/did not lie), there is no identifiable victim as the dishonesty does not

inflict a loss on another participant. (Gerlach, Teodorescu, & Hertwig, 2019). Nevertheless, it is implicit in the act that someone is overpaying the dishonest participant.

It is important to emphasise that skills or effort play no role in tasks with randomly generated outcomes, and participants can misreport results to which they have no real influence. Alternatively, in performance dependent tasks, participants can achieve a payoff dependent on their real effort or by reporting outcomes above their actual performance. In such tasks, participants are typically presented with several mathematical matrices, each containing numbers that add up to a predetermined value. Matrices vary in difficulty, some being impossible to solve. When time runs out, participants are asked to self-report on how many matrices they have solved and then get a payment accordingly (Mazar, Amir, & Ariely, 2008).

In performance tasks, the experimenter implies dishonesty if the aggregated reported results of the experimental group differ significantly from the results of a control group with no opportunity to cheat, or if participants' individual reports differ from their real performance. However, in some instances, the experimenter might have access to the true scores of the participants, which allows for a more accurate measure of dishonesty. The measure of dishonesty is continuous since the payoff increases positively according to the level of performance reported. Furthermore, dishonesty does not inflict a loss on another participant, and there is no clear identifiable victim (Gerlach, Teodorescu, & Hertwig, 2019). Therefore, in most dishonesty studies, participants interact exclusively with the experimenter, which they might or may not identify as the victim of the dishonesty.

However, false-message tasks such as the sender-receiver game include interactions between at least two participants in which one sends a deceptive message to another (Gneezy, 2005). For example, in its most common set-up, one participant (i.e., the sender) can propose one out of two courses of action to another participant (i.e., the receiver). One of the options is usually beneficial to the sender and detrimental to the receiver, while the other option has the opposite outcome; however, only the sender knows the distribution of payoffs. If the sender lies to the receiver, who subsequently accepts the deceptive course of action, the sender gets the highest payoff. The most important feature of these dishonesty tasks is to give participants the perceived opportunity to deceive another person for a payoff.

Therefore, in sender-receiver games, the experiment observes dishonesty on the individual level, the measuring scale is dichotomous, and the total payoff is constant (Gerlach, Teodorescu, & Hertwig, 2019). However, in rare cases, the measuring scale can be continuous when there are more than two options of messages for dishonesty and the reward varies depending on the message (Gneezy, Rockenbach, & Serra-Garcia, 2013). Finally, sender-receiver tasks have a clearly identifiable victim since it includes sending a false message which inflicts a loss to another participant.

3.3.1.2 Assessing Individual Differences in Experiments

Based on the Rational Choice normative premise, experimenters predict that differences in behaviours should be a function of the manipulations and not of participants' individual differences. Therefore, Rational Choice researchers expect participants to display similar

patterns of dishonest behaviours under identical incentives. Thus, dishonesty should increase or decrease according to the size of the stimulus or payoff, and these changes should be homogenous among participants. However, the results of dishonesty experiments often contradict experimenters' predictions. For instance, a considerable proportion of participants behave consistently honest, despite the opportunities and incentives to behave otherwise (Gerlach, Teodorescu, & Hertwig, 2019).

Becker (1993), the proponent of the Rational Choice Theory, acknowledges that individuals might display individual differences in their tolerance to risk and personal preferences; however, these factors are not explicitly included in the theory. Instead, Becker proposed an ad-hoc modification to the model, which states that, at least in the aggregate, individuals should arrive at similar conclusions when making a cost-benefit analysis of a particular course of action. Consequently, experimenters often fail to account for individual differences in dishonesty studies, especially the role of personality traits (Hilbig & Zettler, 2015).

Another argument against the role of individual differences in social behaviour stems from the situational approach. Situationist researchers often study the effects of environmental factors on individuals and ignore individual differences that might interact with these effects. Situationists often believe that behaviours occur under the influence of external (i.e., situational) factors instead of personality traits or internal motivational mechanisms (Shoda, 2008). In other words, Situationists argue that if individual differences influence behaviours, their role is unimportant when compared with the role of situational factors.

However, assessing the influential role of situational factors on behaviour is problematic since researchers have no consensus on the definition, taxonomy or operationalisation of situations. Alternatively, researchers often conceptualise situational factors referring to peoples' interpretations of the situation (Hogan, Harkness, & Lubinski, 2000, p. 291). Therefore, situational factors that influence behaviours might also be a function of the person.

Rational Choice theorists assert that informational processes which occur internally to individuals influence their decision making. Nevertheless, both situational and rational choice approaches are similar in declaring that situational and informational factors affect behaviours uniformly across individuals while ignoring systematic individual differences (Baron, 2008, p. 44). Consequently, dishonesty studies often ignore the role of individual differences in participants' decisions to behave dishonestly.

A more extreme view of the role of situations contains the idea that individual differences are not real; they are instead, in their opinion, the result of faulty reasoning on the part of observers. For example, some authors argue that people tend to ignore situational factors and over-emphasise dispositional explanations of behaviours (Ross, 2018). Additionally, some authors explain that these attributional biases result from people's access to poor quality of information when judging the causes of behaviour (Kelley H. , 1973). Alternatively, this thesis presents the argument that personality traits influence dishonest behaviours. Personality psychology hypothesises that humans display consistent and predictable tendencies to behave similarly across situations (Chaplin, John, & Goldberg, 1988; MacDonald, 1995; Ajzen, 2005, p. 31). Therefore, the systematic consistency of

participants' behaviours in dishonesty studies might indicate the role of the influence of individual differences in dishonest decision-making.

Since most dishonesty studies were not designed to test this hypothesis, this section applies Kelley (1973) covariance model reasoning to investigate whether a situational or dispositional approach can better explain the results of dishonesty studies. The model of attribution predicts that individuals should make the right behavioural attributions if they have access to the correct information regarding consensus (i.e., information on how other people in the same situation and with the same stimulus behave), distinctiveness (i.e., information on how a particular individual responds to different stimuli) and consistency (i.e., information on how frequently an individual's behaviour can be observed under similar stimulus but not others).

The model states that when behaviours display low consensus, low distinctiveness and high consistency, it is an indication that a particular behaviour occurs due to personal attributes of those behaving. In contrast, if the behaviour displays high consensus, high distinctiveness and high consistency, the behaviour display is a function of stimulus attribution, while high consensus, low distinctiveness and low Consistency are a function of circumstance attribution (Hewstone & Jaspars, 1987).

3.3.1.3 Behavioural Types

Kelley's (1973) covariance model states that the situational primacy over behaviour is evident through behavioural consensus (i.e., information on how people in the same situation and with the same stimulus behave). However, dishonesty studies results indicate

a lack of consensus among participants. For instance, Gerlach et al.'s (2019) meta-analysis of dishonest studies examined 459 experiments (k) with a total of 19,006 participants (n) and found a consistent binary distinction in behaviour with an average proportion of participant between 30% and 52% behaving dishonestly across different experimental tasks. In total, 52% of participants (k = 103 , n = 1907, 95%CI [47-57]) in die-cast studies, 51% of participants (k= 130, n = 8043, 95 % CI [47-54]) in sender-receiver studies, 48 % of participants (k = 67, n = 3193, 95% CI [42-53]) in matrix-studies and 30% (k= 159, n = 5863, 95% CI [24-36]) in coin-toss studies lied about their outcomes. Therefore, the results of dishonesty studies indicate that that considerable proportions of participants in the same situation and with the same stimulus do not display consensus.

Gerlach et al.'s (2019) meta-analysis also examined similarities in dishonesty magnitude in addition to rates of dishonesty. While rates of dishonesty refer to how many individuals behave dishonestly, the magnitude of dishonesty refers to the extent to which individuals lie or cheat in experimental tasks. Examples include the frequency of dishonesty in a particular task or the size of misreported scores in performance tasks. Since dishonesty studies use different metrics to assess dishonesty magnitude, Gerlach et al. calculated a standardized measure of dishonesty magnitude (*Mr*) across 508 experimental tasks (k) with a total of 40,813 participants (n).

The standardized report (*Mr*) quantifies the percentage of people who behaved dishonestly (the rate of liars) and the magnitude of their dishonest behaviour in a single measure (e.g., size of misreported scores in comparison to true scores). The standardized scale ranged from -100% to 100%, with 0% referring to participants who reported honestly, while -

100% referring to participants in tasks that included the possibility of reporting less than the average scores of control groups (e.g., Matrix and Die-cast tasks) and 100% referring to the maximum dishonesty possible in each task.

The authors report that mean participant dishonesty in individual experiments using the standardised report (*Mr*) varied from -14% to 51%. The average magnitude of dishonesty in sender-receiver studies was *Mr* = 51% (*k* = 130, n = 8043, CI [47-54]); in coin-toss studies it was *Mr* = 31% (*k* = 159, *n* =13639, 95%CI [25-34]); in die-cast studies it was *Mr* = 30% (*k* = 129, *n* = 13714, CI [26-33%]), and for matrix-task studies, it was *Mr* = 14% (k= 90, *n* = 4517, CI [14-20]). Therefore, despite the effort of researchers to provide incentives and opportunities for participants to behave dishonestly, the results of dishonesty experiments indicate that a considerable proportion of participants do not behave dishonestly and very few maximise the opportunities for gains.

In summary, behavioural economists design experiments often containing a risk-free context in which they expect participants will behave rationally and maximise their gains (Mazar, Amir, & Ariely, 2008). However, despite the efforts to create gainful risk-free conditions, dishonesty studies show that many participants behave against their best interest despite opportunities and incentives to act dishonestly (Gerlach, Teodorescu, & Hertwig, 2019). Consequently, the results of dishonesty studies indicate that participants display a lack of consensus on how they react to opportunities and incentives to behave dishonesty. In other words, people show systematic differences in whether they behave honestly or dishonesty, despite being in the similar situations and with similar stimulus.

3.3.1.4 Dishonesty Across Situations

Some dishonesty studies contain within-subjects design, in which the same participants take part in different dishonesty tasks. Such studies allow for the investigation of the extent to which the person behaves in the same way in similar but separate situations (i.e., distinctiveness). Evidence of individual differences may occur if individuals display low distinctiveness across different situations (Hewstone & Jaspars, 1987). Alternatively, high distinctiveness between situations might be evidence that the situation affects the behaviour. For example, suppose a person is not usually dishonest in social interactions but is dishonest in laboratory experiments. In that case, they display high distinctiveness, meaning differences in behaviours might result from the laboratory manipulations.

Halevy, Shalvi & Verschuere's (2014) study indicates that individuals display low distinctiveness related to dishonest behaviour in different situations. The authors investigated the relation between self-reported lying frequency and cheating in two separate tasks in the laboratory. The authors asked 51 Dutch students to complete questionnaires including a frequency of lies questionnaire, which measures people's average reported number of lies per day. The study also included a die-in-the-cup task and a scrambled word task. In the die-in the cup task, participants rolled a die 180 times but reported on only 60 rolls.

The participants received a monetary payoff only if the reported die matched a pre-determined outcome. In the word task, participants had a five-minute time limit to unscramble a series of 5 words. Participants received a payoff for each word they reported

to have solved, but they had to solve each word in a pre-determined order; however, the third word was always an impossible to unscramble word. Consequently, the reporting of more than 2 words solved indicated cheating.

The results show that the frequency of lies questionnaire positively correlated with both the results of the die-in-the-cup (r =.39, p <.01) and the word task (r =.39, p <.01). Although the correlations were only moderate, they indicate that individuals show stable patterns of behaviours across similar but separate situations, in which they have opportunities to behave dishonestly. However, as the authors point out, it is uncertain if all participants over-reporting in the die-in-the-cup task were dishonest since measures of dishonesty magnitude in this task occur through comparing participants' reported outcomes with the probability that they could have cast a particular sequence of numbers. Consequently, differences from the baseline could occur by chance.

Since the reported results of die-in-the-cup outcomes are not completely reliable, the authors asked participants to answer how much they overreported in the die-in-the-cup task after the experiment was over. The authors report that participants identified as cheaters in the die-in-the-cup task scored significantly higher in their reported confession rates (M = 7.00, SD =11.92) than those identified as honest (M =.69, SD = 1.75), $F(1, 49)=9.83$, $p<.005$. Therefore, the authors confirmed that reported results in the task were not likely to be due to chance. Nevertheless, correlations between the frequency of lies questionnaire and the word task provide more robust evidence of distinctiveness since the authors had access to participants' actual scores.

Furthermore, it is also important to note that there was a significant positive correlation between the reported frequency of lies questionnaire and confession scores ($r = .35$, $p < .05$). Finally, participants identified as cheaters in the word task, scored significantly higher in their die-in-the-cup scores ($M = 3.82$, $SD = 033$) than those identified as honest ($M = 3.58$, $SD = .27$), $F(1, 49) = 6.08$, $p < .05$. Therefore, despite the small sample size, the results indicate that dishonest behaviours in one context "spill-over" to other contexts.

3.3.1.5 Dishonesty Across Time

Consistency relates to information about the covariance of behaviour across time. High consistency across time signifies that the behaviour is a function of the person while low consistency is attributed to the circumstance (Hewstone & Jaspars, 1987). Although the concept does not specify whether an individual also needs consistency across dissimilar situations, in addition to over-time, cross-situational consistency appears to be a logical necessity. For example, if a person is exposed to the same situation over-time, and displays a consistent behaviour, then the same behaviour, if identical, might be a function of the person being exposed to similar situational factors. Therefore, the concept of consistency requires a time and situational element to distinguish between situational and dispositional behaviours.

Gneezy et al (2013) conducted a study containing an iterative version of the sender-receiver game, in which a total of 78 German university students, 36 randomly allocated as senders and 36 as receivers, played 24 iterations of the game. Therefore, the study could observe whether participants would display consistency in behaviour over time. However,

the tasks also vary slightly across iterations, which can further elucidate whether participants display high or low behavioural consistency across time and situations.

For example, even in iterative sender-receiver games, participants perform the same task. That is, senders are often assigned one of two options (e.g., between "A" and "B"), each tied to a different level of payoff. The senders then have to inform their specific partners (i.e., the receiver) about the option. During the interaction, a sender can tell the truth or lie about which option was assigned to the pair with different consequences for both. For example, if after being assigned "A" and telling the truth, the receiver accepts the option, both players share the payoff; if the receiver rejects the offer, both payers get no payoff. However, the sender can lie about the option, saying that the option assigned was "B" instead of "A." If the receiver accepts the deceptive offer, only the sender gets the full reward, and the sender gets nothing. If the receiver rejects the option, only the receiver gets the full reward.

However, Gneezy et al.'s study contained a modified version of the game in which the sender was allocated a number that varied from 1 to 6 across iterations. The payoff was proportionate to the number being reported; therefore, if a sender reported a "6, irrespective of the number being assigned, he or she received a corresponding payoff. Furthermore, another modification was that the behaviour of the receiver had no consequence to the sender's payoff. Therefore, there was an incentive for the sender to always report a "6" irrespective of the true assignment across all 24 iterations of the game. The receiver's payoff was still tied to the consequences of choosing or rejecting a truthful

or dishonest offer, as in normal sender-receiver games; therefore, the game still has an identifiable victim.

In this study, the authors were attempting to disconfirm a hypothesis, which stated that the distance between the assigned number and the highest payoff number (i.e., 6) made the dishonesty of falsely reporting "6" more salient. Instead, the authors predicted that most participants (i.e., senders) would behave rationally and always report 6 for the maximum payoff. However, the results still indicate that individuals are sensitive to the perceived size of the dishonesty.

Furthermore, participants display consistency of behaviours over time and across manipulations. For example, when examining the strategies of individual participants throughout the 26 iterations of the game, a considerable proportion of participants (28%) displayed strictly stable patterns of behaviours across time. That is, from iterations 1 to 24, they never deviated from their strategies, whether the strategy was honest or dishonest. Therefore, breaking the strategies into honest and dishonest, 14% of senders invariably told the truth to the receivers while 14% always exaggerated their outcomes. The remaining 72% had used variable strategies, especially in the first periods of the task.

Moreover, when examining only the final quarter of iterations (19-24), during which participants had already acquired experience with the game, the authors found that the participants displaying a consistent (invariable) pattern of honest/dishonest behaviours increased to 53%. In this late stage, 19% of senders always told the truth to receivers irrespective of the outcomes while 22% always exaggerated their initial outcomes. An

additional 8% also exaggerated their outcomes but the size of their dishonesty was dependent on the distance between the outcome and "6."

In summary, the results show that after multiple iterations of the game, the stable tripartite pattern of behaviour emerged, with some participants being consistently truthful in every game, some being consistently dishonest in every game, and the rest being affected by the level of payoff and potential loss. Furthermore, after participants had more experience with the task, patterns of behaviours became even more stable across time, despite changes in experimental manipulations. Therefore, a considerable proportion of participants display high consistency through time and low distinctiveness across manipulations, which indicates that personality traits might play some part in people's decision to behaviour dishonestly.

3.3.1.6 Dishonest Personality

Although most dishonesty studies are not designed to test whether personality traits influence the participants' decision to behave dishonestly, some studies include personality traits as control measures. These studies show evidence that personality traits that plausibly relate to dishonest behaviours correlate with participants' dishonesty. For example, Hilbig and Zettler (2015) conducted six studies with different cheating paradigms, tasks, incentive structures, samples, and sets of covariates to evaluate the influence of personality traits, in particular the Honesty-humility trait, on unethical decision making. The results show that Honesty–humility was the only consistent predictor of cheating across the various experimental setups and beyond relevant covariates, including other personality factors.

Hilbig and Zettler's Study 1 contained one laboratory experiment in which 168 student participants completed a critical trivia-statements judgment task and a measure of the Honesty-humility trait from the HEXACO personality inventory. The experiment had two conditions containing the same trivia task, in which participants assessed the accuracy of 20 statements. The statements varied in difficulty (i.e., 25% "easy" and 75% "difficult") and were drawn randomly from a list of 80 statements. However, in the first condition (i.e., the control condition), participants' responses were assessed automatically, and paid according to the number of corrects answers; while, in the second condition, participants reported their results and payment was contingent on the reported number of answers. Therefore, in the cheating condition, participants could claim the maximum amount of money irrespective of the true outcomes.

Results of Study 1 shows a significant mean difference (*MD*) in correct answers between conditions ($MD = .12$, $SE_{\mathrm{MD}} = .01$, $t(167) = 9.9$, $p < .001$) resembling a large effect size (Cohen's $d = .77$). Therefore, this result indicates that cheating occurred in the second condition, with participants over-claiming about 2-3 statements on average compared to the control condition. Furthermore, the results showed a significant negative correlation ($r = .20$, $p = .01$) between Honesty–humility scores and performance in the cheating condition, compared to ($r = .04$, $p = .63$) in the control condition. The authors included a graph which showed that participants high in Honesty–humility performed comparably across the two conditions, while low in Honesty–humility performed substantially better in the cheating condition than in the baseline condition.

The authors also examined the data regressing individuals' difference in performance between the within-subjects conditions (cheating vs. baseline) on Honesty–Humility. The results show that Honesty-Humility was a significant predictor ($\beta_{HH} = .18$, $p = .02$) of cheating, after controlling for gender and age. However, although Honesty-humility correlated negatively with dishonesty, it became non-significant after the other personality traits from the HEXACO inventory were included in the analysis $\beta_{HH} = -.11$, $p = .21$).

Gerlach et al.'s (2019) meta-analysis of dishonest studies shows that participants are considerably less dishonesty in performance tasks, when compared to tasks with randomly generated outcomes (e.g., coin-toss and die-cast tasks), Hilbig & Zettler (2015) reasoned that due to the small effect size of Honesty-Humility, combined with the study having two conditions, which varied in the opportunity to cheat, might have influenced participants' dishonesty reporting.

Therefore, the authors conducted a study (Study 2) with 88 student participants with only one condition (i.e., die-cast task). In this study, payment was contingent on the participants' reporting casting die rolls that matched a pre-determined number in a total of 10 separate iterations. Although the experiments did not have access to the true number cast in the die rolls, they could assess dishonesty by comparing it to the statistical baseline probability of participants casting a particular number (i.e., 16.7%) in each roll. Participants also completed a questionnaire containing the HEXACO inventory.

A one-sample z-test for proportions with $z = 7.2$, $p < .001$ indicated that cheating had occurred in the sample. Furthermore, logistic regression predicting whether participants claimed to have won (coded 1, otherwise 0) from Honesty-humility was negatively

associated with the probability of allegedly winning (odds-ratio = .42, $\chi2$ (1) = 5.4, p = .02), corresponding to a medium effect size. That is, individuals high in Honesty-humility claimed to have won with a probability comparable to the statistical baseline (implying honesty) – whereas their counterparts low in Honesty-humility made this claim much more often (and clearly more often than could be expected by chance).

Moreover, adding sex and age as covariates did not change the coefficient for Honesty-Humility (odds-ratio = .41, $\chi2$ (1) = 5.1, p = .02). More importantly, Honesty-humility also remained a significant predictor after controlling for the remaining five HEXACO factors (odds-ratio = .32, $\chi2$ (1) = 6.6, p = .01), corresponding to a moderate-to-large effect size.

In Study 3, Hilbig & Zettler sampled 185 participants from the community to participate in a web-based coin-toss experiment. First, the authors wanted to investigate if Honesty-Humility influenced participants other than students. Second, they examined whether a non-monetary motivation had an effect on participants' decision to behave dishonestly. That is, differently from the previous studies, the reported performance in the task was not contingent on monetary payments. Instead, if participants' reported results of a particular coin-toss differed from a pre-determined outcome (e.g., heads), they were required to participate in a tedious task before taking part in a subsequent iteration of the main task. Therefore, there was an incentive to misreport to avoid the tedious task.

The results show that Honesty-humility negatively predicted the probability of allegedly winning (odds-ratio = .60, $\chi2$ (1) = 3.9, $p < .05$), corresponding to a small to medium effect size. That is, individuals high in Honesty-Humility winning claims were similar to chance (implying honesty). At the same time, participants low in Honesty-Humility had a rate of

win higher than High Honesty-Humility participants and higher than the probabilistic base rate of wins. Furthermore, Honesty-humility remained significant after adding the remaining five HEXACO factors to the logistic regression (odds-ratio = .52, $\chi 2$ (1) = 5.1, p = .02). However, the effect size of Honesty-Humility became statistically non-significant after this inclusion sex and gender as covariates (odds-ratio = .57, $\chi 2$ (1) = 3.4, p = .06) despite the effect size remain largely unchanged.

In Study 4, Hilbig and Zettler examined whether risk-seeking tendencies explained the dishonesty of individuals low in Honesty-humility. In this study, 106 participants could choose between taking part in one of two dice game set-ups. In one set-up (i.e., the open game), participants had to toss the die in the presence of the experimenter, while in the second set-up, the result of the die-cast was concealed. The two set-ups also varied in payoffs, with the open game yielding a higher payoff (€2.00) than the concealed game (€1.00). The authors reasoned that if individuals low in Honesty-humility are more likely (than individuals high in Honesty-humility) to prefer the concealed (which is less-risky but pays less) over the open game (which is riskier but pays more), this indicates that they are indeed more willing to cheat and not merely more risk-seeking. Alternatively, suppose individuals low in Honesty-humility are more likely (than individuals high in Honesty-humility) to prefer the open game. In that case, this indicates that they are, in fact, risk-seeking individuals.

The results show that 50 out of 106 participants (47%) chose the concealed game and that every single one of them claimed to have won. This proportions of wins therefore exceeds the 16.7% baseline ($z > 15.0$, $p < .001$). In contrast, out of the 56 (53%) participants who

chose the open game, 9 (16%) won the game, which matches the expected baseline of 16.7% chance of winning in a die-cast game. Therefore, the probability of winning was significantly different between the two games variants ($\chi2$ (1) = 75.4, $p < .001$.).

Furthermore, a logistic regression analysis shows that Honesty–Humility correlated negatively (odds-ratio = .35, $\chi2$ (1) = 7.7, $p < .01$) with the choice of games (coded: open = 0; concealed = 1), corresponding to a medium to large effect size. Honesty–Humility also negatively predicted whether participants received a payoff (coded: no payoff = 0, payoff = 1) with a medium to large effect size (odds-ratio = .32, $\chi2$ (1) = 8.2, $p < .01$).

Therefore, individuals low in Honesty-humility were substantially more likely to opt for the concealed game. This finding implies that low Honesty-Humility individuals do not have a preference for risk, and instead, they choose situations in which they can maximise their gains dishonestly. Furthermore, adding sex and age and the remainder HEXACO factors did not change the effects of Honest-Humility on the choice of game (odds-ratio = .33, $\chi2$ (1) = 6.8, $p < .01$).

In study 5, Hilbig and Zettler tested, in addition to the effects of Honesty-Humility, whether differences in the probability of winning a payoff and payoff size influenced participants' decision to be dishonest in a series of 10 coin-toss games. The experiment was web-based and had a sample of 114 participants. The within-subjects condition had two sequential rounds including a winning-unlikely condition, reporting either 3 or 8 successes out of the ten coin-tosses incurred gain (i.e., the cumulative probability of 16.11%), and a winning-likely condition, reporting either 4 or 7 successful coin-tosses incurred the gain (i.e., the cumulative probability of 32.2%). The between-subjects

condition also had two levels, in which participants either gained €2.00 or €4.00 when reporting the required number of successes per round/condition. Therefore, participants could earn a maximum of €4.00 in the winning-unlikely condition and a maximum of €8.00 in the winning-likely condition. Participants also completed a questionnaire with five factors of the HEXACO model the five NEO factors.

Therefore, the authors hypothesised that differences in the probability of winning in a coin-toss task and the size of the incentives might moderate the link between personality and cheating. However, the authors do not explicitly state the direction of such interactions. First, the main analysis included the incentive condition (between subjects), the two coin-toss rounds/conditions (within-subjects). It also included the order of the incentive-condition (between subjects) into the model to control for order effects in payoffs.

All effects were dummy-coded, and none of the manipulations had an effect on the participants' behaviours. That is, differences in the probability of winning and the size of incentives did not have an effect on participants' level of dishonesty. The authors then added the HEXACO factors, including Honesty-humility, and the Big Five factors, controlling for sex, age, and education. The results show that Honesty-humility was the only variable that retained significance (odds-ratio = .58, $\chi 2$ (1) = 5.8, p = .02).

Finally, Hilbig and Zettler's Study 6 investigated whether the correlation between Honesty-humility and dishonesty behaviours was due to consistency in responding due to the tests occurring concurrently. The study also investigated whether the negative consequences of dishonesty behaviours to participants and to others had an effect on participants' decision to behave dishonestly. The study was web-based and sampled 208

participants. The completion dates of the personality tests and the experimental conditions had an average time gap of 4.5 months.

After completing the questionnaire, and the time delay, participants were randomly assigned into two conditions. In both conditions, participants had to toss a coin exactly twice and were told they would receive a monetary gain of 5.00€ if they reported tossing the target outcomes (e.g., heads). Therefore, participants had a 25% chance of tossing getting the target outcomes in two tosses.

The manipulation condition (i.e., Common Goods Condition) differed from the control condition (i.e., Standard Condition) in having extra instruction. For example, participants were told that if more than 40% of all individuals participating in this study claimed to have obtained two successes, the experimenters would imply that dishonesty occurred. Consequently, no one would receive a monetary gain irrespective of their outcomes.

Cheating occurred in both conditions. The implied proportion of illegitimate wins was smaller in the common-goods condition (26%) than in the standard condition (36%), implying 27% and 17% dishonest individuals, respectively. However, this difference between conditions was not significant ($\chi2$ (1) = 1.0, p = .32). The proportion of "wins" In the standard condition was 51%, while in the common-goods condition, it was 44%. Therefore, participants in the latter did not receive payment since the proportion of wins exceeded 40%.

Furthermore, the main multiple logistic regression analysis included the between-subjects conditions (standard vs. common goods, dummy coded), the HEXACO factors, including Honesty-humility, and the Big Five factors, controlling for sex, age, and education. The

results show that only Honesty-humility (odds-ratio = .44, $\chi 2$ (1) = 7.6, $p < .01$) retained significance. These results indicate that the consequences of dishonesty to the individual and to others do not affect dishonest individuals' decision to cheat and that Honesty-humility has a unique influence on dishonest behaviours.

In summary, the results of Hilbig and Zettler's studies show that in five out of six experiments, Honesty-Humility accounts for unique variance in dishonesty. In the first experiment, Honesty-humility correlated negatively with dishonesty behaviours in a performance task and retained significance beyond and above gender and age in a regression analysis. However, it lost significance once other personality traits were added to the analysis.

Alternatively, the authors observed the influence of Honesty-Humility in the subsequent five experiments across experimental settings, tasks, conditions (e.g., payment scheme, probability of winning, identifiable victim), demographics (e.g., gender and age) and time. For example, Study 2 occurred in the lab and contained a die-cast task with a fixed payment scheme contingent on the matching of the cast number and a predetermined target number. Study 3 took place online and contained a coin-toss task with a fixed payment scheme contingent on the matching of the coin toss and a predetermined outcome (i.e., either heads or tails). In Study 4, participants could choose between a concealed die-cast task yielding a small payoff and an open die-cast yielding a larger payoff. Study 5 contained a web-based coin-toss task with two conditions varying in the likelihood of participants gaining a payoff.

Finally, Study 6 contained a standard coin-toss condition and a second condition in which the detection of cheating would nullify the payments for the cheater, as well as for other participants assigned to the condition. In all experiments, the manipulations did not influence the extent to which participants cheated. However, the personality trait Honesty-humility predicted cheating beyond and above the manipulations, demographic factors (i.e., gender and age) and other personality traits (i.e., Conscientiousness, Agreeableness, Neuroticism, Openeness and Extraversion) from the HEXACO and Big Five inventories.

The results of Hilbig and Zettler' (2015) experiments concur with that of Heck, Thielmann, Moshagen and Hilbig's (2018) meta-analysis of dishonesty studies. Heck et al. assessed studies investigating dishonest behaviours in incentivised one-shot cheating tasks (i.e., tasks like coin-toss with yes/no answers). The study contained a reanalysis of 16 studies with a total sample of 5002 participants, including Hilbig and Zettler's (Study 2, 5 and 6). The variables in the analysis included personality traits (i.e., HEXACO and the Big Five), demographic characteristics of participants (e.g., age and gender) and the baseline probability that a favourable outcome would occur. The results showed a medium to large effect in which only the Honesty-Humility trait (odds ratio = .53, 95% BCI [.47; .60]) remained significant in predicting dishonest behaviours.

3.3.1.7 Summary

The results of the studies reviewed in this section suggest the existence of a personality trait related to dishonest behaviours. The evidence of the influence of personality traits on dishonest behaviours comes from directly and indirectly experimental studies.

Experimental studies often contain theoretical approaches that dismiss the role of personality traits in participants' decision making and behaviours (e.g., Situationist and Rational Choice theories); nevertheless, the results of such studies indicate that individuals react consistently but differentially when exposed to different experimental manipulations and context. Therefore, the consistency in patterns of honesty and dishonesty might be an indication that stable individual differences influence participants' decisions to behave dishonestly.

Furthermore, when experimenters decide to include personality traits theoretically linked to dishonesty (e.g., Conscientiousness and Honesty-Humility), they find that such personality traits account for the decision to behave dishonesty above and beyond experimental manipulations. However, the number of experimental studies investigating the role of personality traits in the decision to behave dishonestly is limited. There is a need for further investigation on the extent to which personality traits uniquely influence different types of dishonest behaviours despite other potential explanatory factors relating to the stimuli and situational manipulations.

3.3.2 Personality in Correlational Studies

The experiment is a common and useful procedure that can identify causal relationships (Kirk, 2009). For example, experiments compare, within a particular context, the results of a treatment given to a group of participants with the results of a control group that does not receive the treatment; therefore, the differences between the treatment group and the control group should reveal whether the treatment had a real effect (Mark & Reichardt,

2009). However, experiments occur in artificial settings designed to shield the procedure from influences that could influence the procedure's results (Bogen, 2002, p. 129). The simplified context of experiments often does not resemble real-life events. Consequently, much of the findings of experiments are not easily generalisable (Mischel, 1968, p. 22).

Furthermore, psychological studies measure thoughts, feelings and behaviours; however, psychological information is not easily observable (Funder, 2001). The direct observations of personality are often difficult and expensive, and they are rarely performed in personality research. Consequently, scientists carry out different procedures to support or refute their hypotheses. For example, scientists can study psychological phenomena in studies with a correlational design, which often uses indirect methods such as self-reports, which includes any method in which participants report on their own feelings, attitudes, beliefs and behaviours (Coolican & Coolican, 2019, p. 192).

Currently, the commonest measures of personality include The Big Five dimensions, which are widely accepted as a family of traits which reflects major personality differences among individuals (John, Naumann, & Soto, 2008). Within the lexical framework, researchers extract and organise clusters of similar adjectives into traits using factor analysis. The most common configuration of traits includes Extraversion, Agreeableness, Conscientiousness, Openness and Neuroticism (John & Srivastava, 1999). However, the Big Five traits are not the only traits found within the lexical hypothesis framework (Anglim & O'Connor, 2019). For example, Lee and Ashton's (2004) study found six instead of five personality factors. The sixth trait, called the Honesty-humility trait, contain

facets related to fairness and greed avoidance in addition to sincerity and modesty (Lee, Ashton, & De Vries, 2005).

Personality traits that more closely line theoretically to dishonesty are the Big-Five's Conscientiousness and the HEXACO's Honesty-Humility Trait (Heck, Thielmann, Moshagen, & Hilbig, 2018, p. 366). Therefore, this section examines correlational studies investigating whether the Conscientiousness and Honesty-Humility traits predict different forms of dishonesty. This section also presents a theoretical reasoning which explains why these traits should predict job application dishonesty.

3.3.2.1 Conscientiousness

Job candidates often do not have the necessary credentials which hiring organisations require during the selection process (Spence, 1973). Since job candidates with lower qualifications also need to seek employment, one alternative would be to spend personal resources to acquire more qualifications. However, many job candidates do not possess the resources to meet ever-increasing job requirements. Consequently, candidates with fewer opportunities to meet selection requirements might cut corners and add inconsistent information to their job applications.

The trait Conscientiousness is theoretically linked to the capacity to meet job application requirements. The conscientiousness trait relates to the capacity to translate intentions into actions (Ajzen, Czasch, & Flood, 2009)**.** Conscientious individuals show persistence at tasks after initial failure (Barron, Randall, Trent, Johnson, & Villado, 2017)**,** academic achievements (Schneider & Preckel, 2017; Wingate & Tomes, 2017) and academic

examination performance, particularly in highly selective and competitive settings (Chamorro-Premuzic & Furnham, 2003). Conscientiousness also predicts job performance (Shaffer & Postlethwaite, 2013).

Therefore, considering that individuals low in Conscientiousness might be less likely to fulfil job requirements, it is possible that they will be more likely to add false information to their job applications than individuals high on Conscientiousness. Furthermore, the trait Conscientiousness is negatively related to risk-taking (Kennison & Messer, 2017). Researchers associate Conscientiousness with different forms of precautionary behaviours (Fiddick, et al., 2016), and the prudence facet of Conscientiousness consistently correlates with self-control measurements external to the Big Five (de Vries & van Gelder, 2013). Dishonest behaviours, such as job application dishonesty, are socially prescribed and inherently risky. Therefore, since Conscientiousness negatively correlates with risky behaviours, it should also negatively correlate with the decision to lie in job applications.

3.3.2.1.1 Conscientiousness and Dishonesty

Studies indicate that Conscientiousness correlates negatively with different forms of dishonest behaviours. For example, Giluk and Postlethwaite's (2015) meta-analysis investigated 18 studies exploring the relationship between the Big Five factors and composite measures of academic dishonesty, comprising behaviours like fabrication, plagiarism, unauthorised help, and misconduct. The analysis included both published and unpublished studies varying in geographic location and personality inventories. The authors performed the statistical analysis using true-score correlations (ρ_{ts}), which are

sample-size weighted correlations corrected for unreliability in both the predictor and criterion and are more specifically used to examine construct-level relationships.

The results show that conscientiousness (ρ_{ts} = .22, k = 16, N = 5154) and agreeableness (ρ_{ts} = .14, k = 13, N = 4423) were negatively related to academic dishonesty. Although the relationship between academic dishonesty and the personality traits Conscientiousness and Agreeableness had small effects sizes, they were higher than the relationships between academic dishonesty and the remainder of the Big Five personality traits, which did not reach significance.

The authors reasoned that relatively small effect sizes were due to the heterogeneity of trait facets across different personality inventories. The measures of academic dishonesty also contained different items which varied in length and conceptualisation. Despite these limitations in operationalisation, the results indicate that the trait Conscientiousness is a better predictor of academic dishonesty than the trait Agreeableness because it produces larger effect sizes.

Conscientiousness also predicts dishonest counterproductive work behaviours such as sabotage and theft. For example, Bolton, Becker and Barber (2010) conducted a study with a sample of 233 employees, which examined the relationship between the big five personality traits and counterproductive work behaviours. The study confirmed the results of previous studies in which Agreeableness was a better predictor of a composite measure of interpersonally-directed (ID) behaviours than Conscientiousness, while Conscientiousness was a better predicted of organizationally-directed (OD) behaviours than Agreeableness.

Most importantly, Conscientiousness was a better predictor of specific dishonest behaviours such as sabotage and theft than Agreeableness. The correlations between conscientiousness and theft was $r = -.18$ $p < .01$) and between conscientiousness and sabotage was $r = -.27 < .001$. The correlations between agreeableness and theft was $r = -.15$ $p < .05$ and between agreeableness and sabotage was statistically non-significant ($r = -.11 > .05$).

3.3.2.2 Honesty-Humility

The Honesty-humility trait contains facets related to fairness and greed-avoidance in addition to sincerity and modesty (Lee, Ashton, & De Vries, 2005). Therefore, while conscientiousness is a trait related to task morality, Honesty-humility relates to moral conscience (van Gelder & de Vries, 2016). That is, the Honesty–humility trait is associated with the tendency to maintain social contract behaviours (Fiddick, et al., 2016). For example, Honesty-humility is positively associated with cooperation in social dilemmas such as the prisoner's dilemma (Zettler, Hilbig, & Heydasch, 2013) and to fair division of payoffs in dictator games (Hilbig, Thielmann, Hepp, & Zettler, 2015).

Therefore, from a theoretical perspective, the facets included in the Honesty-Humility trait are conceptually and operationally close to dishonesty (Heck, Thielmann, Moshagen, & Hilbig, 2018, p. 366). For example, the Sincerity facet measures the extent to which people are manipulative or dishonest in their social interactions to achieve a desired outcome, while the facet Fairness measures the extent to which people are willing to cheat or steal to

achieve their aims. Therefore, Honesty-humility should be a more adequate trait to measure dishonest behaviours than the Conscientiousness trait (Ashton & Lee, 2008).

3.3.2.2.1 Honesty-Humility and Dishonesty

De Vries et al. (2011) conducted two correlational studies on the relationship between personality traits and counterproductive academic behaviour (CAB). Study 1 sampled 226 undergraduate students from different academic disciplines. The study measured personality with Ashton and Lee's (2008) HEXACO-PI-R and counterproductive academic behaviour using a modified version of Hakstian et al.'s (2002) Inventory of Counterproductive Behaviour (ICB).

The ICB contains items measuring different forms of deviant behaviours, some of which are not related to dishonest behaviours. The authors stated that they included only the 25 items related to academic behaviours in the modified measure. Therefore, according to the authors, the final measure contained behaviours related to cheating and plagiarism. However, it is important to note the authors' decision to include substance abuse and to exclude theft from the measure. Consequently, the final questionnaire refers to only partially to academic dishonesty.

The results of Study 1 shows that both Conscientiousness ($r = 42$, $p < .01$) and Honesty-humility ($r = .40$, $p < .01$) negatively associated with CAB. Multiple regression analysis showed that Conscientiousness ($\beta = .36$, $p < .01$) and Honesty–Humility ($\beta = .36$, $p < .01$) were again the only significant predictors of CAB after including all HEXACO-PI-R scales in the analysis.

The authors also examined the relationship between personality facets and CAB. The authors also performed a separate multiple regression analysis, including the facets of personality traits as predictors. The results show that Conscientiousness facets Diligence ($\beta = .26$, $p < .01$), Organization ($\beta = .16$, $p < .05$), and the Honesty-humility facet Fairness ($\beta = .47$, $p < .01$) were the strongest predictors of CAB.

In study 2, De Vries et al. (2011) attempted to replicate the results of study 1 using a different "Big Six" personality inventory called MPT-BS (NOA, 2009). Study 2 sampled 183 university students, and the results were in keeping with the results of Study 1. The results show that the personality traits Conscientiousness ($r = .44$, $p < .01$) and Integrity ($r = .27$, $p < .01$), which is equivalent to HEXACO'S Honesty-Humility correlated significantly and negatively with CAB.

Multiple regression analysis showed that only Conscientiousness ($\beta = .40$, $p < .01$) and Integrity ($\beta = .15$, $p < .05$) remained significant, after the inclusion of the remaining traits from the MPT-BS. A second multiple regression analysis shows that, after the inclusion of all the personality facets, the only facet with a significant relation to CAB was Need for Rules and Certainty ($\beta = .21$, $p < .05$).

Therefore, the results of both De Vries et al.'s (2011) study indicate that the personality traits Conscientiousness and Honesty-Humility are important predictors of CABs. Furthermore, the findings indicate that Conscientiousness and Honesty–Humility accounts for unique variance in the prediction of CAB; therefore, the traits are operationally distinct. Furthermore, De Vries et al.'s studies indicate that Conscientiousness is a better predictor of CABs than two similar measures of honesty. However, since the modified measure of

CAB in both studies contain an aggregate of academic deviant behaviours, with mostly dishonest behaviour, but also with deviant behaviours, such as drug use, it is not possible to evaluate, from the results of the two studies, the extent with which personality traits account for unique variance in the dishonest dimension of the CAB measure.

Alternatively, experimental studies, indicate that in controlled conditions, Honesty-humility is a better predictor of dishonest behaviours than Conscientiousness (Hilbig & Zettler, 2015; Heck, Thielmann, Moshagen, & Hilbig, 2018). Therefore, future research on academic deviant behaviours should investigate the differential predictive power of Conscientiousness and Honesty-humility on specific academic dishonest-behaviours in contrast to other forms of academic deviant behaviours (e.g., substance abuse).

3.3.2.3 Summary

This review identified a limited number of correlational self-report studies investigating whether personality traits theoretically linked to dishonesty predict different forms of dishonest behaviours. Personality traits such as Conscientiousness and Honesty-humility predict dishonest behaviours such as theft, sabotage, and academic dishonesty. However, correlational studies have the important limitation of not providing evidence of cause and effect; instead, correlational studies only indicate relationships between independent and dependent variables. Other important limitations of specific correlational studies contained in this review are the use of aggregated measures containing dishonest behaviours and behaviours that are undesirable from a moralistic point-of-view (e.g., drug use and

absenteeism). Although some studies disaggregate these behaviours measuring them separately, others do not report their unique relationships with different personality traits.

Nevertheless, the results of correlational dishonesty studies display similar results to correlational studies of job application dishonesty and experimental studies, despite their limited number and methodological issues. Therefore, correlational studies of dishonesty behaviours are useful for developing a model of dishonest behaviours since they indicate that the personality traits Conscientiousness and Honesty-humility may play a role in the decision to behave dishonestly in naturalistic settings.

3.3.3 Social-Cognitive Factors

The studies examined in this section indicate that decision to behave dishonesty involves evaluations regarding the behaviour, such as whether or not the behaviours are dishonest. Researchers theorise that evaluations of behaviours occur through the psychological construct named Attitudes, which refers to a mental mechanism that helps people decide how to behave in specific situations. However, dishonest decision making might also involve judgements related to the context in which the behaviours occur, such as evaluations of social norms and outcome expectancies. In Psychology, the function of judgement refers to mental processes through which people form conclusions from different forms of information and beliefs, which, in turn, influence people's decision making. Decision-making is a psychological process in which people choose particular courses of action amongst different alternative options (Baron, 2008, pp. 6-8).

3.3.3.1 Attitudes

The concept of Attitudes is widely used in Social Psychology and similar disciplines. The purpose of this section is to establish the theoretical and empirical connection between Attitudes and behaviours. It also explores the suitability of Attitudes to predict dishonest behaviours. This section begins by defining the concept of Attitudes and explaining the process of attitude formation. It also examines several critical methodological issues regarding the measurement of attitudes. The section proceeds with the evaluation of empirical studies of attitude-behaviour relationships.

3.3.3.1.1 Defining Attitudes

The concept of Attitudes is central to Social Psychology, and it is also an important element of the Theory of Planned Behaviour (TPB). The model behind TPB states that the psychological constructs Attitudes, together with Subjective Norms and Behavioural Control combine to form a super-factor or construct related to intentions to behave, which is the key element of the model and the principal predictor of actual behavioural acts (Ajzen, 1991). This section focuses on the unique contribution of Attitudes to the prediction of behaviours.

An Attitude is a mental process that disposes people to react favourably or unfavourably toward objects in the world (Ajzen, 2005, p. 03)**.** However, people can have favourably or unfavourably evaluations of particular behaviours, which in turn influences their decision to perform the behaviour (Ajzen, 1991). Furthermore, an attitude is a mental mechanism that helps people decide how to behave in specific situations (Ajzen, 2005, p. 181).

Consequently, attitudinal mechanisms have a domain-specific function. Attitudes contrast with personality traits, which are broad behaviour strategies, which influence similar behaviours across situations.

3.3.3.1.2 Attitude Formation

Kraus' (1995) meta-analysis of studies on the relationship between attitudes and behaviours indicate that attitudes can form indirectly through affective and cognitive routes and that, in general, researchers concur that attitudes form from direct experience with the attitudinal object. Moreover, the meta-analysis shows that direct experience also makes attitudes more accessible, consistent and strong. Simply having repeated exposure to an initially affectively neutral object can help form a positive attitude (Zajonc, 1968). However, attitudes can also stem from classical conditioning, where affectively neutral objects are paired with affectively charged objects (Hofmann, De Houwer, Perugini, Baeyens, & Crombez, 2010).

3.3.3.1.3 Attitudes and Behaviours

In contrast to personality traits, which are non-evaluative stable patterns of behaviours, attitudes are likely to change in response to experience (Ajzen, 2005, p. 29). Still, despite the changeable nature of attitudes, individuals display a considerable degree of consistency between attitudes and behaviours. The main mechanism behind attitude-behaviour consistency is termed cognitive dissonance.

According to Festinger (1961), individuals display a tendency to align their thoughts, feelings and behaviours. Alternatively, when individuals perceive discrepancies between these three elements, they experience psychological distress or, in other words, cognitive dissonance.

Individuals align their thoughts, feelings and behaviours to avoid the negative consequences of cognitive dissonance. People make an effort to behave according to their attitudes. When a person behaves in a manner that goes counter to their attitudes, they will make an effort to re-establish their initial self-image, sometimes doubling the effort to prove their initial position (Sherman & Gorkin, 1980).

The need for cognitive consistency extends to the relationship between attitudes and dishonest behaviours. For example, Mulder and Aquino (2013) investigated whether people who identify as moral individuals attempt to reconfirm themselves as honest by displaying compensatory behaviours after behaving dishonestly. Alternatively, individuals who are treated unfairly, for example, when they are paid less than the agreed amount for a particular task, might behave dishonestly as a means of restoring feelings of fairness (Aronson & Mettee, 1968; Greenberg, 1990; Greenberg, 1993; Chen & Sandino, 2012; Houser, Vetter, & Winter, 2012; Wilkin & Connely, 2018).

3.3.3.1.4 Attitudes and Dishonesty Experiments

Mental processes are not easily identifiable from neurophysiological events, but psychologists can infer them from behaviours (Bermúdez, 2005, p. 50). Similarly, an attitude is a mental process inaccessible to direct observation; nevertheless, psychologists

have to infer attitudes from verbal or non-verbal reactions or responses (Ajzen, 2005, p. 42). For example, experimental studies indicate that manipulations of beliefs related to a particular behaviour influence individuals' behaviour to behave dishonestly. Although the experiments reviewed in this section do not measure baseline attitudes, the behavioural effects of manipulating information about features of the behaviour might indicate that attitudes influence dishonest behaviours.

Asch (1948, p. 256) explains that behavioural changes due to new information, across time and situations, is evidence that the perception of the object of judgement is changing rather than the process of judgement. For example, Hilbig and Hessler (2013) conducted a study that examined whether informational changes about the features of behaviour can change participants' evaluation of the behaviour, and consequently, their levels of dishonesty. The study sampled 765 students. The participants had to perform a die-under-cup game and were paid if the number cast matched a randomly selected number. The authors hypothesised that the increasing rewards alone do not decrease dishonesty; however, features of the behaviour, such as the perceptual size of the dishonest reward, can make the dishonesty more salient, causing participants to be less dishonest. They termed the reaction to this form of moral salience and behaviour as lie aversion.

The results show that (36.0%) responded "yes" to the critical question, claiming to have rolled the target number. Moreover, more participants lied about their outcomes (i.e., the average win claim was 44.5% against the 16.5% baseline probability when the target number was 3 and 4 (i.e., the win claim was 44 % for "3" and 45% for "4" against the 16.5% baseline probability for each number) than when it was an extreme (i.e.,

perceptually unlikely) number such as 1 and 6 (i.e., the average win claim was 25% for "1" and 26 % for "6" against the 16.5% baseline probability). Consequently, the authors reasoned that when payoffs are constant, participants avoid major lies if features of the behaviour indicate that participants might have claimed a dishonest payoff, despite the probability of casting any number from 1 to 6 is the same (i.e., 16.5 %)

Another study suggests that behavioural changes in dishonesty can occur due to new information. Gino, Ayal and Ariely (2009) conducted a mathematical matrix experiment with a sample of 92 participants. The study compared the number of solved mathematical matrices participants claimed in a condition with an opportunity to cheat and a control condition in which the experimenter verified the task results. Furthermore, half of the participants in the condition with an opportunity to cheat were exposed to a confederate who asked the experimenter what behaviour would constitute cheating (i.e., Dishonesty Salience Condition). This act supposedly pointed out that the behaviour might be dishonest, made behaviour unambiguous and decreased the amount of cheating.

The results show that in the opportunity condition and in the opportunity/salience condition, participants claimed to have solved 12.5 and 10 matrices, respectively. In both experimental conditions, participants claimed to have solved more matrices on average than in the control condition (in which participants only solved seven matrices on average). Although participants cheated significantly more than in the control condition, participants in the salience condition cheated significantly less than in the opportunity condition without the dishonesty reminder.

In another experiment, Mazar, Amir, & Ariely (2008) asked 450 student participants to perform the same matrix task twice; however, they only had an opportunity to cheat in the first task. In the second task, they were closely monitored and had to report on their true performance scores. Therefore, if they cheated in the first task, the obvious discrepancy in reported performance between tasks should have revealed to the participants that their dishonesty had been uncovered. However, the authors measured participants' initial self-view as honest before and after performing the dishonest act and found that their view as honest individuals did not change significantly after they committed the dishonest act. The participants also completed a measure of moral identity, and the results show that the moral identity scores remained unchanged.

Mazar et al. interpreted the results, in which self-perceptions of honesty did not change after the participants committed the dishonesty act, indicating that participants are blind to their dishonesty as long as the dishonesty is not high enough. However, the study did not correlate participants' honesty self-view and moral identity measures with their magnitude of dishonesty. Perhaps the analysis would have helped to clarify the role of baseline attitudes on the decision to behave dishonesty, in addition to the experimental manipulations. The same logic might apply to other studies investigating whether changes in behavioural beliefs influence participants levels of dishonesty.

Despite such manipulations, a considerable proportion of participants remain honest, with only some changing their behaviours according to the experiments' hypotheses. While manipulations of beliefs indicate that changes in attitudinal information affect decision

making, measures of baseline attitude might explain why manipulations change the behaviours of some participants but not others.

3.3.3.1.5 Attitudes and Dishonesty Correlational Studies

Correlational studies investigating attitude-behaviour correlations indicate that baseline measures of attitudes are predictive of dishonest behaviours. For example, Beck and Ajzen (1991) conducted an attitude-behaviour study on cheating, shoplifting and lying, with a sample of 146 participants. The results show significant attitude-behaviour correlations of .53, .60 and .33, respectively, using a semantic differential scale of attitude, which aggregated five evaluative measures.

The study also had a measure of attitude, which the researchers called a measure of moral obligations, which aggregated three items containing affective and cognitive moral evaluations of behaviours. The results show that moral obligation yielded significant attitude-behaviour correlations of .52, .52 and .42 for cheating, shoplifting and lying, respectively.

Attitudes towards cheating refer to favourable or unfavourable evaluations of the behaviours. The measure of Attitudes in this study contained semantic differential scales referring to each behaviour as: good-bad, pleasant-unpleasant, foolish-wise, useful-useless, unattractive-attractive. Moral obligation refers to beliefs regarding the responsibility to perform, or refuse to perform, a certain behaviour. The items in the measure of moral obligation include “I would not feel guilty if I cheated on a test or exam. true-false”;

"Cheating on a test or exam goes against my principles. likely-unlikely"; "It would be morally wrong for me to cheat on a test or exam. likely-unlikely."

The two measures relate to evaluations of the behaviours; therefore, they appear to compose a similar latent construct. What differentiates the measures is their operationalisation. Since the study does not report on multiple regressions related to behaviours, it is unclear whether they explain different variations in the dependent variables. However, the measures explain different variations on intentions related to cheating, shoplifting and lying. The authors hypothesise that intentions are an antecedent to behaviours; therefore, attitudes and moral obligations may relate to different constructs.

Similarly, Yang's (2012) conducted a study on academic dishonesty with 205 students from China. The study used an aggregated measure of Attitudes with three items, similar to Beck and Ajzen's (1991) moral obligation measure and a measure of academic dishonesty. Attitudes and academic-dishonest behaviours occurred at two different points in time, separated by one month. The results showed a significant attitude-behaviour correlation of $r = .47$, $p < .01$).

3.3.3.1.6 Summary

Attitudes are adaptive patterns of thoughts, feelings and behaviours that dispose people to react favourably or unfavourably toward objects in the world. They also extend to evaluations of particular behaviours and are part of a survival mechanism that helps humans identify threats and rewards in the world. Once attitudes form through experiences with the world, they remain relatively stable through the mechanism of cognitive

consistency. The need for consistency can influence behaviours toward honesty and dishonesty depending on how the thoughts, feelings, and behaviours align or misalign.

Studies show that attitudes are good predictors of behaviours. Moreover, behaviour studies demonstrate an indirect relationship between attitudes and dishonesty when they successfully manipulate attitudinal elements, such as beliefs and emotions, to increase or decrease dishonesty. There are very few studies of dishonesty and attitudes, and the ones that subscribe to Ajzen's methodological advice successfully demonstrate the relationship between attitudes and dishonest behaviours. The results of studies that properly assess the influence of attitudes on dishonest behaviours are in line with the broad literature of studies that investigate a broad range of attitude-behaviour relationships.

3.3.3.2 Social Norms

This section contains a review of theoretical texts and empirical studies that examine the influence of Social Norms on behaviour. It contains a description of important social psychological mechanisms that might influence the decision to behave dishonestly. These mechanisms include conformity, subjective norms, descriptive norms and social comparison and cultural differences. The text also contains a review of related empirical studies on dishonest behaviours. There is a discussion on the suitability and limitations of subjective norms for explaining and predicting dishonest behaviour. The review concludes with the proposition that Perceived Descriptive Norms might be a more suitable predictor of behaviour than Subjective Norms.

3.3.3.2.1 Social Influence

Social interactions often shape the behaviours of individuals. For example, people often laugh at unfunny jokes when they believe that others are finding it funny (Nosanchuk & Lightstone, 1974). When a small group of individuals is standing in a busy street corner, looking up to a building, others will gather around and start doing the same without knowing the purpose of that behaviour (Milgram, Bickman, & Berkowitz, 1969). Alternatively, people will often fail to react to situations, even ones that appear dangerous, if they see that others are not reacting (Latane & Darley, 1968).

People have a natural tendency to conform to other's behaviours (Asch, Studies of independence and conformity: A minority of one against a unanimous majority, 1956). Conformity influences behaviours, but it also influences beliefs. For example, Individuals will often agree with the opinions of a group of which they are members, even when it is clear that they were making errors of judgement (Deutsch & Gerard, 1955). Most importantly, people will not only agree with their group's incorrect beliefs, but they are also likely to change their own beliefs and align them with the beliefs of the group (Isenberg, 1986).

Beliefs about social norms can form even when behaviours are unobserved. For example, people are motivated to confirm that their own behaviours and attitudes relate to correct courses of action. Consequently, people verify the appropriateness of their behaviours and attitudes by making comparisons with the behaviours and attitudes of others (Ross, Greene, & House, 1977). However, social observations are not always possible, and people often form false beliefs about the attitudes and behaviours of others, which in turn guide their

own behaviours. That is, people will take a course of action depending on their perception of the percentage of other people who they believe would make the same choice (Mullen, et al., 1985; Klein, et al., 2018).

3.3.3.2.2 Subjective Norms

The concept of Perceived Subjective Norms refers to beliefs about the expectations of peers regarding the performance of a behaviour and beliefs about complying with such expectations (Ajzen & Madden, 1986). Subjective Norms include a perception of social pressure to comply with the wishes of others (Ajzen, 1991). The concept of Subjective Norms is interchangeable with Injunctive Norms, representing the perception of what behaviours most people approve or disapprove (Cialdini, Reno, & Kallgren, 1990). However, Subjective Norms refer specifically to the perceived social pressure coming from significant others, including parents, friends and teachers (Armitage & Conner, 2001).

One possible explanation for conformity to subjective norms could be fear of social sanctions. For example, Tata et al. (1996) conducted a meta-analysis to investigate if groups would reject a member voicing an opinion that differs from the modal group opinion. The authors also examined whether the groups' opinions about the individual would negatively shift in such circumstances. They found a strong tendency for the rejection of the deviate. The authors also found that the rejection increased as the proportionate size of the deviate's subgroup decreased. Alternatively, when deviates changed opinions in the direction of modal group opinion, the rejection sharply diminished

as the size of the group decreased. Therefore groups impose pressure on the individual to comply with the group's beliefs and behaviours.

The Theory of Planned Behaviour includes the hypothesis that Subjective Norms should predict intentions and behaviours, along with Attitudes and Behavioural Control. However, the results of studies on TPB are inconsistent regarding the relationship between Subjective Norms and behaviour. For example, Hausenblas, Carron, and Mack's (1997) meta-analysis on TPB-exercise behaviours relationship found a weak relationship between Subjective Norms and reported exercise behaviours of *ES* = .09 (95% CI [0.35, 0.01]), which corresponds to a correlation of *r*= .09, while Sandberg and Conner's (2008) meta-analysis on TPB studies report a small but significant Subjective Norm–behaviour relationship of *r* = .21 (95% CI [0.14, 0.29]). However, Sandberg and Conner's study measured an aggregate of different social behaviours, which might have confounded which particular behaviours the model can predict. In other words, the aggregation of different behaviours could have increased the chance that some of the behaviours in the aggregate measure correlated with the measure of Subjective Norms.

3.3.3.2.2.1 Subjective Norms and Dishonesty

Theory of Planned Behaviour studies that examined the relationship between Perceived Subjective Norms, and different dishonest behaviours indicates small but significant relationships. For example, Beck and Ajzen's (1991) dishonesty study with 146 participants shows that Subjective Norms correlate with reported dishonest behaviours including cheating ($r = .20$, $p < .05$), shoplifting ($r = .25$ $p < .05$) and lying ($r = .15$ $p < .05$).

Subjective Norms also correlated with dishonest intention including reported cheating (r = .34, $p < .05$), shoplifting (r =.38 $p < .05$) and lying (r =.37, $p < .05$). Similarly, Yang's (2012) TPB study with on academic dishonesty with 205 students, found significant relationships between a measure of Subjective Norms and both reported academic dishonesty (r = .23, $p < .01$) and academic dishonesty intentions (r = .44 $p < .01$).

In both studies, dishonesty intentions and dishonesty behaviours are strongly correlated. For example, in Beck and Ajzen's (1991) study, intentions of cheating, shoplifting, and lying are strongly correlated with reported cheating (r = .69, $p < .05$), shoplifting (r = .74, $p < .05$), and lying (r = .56, $p < .05$), respectively, while in Yang's (2012) study, intentions of cheating moderately correlated with reported academic cheating (r = .55, $p < .01$). Therefore, measures of intentions are predictive of actual behaviours.

The two studies are also similar in conducting multiple regression analyses of the TPB model. Attitudes, Behavioural Control and Subjective Norms are independent variables, and dishonesty intentions are the dependent variables. In Beck and Ajzen's (1991) study, the measure of Subjective Norms did not retain significance when predicting cheating, shoplifting, and lying intentions. Alternatively, in Yang's (2012) study, the measure of Subjective Norms retained significance when predicting academic dishonesty intentions (β = .21, $p < .01$).

It is important to note that the studies do not include actual reported behaviours as dependent variables, only behavioural intentions in their multiple regression analyses. Therefore, it is impossible to know from the analyses if the differences in the multiple

regressions also apply to reported behaviours. However, the mixed results related to the power of subjective norms to predict intentions might also apply to reported behaviours since intentions and behaviours are strongly correlated.

Armitage and Conner (2001) explain that the poor performance of Subjective Norms in predicting intentions and behaviours might result from poor conceptualisation and operationalisation of the concept. For example, many authors use single-item measures, as opposed to more reliable multi-item scales. However, Beck and Ajzen's (1991) and Yang's (2012) dishonesty studies both contain a similar multi-item scale of Subjective Norms.

Alternatively, the difference in the measure's performance could be the result of cultural differences in how individuals react to their perception of social pressure to comply with the wishes of others. For example, people from other cultures have different interpretations of the relationship between themselves and others (Markus & Kitayama, 1991). In collectivistic countries, individuals have a stronger feeling of accountability for each other's behaviours, especially when a member of the kin misbehaves (Hui, 1986).

Consequently, it is possible that Perceived Subjective Norms, which relate to a perceived social pressure to perform a particular behaviour, have differential effects on participants from collectivistic cultures. Therefore, cultural differences might moderate the effects of Perceived Subjective Norms on behaviours. For example, Armitage and Conner (2001) argue that social pressures, which is essential for Subjective Norms to influence behaviours, are rarely direct or explicit. For this reason, Subjective Norms are poor predictors of behaviours. However, in the case of Yang's (2012) TPB study, participants

were from China, a collectivist nation, in which social pressures to conform might be stronger and more visible than in individualistic countries.

Consequently, Perceived Subjective norms, which relate to a perceived social pressure to perform a particular behaviour, may have differential effects depending on participants' culture differences in social pressures to conform with other's behaviours. Moreover, a sample of two studies is not enough to warrant any robust conclusion on the role of Subjective Norms in dishonest decision making. Therefore, there is a need for more studies on the moderation effects of cultural differences on Subjective Norms-dishonest behaviours relationships.

3.3.3.2.3 Descriptive norms

Subjective Norms relate to social pressures to comply with the wishes of significant others, which, in turn, affects the behaviours of individuals. Therefore, information processing involved in the judgements of this type of norm requires a complex level of abstraction from the observer. For example, when evaluating Subjective Norms, the observer has to imply and assess what others are thinking. Additionally, observers have to compare their behaviours to their assessments of what others are thinking.

In comparison, the concept of Descriptive Norms is relatively simple and may require less cognitive labour. For instance, Descriptive Norms relate to how individuals think others behave in social situations (Cialdini, Reno, & Kallgren, 1990). Once people observe the behaviour of others, they make social comparisons and adjust their own behaviours accordingly (Festinger, 1954). For example, people who see others acting in socially

prescribed way (e.g., recycling) will increase their behaviour in that direction; however, if the information is on the other direction, people's behaviour will decrease to match that of others (Schultz, 1999).

Both descriptive and subjective norms predict behaviours. However, descriptive norms appear to be a better predictor of behaviours. For example, White et al.'s (2009) study on the influence of TPB on recycling behaviours with 164 participants found Descriptive norms ($r = .51$, $p < .001$) to be a better predictor of prosocial behaviours than Subjective Norms ($r = .36$, $p < .001$). Similarly, Manning's (2009) meta-analysis on the effect of subjective norms on different social behaviours with 196 studies found Descriptive Norms ($r = .34$, $p < .01$) to be a slightly better predictor of behaviours than Subjective Norms ($r = .28$, $p < .01$).

3.3.3.2.3.1 Descriptive Norms and Dishonest Behaviours

People change their behaviours to match that of those who behave in a socially prescribed way; however, people will also be influenced if the behaviour of others breaches prescribed social norms (Schultz, 1999). For example, Gino et al. (2009) conducted an experiment in which participants had to solve a series of increasingly difficult timed mathematical matrices for money in a classroom with other participants. The study had 141 participants and four conditions. In the control condition, participants did not have an opportunity to cheat, and their results were used as a baseline for real performance. In the control condition, participants reported an average of 7 correct matrices out of 20.

In the remaining three experimental conditions, participants had the opportunity to cheat by self-reporting on their results. However, in two of these risk-free conditions, participants witnessed a confederate cheat. The results showed that in the risk-free condition, the average reported correct results were 12 matrices. The average was significantly higher than the control condition, indicating that participants cheated.

Rauhut's (2013) study indicates that social comparisons can influence behaviours in both honest and dishonest directions. In this study participants who had an opportunity to lie for a payoff on two subsequent die-cast tasks. After the first task, participants had to estimate how many people in their groups had cheated in the experiment. Then half of the participants was informed that they had underestimated the cheating while the other half was informed that they had overestimate the cheating. Those who received information that they had underestimated the dishonesty of their group increased their lies substantially in a subsequent task, while those who overestimated lies, decreased their lies but not in the same proportion as those in the first condition.

Therefore, the perception that others behave dishonesty affects how much people behave dishonestly. Social proof will prompt people to make social comparisons. People will increase their dishonesty if they perceive that others are acting more dishonestly, or they will decrease their behaviours if they perceive others are behaving more honestly. Perceptions of Social Proof seem to exert influence on behaviours even when there is no observed social proof of the behaviour.

3.3.3.2.4 Summary

Social psychological studies show that the need to conform to the behaviour of others influences many aspects of people's behaviours. People will not only change their behaviours under social pressures, but they will also change their beliefs to align them with that of the group. Perceived Subjective Norms contain beliefs about the expectations of peers regarding the performance of the behaviour and beliefs about complying with such expectations. Despite being a core element of the Theory of Planned behaviour model, which on the whole often predicts different forms of social behaviours, Subjective Norms do not consistently predict behaviours in general and dishonest behaviours more specifically.

Alternatively, Descriptive Norms is a simple concept of social influence which relates to the perception of how most people behave. Furthermore, perceived social proof can form even when there is no social proof. Consequently, research has demonstrate that Descriptive Norms are a reliable predictor of different forms of behaviours, including dishonest behaviours. First, both perceived and implied Social proof will prompt people to make social comparisons. Then, people will increase their dishonesty if they perceive that others are behaving more dishonestly, or they will decrease their behaviours if they perceive others are behaving more honestly.

3.3.3.3 Outcome Expectancy

People's mental representations of future outcomes can have an influence on their motivational states. For example, when people think about the possibility of a reward

related to the accomplishment of a behaviour (i.e., outcome expectancy), they are more likely to perform the behaviour (Bandura, 1977). Furthermore, outcome expectancy includes, in addition to probabilistic beliefs that the behaviour will lead to an outcome, calculations related to autonomy factors, such as resources, opportunities and self-efficacy which will help with the performance of the behaviour (Yzer, 2012).

The purpose of this section is to examine the literature on how outcome expectancies can influence dishonest behaviours, including job application dishonesty. This section contains a conceptualisation of perceptions of behavioural control as a form of outcome expectancy. It then provides a conceptualisation of risk as a form of perceived behavioural control. The section concludes with a discussion of the appropriateness of risk perception as a predictor of job application dishonest behaviours.

3.3.3.3.1 Behavioural Control

Behavioural Control is a concept similar to Outcome Expectancy and refers to factors internal and external to the individual. For example, the concept includes self-efficacy as a factor internal to the individual, which refers to people's beliefs about their capacity to perform a particular behaviour, as well as beliefs about resources, opportunities, and other factors that facilitate or obstruct behavioural performance refer to entities which are external to the observer (Ajzen, 2002).

Armitage and Conner (2001) further conceptually differentiate perceived behavioural control into three sub-factors: self-efficacy, perceived control over the behaviour and perceived behavioural control. Self-efficacy refers to a person's confidence in his or her

ability to carry out a particular behaviour; perceived control over the behaviour refers to beliefs about external factors influencing the controllability over the behaviour, such as resources, opportunities. Finally, the authors include a third subfactor which the name perceived behavioural control refers to the ease and difficulty of performing a particular behaviour.

Independently of the locus of the perceived control, intentions to behave will strengthen if perceived behaviour control is high and weaken if perceived behavioural control is low (Ajzen, 1991). However, intentions can only predict real behaviours if they are under the real voluntary control of the individual (Ajzen & Madden, 1986). That is, intentions will only materialise into behaviours if the perceived behaviour control correlates with real behaviour control (Sheeran, Trafimow, & Armitage, 2003).

3.3.3.3.2 Perceived Risk

The concepts of outcome expectancy and behavioural control are closely related to the concept of risk perception. For example, decision making under uncertainty depends on personal probabilities. That is, personal probabilities are a person's confidence in the truth of a prediction that requires not only consideration of the payoff, but also predictions on whether a particular decision will accomplish its goal (Barclay & Beach, 1972). Risk is a concept related to personal probabilities; however, it refers to the personal probabilities that an outcome will be unfavourable or adverse consequences (Short J. F., 1984).

3.3.3.3.3 Perceived Risk and Behaviours

People often use heuristics in judgment and decision making, which are mental shortcuts (e.g., rules of thumb) that make free mental space and makes it easier to make decisions. They might be practical, but they are not necessarily accurate. Therefore, making predictions is not different from other judgments and may be affected by similar systematic problems. Consequently, the concept of subjective probability is similar to that of heuristics (Kahneman & Tversky, 1982).

Subjective Probability is a numerical measure of the strength of a belief in a certain proposition related to an outcome. Since people have different beliefs and knowledge about frequencies and logical possibilities, two different people can differ in their probability judgements (Baron, 2008, p. 109). Consequently, people also differ in their perceptions of risk. Moreover, these differences in perception influence decision making and behaviours, where high-risk perceptions correlate negatively with high-risk behaviours (Cooper & Faseruk, 2011).

3.3.3.3.3.1 Risk Perception and Dishonesty

Experimental studies indicate that manipulations in risk perceptions influence the decision to behaviour dishonestly. For example, Nagin and Pogarsky's (2003) study contains an experiment in which participants could cheat on a quiz. The study manipulated the risk of detection and size of punishment. In the high certainty condition, the experimenter remained in the room during the experimental section. In the low certainty condition,

participants were informed that the experimenter would be in the room for two brief visits during the whole experimental session. Moreover, in the high severity condition, participants were informed that they would lose their $10 show-up fee if they were caught cheating, while in the low severity, participants were not informed of any sanctions. The authors found that the prevalence of cheating was lower with increased manipulated detection risk. However, dishonesty did not lower when the size of punishment was increased. Therefore, Nagin and Pogarsky's study indicates that the perception of risk is more important than the size of punishment when individuals decide to behave dishonestly.

Alternatively, the assessment of punishment might still play a role in dishonest behaviours. For example, Thielmann and Hilbig's (2018) study contains two experiments that show evidence of both risk and punishment perception playing a role in dishonest behaviours. In both experiments, participants performed a die-under-the cup task with a monetary reward contingent on the number being cast. In the low-risk condition, participants were told the results would be checked around 17% of the time, while in the second condition, checks would occur 50% of the time. The results show that cheating was substantially less in the high-risk condition. However, in the second experiment, participants were also told that detection would cost them €.50 or €2.50 if caught - out of their possible €7.50 earnings - depending on the condition they were in. Results show that dishonesty also decreased significantly as a function of the severity of sanctions.

Measuring participants beliefs about risk might help explain why experimental manipulations which attempt to create a risk-free context fail to influence a considerable proportion of participants. For example, Hollinger and Clark's (1983) conducted a

naturalistic study where employees from three different industry sectors and metropolitan areas were asked to self-report their involvement in a number of property theft activities within the employment setting. The questionnaire also asked questions related to perceptions of certainty and severity of organisational punishment.

The results showed that the perceptions of both the certainty and severity of organisational sanctions were related to employee self-reported theft, with self-reported theft declining as certainty and severity increased. Therefore, beliefs about risk appear to influence the decision to behave dishonestly. The perceived consequences of dishonest behaviours also seem to influence risk perception, but more studies are needed to clarify the unique influence of these distinct but connected concepts.

3.3.3.3.4 Zero risk

The results of dishonesty studies in which perceptions of risk influence dishonest decision-making partially confirm Becker' (1968), rational choice theory. However, the theory also takes for granted that individuals should behave dishonestly in a risk-free situation. In contrast, research consistently shows that many individuals do not subscribe to the rational choice theory in risk-free contexts.

For example, individuals behave in disaccord to the rational choice theory in naturalistic settings. Goldstone and Chin (1993) conducted a study with real customers at a university institution. The experimenters placed a copy machine in one of the university's departments, and costumers self-reported on copies made and paid accordingly unmonitored. The study recorded a total of 86 transactions. According to the results, most

customers were honest, with 59% of actual copies corresponding to the copies reported. Most dishonesty was partial, with 27% dishonest customers reporting less than the actual number of copies made and only 13% were completely dishonest, failing to report any copies made. The remaining 1% was, according to the author's genuine mistakes.

There was, however, in Goldstone and Chin' (1993) study, the possibility that because the copy machine was inside a small university department, the context heightened the perception of risk. Alternatively, Pruckner and Sausgruber (2013) conducted a field experiment in which, according to the authors, the identification of participants was virtually impossible. In the study, newspaper stands with an honour system of payment were placed at 40 locations during a period of six days. Out of the 120 observations, the stealing rate was 75%, which consequently means that 25% of buyers were honest, despite the attempt to create a risk-free situation.

It is possible that individuals differ in how they evaluate risk. Similar results in which some individuals are honest despite the opportunity to behave dishonestly often occurs in experimental studies of dishonesty. For example, Shu and Gino (2012) conducted a series of studies in which participants had limited time to complete a series of twenty mathematical matrices. In all studies, participants could dishonestly over-report on the completion of a series of twenty mathematical matrices with no risk of detection. The results showed a similar pattern in which less than half of participants over-reported their results. Furthermore, of those who did misreport, none claimed to have completed all the matrices.

A similar pattern of behaviour occurs in Friesen and Gangadharan's (2012) study, which also used a mathematical matrix task. In this study, 10 out of 20 matrices were unsolvable, and after participants returned their solved sheet, they were allowed to pay themselves from an envelope containing money. Once again, less than half of the participants cheated. Of those who cheated, about 40% took only one dollar from the envelope, 42% kept ten dollars, and only 18% kept between fifteen and twenty, showing that very few cheaters were payoff maximisers.

The most common type of tasks includes set ups in which participants can misreport randomly generated outcomes (e.g., coin-toss and die-under-the-cup tasks). For example, Hilbig and Hessler (2013) used a die-in-the-cup task in which participants could get a payment as long as they claimed to have cast the right number, while Fischbacher and Föllmi-Heusi (2013) conducted a study with a slight variation of the die-under-cup game, in which the payoff increased contingent to the number cast. Both studies found that under zero-risk conditions, a considerable proportion of participants did not maximise their chances. In the first study, only around 1/6 of participants lied, and in the second, only around 1/6 of participants maximised their payoffs dishonestly.

Houser, Vetter & Winter (2012) conducted a simple experimental study in which participants could privately toss a coin and lie about the outcome. Despite the impossibility of the experimenter knowing the results of the coin toss, only about half of the participants not entitled to a payoff cheated. In a more strictly risk-free environment,

Abeler, Becker & Falk (2014) conducted a one-coin-toss study over the phone with members of the public and found no evidence of lying. Most participants behaved honestly

over the phone, despite the diminished risk of detection. The authors then conducted a private coin-toss experiment in the lab, increasing the number of tosses from one to four. Although the incidence of lying increased in the lab, the majority of participants also behaved honestly.

In conclusion, testing the rational choice theory includes giving participants opportunities and incentives to behave dishonestly in different tasks. Experimenters predict, based on a normative theoretical premise, that differences in behaviours should be a function of manipulations risk and not of participants' individual differences. Therefore, they expect participants to display similar levels of dishonest behaviours under identical incentives. However, the results of dishonesty experiments often contradict experimenters' predictions. For instance, a considerable proportion of participants behave consistently honest in dishonesty experiments despite the opportunities and incentives to behave otherwise (Gerlach, Teodorescu, & Hertwig, 2019).

Becker (1993) acknowledges that people might display individual differences in their tolerance to risk and personal preferences; however, these factors are not explicitly included in the theory. Instead, Becker proposed an ad-hoc modification to the model, which states that, at least in the aggregate, individuals should arrive at similar conclusions when making a cost-benefit analysis of a particular course of action. Consequently, experimenters often fail to account for individual differences in dishonesty studies, especially the role of personality traits (Hilbig & Zettler, 2015). However, studies that measure individual differences in perceptions of risk indicate that beliefs about the situation or behaviour might influence the decision to behave dishonestly. Therefore, it can

be concluded from empirical evidence that perceptions of risk will have an influence on the decision to behave dishonestly.

3.3.3.3.5 Summary

Situations present different forms of affordances that can facilitate or hinder the execution of behaviours. Within the Theory of Planned behaviour, behavioural control is a concept that refers to beliefs about resources, opportunities, and other factors that facilitate or obstruct behavioural performance (Ajzen, 2002). The concept of behavioural control is related to the concept of outcome expectancy, which refers to people's mental representations of the probability of future outcomes. Outcome expectancies include, in addition to internal and external factors that hinder or facilitate behaviours, the probabilistic beliefs that the behaviour will lead to an outcome.

Therefore, expectancy theories (e.g., Theory of Planned Behaviour) predicts that Intentions to behave will strengthen if perceived behaviour control is high and weaken if perceived behavioural control is low. Expectancy concepts such as behavioural control and outcome expectancy state that beliefs about behavioural control and outcome expectancy influence the decision to perform a behaviour. While the behavioural control concept focuses on affordance beliefs, the concept of outcome expectancy includes the beliefs about the probability that behaviour is achievable.

Dishonest behaviours are socially proscribed behaviours that present many barriers, both physical and procedural. Most importantly, dishonest behaviours are risky since they imply that the behaviours incur the risk of retaliation on the part of the victims and of society in

general. Risk is a concept related to personal probabilities, which includes calculations that an outcome will be unfavourable or end in adverse consequences (Short, 1984). Research shows that perceptions of dishonesty risk correlate with observed dishonest behaviours as well as self-reported dishonest behaviours. Therefore, the literature seems to confirm Becker's rational choice theory of crime, which states that people's calculation of risk should influence their decision to behave dishonestly.

The Rational Choice Theory takes for granted that individuals should behave dishonestly in a risk-free situation. However, research consistently shows that many individuals do not subscribe to the rational choice theory in risk-free contexts. However, a considerable proportion does not change their behaviours according to their perceptions of risk. Some participants appear to behave honestly independently of the opportunity to maximise their payoffs, contradicting an important tenet of Becker's rational choice theory.

People also appear to have different baseline beliefs and knowledge about frequencies and logical possibilities. Consequently, it makes sense that two different people can differ in their probability judgements, therefore, differing in their decision to behave dishonestly. Studies that measure baseline perceptions of risk find a correlation between the former with observed dishonest behaviours as well as self-reported dishonest behaviours. Therefore, the literature seems to confirm Becker's rational choice theory of crime partially. The lack of measures of baseline risk perception might explain why individuals differ in their decision to behave dishonestly even in a situation that appears to be risk-free.

3.3.4 Culture

The concept of culture is broad and complex; therefore, it is hard to define. For example, culture might include situational affordances that facilitate or restrict people's behaviours, such as physical and social structures, and a collection of practices and artefacts that have a shared meaning within a community (Miller, 2008). The infinite combination of both tangible and intangible elements that compose cultures creates different environments that can influence people's understanding of themselves and others and people's interpretations about the relations between themselves and other members of a particular culture (Markus & Kitayama, 1991).

Culture also includes patterns of social behaviours and social norms that regulate such behaviours. Therefore, individuals from different cultures might display dissimilar patterns of behaviour due to differences in social behaviour regulations (Triandi, 2004, p. 555). A critical aspect of cultural differences is their capacity to influence individuals' susceptibility to social influence. For example, Bond, Smith and Steinberg (1996) conducted a meta-analysis on several conformity studies using Asch's paradigm. Although individuals from all countries are susceptible to conformity influence, collectivist countries tended to show higher levels of conformity than individualist countries. Similarly, Cialdini et al.'s (1999) study indicates that both individuals from individualist and collectivist cultures are susceptible to social consensus and compliance; however, social influence affects each group differently, with individuals from collectivist countries being more susceptible to social consensus messages.

3.3.4.1 Culture and Dishonesty

Cultural elements might influence dishonesty; however, studies investigating the cultural levels of dishonesty conceptualise culture in different ways. For example, Mazar and Aggarwal (2011) suggest that the degree of collectivism versus individualism present in a national culture influences participants dishonesty (i.e., propensity to offer bribes). The authors argue that collectivism influences dishonesty because it decreases perceived individual responsibility.

Ariely et al. (2019) also state that individuals from a collectivist country should cheat more compared to individuals from a collective country. The authors explain that socialist countries are more corrupt than capitalist countries and that the length of time that a person lives in such corrupt countries should influence their level of individual dishonesty.

Another way of measuring cultural differences is through corruption indices. For example, Pascual-Ezama et al. (2015) conducted dishonesty coin-toss experiments across 16 countries which varied in levels of corruption. Similarly, Mann et al. (2016) used a die-rolling task in an experiment that was administered to students at major public universities in five countries varying in corruption and cultural values. The studies did not find correlations between corruption indices and dishonesty. However, Mann et al.' (2016) study found a national dishonesty bias in which individuals from each nationality believed their countries were more dishonest than others.

Furthermore, despite the different conceptualizations of culture, the results of Gelarch et al.'s (2019) meta-analysis of dishonesty studies do not find any significant cross-country differences in dishonesty in experimental studies. However, results show that systematic

and predictable differences are observed across countries in studies with more real-life domains (e.g., tax evasion and bribery scenarios).

Therefore, knowledge about the extent to which culture influences dishonest behaviour is incomplete. First, the results that cultural differences influence dishonesty is inconclusive. Second, culture is a complex concept with many elements. Some of these elements are symbolic, while others relate to the way society is structured. If culture influences dishonesty, some of these elements may disproportionately influence dishonesty while others will not. It is also possible that cultural factors influence only certain types of dishonest behaviours. Therefore, more research is necessary to establish whether and how cultural elements influence dishonesty.

3.3.4.2 Summary

Belonging to a particular culture moderates how social norms influence behaviours. Therefore, it is possible that cultural norms also influence the decision to behave dishonestly. Dishonest studies often find that in a culturally free context, such as the set-up of behavioural experiments, participants seem to behave according to individual differences and attitudes and less according to their cultural norms. However, the literature on dishonest behaviours indicates that cultural norms might influence people's dishonest strategies in more real-life scenarios. This evidence could be a plausible explanation for the dishonesty in countries with high corruption. Nevertheless, more studies are required to investigate this hypothesis.

3.4 Discussion

This chapter is comprised of a review of empirical and theoretical studies investigating factors that explain and predict different forms of dishonest behaviours. The aim of this literature review was to provide a relevant theoretical and methodological context for the studies in this thesis that investigate job application dishonesty. This discussion summarises the findings of this literature review and provides an evaluation of which theories and methods are suitable for the explanation and prediction of job application dishonest behaviours. The contribution to Knowledge of this chapter lies in the analysis and synthesis of dishonesty research.

At the outset, the literature search revealed a scarcity of studies on job application dishonesty. Nevertheless, the initial literature search revealed the existence of a large body of studies on different forms of dishonest behaviours which relate conceptually to job application dishonesty. These studies are scattered among several disciplines with different theoretical and methodological approaches. However, since many of the specific acts that dishonesty studies investigate contain similarities with this thesis definition of job application dishonesty, this review found that many studies on dishonest behaviour that could inform the research in this thesis, both theoretically and methodologically.

This literature review showed that the study of dishonest behaviours revolves around recurring theoretical themes which are psychological in nature. For example, dishonesty studies often investigate the relationship between dishonest behaviours and psychological factors such as personality traits, social norms, and risk perceptions. These psychological

themes aggregate into individual differences and social-cognitive factors, which will form the theoretical underpinning present in the studies in this thesis.

First, dishonesty studies often give evidence that honesty might be a personality trait. For instance, experimental studies indicate that participants in risk-neutral situations show a consistent tendency to either behave honestly or dishonestly. These dual-pattern of behaviours occur across time and context. However, when experimental studies include different manipulations (e.g., financial incentives and risk perception manipulations), then a third pattern of behaviour emerges. In addition to honesty-dishonesty consistencies, some participants consistently adopt a flexible strategy to dishonesty and adapt their behaviour depending on contextual factors. These three different strategies might help explain why results of experimental manipulations in dishonesty studies, which are counter-intuitive from a rational choice theory point of view, only influence the behaviours of a small proportion of participants.

For instance, most empirical studies fail to take into account the role personality traits. Personality psychologists who subscribe to the lexical hypothesis have identified two traits that relate conceptually to dishonest behaviours. They call these traits Conscientiousness and Honesty-Humility. First, Conscientiousness is a task-related conscience and relates to precaution behaviours. Studies show that Conscientiousness predicts a range of unethical behaviours, including counter-productive work behaviours. Honesty-Humility seems to be conceptually similar to Conscientiousness; however, the trait embodies a moral conscience that associates positively with social contracts and appears closer to the concept of honest and dishonest behaviours.

Therefore, the Honesty-humility trait provides a more theoretically plausible explanation than the trait Conscientiousness for dishonest behaviours. Indeed, dishonesty studies containing measures of personality indicate that the Honesty-Humility measure adds incremental validity to the prediction of dishonest behaviours besides conscientiousness. Moreover, Honesty-Humility consistently predicts dishonest behaviour above and beyond the other five factors, including conscientiousness.

Therefore, personality traits might help explain people's consistencies in their decisions to behave dishonestly. Personality traits are characteristics of an individual which influence a broad range of behaviours relevant to each particular trait (Ajzen, 2005, p. 02) across different situations (Anglim & O'Connor, 2019; John, Naumann, & Soto, 2008). These patterns of behaviours are internally caused (Chaplin, John, & Goldberg, 1988) and expressed spontaneously without much influence from external forces (Funder, 2006).

Nevertheless, in addition to having broad and stable patters of behaviours, individuals also make evaluations of the environment in which behaviours occur (Ajzen, 2005, p. 29). Behaviours can change due to new information across time and situations (Asch 1948, p. 256). Consequently, mental mechanisms may have a causal influence on behaviour. Although mental processes are not easily identifiable from neurophysiological events, psychologists can infer them from behaviours (Bermúdez, 2005, p. 50). The social-cognitive mechanism that this literature review found to associate with dishonest behaviours are Attitudes, Perceptions of Social Norms and Perceptions of Risk.

Attitudes are adaptive patterns of thoughts, feelings and behaviours. Once attitudes form through experiences with the world, they remain relatively stable through the mechanism

of cognitive consistency. When thoughts, feelings and behaviours are misaligned, people might experience psychological distress and a need to change one or more of these elements in order to re-establish cognitive consistency. The literature finds consistent evidence in empirical studies on the relationship between attitudes and behaviours. Many moderators also influence the attitude-behaviour relationship, such as personality traits, contextual factors, and behavioural features. Evidence from TPB studies shows that attitude-behaviour measures can successfully predict dishonest behaviours.

Studies in social influence show that people need to conform and that social norms influence many aspects of people's behaviours. The Theory of Planned Behaviour states that subjective norms, which relates to the perception of what most significant others approve or disapprove of, should be predictive of behaviours. However, the literature suggests that subjective norms are often a poor predictor of behaviour. Alternatively, studies investigate whether another social norm, namely descriptive norms, is a predictor of general behaviours, including dishonest behaviours. Descriptive norms are perceptions of what most people do. Several studies show that Descriptive Norms might be a better predictor of behaviours than Subjective Norms. Furthermore, descriptive norms are often a reliable predictor of behaviours, including dishonest behaviours.

Cultural differences, which is a broader concept related to social norms, might also influence people's decisions and behaviours. Therefore, culture may also play a role in how susceptible people may be to the social influences on the decision to behave dishonestly. Despite differences in national dishonesty, laboratory studies conducted with participants from different countries do not find systematic differences in dishonesty.

However, studies show cultural differences in dishonest behaviours related to real-life activities (e.g., completing a tax return). Therefore, more and better studies are needed to investigate dishonesty at a cultural level.

Another section in this chapter reviewed studies on the relationships between behavioural control and the performance of behaviours. The perception of behavioural control relates to beliefs about the extent that internal and external barriers prevent intentions from materialising into behaviours. Some forms of behaviours are very difficult to perform; however, other behaviours such as job application dishonesty are under the complete volitional control of job candidates. Since dishonest behaviours are by nature socially proscribed, the only deterrence would be the risk of discovery and punishment.

The literature shows that risk perception can be conceptualized as a form of behavioural control. The results of the literature show that although the perceived risk does not always correlate with real risk, it still has an effect on the decision to behave dishonestly. However, the perceptions of risk do not function as the rational choice theory would predict. For example, according to this theory, in situations of zero risk, most people should behaviour dishonestly. However, behavioural studies show that only a few participants behave dishonestly despite the opportunity and incentives.

Perhaps different baselines of risk beliefs will influence participants who are not strictly honest. As the perceptions of risk increase or decrease, the dishonest behaviours of these individuals increase and decrease accordingly. Therefore, the influence of risk perceptions on dishonesty often yields mixed results in both observational and experimental studies.

Nevertheless, the inconsistency of results is probably an effect of how personality traits interact with perceptions of risk.

Therefore, the literature shows that dishonesty is explainable through a combination of general and specific dispositions to behave dishonestly. On the one hand, there are people who are consistently honest and consistently dishonest irrespective of incentives and opportunities. However, on the other hand, the literature shows that under the right conditions, some people will make evaluations of the behaviour in question and the social context before making their decisions. From a rational choice perspective, concerns related to costs and benefits drive the behaviours of these individuals..

In conclusion, this literature review identified a collection of studies that provide a theoretical framework to answer the research questions in this thesis. Taking into consideration the findings of this literature review, the factors involved in the explanation and prediction of job application dishonesty should include general traits relevant to dishonest behaviours and specific dispositions in the form of attitudes in relation to the behaviour (e.g., evaluative beliefs, outcome beliefs), beliefs regarding the social context (e.g., subjective norms, descriptive norms) and cost analysis (e.g., risk of punishment).

Chapter 4 Psychological Model and Hypotheses

"Whenever a theory appears to you as the only possible one, take this as a sign that you have neither understood the theory nor the problem which it was intended to solve."—Karl Popper

This chapter presents a theoretical model of dishonest behaviour based on the findings of the literature review. The chapter concludes with the statement of the leading research questions in this thesis and their related hypotheses.

4.1 Introduction

The literature review in this thesis surveyed studies that directly or indirectly investigated psychological mechanisms that might explain and predict dishonest behaviours. This chapter synthesises the findings of the literature review into a theoretical model of dishonest behaviour. The proposed predictive model in this chapter contains individual differences and social-cognitive elements, respectively. Specifically, the model includes the personality traits Honesty-humility and Conscientiousness, which are broad traits that influence a range of behaviours related to task morality and social contract. It also contains domain-specific psychological mechanisms such as attitudes, perceived social proof, and perceived risk. Together, these elements should help explain and predict Job Application Dishonesty.

The studies in this thesis also examine additional hypotheses related to the influence of culture on job application dishonesty by comparing two countries with differing reputations for corruption in public life (Study One) and the influence of job application dishonesty on deviant workplace behaviours (Study Two).

Moreover, the chapter presents a technical definition of dishonesty that links job application dishonesty to other dishonest behaviours. It then provides an overview of the situational and dispositional factors theoretically and empirically implicated in dishonesty. The chapter then presents an overview of the theoretical background of the behavioural model, followed by statements of the research questions and hypotheses.

4.2 Definition of Terms

Scientific concepts should be clear and well understood among users of a particular scientific discourse; however, concepts include terms that might have different meanings in everyday speech or even between scientific subdisciplines (Kampourakis, 2018). Researchers should not take the clarity of their abstractions for granted since allowing for the flexibility of conceptual definitions might influence research results (Ioannidis, 2005). This section contains a technical definition referring to the concept of dishonest behaviour. Scientific definitions should help clarify the similarities and differences between the concept of job application dishonesty and other forms of dishonesty. The technical definition of dishonesty uses elements from Gneezy's (2005) description of harmful deception and Ekman's (2001) definition of lies. It also contains elements that are recurrent

in the behaviours found in dishonesty research. These elements are not sufficient in themselves, but they seem to be necessary conditions for a situation, or act, to be dishonest.

4.2.1 Harmful Deception

According to Gneezy (2005), deception is a core element of dishonesty studies. The most common types of tasks in dishonesty studies include setups in which participants can mislead other participants, provide false information about the random outcome of a procedure, or lie about their performance for a payoff (Gerlach, Teodorescu, & Hertwig, 2019). Therefore, deception in itself is not sufficient for a behaviour to be dishonest. Deception is dishonest if it incurs some form of gain for the perpetrator of the deception, but also some form of harm to another person (Gneezy, 2005).

Gneezy's definition of dishonesty is interchangeable with Ekman's (2001, p. 23) definition of harmful lies. First, Ekman states that there are many forms of lies, but not all lies are harmful. However, in addition to being harmful, an essential characteristic of these detrimental lies is that receivers of the misinformation would most likely not allow the behaviour to persist if they knew the intentions of the dishonest agent. Consequently, when performing a harmful lie, the dishonest agent presents the information in a manner that deprives the receiver of an opportunity for defence or retaliation (Ekman, 2001, p. 23).

In addition to deception, dishonesty experiments contain conditions in which participants have the opportunity to steal from others. For example, in Fischbacher and Follmi-Heusi's (2013) study participants can pay themselves from a till after they complete an experimental task when the experimenter is not present. Therefore, deception is not an

essential characteristic of dishonesty. Dishonest can manifest through misinformation, as well as property violations. What connects harmful deception with stealing is the perpetrator's intention to prevent others from defending themselves against an unfair or harmful behaviour.

4.2.2 Identifiable Victim

Dishonesty tasks can differ in their dishonesty measures and rate of payoff. Dishonesty conditions also vary in the degree to which a dishonesty victim is identifiable (Gerlach, Teodorescu, & Hertwig, 2019). Although in some experimental setups, the receiver might not be proximally present (i.e., academic dishonesty studies), all experimental tasks in dishonest experiments refer to an explicit or implicit interaction between a potentially dishonest agent and a victim. The victim or receiver can be another participant or the experimenter. Therefore, dishonest behaviours are invariably a social interaction.

4.2.3 Social Norms

When the dishonest act is successful, the agent gains an advantage over the receiver, while the receiver, or group of receivers, will be somehow disadvantaged. Therefore, dishonest acts occur when the social interaction unfair and harmful. However, not all unfair social interactions are dishonest. For example, researchers present participants with rules that allow unfairness in different interactions in social dilemma studies containing the ultimatum and dictator games. In some versions of the ultimatum game, the receiver has an opportunity to retaliate (van Damme, et al., 2014), ; however, in dictator games, the receiver has no control over the situation (Hilbig, Thielmann, Hepp, & Zettler, 2015).

What differentiates social dilemma studies from dishonesty studies is that, although participants can behave unfairly, the studies contain an explicit rule that allows participants to maximise their profits through unfair division of resources.

In contrast, dishonesty studies often do not present explicit rules or norms regulating behaviours. Consequently, the authors infer that participants know dishonest behaviours have social consequences and that, when possible, other social agents will not allow the behaviours to occur. Furthermore, since unethical interactions are often socially proscribed, researchers expect participants who have the intention to maximise their profits in an unfair or harmful manner to use omissions, falsifications or covert tactics to avoid censorship, sanctions or retaliation.

4.2.4 Strategy and Tactics

Dishonesty is an intentional self-interested act. The goals of dishonesty might include material gains, but it can also include psychological and social goals. For example, dishonest actors might want to possess somebody else's property, but they might also aim at gaining immaterial advantages (e.g., social status or recognition). In any case, the actor aims to gain some form of advantage over the victim. Furthermore, when committing the act, actors understand that the victim is not willing to participate in the interaction. The act is also socially proscribed; therefore, it might incur social costs (e.g., loss of reputation) or punishments. Therefore, achieving the goal of gaining some form of dishonest advantage over another person requires a strategy that will take away the victim's agency.

Dishonest actors can implement their strategies through different tactics. For example, suppose actors want to possess the property of an unwilling victim. In that case, they have the option to acquire the item through some form of property violation such as theft or robbery. In any of these cases, the actor takes away the victim's agency, either by taking the item in a way that makes the victim unaware of the act, in the case of theft, or through coercion, in the case of robbery. Actors might also use deceptive tactics such as lying, fraud or cheating to achieve their goals.

4.2.5 Dishonesty Definition

For the purpose of this thesis, a definition of dishonesty subscribes to conditions that are necessary, but not sufficient in themselves, to allow a behaviour to be accorded the status as dishonest. The technical definition presented in this thesis states that dishonesty is an act within a social interaction in which an agent (i.e., an individual or group of people) voluntary and intentionally uses socially proscribed tactics (i.e., covert acts, deception or coercion) to gain an unconsented advantage in detriment of another party (i.e., a person or group of people).

Situations that do not subscribe to all the elements of the technical definition do not classify as dishonesty. For example, a person might take the property of someone or give false information unknowingly. Even if they cause harm or are deemed a criminal act, the act is not dishonest if it is unintentional or involuntary. Other examples of situations that resemble but do not meet the definition of dishonesty might include a company using covert tactics to repossess property from a defaulting customer, a police officer

misinforming a suspect to attain a confession or relatives misleading a terminal patient about their condition for altruistic reasons.

4.2.6 Defining Job Application Dishonesty

Job application dishonesty occurs when job candidates include misleading information in their job applications. In line with the technical definition of dishonesty, in job application dishonesty, candidates intentionally and deliberately lie on their job applications to gain an unfair advantage during the selection process. This advantage occurs in detriment to other candidates and of the organisation that designs the selection process. Because it is a proscribed act, it occurs deceptively with the perpetrator aiming at depriving the recipients of an opportunity of defence or retaliation. Moreover, job application dishonesty is an interaction between job candidates and a hiring organisation. In this interaction, job candidates present deceptive information to gain an unconsented advantage in the selection process over the organisation and other job candidates.

4.3 Job Application Operationalization

The measure of job application dishonesty includes items most commonly found in the information requested on application forms and guidance on job application writing. The items relate to the types of information that candidates can falsify in their job applications. For example, some of the items included “adding false employment”, “adding false job positions” and “adding false educational achievements.

4.4 Predictive Model

This chapter proposes a model of behaviours which synthesises the findings of the literature on dishonesty. It integrates theories from the fields of Personality Psychology, Social Psychology, Behavioural Economics, and Signalling System Theory. The proposed behavioural model in this chapter comprises individual differences and social-cognitive elements. The model includes the personality traits Honesty-humility and Conscientiousness, which are broad traits that influence a range of behaviours related to task morality and social contract, respectively. The model also contains domain-specific psychological mechanisms such as attitudes, perceived social proof, and perceived risk.

Researchers often distinguish between internal and external causes of behaviours. Depending on their background, researchers may see internal and external factors working independently of each other or interacting to produce an effect (White P. A., 1990). According to Shoda (2008), behavioural research divides sharply between dispositional and situational approaches, with very few studies examining interactions between internal and internal factors. However, the author argues that focusing on internal or external causes alone can only provide a partial understanding of social behaviours.

Therefore, this thesis proposes a model that integrates dispositional and situational factors into an explanatory model of dishonesty. The model also includes elements related to the behaviour itself, which according to Funder (2001), can influence the decision to perform the particular behaviour. For example, factors related to the person include the Conscientiousness and Honesty-humility personality traits; the factors related to the behaviour include attitudes, and factors related to the situation include perceived social

proof and perceived risk. The model should predict job application dishonesty which in this thesis are measures of participants' average reported frequency of job application lies and embellishments.

4.4.1 The Person

Personality traits are characteristics of an individual that influence a broad range of behaviours relevant to each particular trait (Ajzen, 2005, p. 02) across different situations (Anglim & O'Connor, 2019; John, Naumann, & Soto, 2008). Personality traits contrast with attitudinal systems, which contain domain-specific dispositions influencing singular behaviours (Ajzen, 2005, p. 181). Furthermore, patterns of behaviours related to each trait are internally caused (Chaplin, John, & Goldberg, 1988) and expressed spontaneously without much influence of external forces (Funder, 2006).

Macdonald (1995) explains that single personality traits are compartmentalised motivational systems. Personality traits differ from each other because they contain specific adapted strategic survival goals. Furthermore, according to John, Naumann and Soto, (2008), personality is a hierarchical system containing broad traits and lower-level behaviours.

Therefore, the hierarchical organisation of traits might explain why at times individuals appear to be unique, but at the same time broad patterns of behaviours are predictable. For instance, traits display variability of expression across individuals. According to Nettle (2006), people vary in where they lie on a trait continuum as an adaptation to a complex and dynamic environment. Each position in a trait continuum represents a different

evolutionary strategy resulting from the costs and benefits of different environmental conditions; therefore, none of the positions is a better adaptation than another.

4.4.1.1 Natural Selection and Dishonesty

The complexity of environmental conditions can also result in the evolution of both honest and dishonest strategies. According to signalling theory, organisms often use their appearance and behaviours to signal real latent biological characteristics (Zahavi, 1975). However, in nature, less endowed individuals can gain a survival advantage if they display signals without possessing the real characteristic related to the signal (Brown, Garwood, & Williamson, 2012).

Since maintaining an honest communicative system is beneficial to most individuals, according to Zahavi (1975), members of a communicative community often select signals that are hard to produce and maintain. They also verify and punish cheaters, but such countermeasures occur infrequently since they incur risks and costs (Guilford & Dawkins, 1991). Therefore, the theory predicts an equilibrium in which cheaters will evolve depending on the frequency with which the system counteracts cheating (Számadó, 2000).

According to Trivers (1971), the human altruistic system, which includes behaviours related to cooperation and cheating, is unstable compared to the altruistic systems of animals. Trivers (1971) argues that the interaction between external factors such as social structures and complex individual psychology must regulate the system. Similarly, the model explains that people have both general behavioural tendencies, which account for behavioural consistencies across different dishonest behaviours, but it also contains

strategies for specific behavioural acts. Therefore, while people can be consistent in their honesty across many behavioural acts, they might also show inconsistencies concerning single acts.

The theoretical model in this thesis predicts that individuals should adopt either a generally honest or a generally dishonest strategy which will influence their respective level of job application dishonesty. Furthermore, the honest-dishonest strategies may become more evident when domain-specific factors are added to the model, such as the perception of the seriousness of the behaviour, the perception of social proof and the perceptions of risk.

When honest individuals perceive the behaviour as being more serious, that similar others do not behave in a dishonest manner and that the behaviours are high-risk, they should become less likely to behave dishonestly than the average honest individual. However, when dishonest individuals perceive the behaviour as being less serious, socially prescribed, and low risk, they should be more likely to behave dishonestly than the average dishonest individual.

4.4.1.2 Personality

Correlational studies find that different personality traits correlate with dishonest behaviours; however, most often, research finds a stronger personality-dishonesty correlation with the traits Conscientiousness (Bolton, Becker, & Barber, 2010; Giluk & Postlethwaite, 2015) and Honesty-humility traits (Heck, Thielmann, Moshagen, & Hilbig, 2018).

4.4.1.2.1 Conscientiousness

Conscientiousness relates to people's task-related conscience (Fiddick, et al., 2016). Conscientiousness includes the capacity of individuals to self-regulate (de Vries & van Gelder, 2013) and to persevere in different tasks (van Gelder & de Vries, 2016; Barron, Randall, Trent, Johnson, & Villado, 2017). Consequently, they are more likely to succeed academically (Chamorro-Premuzic & Furnham, 2003; Schneider & Preckel, 2017; Wingate & Tomes, 2017) and occupationally (Spengler, Lüdtke, Martin, & Brunner, 2014; Wiersma & Kappe, 2017) than individuals low in this personality trait.

The process of job selection has many similarities to signalling systems found in nature. During the selection process, job candidates advertise their capacity to perform work-related tasks by displaying credentials. At the same time, organisations select candidates based on credentials that are often hard to acquire with the belief that their quantity and quality correlate with job performance. Suppose candidates display credentials that do not correlate with performance. In that case, organisations will increase the requirements for a job, making it difficult for those without the right amount of resilience and self-efficacy to compete for a job vacancy (Spence, 1973). Therefore, the job selection process contains a communicative system that is vulnerable to cheating; however, conscientious candidates are more capable of obtaining true credentials; consequently, they should be less likely to lie or embellish their job applications.

Individuals high in conscientiousness often display precautious behaviours (Fiddick, et al., 2016) and risk-avoidance (Kennison & Messer, 2017). Dishonesty is also inherently risky, and another cost of displaying fake signals is the possibility of punishment from the

community (Guilford & Dawkins, 1991). According to Ekman (2001), a person who lies has the objective of preventing retaliation from another party. However, in the context of job selection, a conscientious person should take less risk of adding false information because showing their true credentials should be enough for the requirements of a job.

According to De Vries & van Gelder (2013), the prudence facet of conscientiousness consistently correlates with self-control measurements external to the Big Five. While self-control should allow conscientious individuals to acquire the credentials necessary to successfully apply for jobs without the need for dishonest tactics, the precautious tendencies of conscientious individuals should prevent them from engaging in job application dishonesty since the behaviour is intrinsically risky.

4.4.1.2.2 Honesty-Humility Trait

According to MacDonald (1995), personality traits are compartmentalised motivational systems which differ from each other in terms of their adapted strategic survival goals. For example, Van Gelder and de Vries (2016) explain that conscientiousness is task-related conscience or morality. Individuals high in conscientiousness often perform better in task-related activities and consequently are under less pressure to achieve goals through dishonesty. Conscientiousness often predicts differences in dishonesty, but these differences in behaviours are a by-product of the trait's original motivational goal.

Alternatively, Hilbig & Zettler (2015) argues that the trait Honesty-humility is theoretically a more adequate trait to account for differences in dishonest behaviours. Gelder and de Vries (2016) explains while conscientiousness relates to people's task-related conscience,

Honesty-humility relates to moral conscience. For example, Honesty-humility is associated with cooperation (Zettler, Hilbig, & Heydasch, 2013), fairness (Hilbig, Thielmann, Hepp, & Zettler, 2015) and an overall tendency to maintain social contract behaviours (Fiddick, et al., 2016).

Therefore, the trait Honesty-humility is theoretically related to reciprocal altruism. According to Trivers (1971), in nature, individuals have patterns of behaviours that temporarily reduces their fitness while improving that of other individuals, providing that other individuals reciprocate and help those who helped them initially. The authors explain that reciprocal altruism evolves because cooperation is beneficial to individuals. At the same time, individuals also have an incentive to cheat and not reciprocate. Nevertheless, cheating might be costly because altruistic individuals will often punish cheaters. Therefore, over time the system will reach an equilibrium in which the proportion of altruistic and selfish individuals will depend on an equilibrium between the cost and benefits of an honest or dishonest strategy.

The literature shows that both the Conscientiousness and Honesty-humility traits predict different forms of dishonest behaviours. However, correlational studies indicate that Honesty-humility outperforms Conscientiousness in predicting and different forms of real-life dishonest behaviours including academic dishonesty (De Vries, De Vries, & Born, 2011), counter-productive work behaviours (Marcus, Lee, & Ashton, 2007), adolescent delinquency (Dunlop, Morrison, Koenig, & Silcox, 2012) and adult offending (Rolison, Hanoch, & Gummerum, 2013).

4.4.2 The Behaviour

According to Funder (2006), behaviours related to personality traits occur spontaneously without much input from the environment. Alternatively, some behaviours are the result of reactions to particular stimuli in the environment. Shoda (2008) explains that changes in thoughts, feelings and behaviours due to contingencies in the environment indicate an underlying psychological system when they occur systematically.

The brain is an information processing system, and the relationship between the brain and behaviour can be explained from a functional point of view. Functions differ from dispositions because they are not fixed properties of organisms; instead, they depend on an explanatory purpose or functional explanation (Bem & de Jong, 1997, p. 25).

4.4.2.1 Attitudes

An attitude is a psychological function which processes favourable or unfavourable reactions to objects in the world (Ajzen, 2005, p. 03). Attitudes form through experience with attitudinal objects. According to Bornstein (1989), the attitudinal system is a survival mechanism in which the absence or presence of negative reinforcement creates automatic reactions to these objects. Once attitudes form through experiences with the world, they remain relatively stable through the mechanism of cognitive consistency (Festinger, 1961).

Furthermore, attitudes also refer to evaluations of particular behaviours (Ajzen, 1991). These evaluations contain beliefs on the results of specific behaviour and the assessment of these results (Ajzen & Madden, 1986). Once attitudes are formed, people will make an

effort to behave according to their attitudes; alternatively, when a person behaves in a manner that goes counter to their attitudes, they will make an effort to re-establish their initial self-image, sometimes doubling the effort to reiterate their initial position (Sherman & Gorkin, 1980).

4.4.2.1.1 Features of the Behaviour

Attitudinal evaluations often occur through the affective route; however, cognitive elements also influence attitudes (Hofmann, De Houwer, Perugini, Baeyens, & Crombez, 2010). For example, features of the behaviour can affect dissonance between behaving dishonestly and the evaluation of such behaviours. In Mazar, Amir and Ariely's (2008) study, participants were more dishonest if the task was rewarded with tokens, which could be exchanged for real money, than when participants were paid in cash. The fact that they were being paid with tokens created a psychological distance between the dishonesty and its outcome.

Furthermore, Goldstone and Chin (1993) found that individuals are more dishonest when their actual dishonesty is relatively small compared to the maximum payoff possible. For example, in their study, the self-reported discrepancies in copies made when using a paid machine unattended increased proportionally to the number of copies made. Therefore, the perceived contrast between dishonest outcomes can influence levels of dishonestly.

In Hilbig and Hessler's (2013) study, participants in a die-under-the-cup were more likely to lie as the cast number was closer to the target number. The effect of the numerical values occurred even though it was not related to the payment participants received. The

size of the numbers had no real meaning in this experiment, but they influenced people's behavioural evaluations.

Moreover, labelling unethical behaviours as dishonest has a strong effect on deterring dishonesty. For example, Gino, Ayal and Ariely (2009) conducted a study with a matrix task in which a confederate enquired, before all participants engaged in the task, whether falsifying responses would be considered dishonest behaviour. The proportion of dishonest behaviours in this labelling condition was similar to that of control conditions with no opportunity for cheating. Similarly, Harbring and Irlenbusch (2011) tested whether certainty about the meaning of a act should influence dishonest behaviours. The authors found that destructive behaviours in repeated competitive tasks were reduced significantly when the behaviour was clearly labelled as "sabotage."

4.4.2.1.2 Attitude-Behaviour Correspondence

According to Lord et al. (2015), once activated, positive evaluations provide a basis for deciding whether to approach and engage with an object, while negative evaluations help decide whether to avoid a potentially harmful object. Since attitudes extent to behaviours, it is plausible that individuals will behave or refrain from behaving according to their attitudes related to the behaviour and its outcomes. For example, studies show that under the right methodological conditions, attitudes are reliable predictors of behaviours (Kraus, 1995; Glasman & Albarracin, 2006; Armitage & Conner, 2001) including dishonest behaviours (Beck & Ajzen, 1991; Yang, 2012).

4.4.3 The Situation

According to White (1990), many relations can be deemed causal; however, the decision of what things in the world have a causal role depends on the researcher's theoretical position. For example, according to Rauthmann et al. (2015), while social psychologists study the effects of the situation on behaviours, the concept of situation is ambiguous, and there is no consensus on what a situation is and how it can be measured.

Nevertheless, according to Miller (2008), the situation can be defined as objective affordances and constraints of particular contexts and can be known through inductive or deductive information processing. The model in this thesis contains two variables related to participants' evaluations of the situation. The first is the perception of social proof, and the second relates to the perceptions of external risk since job application lies are socially proscribed acts.

4.4.3.1 Perceived Social Proof

People have a natural tendency to conform to the behaviour of others (Asch, 1956). Social pressures influence not only people's behaviours but also their beliefs. However, social influence can occur even in situations where there is no pressure to conform. Research shows the simple knowledge of what others are doing is enough to influence someone's behaviour (Rivis & Sheeran, 2003). When people observe the behaviours of others, they make comparisons with their own behaviours and then adjust their behaviours accordingly (Festinger, 1954).

For example, people who see others acting in a socially prescribed way (e.g., recycling) will increase their behaviour in that direction; however, if the information is in the other direction, people's behaviour will decrease to match that of others (Schultz, 1999). Moreover, perceptions of social behaviour can form even when behaviours are unobserved. According to Ross (1977), when people lack social proof information, they will form a belief about the attitudes and behaviours of others based on their own behaviour, even if, in reality, others do not behave in that manner. These perceptions have a similar effect on behaviours to observing the real behaviours of others

(Mullen, et al., 1985; Klein, et al., 2018).

Research shows that social proof is a reliable predictor of a range of behaviours (Rivis & Sheeran, 2003). Furthermore, the realisation that others behave dishonestly affects how much people behave dishonestly. Social proof will prompt people to make social comparisons; consequently, people will increase their dishonesty if they observe that others are behaving more dishonestly (Gino, Ayal, & Ariely, 2009) or they will decrease their behaviours if they perceive others are behaving more honestly (Rauhut, 2013)

4.4.3.2 National Dishonesty

According to Markus and Kitayama (1991), cultural differences can influence people's interpretations of themselves, others and the relationship between oneself and others. Furthermore, belonging to a particular culture moderates how social norms influence behaviour. Studies show that individuals from collective and individualist cultures differ in how conformity (Bond & Smith, 1996), compliance, and social proof affect their

behaviours (Cialdini, Wosinska, Barrett, Butner, & Gornik-Durose, 1999; Petrova, Cialdini, & Sills, 2007).

Mazar and Aggarwal (2011) suggest that the degree of collectivism versus individualism present in a national culture influences participants' dishonesty. Similarly, Ariely et al. (2019) also found that individuals from a former collective country (East Germany) cheated more in a die-in-the cup task, compared to individuals from an individualistic country (West Germany). Furthermore, cheating correlated with the length of time that participants lived in Eastern Germany.

Gächter and Schulz (2016) suggest that a corrupt social environment with a prevalence of rule violations (e.g., corruption, tax evasion or political fraud) can compromise individual intrinsic honesty. The authors indexed 23 countries by their general level of rule violations then measured intrinsic honesty with a die-in-the cup task. The results show that countries with low rule violation indices cheated more than those with higher indices. The authors concluded that weak institutions and weak values had an influence on dishonesty.

However, not all experimental studies find a difference in dishonesty between countries with different national corruption levels, which is measured with international corruption indices. For example, Pascual-Ezama et al. (2015) conducted a coin-toss experiment across 16 countries in which participants could earn a reward if they picked the right side of the coin and found no national differences in dishonesty. Similarly, Gelarch et al.'s (2019) meta-analysis results show no significant differences in cross-cultural dishonesty on experimental studies; however, the results indicate that systematic and predictable

differences are observed across countries in studies with more real-life domains (e.g., tax evasion and bribery scenarios).

One of the studies in this thesis (i.e., Study One) examined the influence of culture on job application dishonesty by comparing two countries with differing reputations for corruption in public life. Transparency International corruption indexes place Brazil among the most corrupt countries globally (Corruption Perceptions Index, 2019). In their 2019 report, which ranks countries based on experts and business executives' perception of a country's public sector level of corruption, lower rankings mean a larger perception of national corruption. Brazil ranked 106th out of 198 countries, whilst the UK ranks 12th, meaning that experts perceive Brazil to be considerably more corrupt than the UK.

The two countries also differ in their levels of individualism-collectivism. Minkov et al. (2017) ranked 56 countries in their levels of individualism using Hofstede's individualism-collectivism dimension questionnaire. In their study, the UK ranked 9th and Brazil 40th out of the 56 countries, with higher rankings meaning higher individualism and higher rankings meaning higher collectivism. Individuals from collectivist countries are more susceptible to conform to the behaviours of others than individualist countries (Bond & Smith, 1996). Therefore, participants from Brazil should have higher reported job application dishonesty than participants from the UK.

4.4.3.3 Perceived Risk

Measures of perceived behavioural control predict a range of behavioural intentions and behavioural acts. According to Armitage and Conner (2001), the decision to perform a

behaviour depends on beliefs about one's ability to perform the behaviour (i.e., self-efficacy), beliefs about external affordances (e.g. resources and opportunities), as well as characteristics of the behaviour, such as how easy or difficult it is to perform.

Ajzen (1991) calls control beliefs perceived behavioural control. Perceived behavioural control represents an individual's perception of the ease or difficulty of performing a particular behaviour. It incorporates factors such as self-efficacy and the presence of facilitating or hindering factors that may affect the ability to engage in the behaviour. Alternatively, Bandura (1977) terms control beliefs outcome expectancy with a focus on the individual's own ability to successfully perform a specific behaviour or task to achieve a desired outcome. Thereofre, Bandura's self-efficacy is more focused on the individual's belief in their own ability,

Yzer (2012) explains that outcome expectancy depends on beliefs about the probability that a behaviour will lead to the desired outcome. The concept of outcome expectancy is closely related to the concept of risk perception which relates to an individual's subjective probability that an action will accomplish its goal (Barclay & Beach, 1972), and to subjective risk, which relates to the estimated probability that an outcome will be unfavourable or harmful (Short, 1984).

Research shows a significant difference in dishonesty between settings that allow no opportunity to cheat and risk-risk free contexts (Shu & Gino, 2012). Furthermore, increasing perceptions of dishonesty risk in the laboratory decreases the incidence of dishonest behaviours (Nagin & Pogarsky, 2003; Thielmann & Hilbig, 2018). Correlational

studies corroborate these results. Hollinger and Clark's (1983) study found that self-reported measures of risk perception correlate with self-reported dishonest behaviours, such as theft and fraud, in an occupational setting.

The influence of external factors should be especially important for Job Application Dishonesty since this form of behaviour has no immediately identifiable internal barrier that prevents it from being executed. All a candidate needs to do is add false statements into their application. However, the only barrier to being successful with this behaviour is the risk that the employer will detect the deception. People have expectations of success and failure that have a motivational weight on the decision to perform a behaviour. Therefore, perceptions of risk should work as a form of external perceived behavioural controls.

4.4.4 Behavioural Consistency

Personality psychologists theorise that individuals are disposed to manifest stable patterns of behaviours (Ajzen, 2005, p. 31). Dishonesty studies show systematic individual differences in dishonest behaviours across time and situations, which could result from a dishonest personality trait. For example, laboratory studies results show that a considerable proportion of participants behave honestly despite the opportunities and incentives (Gerlach, Teodorescu, & Hertwig, 2019). Furthermore, participants' behaviours are consistent across dishonesty tasks (Gino, Krupka, & Weber, 2013; Halevy, Shalvi, & Verschuere, 2014) and when tested over time (Gneezy, Rockenbach, & Serra-Garcia, 2013). Moreover, dishonest participants actively self-select into situations with

opportunities for cheating (Shalvi, Handgraaf, & De Dreu, 2011; Hilbig & Zettler, 2015; Gino, Krupka, & Weber, 2013).

Participants of dishonesty studies often are either honest or dishonest in a particular context, shows a similar honest-dishonest pattern of behaviour in distinct situations (Halevy, Shalvi, & Verschuere, 2014). Furthermore, Henle, Dineen and Duffy's (2019) study indicates that, although Embellishments is a mild form of dishonesty, individuals who embellish their job applications are more likely also to include lies, while individuals who decide to add truthful information to their job applications should also be more likely to present an honest description of their real qualifications. Therefore, if individuals display consistency in their honesty or dishonesty across contexts and time, measures of job application embellishments should correlate positively with measures of embellishments.

4.4.4.1 Unethical Consistency

Dishonest behavioural consistency might extend to more broad forms of unethical behaviours. For example, measures of counterproductive behaviours contain items related to workplace deviance. Conceptually, items in measures of CWBs include employee behaviour that goes against the legitimate interests of organisations (Sackett & DeVore, 2001). According to Spector et al. (2006), counterproductive work behaviours often include abuse toward others, production deviance, and withdrawal, but measures also include dishonest behaviours such as sabotage, theft. Spector explains that these distinct behaviours share similarities because they are volitional or intentional behaviours that

harm or intend to harm organisations. Counterproductive work behaviours also include acts that violate norms for appropriate behaviour (Robinson & Bennett, 1995).

Spector, et al. (2006) argue that, although authors aggregate different CWBs such as deviance, sabotage, theft, and withdrawal into singular measures, these different forms of behaviours have different underlying dynamics and different organisational targets. Nevertheless, research shows that different forms of CWBs often load into a two-factor structure (i.e., Organisationally Directed and Interpersonally Directed deviance) which are distinct but correlated constructs (Berry, Ones, & Sackett, 2007; (Barbaranelli, Fida, & Gualandri, 2013). Theoretically, Job Application Dishonesty share similarities to the concept of counterproductive workplace behaviour; therefore, Job Application Dishonesty might predict counterproductive workplace behaviours.

4.5 Predictive Model

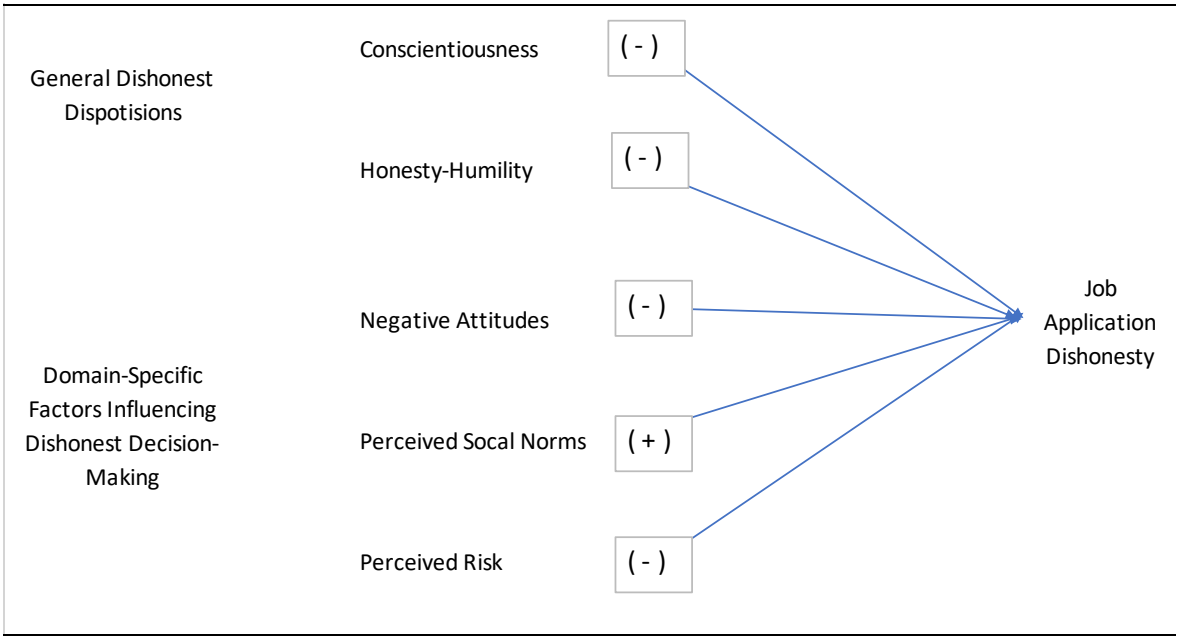
Theories are only approximations of the true state of objects and events in the world. Consequently, scientists use models which are selective and simplified descriptions of these objects (Bailer-Jones, 2002, p. 134). They work through analogies and abstractions to help the description and the interpretation of phenomena.

Therefore, theoretical abstractions allow scientists to successfully achieve their aims of understanding the world (Chomsky, 2008, p. 240).

This chapter proposes a model of behaviours which synthesises the findings of the literature on dishonesty. It integrates theories from the fields of Personality Psychology, Social Psychology, Behavioural Economics, and Signalling System Theory into a

predictive model of job application dishonesty. The model factors include general dispositions and domain-specific psychological mechanisms. General dispositions refer to the personality traits Conscientiousness and Honesty-Humility and relate to personal morality features of individuals. The specific beliefs are Attitudes, Risk Perception and Perceived Social Proof, which are beliefs and perceptions individuals have about the social context in which the behaviour occurs. These variables should, together., be predictive of job application dishonesty. Figure 3.1 depicts a summary of the variables of the model.

Figure 4.1 - *Job Application Dishonesty Model*



4.6 Research Questions and Hypotheses

The tests include hypotheses designed according to Strauss and Smith's (2009) recommendations on theory testing. According to the authors, the testing of the hypotheses involves a direct comparison between two alternative theoretical explanations. Hypotheses

that are not supported should allow for the direct criticism of a theory. Alternatively, if the hypotheses are supported, they should shed light on the likely validity of the theory and undermine its criticisms. Consequently, the supported hypotheses can be integrated with existing knowledge. Therefore, the studies in this thesis will test the hypotheses below to answer each research question.:

1) Do Personality traits predict Job Application Dishonesty?

   H_1: *Conscientiousness is negatively related to reported job application dishonesty;*

   H_2: *Honesty/Humility is negatively related to job reported application dishonesty.*

2) Can a social-cognitive model of dishonesty predict job application dishonesty?

   H_3: *Attitudes toward the seriousness of job application dishonesty are negatively related to reported job application dishonesty.*

   H_4: *Perceived Social Proof of the commonality of job application dishonesty is positively related to reported job application dishonesty;*

   H_5: *Perceived Risk or job application dishonesty is negatively related to job application dishonesty;*

3) Are people consistently dishonest across unethical domains?

   H_6 : *Reported Job Application Embellishments are positively related to reported Job Application Lies.*

   H_{7a}: *Reported Job Application Dishonesty is positively related to reported Organizational Deviance Measure of Counterproductive Work Behaviours.*

   H_{7b}: *Reported Job application dishonesty is positively related to reported Interpersonal Deviance Measure of Counterproductive Work Behaviours.*

4) *National Dishonesty*

$H_{8:}$ *National Dishonesty is positively related to reported Job Application Dishonesty.*

Study One will test hypotheses H_1, H_3, H_4, H_5, H_6 and H_8, while study Two will test hypotheses H_1, H_2, H_3, H_4, H_5, H_6, H_{7a} and H_{7b}.

Chapter 5 Philosophy of Research

Science gives us knowledge, but only philosophy can give us wisdom" —Will Durant

This chapter contains the philosophical research position that guides the studies in this thesis. This chapter aims to justify the research methods in this thesis with arguments from the Philosophy of Science. The chapter contains two main sections. The first section presents the ontological view within this thesis, while the second gives the epistemological approach.

5.1 Introduction

The process of knowledge creation is not an exclusive feature of the Scientific Method, and people have been creating knowledge long before the development of Science. However, Science, through its methods, seeks to create a more reliable and justifiable form of knowledge (Ladyman, 2002, p. 62). Although it is contentious whether Science can ever achieve justification of its methods, an essential feature of seeking justification is the continuous process of critical evaluation (Smith, 2005).

Therefore, it is essential to note that the scientific method also has limits despite its broad scope. Science deals with elementary phenomena and although the scientific method can justify the validity of the knowledge it creates, explaining itself as a superior tool of knowledge creation is a task that goes beyond its scope (Rosenberg, 2005, p. 21). In contrast, Philosophy of Science might have the tools to differentiate Science from other

forms of inquiry and justify Science as a superior form of knowledge creation (Bem & de Jong, 1997, pp. 18-19).

This thesis takes the position that the scientific method is an appropriate method to answer its research questions. Therefore, this chapter aims to justify the use of the scientific method as the primary investigative tool for the studies in this thesis. Since Science does not have the means to justify itself, this thesis refers to Philosophy, specifically to the Philosophy of Science, to justify its approach to knowledge creation.

The chapter starts with a section on ontology which defends a view in which things in the world are only partially knowable. In other words, they are the result of an interaction between what is real in the world and the limits of understanding within the human mind. The second section contains the epistemological approach of this thesis. It states that knowledge acquisition depends on observations and interaction between reasoning and accumulated knowledge.

5.2 Ontology

Ontology is a branch of philosophy that deals with questions regarding the nature of the world (Klee, 1997, p. 06) and how different aspects of the world relate to each other (Lundh, 2018). There are within ontology two critical views on the reality of the world, which philosophers call Realism and Idealism. Realism refers to an ontological theory in which the world exists independently of our senses. In contrast, Idealism states that what our senses capture from the world is an illusion, that events in the world are subjective and entirely a creation of the human mind (Guyer & Horstmann, 2015).

Therefore, in their purest forms, Realism and Idealism present extreme views of the nature of the world. Adopting extreme ontological arguments simplify our understanding of the world; however, such explanations can create difficulties for research. For example, according to the realist ontological view, our sensory experience directly translates the world's true nature. (Chalmers, 2013, p. 05). Furthermore, according to realists, theories are exact translations of what our senses perceive (Bem & de Jong, 1997, p. 04).

Indeed, scientists often translate observable facts into theoretical statements, but statements are neither the facts nor the observations; in turn, such statements are only intelligible explanations of what is out there in the world (Chalmers, 2013, p. 10). For example, the axioms contained in Newton's law of gravitation can describe and predict the movement of falling bodies, but they cannot describe the essential nature of gravity. In other words, although scientists know what gravity does, they do not know what gravity is. However, this knowledge gap did not prevent advances in science.

The extreme idealist ontological view also poses challenges to research. The idealist view in which everything in the world is an imaginary creation of the mind goes against the scientific evidence of the world's stability. For example, the stability of events in the world makes the world amenable to scientific inquiry, which is evidenced in the replicability of experimental and observational studies. If the world were not stable and knowable, there would be a significant disparity in the observations of different researchers; however, even when scientists have theoretical disagreements, their descriptions of phenomena are often very similar (Bailer-Jones, 2002, p. 134).

5.2.1 Sense-Data

In the face of the difficulties that arise from extreme ontological views, the philosopher Bertrand Russell (1998) proposed an alternative ontological idea to extreme Ontological points of view. According to Russell, the world is neither exclusively an invention of the mind nor is it physical. Consequently, what is real about the world is only partially knowable. Alternatively, Russell proposes an interaction between what is real about the world and the capacities of human faculties, and Russell calls the result of this interaction sense-data.

Adopting Russell's concept of sense-data has many implications for scientific inquiry because beliefs affect the meaning of the facts that a scientist is investigating (Bem & de Jong, 1997, pp. 14-16). One example is the interpretation of fossils. Throughout human history, people have always observed the peculiar shape of fossils. However, past cultures had difficulty making sense of these formations. For instance, Greeks and Romans collected fossils, and for some time, they believed fossils represented mythological figures (Mayor, 2014). In the 18th century, scholars thought fossils resulted from floods that brought marine animals to higher elevations through the great flood (Rappaport, 1978). However, the realisation that fossils are evidence in the rock record of the existence of primitive life forms occurred only after a considerable accumulation of knowledge and the development of theories that explained their importance (Klee, 1997, p. 11).

The argument that knowledge about the world depends on an interaction between the mind and stable characteristics of entities in the world applies to many important scientific discoveries. The scientific findings related to physics, chemistry and biology were only possible because facts and events about the world are relatively stable. However, similar

discoveries did not occur in ancient times because early scientists did not have access to the same accumulation of knowledge and experiences as modern scientists.

Therefore, this thesis takes an ontological position in which objects and events in the world are real and knowable. However, understanding about the world is partial since it is an interaction between a person's conceptual framework and stable and discoverable events and objects. Furthermore, knowledge about the world is changeable. It depends on accumulated knowledge that individuals acquire through experience.

5.2.2 Reduction and Emergentism

Scientists develop scientific theories which offer the simplest explanations about the world; however, a standard of simplicity is hard to define (Frank, 1954). Many subscribe to a reductionist approach. Reductionism refers to the idea in which complex entities in the world incorporate the description of simpler and more fundamental entities. According to reductionism, a particular entity, including events and even theories, reduces to another more basic entity if the latter is essential for the existence of the more complex one (Silberstein, 2002, p. 80).

Reduction expresses the idea of a parsimonious ontology in which different explanations about things and events in the world ultimately subsume into one that is singular and ultimate (Klee, 1997, p. 95). However, attempts to reduce complex entities into simpler entities often encounter ontological barriers, which create a hierarchical discontinuity between sciences. One example is the so far failed attempt to reduce psychological processes into neurophysiological processes. Currently, scientists do not know at which level of organisation psychology connects with physiology (p. 93).

In contrast, Emergentism states that the characteristics of some entities are more than just the sum of the attributes of more fundamental entities. In other words, some entities have features that are not explainable from understanding their elementary parts (Kim J. , 2006, p. 548). One example is the liquid property of water, which is not predictable from understanding the properties of hydrogen and oxygen. In the case of the physical qualities of water, the expression of the whole is not a simple sum of its parts. Instead, the complete entity is something more complex than the integration of its components. Therefore, understanding each constituent item does not mean one can understand the entity in its entirety (Silberstein, 2002, p. 81).

In the philosophy of mind, there is the belief that mental processes are emergent properties of the brain. Different cognitive mechanisms are not reducible to neurophysiology because each particular one is not realisable in a particular way in the brain, but they relate to parts of the brain in multiple ways (Klee, 1997, p. 95). Therefore, mental processes are emergent characteristics of the brain because they are not explainable by understanding more elemental parts of the brain.

Instead, the understanding of thoughts, feelings, and behaviours only occurs when scientists take a functional approach. For example, an explanation for the existence of the heart is its function of pumping blood around the body; similarly, the function of the brain is to produce thoughts, feelings and behaviours (Bem & de Jong, 1997, p. 25). Therefore, the proposition of Emergentism does not ignore the fact that mental processes stem from the organisation of brain matter; however, it proposes that mental properties are functional systems with characteristics not explainable through the understanding of brain structure (Grush, 2002, p. 276).

5.2.3 Causation

In addition to investigating the nature of entities in the world (Klee, 1997, p. 06), ontology examines how different entities in the world relate to each other (Lundh, 2018). For example, a familiar notion of causation includes scenarios in which an object hits another (e.g., two metal balls). This concept of causation typifies the mechanist notion of cause and effect (Bem & de Jong, 1997, p. 17). Emergent properties of the brain pose a challenge for the mechanist view of causation since it implies that non-physical entities influence physical objects and events in the world (White P. A., 1990).

5.2.3.1 Mechanistic Causation

Despite being clear and intuitive, the mechanistic notion of cause and effect is problematic because scientists are never sure any interaction in the world occurs due to causation; instead, scientists can only make inferences about causes and effects (Pearl, 2009). For instance, temporal priority, spatial priority, and constant conjunction are important conditions for a mechanist causal inference. However, the acceptance of each of these conditions presents particular challenges to researchers.

First, temporal priority, or temporal precedence, states that a cause occurs before its effect (APA dictionary of Psychology, 2020). However, in some situations, such as in the relationship between pressure and temperature, it is not always possible to separate cause from effect temporally. When pressure increases, temperature also increases; however, pressure and temperature interact so that if temperature increases, pressure also increases (Ladyman, 2002, p. 164).

Second, spatial contiguity states that cause and effects occur near in spatial terms. However, proximity is not always necessary for the inference of causation. Causal events can happen at the level of the atom but also across galaxies; therefore, space contiguity does not always apply to causation because causal events can happen infinitely close or infinitely far (Bem & de Jong, 1997, p. 17).

Third, constant conjunction states that causal relations should repeat under the same conditions. Constant conjunction is imperfect because of the possibility that a past event that always occurred under the same conditions will fail to happen in the future. In other words, there is always a risk that what scientists are observing is not a causal relation but simply a coincidence (Henderson, 2019).

Mechanistic causation also subscribes to the notion that causes only occur if sufficient and necessary conditions are present (Ladyman, 2002, p. 5). However, sufficiency and necessity requirements are problematic since they are hard to apply in many sciences. For instance, there are situations where causes are necessary but not sufficient (e.g., the sun causing photosynthesis) (Brennan, 2017). Still, in some cases, causes are neither sufficient nor necessary. For example, individuals can have the HIV virus, but not the disease it causes (i.e., AIDS); in turn, individuals can have the disease AIDS, which refers generically to an acquired immune deficiency syndrome, without contracting HIV (Pearce, 1990).

5.2.3.2 Mental Processes and Causation

The acceptance of causal factors depends on the field of inquiry's approval of a causal theory; therefore, it might not be necessary for disciplines like psychology to adopt the

mechanistic requirements for causal inference (White P. A., 1990). For example, the functional point of view of causation states that such processes have an effect on each other and on behaviour (Botterill & Carruthers, 1999, p. 9). Therefore, functionalism is an alternative view to mechanistic causation within psychology which implies teleological explanations. Such explanations include functions, goals, purposes and end-states as explanations of behaviours in which the goals precede effects (Bem & de Jong, 1997, p. 168).

The mind, as an emergent characteristic of the brain, appears to be modular, consisting of separate systems, such as language, memory and decision-making, all of which have their particular properties (Chomsky, 2008, p. 250). Broadly, mental states include qualitative states, contentful states and mental states related to operations. Qualitative states refer to impressions such as the interpretations of pain and colour; contentful states contain mental mechanisms such as thoughts and desires, while mental operations include processes such as reasoning and planning (Grush, 2002, p. 273). The functional or teleological view of causation, therefore, states that such processes have an influence on each other, which also extends to behaviour.

5.2.3.2.1 Dispositions

Dispositions such as personality traits and attitudes can explain and predict behaviours (Ajzen, 2005, p. 02). First, dispositional properties give entities secondary properties which influence events in the world in a way that resembles a causal relationship (Rosenberg, 2005, p. 54). For instance, glass only breaks when it is struck because it has a specific structure that allows it to shatter. At the same time, a magnet only attracts iron because it

consists of a particular arrangement of atoms (Ladyman, 2002, p. 136). Therefore, dispositions might not be causes per se; instead, research might view psychological dispositions as contributory causes (Mumford, 1994).

5.2.3.2.2 Functions

Researchers might also infer causation if they explain psychological dispositions from a functional point of view. For example, organisms possess fitness when they have the propensity to survive in a given environment. Therefore, in a sense, the disposition of an organism to be fit causes its survival (Millstein, 2002, p. 239). In such cases, dispositions resemble events in the world since they have a causal role. However, differently from the mechanistic view of causation, which states that causal inference requires necessary and sufficient elements (Bem & de Jong, 1997, p. 17), the behavioural manifestation of dispositions might only occur if certain conditions are present which relates indirectly to the causal relationship (Mark & Reichardt, 2009).

For example, despite being a necessary condition, fitness is not sufficient for the survival of an organism. Even organisms with the most remarkable survival capacity might not survive if they enter the wrong environment (Millstein, 2002, p. 239). A similar argument might apply to psychological dispositions. For instance, an individual might have a disposition to be highly conscientious; therefore, displaying a tendency to follow rules and procedures. However, it might be the case the person will invariably subscribe to all rules and procedures, despite showing considerable consistency across situations.

5.2.3.2.3 Personality as Causes

Personality traits refer to characteristics of an individual, which have a strong influence on a range of behaviours that are relevant to that specific trait (Ajzen, 2005, p. 02). Psychologists might classify personality traits as dispositions because behaviours related to personality traits occur spontaneously without much input from the environment (Funder, 2006). However, a functional explanation might also apply to personality traits if personality traits are a function of the mind. Functions differ from dispositions because they are not simply a property of organisms; instead, they depend on an explanatory purpose or functional explanation (Bem & de Jong, 1997, p. 25).

For example, the personality traits Conscientiousness and Honesty-Humility have evolutionary functions. Conscientiousness refers to a task-related conscience (van Gelder & de Vries, 2016) which allows humans to overcome many environmental obstacles which influence life outcomes (Delgado & Sulloway, 2017). In contrast, Honesty-humility is an overall tendency to maintain social contract behaviours (Fiddick, et al., 2016), which allows humans to cooperate (Zettler, Hilbig, & Heydasch, 2013).

Furthermore, personality traits refer to a hierarchical system containing broad traits and lower-level facets (John, Naumann, & Soto, 2008). Each trait is a compartmentalised motivational system that differs from other traits in its adapted strategic survival goals (MacDonald, 1995). People also vary in where they lie on a trait continuum, and each variation is an adaptation to a complex and dynamic environment. In other words, each position in a trait continuum represents a different evolutionary strategy resulting from the costs and benefits of diverse environmental conditions, with each position having an equal adaptational value (Nettle, 2006).

5.2.3.2.4 Attitudes as Causes

Systems might have properties that do not manifest until certain conditions are present (Klee, 1997, pp. 54-55). For example, some behaviours result from brain functions that process internal or external information (Botterill & Carruthers, 1999, p. 17). Attitudes refer to evaluative mental processes that dispose people to react favourably or unfavourably toward objects in the world (Ajzen, 2005, p. 03). Therefore, Attitudes are cognitive mechanisms implicated in decision-making that change in response to experience (p. 29). Consequently, attitudes differ from personality traits which are behavioural characteristics that occur spontaneously without much input from the environment (Funder, 2006).

The function of attitudes includes helping humans identify threats and rewards in the world; therefore, attitudes work as a survival mechanism (Bornstein, 1989). Once activated, evaluations provide a basis for deciding whether to approach and engage with an object. In contrast, negative evaluations help individuals determine whether to avoid potentially harmful things in the environment (Lord, Hill, Holland, Yoke, & Lu, 2015).

Since Attitudes contain affective and cognitive elements, it is a qualitative as well as a contentful state. Attitudes combine with evaluative factors, such as evaluations of norms and environmental barriers, to form intentions and behaviours (Ajzen, 1991). Therefore, hierarchically, attitudes are a more elementary part of mental operations related to decision-making.

5.2.4 The Problem of Free Will

This thesis adopts the view that cognition is a type of functional computation. Computational theories model the mind as a system containing symbolic inputs, processing and outputs (Botterill & Carruthers, 1999, p. 19). Such theories state that the mind comprises systems that process representational states about things in the world to solve problems and make decisions (Grush, 2002, p. 273).

An ontological consequence of adopting a functionalist and computational model of the mind is that cognitions must be deterministic. According to this view, internal and external conditions control the behaviours of individuals (Botterill & Carruthers, 1999, p. 17); therefore, in this view, individuals have no free will. However, representing the mind as a computational system is an oversimplification. Humans appear to have the freedom to have a wide range of choices. At best, information processing incites people to behave, but it does not force people to rigidly act in a way or another (Chomsky, 2008, p. 236).

Nevertheless, adopting a functionalist view of the mind has practical epistemological implications. Functionalism allows scientists to devise theories and testable hypotheses about mental processes and human behaviours (Botterill & Carruthers, 1999, p. 19). Pragmatism applies what works best to explain a particular phenomenon and goes beyond what is observable (Ladyman, 2002, p. 157). For example, physicists do not understand the nature of gravity, but that does not prevent them from making measurements and devising testable hypotheses about the behaviour of different entities that interact with this unknown force.

The search for observable facts is an essential function of science (Chalmers, 2013, p. 10). Scientists believe that the brain is the site for mental processes; they still do not understand

how the brain executes these processes. In such a case, pragmatism might allow for a deeper understanding of the underlying processes that cause specific facts to occur (Pearce, 1990).

For example, psychologists do not observe personality traits and attitudes in the brain; in contrast, they can infer mental constructs from external manifestations such as verbal and non-verbal behaviours (Ajzen, 2005, p. 02). Translating observable behaviours into constructs that represent hypothetical mechanisms in the brain allows psychologists to construct theories and test hypotheses which helps them expand their understanding of such complex phenomena.

5.3 Epistemology

This thesis investigates the relationship between mental mechanisms and behaviours. The previous section presented this thesis's ontological position, which states that psychological processes are real entities. Still, their existence is the product of an interaction between these entities' true nature and researchers' knowledge about and experience with these entities. Since this thesis investigates the relationship between mental mechanisms and behaviours, this section presents the thesis' view on how the relationship between cognitive processes and behaviours are knowable.

While Ontology concerns itself with the nature of the world and how entities in the world relate to each other, Epistemology explores the limits of understanding (Bem & de Jong, 1997, p. 02). For example, Epistemology investigates the nature of knowledge and how it

differentiates from opinions (Klee, 1997, p. 243). It also examines the means of acquiring knowledge and how such means can be justified (Steup, 2018).

Similarly to Ontology, Epistemology also has two important but polarised views: Objectivism and Subjectivism. But instead of referring to the nature of the world, Objectivism and Subjectivism relate to knowledge acquisition. For instance, Objectivism states that knowledge acquisition occurs primarily through empirical experiences with the world; furthermore, it asserts that there is no a priori knowledge (Ladyman, 2002, p. 62). Therefore, according to the Objectivist view, knowledge stems from pure empirical observations without any influence from the observer's knowledge, experience and skills (Chalmers, 2013, p. 07).

In contrast, Subjectivism states that knowledge creation relies entirely on the internal workings of the mind. Consequently, according to the subjectivist position, knowledge about the world is subjective, relative and illusory (Bem & de Jong, 1997, p. 70)**.** However, there are many arguments against these extreme epistemological positions. For example, the true essence of gravity is not observable, and scientists can only infer the existence of gravity from the measurement of its effects. Therefore, if scientists only studied observable phenomena, they would not be able to study unobservable phenomena such as gravity (Chomsky, 2008, p. 239)**.**

Furthermore, previous knowledge influences inferences about the world. For instance, a trained technician might reach a different conclusion than a layperson observing an X-ray that identifies a disease. Even if they have access to the same observable object, the evaluations of the technician will be more detailed and accurate due to knowledge and experience (Botterill & Carruthers, 1999, p. 85). Moreover, the mind does not appear to be

a blank slate at birth. Investigations on language acquisition indicate that infants are born with structures of language which manifest before they had learned them through interactions with the world (Grush, 2002, p. 274).

Therefore, the adoption of extreme Subjectivism is also problematic. For instance, scientific enquiry shows that theories can relate to the reality of the world and contribute to the progress of scientific knowledge (Botterill & Carruthers, 1999, p. 25). Moreover, the results of observational and experimental studies show that facts in the world are consistent enough to allow for a systematic research method such as the scientific method. For example, when scientists often perform experiments, sometimes using different equipment and paradigms, they frequently report the same observations and predictions (Bailer-Jones, 2002, p. 134).

In line with its ontological view, this thesis contains the epistemological position that the nature of the world is knowable, but only partially. In other words, knowledge creation depends on the interaction between what is real about the world, the researchers' cognitive capabilities and their previous knowledge and beliefs. Therefore, knowledge acquisition depends on compromises between extreme ontological and epistemological views.

5.3.1 Scientific Explanation

Scientists organise the world into theories relevant to their domains of knowledge to describe, explain and predict events in the world (Craver, 2002, p. 55). According to Gleitman, Gross and Reisberg (2011, p. 22), psychological theories are scientific because they also aim to describe, explain, and predict psychological phenomena. Therefore, this

section explains and justifies the importance of these functions of science within the context of this thesis.

5.3.1.1 Description

The way scientists describe entities in the world is crucial to uncovering the systematic nature of the world (Bem & de Jong, 1997, p. 07). Often, scientists abstract and organise the world through conceptualisations and operationalisations (Margolis & Laurence, 2014). In other words, scientists translate observations into abstractions of ideas and concepts, which provide access to the more elementary features of the phenomena (Bailer-Jones, 2002, p. 109). Consequently, theoretical abstractions allow scientists to successfully achieve their aims of understanding the world(Chomsky, 2008, p. 240).

However, despite providing an efficient and coherent way to summarise events in the world, the conceptualisations that compose scientific theories are not identical to the phenomena they attempt to describe (Worrall, 2002, p. 32). Alternatively, concepts contain descriptions of facts and events in the world that go beyond what is observed (Ladyman, 2002, p. 7). In other words, when scientists describe their observations, they include conceptual elements to their descriptions related to their knowledge and understanding, which in turn makes the statements about the observation intelligible.

Then, before testing their theories against events in the world, researchers further translate concepts into operationalisations. Operationalisations relate to expressing concepts into a format that allows its measurement (Bogen, 2017), usually in the form of mathematical formulations (Bailer-Jones, 2002, p. 109). Consequently, operationalisations represent the concept, but operations are not direct translations of concepts, just as concepts are not

direct translations of facts in the word. They are abstractions that make the scientific work manageable (Chang, 2009).

For example, psychological mechanisms such as personality traits and attitudes are not physical entities. Instead, they relate to latent constructs such as people's thoughts, feelings which psychologists infer externally, through verbal and non-verbal behaviours, as well as the context in which these behaviours occur (Ajzen, 2005, p. 02). Psychologists then assign a measurement scale to these constructs and infer that variations in a particular construct (e.g., anxiety) will correspond to variations in scores in the scale (Strauss & Smith, 2009).

Again, translating concepts into operationalizations does not mean that the operations perfectly represent the concepts; instead, such transformations only make concepts manageable. What connects the concept to the operation is the content of a particular theory (Shmueli, 2010). In other words, the facts researchers extract from their observations only connect to the concept abstractly according to the previous theoretical knowledge that the researcher possesses (Klee, 1997, p. 12).

5.3.1.2 Explanation

In addition to describing, science also has the goal of explaining events in the world. Scientific explanations require statements that describe causal relations which are either observable or unobservable (Ladyman, 2002, pp. 05-07). Therefore, scientists first organise statements about facts and causal relations into theories or structurally coherent systems of knowledge (Klee, 1997, p. 12). Then scientific explanations require that scientists test their theories empirically (Bermúdez, 2005, p. 70). Finally, the evaluation of results must occur through reasoning from data (Bogen, 2002, p. 134).

Psychology is often a deductive science. Therefore, psychological explanations require that a description of events be deducible from premises related to psychological laws or regularities. However, psychologists also use other forms of reasoning in their scientific enquiries, such as induction and abduction. This following section explores the advantages and disadvantages of using different forms of reasoning to explain psychological phenomena and why Deductionism has precedence over the use of induction and abduction.

5.3.1.2.1 Inductivism

Early in the development of modern science, Francis Bacon proposed inductive logic as a means of justifying experimentation (Ladyman, 2002, p. 21). The inductive method requires observing singular facts of the world through the senses and translating these distinct observations into statements (Bem & de Jong, 1997, p. 10). Once scientists observe a consistent number of instances of a particular phenomenon with the same characteristics without exception, they can make theoretical generalisations that other cases of the same phenomenon will have the same features as those they have observed (Chalmers, 2013, p. 43).

The development of the inductive method has been critical in advancing justified knowledge creation. However, despite its initial appeal and successes, the inductive method contains limitations that make its conclusions logically invalid. First, many scientific discoveries occurred through theoretical explanations before scientists could observe a particular entity (Bem & de Jong, 1997, p. 7). For example, scientists arrived at a theoretical description of DNA long before they had developed the technology to observe its structure (Pray, 2008).

Second, even though a collection of facts about the world may confirm a theory, nothing prevents a new fact from emerging that will contradict that collection of facts in the future (Ladyman, 2002, p. 38). Therefore, while inductivists might discover true facts about the world, many phenomena they observe might not contain a causal relation, but it might be simply a coincidence (Henderson, 2019).

5.3.1.2.2 Abduction

Abduction is a form of confirmatory reasoning in which scientists infer the cause of a phenomenon from the best explanation or hypothesis (Plutynski, 2011, p. 239). Similarly to induction, the starting point for the explanation of a phenomenon is its observation. However, when using induction, scientists observe single facts without referring to any previous theoretical influence (Ladyman, 2002, p. 21).

In contrast, when scientists use abduction, they make inferences related to a single phenomenon based on already known theoretical facts. In other words, abduction logic begins with scientists observing a particular event, then scientists search for the best theoretical explanation for the event. If the causal agent conforms to the theory, then the hypothesis is confirmed; however, if the causal agent differs from theoretical expectations, the scientist searches for another more appropriate theoretical explanation (Bem & de Jong, 1997, p. 12).

For example, when trained technicians observe an X-ray photograph, they will make inferences based on their previous training and knowledge and will reach different conclusions than a layperson. Furthermore, when the observation is inconsistent with

theoretical expectations, technicians will attempt to trace the event back to the most plausible explanation (Botterill & Carruthers, 1999, p. 85).

Therefore, abductive logic requires a theoretical framework to guide what kind of information is important. In other words, the observer will have acquired knowledge before making any inferences about the observation, and facts only have importance within a framework of accumulated knowledge (Klee, 1997, p. 11). Consequently, scientists need deductive inferences before they can reach conclusions abductively.

However, abduction shares a similar logical problem with induction since it is a confirmatory practice. Confirming hypotheses is never possible since there is always the possibility that an alternative explanation will disconfirm the findings. Although being a helpful way to generate hypotheses, using abductive logic cannot provide certainty on the conclusion of findings. Therefore, abductive logic is a weak form of reasoning (Plutynski, 2011, p. 244).

5.3.1.2.3 Deductivism

Deductivism refers to a reasoning process in which inferences about particular instances occur through generalisation from general principles. In contrast to inductivism, which entails reasoning from the occurrence of specific entities or events results, which generalises to other similar, but any yet unobserved entities or events. Furthermore, while the inductivist logic is confirmatory, deductivist logic applies equally to confirmation and falsification of a particular premise.

The application of deductivism in scientific enquiries often occur through the Nomological-Deductivist method. The method comprises three steps. First, researchers

construct a plausible deductive argument containing a description of an explanandum (i.e., a phenomenon that requires explanation) presented in a manner that its explanation follows logically from a general premise of an explanans (i.e., a general law that explains a phenomenon). Second, in addition to using a deductivist logic, the Nomological-Deductivist method requires empirical evidence for the conclusions to be valid. In other words, within the Nomological-Deductivist framework, scientists have to base their hypotheses on theories and then test the hypotheses empirically (Ladyman, 2002, p. 76).

The deductive method only works if the premises that scientists use to formulate hypotheses are accurate from the start (Bem & de Jong, 1997, p. 21). Furthermore, conclusions might be incorrect if the observations behind the premises are also incorrect. Alternatively, if the premises are true, then the conclusion will consequently be true (Chalmers, 2013, p. 52).

Finally, while other methods of deduction, such as the Hypothetical-Deductivist method, can frame hypotheses in a confirmatory manner, the Nomological-Deductivist method requires explanations that allow for the falsification of premises (Klee, 1997, p. 244). Within the falsificationist framework, after researchers test their hypotheses, theories that fail such tests should be discarded or replaced, and those that are not falsified should be further scrutinised (Ladyman, 2002, p. 70).

Falsification has given scientists the tools to achieve considerable achievements. (Chalmers, 2013, p. 62). Furthermore, Deductivism helps researchers differentiate between genuine scientific and pseudo-scientific theories. Theories that are not falsifiable are also non-scientific (Botterill & Carruthers, 1999, p. 14). However,

Deductivism also has limitations. For instance, despite the logical certainty of the deductive method, it is impossible to be certain about all variables having an effect on the phenomenon being studied, and only statistical predictions can be produced, especially in fields like Psychology (Bem & de Jong, 1997, p. 21).

Furthermore, research in the Social Sciences often has a high degree of flexibility related to designs, definitions and analytical models. The more researchers allow flexibility in their research methods, the less likely it is for research findings to be correct (Ioannidis, 2005). Therefore, falsifying theories through the Nomological-Deductivist method requires that the theoretical premises behind the procedure are correct and that the methods for testing hypotheses are valid and reliable.

5.3.2 Prediction

Theories can exist without empirical data (Strauss & Smith, 2009). Still, a particular theory can only truly explain events in the world if it can predict what will happen in such events (Shmueli, 2010). Likewise, having a theory is not an essential requirement for making predictions. For instance, a person can make predictions about any event independently of any understanding about a particular event (Azen & Budescu, 2003). What makes a prediction scientific, particularly in Psychological Sciences, is the prior development and adoption of explicit theories (Strauss & Smith, 2009). Alternatively, what makes a theory robust is the strength of its predictive power (Bem & de Jong, 1997, p. 20)

Therefore, while scientists describe, explain and predict events in the world through the lens of theoretical frameworks, they also make predictions about entities, which is a form of interaction with the world, using theories as a starting point. For instance, the utilisation

of conceptual frameworks to make predictions is an important element of deductive scientific enquiry, first, because theoretical statements explain the relationship between a theory and empirical tests. Second, predictions based on explicit theoretical statements help with the development of more efficient empirical tests (Strauss & Smith, 2009).

5.3.2.1.1 Probability

This thesis's studies contain hypotheses as statements and attempt to verify the truth or falsity of such statements through observations. For example, the studies test a hypothesis stating that measurements referring to psychological mechanisms predict dishonest behaviours. Therefore, the studies subscribe to the deductivist approach to deterministic predictions on the relationship between mental mechanisms and dishonest behaviours. However, when developing the dedutivist approach, philosophers had in mind the exact sciences, such as physics which contain explanations derived from deterministic principles and laws of nature (Woodward, 2002, p. 38).

Scientific laws (i.e., natural laws) contain regularities in cause-and-effect between entities which should invariably occur under identical conditions (Chalmers, 2013, p. 198). However, laws of nature are rare, and in some cases, they are abstractions that represent statistical probabilities. Consequently, for statistical laws, philosophers of science accept the use of statistical deductive models, which are weaker than the deductive-nomological model, since they explain and predicts events that might occur most of the time, but not always (Bem & de Jong, 1997, pp. 20-21).

Within the framework of statistical laws, a high probability that predictors relate to the predicted should allow for a robust explanation (Woodward, 2002, p. 38). The studies in

this thesis examine whether constructs such as personality traits and attitudes explain and predict job application dishonesty. Personality traits and attitudes are both dispositions and functions of the mind which influence behaviours. However, the relationships between these constructs and behaviours only manifest if certain conditions are present. Alternatively, confidence in the robustness of predictions will only occur if the results of the studies demonstrate a high probability that a relationship between Personality traits and Attitudes and behaviours will occur.

5.3.3 Summary

This section presented the ontological and epistemological position of this thesis. First, this thesis adopts an Ontological view which is a compromise between extreme Realist and Idealist understanding of entities and events in the world. This view states that the world is partially knowable through sense-data, and sense-data is the product of interactions between what is true about the world and human capacity to understand the facts about the world. The Ontological section also defends an approach to mental causation that differs from the traditional cause-and-effect mechanist view.

This approach states that cognitive processes stem from modular systems in the brain that teleologically influence behaviours and entities in the world. In other words, mental processes are emergent properties of the brain that constitute systems with particular functions. These systems are not observable, but researchers can infer their existence from stable patterns of behaviours and their consequences. Scientists still do not understand how the brain executes mental functions; however, adopting an emergent functional point-of-

view allows them to understand the mind through empirical testing that reveals its teleological functions.

The Epistemological approach of this thesis follows logically from its Ontological position. The epistemological section states that knowledge creation has a considerable scope. Still, it also contains limits that depend on the interaction between what is real about the world and the researchers' cognitive capabilities and their previous knowledge and beliefs. For example, the functions of science are to describe, explain, and predict different phenomena. These goals also apply to psychological investigations. When describing the world, scientists translate observations into abstractions of ideas and concepts, which provide access to the more elementary features of the phenomena.

They also simplify concepts further by converting concepts into operationalisations. However, just like observations are not exact translations of events and entities in the world, concepts and operationalisations are not precise translations of observations. The interchangeability of these elements depends on the researchers' previous theoretical knowledge and beliefs.

Furthermore, scientific explanations also depend on statements that describe regularities and relationships about entities in the world. The evaluation of the validity of such statements occurs through logic and observation. Within the Nomological Deductivist model, if the premises based on empirical observations are true, the conclusion will consequently be true; however, conclusions might be incorrect if the observations behind the premises are also incorrect. Since the accuracy of observations depends on the researchers' beliefs, knowledge and skills, which only partially captures the reality of the word, scientific explanations are always uncertain and tentative.

Chapter 6 Methodology

I don't claim to be a methodologist, but I act like one only because I do methodology to protect myself from crazy methodologists. — Ward Cunningham

This chapter explains the methodological strategy of this thesis. It details the logic behind the design of the instruments used in the thesis' studies, the rules of instrument administration, participant recruitment and data analysis. It also contains a summary of the thesis' methodological limitations.

6.1 Introduction

The main objective of conducting research is the empirical testing of theories (Reichardt, 2009). Within the scientific framework, researchers organise facts into theories to describe, explain, and predict events in the world (Craver, 2002, p. 55). However, before researchers can test theories and hypotheses with observable data, they have to translate their conceptual content into a format that facilitates scientific work (Bogen, 2017).

Irrespective of the validity of a theory, the use of empirical testing requires many auxiliary theories which can influence the results positively or negatively (Smith, 2005). However, deciding on the most appropriate research methods can be challenging since researchers can use different research procedures to support or refute their hypotheses. That is especially true to research in Organisational Psychology since the discipline does not contain an established paradigm.

This thesis contains a quantitative research approach to test a set of theoretical claims related to dishonest behaviours. This approach emphasises the objective measurement of concepts, the testing of measurable hypotheses and the use of statistical data analysis. This approach contains many auxiliary theories, including theories about data measurement. Since scientific knowledge is justified knowledge (Ladyman, 2002, p. 62), the choice of research methods requires justification.

Therefore, this chapter aims to outline and theoretically justify the thesis's choice of research methodology. The chapter describes and explains using a correlational design with self-report data collection over an experimental design to test hypotheses. Moreover, the chapter describes and justifies the studies' sampling method, the recruiting procedure and the data analysis. The chapter ends with an overview of the scope and limitations of the thesis' methodology.

6.2 Correlational Studies

Researchers use experimental methods to test causal relationships between variables. A crucial feature of experiments is the random assignment of participants into experimental or control groups. The use of random assignment entails placing different groups of participants with the same characteristics in experimental and control conditions; therefore, when changes occur with the experimental group but not with the control group, scientists have a higher degree of certainty that these differences result from their manipulations (Howitt & Cramer, 2011, p. 171).

Despite the advantages of using experimentation, some scientific enquiries are not amenable to experimental designs. For example, in fields like psychology, researchers

often study the influence of variables on behaviours (e.g., personality traits) which they cannot manipulate (Kirk, 2009). In such cases, researchers often use correlational designs which do not contain manipulations; alternatively, researchers merely assign different variable values to scales to investigate associations (Mark & Reichardt, 2009).

In contrast to experimental studies, correlational studies do not establish causation; instead, the results of correlational studies can only demonstrate relationships. Consequently, researchers in the Social Sciences justify performing correlational studies to explore their theoretical predictions using theoretical models (Azen & Budescu, 2003; Shmueli, 2010).

Furthermore, despite its limitations, the use of correlational research has some advantages over experimentation. For example, when performing experiments, the use of artificial settings shields the experimental procedure from influences that could influence the procedure's results (Bogen, 2002, p. 129). Although allowing the experiment to control for extraneous variables, experimental settings often become so simplified that they do not resemble real-life events. Consequently, much of the findings of experiments are not easily generalisable (Mischel, 1968, p. 22).

For example, the simulation of a job application context where participants could misreport their job application information would raise internal and external validity questions (Jackson, Wroblewski, & Ashton, 2000). Researchers might attempt to simulate the job application context by allowing participants to behave as if they were participating in the selection process. However, critical real-life factors related to the selection process would be hard to simulate, such as the motivation to get a job, perceptions of the seriousness of the dishonest behaviour, perceptions of risk and the lack of anonymity.

Moreover, sometimes performing experiments can be costly or challenging (Bogen, 2002, p. 130). In a job application dishonesty experiment, one initial issue would be the verifiability of the claims. It might not be feasible for researchers to verify every job application claim. Verification might entail contacting previous employees and relying on their statements if they decided to cooperate with the study.

Finally, research studies must also be ethical (Mark & Reichardt, 2009). Although interventions on people's unethical beliefs and behaviours would suit the purposes of this thesis, such a procedure could have unethical consequences. For example, changing people's baseline beliefs about the ethicality of their behaviours could result in participants adopting dishonest behaviours outside the experimental context. Furthermore, lying on a job application is similar to fraud, which might incur legal consequences to the participants. Therefore, attempting to change people's behaviours in a way that increases their probability to commit fraud in a real-life scenario would be highly unethical.

Therefore, experiments are valuable research tools because random assignment allows for the inferences of cause-and-effect relationships. However, random assignment is not always possible because of issues of complexity, costs and ethicality. For practical and ethical reasons, the research in this thesis relies on correlational studies. Correlational studies are valuable because they are suitable for the investigation of events that do not allow manipulation. Moreover, they often contain more external validity than experiments since observing events in correlational studies can occur in their natural context. Therefore, despite being weaker than the experimental design in establishing causation, the correlational design is better suited for the studies in this thesis.

6.3 Self-Report Studies

The studies in this thesis investigate the influence of dispositional psychological factors on participants' decision to lie in their job applications. Psychologists infer dispositions such as personality and attitude from non-verbal and verbal behaviours (Ajzen, 2005, p. 02). Measuring non-verbal behaviours, which requires direct observation, can be sometimes impractical since it might require a complex and costly setup. Consequently, researchers often measure dispositions through indirect non-verbal methods such as self-reports (Funder, 2001).

A self-report includes any research technique in which participants report on their feelings, attitudes and beliefs (Constantine & Ponterotto, 2006). Self-reports usually have a questionnaire and survey format (Constantine & Ponterotto, 2006), with which researchers collect descriptive and predictive data from (Goddard & Villanova, 2006). This versatile research tool is appropriate for correlational and experimental studies (Paulhus & Vazire, The self-report method, 2007).

6.3.1 Methodological Issues

The use of self-reports as a method of data collection has many advantages. For example, self-reports are easy to administer, inexpensive, and generate a large amount of information with little interference from the researchers (Paulhus & Vazire, 2007). Furthermore, the anonymity of response makes it easier for participants to answer sensitive questions, especially questions related to cheating, which they might perceive as embarrassing or incriminating behaviours (Ong & Weiss, 2000). Finally, while it is challenging to separate dishonest behaviours from mistakes in observed behaviours, the

use of self-reports allows for the assessment of deliberation in performing such behaviours (Henle, Dineen, & Duffy, 2019).

However, self-report as a method of data collection presents crucial limitations. Most of the disadvantages of self-reports relate to the participants capacity and willingness to answer the questions accurately (Kim, Di Domenico, & Connelly, 2018). The limitations can also relate to participants limited self-knowledge, limited memory and different response biases.

6.3.1.1 Self-Knowledge

The possibility of participants lacking in self-knowledge is an important issue for studies that use self-reports. If participants are not aware of how they think, feel and behave, psychological measures cannot be accurate. Consequently, psychological studies using self-report will be invalid.

However, limited self-knowledge is often not an issue in self-report studies. Although individuals might be poor judges of the causal relationship between their mental states and behaviours (Nolan, Schultz, Cialdini, Goldstein, & Griskevicius, 2008), they display relatively accurate and elaborate evaluations of their thoughts, feelings and behaviours (Beer, 2012).

For example, Connelly and Ones (2010) conducted three meta-analyses to investigate the extent to which self-reported personality traits and self-reported behaviours correspond with that of different acquaintances, such as family members, friends and cohabitors. Overall, the results show that the self-ratings and other-ratings overlap considerably on both personality traits and behaviours such as academic achievements and occupational

performance. Therefore, the results indicate that people's insights about their personalities and descriptions of their behaviours are accurate since acquaintances provide similar reports based on external observations.

Factors related to questionnaire administration can also improve the accuracy of self-reports. For instance, Mabe III and West (1982) conducted a meta-analysis of studies comparing the self-evaluations of ability with measures of participants' actual performance in a variety of tasks. The authors found that when participants had more experience with evaluative self-reports, received clear instructions and were assured anonymity, the relationship between the two types of measurement was more accurate, reaching an average correlation of $r = .63$.

Finally, the utility of self-reports also depends on the purpose of data collection. For example, Powell-Young (2010) compared self-reported and real measurements of weight and height values. The authors found strong correlations between the measurement methods ($r = .95$ and $r = .98$, respectively). The author argues that although the discrepancies are small, they render self-report of weight and height impractical for clinical assessments; however, they might be accurate enough for other forms of research such as weight and height surveillance studies.

6.3.1.2 Recall Bias

Participants of self-report studies also display relative accuracy when recalling events in their lives. For instance, Short et al. (2009) conducted a study on the effects of memory limitations on self-report questionnaires. They compared data from self-reported health care utilisation and absenteeism with that of administrative records. The authors found that

for recent events, self-reported data can be relatively accurate proxies for administrative data. Nevertheless, the results also show that recall discrepancies increase depending on the timing of the self-report administration. Therefore, the longer the time delay between the time the events took place and the completion of the self-report, the less accurate the reporting of recalled events.

6.3.1.3 Response Biases

Participants of self-report studies often display response biases. Response biases refer to tendencies to respond to questions in a manner that interferes with the validity of the response (Paulhus & Vazire, 2007). Examples of response bias include socially desirable responding (SDR), acquiescent responding (AR), and extreme responding (ER).

6.3.1.3.1 Social Desirability

When conducting a self-report study, there is the possibility that respondents may intentionally refrain from providing accurate details about their opinions and behaviours (Mabe III & West, 1982). Since the studies in this thesis ask questions about behaviours that participants might consider socially unacceptable, such questioning might be uncomfortable for some participants, who might refrain from providing accurate information.

Researchers often identify distortions when they request participants to answer similar measures, first as they would usually do when completing questionnaires and then as if they were faking the answers in a socially desirable way. Researchers might also ask participants to complete similar measures in a research context, which provide participants

with anonymity and low stakes, and then in situations in which the results of the measurements might have consequences to the participants, such as in job selection contexts. Researchers apply the term Faking to refer to the differences in scores between self-report measures participants complete in these different contexts. (Griffith & Peterson, 2008).

Since measuring Faking requires that researchers administer the same instrument multiple times in different contexts, the procedure is often not practical. Attempts to mitigate inaccuracies on the participants occur with the use of social desirability scales. In principle, social desirability scales should correlate strongly and positively with measures of Faking. Therefore, if researchers add a measure of social desirability to their studies, and the results indicate that some participants have high scores, researchers should conclude that the measure of social desirability is detecting, by proxy, participants who might be providing fake responses to the other measures.

According to Giffith and Peterson (2008), social desirability measures should, in principle, assess the degree of individual faking in self-report responses. After identifying participants with high scores in social desirability, the researcher can either correct the scores of such participants in the primary target measures or remove the observations altogether. However, Griffith and Peterson argue that social desirability measures are ineffective as a control since they fail to correlate with faking.

In another study, Peterson et al. (2011) measured job applications' faking through individual-level score differences personality scales (i.e., Big Five Conscientiousness) measured across different assessment contexts (e.g., real job application vs research

environment). The results show that social desirability did not correlate significantly with the overall magnitude of faking ($r = .14$, $p > .05$).

Peterson et al. then examined the impact of corrections for social desirability scores for the top 5%, top 15%, and top 30% of scorers on a social desirability scale. The authors created dummy coded variables representing whether each individual respondent was identified as fakers for each cut-off within each subsample. However, the authors did not find any significant differences in the predictive ability of social desirability on faking between groups within each sub-sample. Consequently, the authors concluded that there would be no impact of corrections for social desirability scores on the correlations between the real job application and research conditions.

Furthermore, Peterson et al. investigated whether measures of social desirability can improve the criterion-validity of a relationship between Conscientiousness and counterproductive work behaviours. First, Conscientiousness in the research condition (i.e., "honest" Conscientiousness) correlated negatively with counterproductive work behaviour ($r = -.22$, $p < .01$), while in the real job application condition, the correlations between Conscientiousness and CWB were not significant, which indicated that faking had occurred. However, after controlling for the effects of social desirability scores, the correlation between applicant Conscientiousness and counterproductive behaviour remained unchanged.

The authors then analysed whether scores on social desirability could help predict faking in the different sub-samples containing the top 5%, 15%, and 30% of scorers on the social desirability scales, respectively. Once again, scores on social desirability scales could not identify fakers within each subsample.

6.3.1.3.2 Anonymity

Peterson et al.'s (2011) study on the validity of social desirability scales indicates they might be ineffective in controlling for inaccurate responses in studies with sensitive topics. Consequently, researchers might want to use other methods to mitigate the effects of socially desirable responses. Ideally, self-reports could be validated whenever possible when researchers compare them with other data sources data (Salovey & Steward, 2004).

Alternatively, anonymity might help mitigate the effects of social desirability. For example, Ong and Weiss (2000) conducted a study in which participants had the opportunity to confess their level of cheating. The authors found that participants have a solid tendency to confess transgressions when self-report is anonymous, where 74% admitted anonymously to being dishonest against 25% when their identities were public.

Nevertheless, participants seem to be relatively open about their dishonesty even in conditions with no anonymity. For example, Peer et al.'s (2014) conducted a dishonesty study with 2,113 participants using Amazon's Mechanical Turk (MTurk). Participants completed an anonymous task in which they would get paid each time they correctly predicted the outcome of 10 coin-tosses. Then the researchers asked participants to confess to overreporting the number of correct guesses they had by stating how many correct guesses they actually had with no consequences to their payoffs. The researchers then compared the confession with the actual accuracy of participants' predictions. Although a considerable proportion of admissions were lower than participants' real cheating, most dishonest participants openly reported cheating when asked about their level of transgression after a cheating experiment was over.

Peer et al.'s also found that participants who did not confess on transgression cheated considerably less than those who fully or partially confessed. Therefore, anonymity might make it easier for participants to answer sensitive questions, especially questions related to cheating, but self-reporting of dishonesty might still be valid even in conditions with anonymity.

6.3.1.4 Classic Response Sets

Classic response sets include acquiescence biases and extreme responding. Acquiescence bias refers to situations in which respondents tend to agree with all the questions in a measure (Schriesheim & Hill, 1981). In comparison, extreme responding occurs when respondents select the most extreme options or answers available (Paulhus & Vazire, 2007).

Researchers might be able to avoid acquiescence bias if they design non-leading questions. Researchers should avoid using item wordings that express a preference for one response over another since such preference might influence participants' responses (Schriesheim & Hill, 1981).

Other ways to mitigate acquiescence responding include balancing the responses in both negative and positive directions (Paulhus & Vazire, 2007) and the addition of attentiveness tests consisting of items that direct the participant to answer the question in a particular way (Aust, Diedenhofen, Ullrich, & Musch, 2013). Aust et al. explain that unexpected combinations of answers might reveal insincere or inattentive participants, and the failure

to follow the instruction might imply that the participants did not pay attention to the questionnaire items or that they were not taking the task seriously.

6.3.2 Questionnaire Design

The studies in this thesis contain customised questionnaires and questionnaires designed by other investigators. The purpose of these questionnaires is the measurement of psychological constructs. However, achieving validity is challenging since mental constructs are unobservable compared to concepts in the hard sciences. Furthermore, researchers often do not agree on how they should measure psychological constructs (Smith, 2005).

Therefore, for clarity, this section presents the development methodology for the measures in this research. These include the wording of questions, question placement and operationalisation. The section also contains a description of the methodology behind the tests of validity and reliability.

6.3.2.1 Measure Design

The studies in this thesis use valid and reliable expert questionnaires when they are available in the literature. However, the studies also contain questionnaires that had to be designed for this thesis. These questionnaires measure participants' reported job application dishonesty and different beliefs associated with such behaviours. When developing a psychological measure, researchers should have a clear goal for the measures and specify the domain the measure is intended to assess (Clark, Wegener, & Fabrigar, 2008). Additionally, it is important to clearly define the constructs and justify a particular

selection of items representing this construct at the early stages of measurement development (Strauss & Smith, 2009).

6.3.2.1.1 Selecting Items

The identification of items for a measure of job application dishonesty can occur in different ways. For example, Henle et al. (2019) generated an extensive list of job application items from their subject knowledge. Additionally, the authors asked a focus group of five MBA students with knowledge of human resources practices to list items that they believed related to misrepresentations on resumes. Subsequently, the authors asked four graduate students with human resource management knowledge and experience to sort the items into pre-determined categories (i.e., fabrication, embellishments and omissions). The process regenerated 47 items which the authors further evaluated using factor analysis.

However, when the authors performed factor analyses, most of the items did not load into factors, and the final questionnaire retained only 11 items from the original set. One possible reason for many of the items in Henle et al. (2019) study not loading is their variation in specificity. For instance, while made items made specific references to job application dishonesty (e.g., “Claimed to have skills that you do not have”; “Distorted your qualifications to match qualifications required for the job”), others included broad descriptions (e.g., “Embellished information;” “Made claims that were false”).

Therefore, the selection of items for the measures in this thesis attempted to generate a homogeneous set of items representing the concept of job application lies. Still, there was an attempt to make them heterogenous enough to avoid redundancy and maintain a

reasonable scope for the scales (Strauss & Smith, 2009). For example, the items refer to information that job candidates commonly add to their job application and distort related to education, previous employment and references. Examples of items include dates of employment, company names, job positions, education, skills, training, etc. (*Please see Table 5.1 for a complete description of the items*).

Furthermore, the approach for the generation and selection of items for the studies in this thesis share similarities but important differences with Henle et al.'s (2019) procedures. Job applications usually contain one or more documents (e.g., Cover letter, Curriculum Vitae or Application Form) that job candidates can use to present their credentials, such as qualifications, skills, knowledge and experience, to a hiring organisation. Therefore, the initial generation of items for a measure of job application dishonesty occurred from a selection of standard pieces of information that job candidates can include in their job applications.

After the initial selection, the items were adapted into vignettes that represent lies and embellishments. Examples of job application lies *include "Adding previous employment that you did not have"* and *"Adding previous job positions that you did not have."* Examples of job application embellishments included *"Describing previous job positions in a way that made them look more impressive "* and *"Describing previous job responsibilities in a way that made them look more impressive*."

However, it is important to note that the number of items varies between the measures in the two studies in this thesis. In Study One, the measures related to embellishments, only contained three items. The addition of items for extra items in Study Two increased the content validity of the measure. Moreover, the measures related to job application lies in

Study Two also include extra items to make items related to lies and embellishments more equivalent concerning different sections of a job application.

Table 6.1 - *Description of Measure Items by Study*

Study One	Study Two
Lies	
Employment	
Changing the dates of employment to fill an employment gap.	Changing the start/finish dates of employment in order to fill an employment gap.
Adding company names the candidate has not worked for.	
Adding job positions that the candidate has not previously had.	Adding job positions that they did not have.
Adding previous responsibilities that the candidate has not previously had.	Adding previous job responsibilities that they did not have.
	Adding work achievements (e.g., results, targets, etc.) that they did not have.
Education	
Adding education that a candidate does not have.	Adding education (qualification, institution attended, etc.) that they did not have
	Adding educational achievements (e.g., grades, honours, awards, etc.) that they did not have.
Adding skills that the candidate does not possess.	Adding skills that they do not have.
Adding training that the candidate does not have.	Adding training that they do not have.

	References	
	Giving made-up references.	Adding a fictitious letter of recommendation to the job application.
		Adding fictitious referee names.
	Personal Information	
	Concealing personal details in order to fit a job description.	
		Adding incorrect personal information to fit a job specification.
Embellishments		
	Employment	
	Describing previous jobs held in a way that makes the jobs seem more impressive.	Describing previous job positions in a way that made them look more impressive.
	Describing previous responsibilities in a way that makes the candidate seem more impressive.	Describing previous job responsibilities in a way that made them look more impressive
		Describing work achievements (e.g., results, targets, etc.) in a way that made them look more impressive.
	Education	
		Describing education (e.g., qualification, institution in a way that made it look more impressive.
		Describing educational achievements (e.g., honours, awards, grades, etc.) in a way that made them look more impressive.
		Describing previous training in a way that made it look more impressive.
		Describing skills in a way that made it look more impressive.

Personal Information	
Writing a personal statement that makes the candidate seem more impressive.	Presenting personal information in a way that made it look more impressive.

6.3.2.1.2 The Four Measures

The two studies in this thesis contain questionnaires with four similar and original measures. The measures include Attitudes (i.e., Dishonesty Seriousness), Norms (i.e., Perceived Social Proof Dishonesty), Risk (Perceived Risk of Dishonesty Verification) and Job Application Dishonesty (i.e., Reported Frequency of Job Application Dishonesty). However, the measures also subdivide into items related to job application lies and embellishments. Aggregated items related to lies and embellishments have an additional "L" (e.g., Attitudes-L) and "E" (e.g., Attitudes-E), respectively, attached to their labels.

Each of the four complete measures contains similar items related to common types of job application dishonesty. Each measure contains slight changes in the wording of the items to align with each measure's stem question. The number of items in each measure also differed between studies. Study one has 12 items for each of the four measures totalling 48 items. Study Two has a similar format, but it contained extra items related to both job application lies and embellishments. Each measure in Study Two contains 19 items, totalling 72 items across the four measures. The rationale behind adding more items was to allow a more refined measure of the concept.

6.3.2.1.3 Stem Questions and Scales

Below is a list of stem questions and scales in each study. Each stem question contained similar items related to common types of job application dishonesty. Each stem question was followed by the vignettes each containing a measurement scale.

6.3.2.1.3.1 Study One

In Study One, the measure of Attitudes, which represents beliefs about the seriousness of CV items, contains the stem question "Please use the scale below to state how serious you think the behaviours are." The measure had a five-point scale ranging from "Not Serious" to "Very Serious."

The measure of Norms, which represents beliefs about the frequency with which others are dishonest in their CVs, contains the stem question "Please use the scale below to state how often you think candidates behave in the following ways." question "Please use the scale below to state how serious you think the behaviours are." The measure had a five-point scale ranging from "Never" to "Always."

The measure of Risk, which represents beliefs related to the risk of being dishonest in CVs, contains the stem question: "Please use the scale below to state to state how often you think managers do further checks on the information provided by candidates on their CVs." The measure had a five-point scale ranging from "Never" to "Always."

The measure of Reported CV dishonesty, which represents the frequency with which participants were dishonest in their CVs, contains the stem question "Please use the scale below to state how often you have behaved in the following ways." The measure had a five-point scale ranging from "Never" to "Always."

6.3.2.1.3.2 Study Two

In Study Two, the measure of Attitudes, which represents beliefs about the seriousness of Job Application Dishonesty, contains the stem question "Please read the examples below and, using the scale provided, state your opinion on how serious you think each behaviour is." The measure had a five-point scale ranging from "Not Serious" to "Very Serious."

The measure of Norms, which represents beliefs about the frequency with which others are dishonest in their job applications, contains the stem question "Please read the examples below and, using the scale provided, state your opinion on how often you think job candidates behave in the following ways." The measure had a five-point scale ranging from "Never" to "Always."

The measure of Risk, which represents beliefs related to the risk of being dishonest in job applications, contains the stem question: "Please read the examples below and, using the scale provided, state your opinion on the risk of detection of each behaviour during the selection process" The measure had a five-point scale ranging from "0% Chance" to 100% Chance."

The measure of Reported Job Application Dishonesty, which represents the frequency with which participants were dishonest in their job application, contains the stem question "Please use the scale provided to report on how often you have behaved this way" The measure had a five-point scale ranging from "Never" to "Always."

6.3.2.1.4 Question Placement

Participants completed the questionnaire using an online platform that did not allow the randomisation of questionnaire order or the scenarios. When designing a questionnaire,

there is a concern that the question items might influence participants' responses (Wegener & Fabrigar, 2008). For example, single item responses near the end of a questionnaire might have a higher correlation with the total score of a measure than items located at the beginning (Knowles, 1988). Furthermore, measures containing random allocations of items might have a stronger convergent and divergent validity (Schriesheim & DeNisi, 1980).

However, the effect of the questionnaire format (e.g., random vs structured) might be minimal. For example, Armitage and Conner's (1999) evaluated Theory of Planned Behaviour studies which varied between random and structured measurement formats and found that differences in criterion-validity of measures concerning behaviours were non-significant. Furthermore, Schell and Oswald (2013) conducted a meta-analysis of personality studies that measured the IPIP Big-Five scale in a random or structured format. Still, they did not find any significant order effect on the internal consistency of the measures.

6.3.2.1.5 Measurement Scale

Another important stage in measurement development includes the format for the measurement response scale (DeVellis, 2012). Therefore, each scenario was followed by optional answers presented as a unidirectional Likert scale with rating intervals between 1-to-5. For example, (1) Never, (2) Seldom, (3) Sometimes, (4) Often (5) Always.

In contrast to dichotomous scales, Likert scales have a clear advantage. For instance, when the item response format is dichotomous, the maximum possible correlation having different response distributions is limited to an upper bound of $r = .25$. However, this

problem might be reduced when items use a multipoint response format (Kibeom & Ashton, 2007, p. 429).

6.3.2.1.6 Measure Aggregation

Several extraneous factors other than the evaluation of behaviours might strongly influence the measurement of a single behaviour (Ajzen, 1991). For instance, a single measure of behaviour contains influences from various factors unique to the particular behaviour and context. These influences might weaken correlations even when measurements are compatible with the behaviours they represent (Ajzen, 2005, p. 48).

Alternatively, the predictions of a model regarding a behavioural category might be more accurate if it contains measures composed of a valid collection of single actions that represents a behavioural category (Ajzen & Fishbein, 1977). When several exemplars combine the set of multiple measurements, sources of errors stemming from individuals tend to cancel out with the aggregation of items into a multiple-item measure (Wegener & Fabrigar, 2008). Improvements occur because when variables are aggregated, errors of measurement are averaged, which consequently makes the relationship more visible (Rushton, Brainerd, & Pressley, 1983).

For example, Sackett and DeVore's (2001) review of self-report data on counter-productive work behaviours shows single behaviours positively correlated with each other in the range of .30, while aggregates of behaviours correlated with each other in the range of .50. Furthermore, the increase of correlations occurred for both self-reported data and supervisor ratings.

Therefore, the response items aggregated into measures with an average value which represent difference concepts (i.e., Attitudes, Norms, Risk and Reported Behaviours). The aggregation of multiple items referring to a similar concept might provide better psychometric properties than measures composed of single items.

6.3.2.1.7 Correspondence

Aggregation is particularly important for measures of psychological constructs. Ajzen (2011) explains that one reason measures of Attitudes fail to predict behaviours is because researchers often use single measures, which often do not adequately represent a particular behaviour category. Additionally, researchers often include in their measures of attitudes items that do not represent the attitudinal concept.

Attitudes are part of a psychological mechanism that explains many forms of social behaviours; for this reason, this construct remains an important concept in social psychological theory (Ajzen, 2005, p.53). However, the concept is also heavily criticized. For example, theorists argue that attitudes do not relate to behaviour (LaPierre, 1934) or that the correlations are often too small to have a real impact on behaviours (Mischel, 1968; Wicker, 1969).

Ajzen (2011) defends the validity of Attitudes as a theoretical concept but acknowledges the methods used to study the attitude-behaviour relationships have weaknesses. Alternatively, Ajzen argues that good operationalization of attitudinal variables can help improve attitude-behaviour relationships. Ajzen calls this methodological approach “The Principle of Correspondence.”

The principle of correspondence improves the attitude-behaviour relationship by improving the accuracy of attitudinal measures (Ajzen & Fishbein, 1977; Kraus, 1995). According to the Principle of Correspondence, correlations improve when researchers measure attitudes and behaviours at a similar degree of specificity. In other words, measures should be compatible with their target, action, context, and time elements. Furthermore, improvements should also occur when studies include aggregate measures of attitudes and behaviours with a similar degree of specificity.

The more similar the elements of one indicator are to those of another, the stronger the statistical relation between them (Ajzen & Fishbein, 1977). For instance, a measure of general attitudes (e.g., beliefs about healthy eating) should better predict general behavioural tendencies (e.g., the average frequency of eating junk food). In contrast, an attitudinal measure of a specific behavioural act (e.g., attending church next Sunday) should better predict that particular behaviour but not others (e.g., praying at home).

Two attitude-behaviour meta-analyses indicate that correspondence improves attitude-behaviour relationships. First, Kraus' (1995) meta-analysis of attitude studies examined eighty-three studies with different degrees of manipulated correspondence**.** Results show that at low levels of correspondence, the average attitude-behaviour correlation was $r = .13$; however, at high levels of correspondence, correlations were = .54. The results of Kraus' (1995) meta-analysis concurs with that of Glasman and Albarracin's (2006) meta-analysis of attitude studies. This study only included high correspondence attitude-behaviour studies and found an average attitude-behaviour correlation of $r = .52$.

The studies in this thesis include measures of psychological constructs to predict reported behaviours. The measures follow the Principle of Correspondence since they contain items with some degree of homogeneity despite referring to different behaviours. In other words, the individual items represent, when aggregated, the concept of job application dishonesty. Furthermore, the aggregate items within measures of attitudes, norms and behaviours are compatible. The core behaviours are present similarly in all the measures. Therefore, they should display a high degree of internal consistency and criterion validity with the measure of reported dishonest behaviour. Issues of validity and reliability are further explored in sections 5.3.3 and 5.3.4.

6.3.2.1.8 Attentiveness tests

Finally, in Study One, each measure contained an attentiveness test for acquiescence and extreme responding. The 12 items in each measure represented nine scenarios of serious transgressions (e.g., adding false information) and three scenarios of mild transgressions (e.g., presenting information in an impressive manner). The order of the items contained alternations between high base-rate and low base rate expected responses. Participants answers should differentiate between serious and non-serious lies; therefore, unexpected patterns of answers, such as the lack of differentiation between the two sets of answers, could indicate response biases.

Study Two had an additional attentiveness test for each measure. The test consisted of adding items to each measure that directed the participant to answer the question in a particular way. Not following the instruction should indicate that participants were not attentive to the items or intentionally refraining from sincerely answering the questions.

6.3.3 Questionnaire Validity

Validity can take many forms and depends on the purposes of the research (Howitt & Cramer, 2011, p. 272). Different groups of researchers often disagree on whether a piece of empirical evidence is valid (Bogen, 2002, p. 136). Therefore, there are many ways to establish the validity of a measure. For instance, validity tests can include, but are not limited to, face validity, content validity and construct validity (Wegener & Fabrigar, 2008).

6.3.3.1 Face and Content Validities

Face validity relates to the degree of similarity between the measurement and the phenomena it intends to represent (Howitt & Cramer, 2011, p. 274). According to Howitt and Crammer, the assessment of face validity is subjective, and items that appear valid to one researcher may be understood very differently by other researchers or participants.

Content validity is similar to face validity in representing the degree of similarity between the measurement and the phenomena it intends to represent. For example, the careful wording of items should represent the concept (Clark & Watson, 1995). Therefore, the assessment of face and content validities occurs subjectively. They include evaluating the conceptual definition of a scale and the correspondence of its variables (Hair, Black, & Anderson, 2014, p. 123).

However, differently from face validity, content validity represents a more objective evaluation of a construct. This form of validity relates to including items extracted from the research literature, establishing theories or observations, which cover the essential characteristics of a concept (Howitt & Cramer, 2011, p. 274). It also includes a more

careful assessment of how representative a collection of items is of the target concept (Field, 2009, p. 12).

Section 5.3.2.1 explained the rationale behind the selection of items for the measures within the job application questionnaire. The measures contain items that represent the most common information found in job applications. The information includes statements referring mainly to educational achievements and the employment history of job candidates. The evaluation of face and content validity is subjective.

In this thesis, the measure of job application dishonesty contains items that refer to the most common information found in a job application. That is, it includes statements about educational and occupational information and achievements. Therefore, the measures related to job application dishonesty attempt to cover and represent different items and sections that compose a job application. Since the decision of adding or omitting items has a subjective dimension, this thesis includes considerations on more objective forms of validity testing such as construct validity.

6.3.3.2 Construct Validity

Construct validity includes different forms of evidence supporting a particular interpretation of a measure and its outcomes, and therefore, it subsumes other forms of validity (Strauss & Smith, 2009). Construct validity occurs when researchers specify the nature of the construct that underlies a measure and demonstrate a conceptual understanding of what they are trying to measure; therefore, construct validity tests the validity of the theory that underpins the meaning of the measure (Howitt & Cramer, 2011, p. 275).

Support for construct validity often occurs when the measure of interest has convergent, discriminant, concurrent and predictive validities. In other words, the measure associates with other measures that assess the same construct, it differs from measures that assess different construct, and it correlates with either the antecedents or the consequences of the construct of interest (Wegener & Fabrigar, 2008). Nevertheless, convergent and discriminant validity are often sufficient to validate a psychological test, with convergent validity being the most important of the two (Strauss & Smith, 2009).

6.3.3.3 Factor Analysis

Study One tests the construct validity of job application dishonesty measures using Exploratory Factor Analysis. Scale development aims primarily at creating valid measures of latent constructs (Clark & Watson, 1995). Within psychology, factor analysis requires observed items to be a function of the latent variable; that is, items or indicators are dependent on a latent variable. In other words, the psychological construct, represented by the latent variable, "causes" the variability of the different observed items (Bollen & Lennox, 1991). Examples of latent causal variables include personality traits and attitudes constructs, which are hypothesised to influence different thoughts, feelings and behaviours (Edwards & Bagozzi, 2000).

Confidence in the construct validity of a scale depends on the degree to which the latent construct causes true variation on observable scores (Heggestad, et al., 2019). In other words, confidence on the construct validity of a scale depends on the degree with which the latent construct causes true variation on observable scores. However, Heggestad et al. explain that such relationships are not directly observable; consequently, the authors advise

researchers to search for supportive evidence that the scales indeed represent standing on a latent construct.

For example, researchers commonly use Factor Analysis to evaluate the structure underlying a set of variables. Factor analysis allows researchers to perform discriminant analysis. In other words, the technique creates scores that represent intercorrelations between variables. These scores, or factors, help to differentiate groups by exposing the underlying structure or pattern of variables (Hair, Black, & Anderson, 2014, pp. 4-5).

Exploratory factor analysis is inductive, and therefore atheoretical. Consequently, it should only be used in the early stages of item development because it does not allow for researchers to assess how well the scores of a measure fit the hypothesised model (Hair, Black, & Anderson, 2014, p. 20). However, construct validity is theory-based and presupposes directional hypotheses on the relationship between scores obtained and another measure (i.e., manifest variable). Therefore, when hypotheses relating to the structure of the measure are based on theoretical notions or previous research, it would be best if researchers used Confirmatory Factor Analysis (CFA) to ascertain construct validity (Goodwin, 1999).

6.3.3.3.1 Confirmatory Factor Analysis

Study Two tests the construct validity of job application dishonesty measures using Confirmatory Factor Analysis instead of Exploratory Factor Analysis. Confirmatory Factor Analysis tests the covariance between all items in a measure; therefore, it allows researchers to assess the individual contribution of each scale item and how well the scale measures the target construct (Hair, Black, & Anderson, 2014, p. 20).

6.3.3.3.1.1 Effect Indicators

Three of the measures in the job application dishonesty questionnaire relates to latent constructs. The construct Attitudes refers to participants' beliefs regarding the seriousness of misrepresenting their job applications. The construct Norms to participants' beliefs regarding how often other job candidates misrepresent their job applications; therefore, it relates to beliefs about social proof. Lastly, the construct Risk refers to participants' beliefs regarding the probability that job application dishonesty is detectable.

These three measures are theoretical latent constructs since each refers to a particular overall belief that is unobservable. Only the individual items are observable. Furthermore, the general latent belief influences the response on each item and not the other way around. Therefore, items that measure a latent construct are effect indicators since they result from the latent variable.

6.3.3.3.1.2 Unidimensionality and Homogeneity of Items

Researchers can judge the psychological meaning of a latent construct by the extent to which the items composing the construct covariate (Bollen & Lennox, 1991). Often, when researchers select scale items, the main goal is to achieve unidimensionality rather than internal consistency. Therefore, the items that compose a factor should contain correlations at least moderate in magnitude, while different factors should discriminate. Researchers can measure interitem correlations and discriminant validity using factor analysis (Clark & Watson, 1995).

However, internal consistency is also important in evaluating latent constructs. Although items within a measure may correlate, it is possible that the pattern of responses across

participants will be different. In other words, the pattern of interitem responses may be heterogeneous, and consequently, the measure will contain a lack of internal consistency. In such cases, it is difficult to know if one or all the items contribute to the criterion validity of a measure. Furthermore, if items composing a construct are heterogenous, it is possible that they represent unrelated latent constructs despite correlating with each other (Strauss & Smith, 2009).

Confirmatory factor analysis (CFA) allows for the evaluation of items' unidimensionality, discriminant validity and homogeneity. Therefore, since the measures of Attitudes, Norms and Risk are latent variables with effect indicators, their construct validity will be tested using CFA.

6.3.3.3.1.3 Causal Indicators

Not all measures contain composites of effect indicators. The causal flow between the derivative variable and its items is sometimes reversed. In other words, instead of the latent variable influencing the responses in each item, it is the combination of items that influences the aggregate measure. In such cases, researchers use interchangeable terms, formative, composite or causal indicators, to refer to such items (Edwards & Bagozzi, 2000).

Examples of latent variables with causal indicators include measures of socioeconomic status (SES), which contain composites of different component variables (e.g., education and income). According to Edwards and Bagozzi (2000), such component variables form (or cause) SES scores. Furthermore, measures of socioeconomic status can contain heterogenic items. For example, people with a similar socioeconomic status might have

different levels of education or income. However, the combination of different indicators will determine a person's social-economic status. In other words, measures such as education and income determine a person's social-economic status and not the other way around.

Another example of measures with formative items include inventories on Counterproductive work behaviours. For instance, Spector, et al.'s (2006) CWB questionnaire contains the five subscales of abuse, production deviance, sabotage, theft, and withdrawal. Each subscale is composed of specific instances of workplace deviance which are not interchangeable measures of a single underlying construct. Although individual items might form a single underlying construct, they are not necessarily highly correlated. According to Spector et al., participants vary considerably in their reported frequency of behaviours, sometimes rarely reporting on some of the items. Since correlations between items is a requirement of CFA, the authors concluded that factor analysis is not an appropriate method of testing construct validity for CWB measures.

6.3.3.3.1.4 Effect and Causal Indicators in Dishonesty Frequency Measures

The distinction between latent causal variables and latent variables with causal formative items is vital for establishing the validity of a measure (Bollen & Lennox, 1991). According to Bollen and Lennox, the psychological meaning of the latent variable stems from the degree of covariance between the observed measures' item covariances. Furthermore, a psychological construct should display internal consistency among its effect indicators. Alternatively, latent variables with formative measures (i.e., causal indicators) do not require internal consistency.

The items related to the measure of the frequency of job application dishonesty might not be interchangeable measures of a single underlying construct. For example, adding a false job position is conceptually different from adding false information on work achievement. Therefore, the items might exhibit some degree of heterogeneity as they might related to different latent constructs.

Furthermore, the questionnaires contain reports on the frequency of engaging in dishonest behaviours, such as the frequency of job application lies and job application embellishments. Consequently, Factor Analysis might not be adequate as the items in the measure of the frequency of job application dishonesty designed for the study in this thesis might not meet some of the criteria for CFA.

However, when heterogeneous constructs meaningfully relate to an external construct, it is possible to aggregate them into a factor, but only if theoretical and empirical reasonable that the particular set of items consists of a meaningful construct (Strauss & Smith, 2009). For example, Spector et al.'s (2006) observed some degree of heterogeneity in items related to the reported frequency of counter-productive work behaviours. However, Barbaranelli, Fida and Gualandri's (2013) study found that counter-productive work behaviours show enough internal consistency to be amenable to CFA analyses.

Gerlach et al.'s (2019) meta-analysis of dishonesty studies indicate that participants are persistently honest or persistently dishonest across different dishonest behaviours and situations. Individuals also show consistency in the frequency and magnitude with which they display dishonest behaviours. Therefore, the similarities with which participants behave dishonestly over time and across situations might indicate that latent psychological

mechanisms affect the decision to behave dishonestly. Individuals also show consistency in the frequency and magnitude with which they display dishonest behaviours.

The measure of the reported frequency of job application dishonesty is similar to measures of Counterproductive work behaviours since they measure frequencies of behaviours. However, they are also conceptually similar to the dishonest behaviours found in studies within Gerlach et al.'s (2019) meta-analysis. Consequently, the measure is theoretically a latent variable composed of causal or formative items.

Therefore, CFA might be appropriate to evaluate the construct validity of the items related to the reported frequency of job application dishonesty display enough homogeneity. However, suppose the measure does not contain enough homogeneity of variance. In that case, assessing the measure's validity can still occur by comparing them to variables that represent closely related constructs (Clark & Watson, 1995). For example, an alternative method to CFA is the heterotrait-monotrait ratio of correlations (HTMT) which tests the discriminant and convergent validities of the latent variables (Henseler, Ringle, & Sarstedt, 2015).

6.3.4 Questionnaire Reliability

Reliability is the opposite of measurement error and refers to how well the observed variables measure the true value of the variable (Hair, Black, & Anderson, 2014, p. 06). After selecting valid items, the researcher must evaluate the quality of the measure through reliability tests. Reliability refers to a measure's ability to produce the same results under the same conditions (Howitt & Cramer, 2011, p. 269). Consistency increases confidence and depends on keeping measurement errors to a minimum (Field, 2009, p. 11).

Common approaches to assess reliability include test-retest, equivalent form, split-half, and internal consistency tests (Constantine & Ponterotto, 2006). In test-retest reliability measures, participants perform tests with the same instrument several times. The Split-half reliability test divides items from a measure into two equal parts and then compares their equivalence level. Lastly, Cronbach's Alpha splits items of a measure randomly instead of at the mid-point, then produces averages of all random splits (Howitt & Cramer, 2011, p. 269).

Despite various tests, the most used statistical test for reliability is Cronbach's coefficient alpha (Lounsbury, Gibson, & Saudargas, 2006). There are also many suggestions on the acceptable level of coefficient alpha. For example, an alpha above 0.8 constitutes a reliable measure (Clark & Watson, 1995). However, a lower limit for Cronbach's alpha is 0.70 is generally acceptable (Hair, Black, & Anderson, 2014, p. 123).

Therefore, the studies will test the reliability of measures using Cronbach's alpha. Furthermore, the studies that perform Confirmatory Factor Analyses will contain additional reliability tests. Confirmatory Factor Analysis requires measures of Construct Reliability (CR) and Average Variance Extracted (AVE) (Hair, Black, & Anderson, 2014, p. 123).

Construct reliability (CR) measures the reliability and internal consistency of the items that compose a latent construct. It is a test of reliability similar to Cronbach's alpha. The Average Variance Extracted (AVE) refers to the average percentage of variance extracted, or explained, by the items within a construct. It measures the level of variance that results from the construct compared to measurement error (p. 601). The acceptable threshold for CR of a measure is. 0.7, which means that measures have adequate internal consistency,

while the threshold for AVE is 0.5, meaning that the items within a measure have adequate convergence (Fornell & Larcker, 1981).

6.3.5 Questionnaire Administration

The administration of questionnaires can occur in many forms, including administering the survey individually, in groups, through telephone, through the mail and electronically. The studies in this thesis are conducted using the electronic format because of its many advantages compared to other delivery formats.

For example, Gosling et al. (2004) argue that online questionnaires are more convenient and cheaper than conventional questionnaires since there is less need for personnel or special facilities. The authors also explain that online questionnaires are easy to distribute; therefore, internet samples usually contain considerable diversity in geographic location, age, gender, and socioeconomic status. Finally, online questionnaires are time-effective since the data is collectable immediately after participants complete the survey.

A potential disadvantage of online studies would be differences in internet access and technology familiarity among participants. However, this problem might be relatively small since most people have access to the internet in western countries, and internet access is almost ubiquitous in Great Britain. For example, according to the Office for National Statistics (2019), approximately 93% of households have access to the internet, with 87% of adults using the internet daily. The survey also shows that a considerable proportion of the population has familiarity with internet technologies since over 50% of adults make video or voice calls over the internet.

Another potential problem with using an online platform for research, in contrast to other delivery modes, is the risk that this difference might influence participants' response patterns. However, Gosling et al. (2004) study on the advantages of online questionnaires indicates that internet findings are often similar to that of other presentation formats, including traditional methods. Similarly, the results of Klein et al.'s (2014) and Klein et al.'s (2018) meta-analyses on the replicability of psychological studies show that the results of experimental studies are similar whether they are performed online in laboratories. Therefore, considering the information detailed above, the risks of using an online administration for the studies in this thesis are minimal.

6.4 Sampling

Sampling is important for the external validity of a self-report study. Ideally, a sample should be representative of the population, which is achievable through random sampling. Random sampling should, in principle select participants, which have similar characteristics to the target population. However, according to Howitt and Cramer (2011, p. 60), psychological research often investigates relationships between variables that may not require a defined sample.

For example, Klein et al.'s (2014) meta-analysis of replicated experimental studies shows little differences in effects between the U.S. versus international samples. Similarly, Klein et al.'s (2018) meta-analysis comparing more WEIRD (i.e. Western, educated, industrialised, rich, and democratic) countries with less WEIRD ones and found that effect size variability was related more to the type of the effect being studied than to the sample or setting in which it was studied.

For practical reasons, the studies in this thesis contain non-probabilistic methods. The samples in this thesis are drawn from a combination of convenience sampling and purposive sampling. They are convenience samples because the method is non-random and haphazard, but also purposive sampling because the studies aim at generalising the findings to a population of individuals of working age who have completed different forms of job applications, including a job application form or CVs.

6.4.1 Sample Size

The studies in this thesis contain multiple and hierarchical regressions. Regressions containing six or more predictors should have a minimum of 10 participants per predictor variable. However, if the researcher expects a small effect size, each variable should contain 30 participants (VanVoorhis & Morgan, 2007).

In Study One, the multiple regression analysis with the highest number of predictors contains 13 variables. The study recruited 264 participants; therefore, the ratio of participants per predictor is 20:1 rounded. In Study Two, the multiple regression analysis with the highest number of predictors contains eight variables. The study recruited 376 participants, but the analysis had 374 participants. Therefore, the ratio of participants per predictor is 47:1 rounded.

6.5 Recruitment

The participants included adults who have completed a job application form or curriculum vitae, and the information gathered through the questionnaires was translated into quantitative data. A challenge in conducting self-report studies includes the recruiting of a

sufficient number of participants. Recruiting enough participants can be a problem because people are usually more likely to respond to surveys if researchers greet them face-to-face (Hox & De Leeuw, 1994). However, participation increases when the research includes offering monetary incentives for participation (Fox, Crask, & Kim, 1988; Church, 1993).

Monetary incentives are particularly important to self-report studies if they are contingent on the return of a questionnaire (Hopkins & Gullickson, 1992). Additionally, participation may also increase with non-monetary incentives, such as offering a follow-up in the study (Yammarino, Skinner, & Childers, 1991). Finally, the ease with which participants can return their questionnaires also increases participation (Armstrong & Lusk, 1987).

Participant recruitment in this thesis occurs online through access to social media outlets. Attempts to increase the participation rate included a combination of incentives. The first study offered participants a summarised report of the findings upon request. In contrast, the second study contained a combination of requests for participation through social media outlets and a specialised participant recruitment website, which required monetary incentives. Furthermore, the return of questionnaires was made easy since it was based on an online platform since the questionnaires data was automatically collected when participants reached the final page.

6.6 Ethical Guidelines

Researchers have a duty to collect data in an ethical manner (Mark & Reichardt, 2009). Therefore, ethical guidelines are essential to academic research and should have primacy over the methodological validity of studies (Kimmel, 2008). First, studies should now cause harm to participants; additionally, studies should give enough information so that

participants can make an informed decision before taking part in the research. Therefore, participants should have access to a consent form, which includes safeguards related to anonymity and confidentiality of their information (Kelley, Clark, Brown, & Sitzia, 2003).

The studies in this thesis subscribe to the ethics regulations within the Organizational Psychology Department at Birkbeck, University of London. For example, the studies have obtained ethical consent from the department. Furthermore, the questionnaires in the studies inform the participants in advance about the purposes of the research and assure the confidentially of the information they provide. Each study contains an informed consent form. Participants provide their consent by ticking a box at the end of the consent form. The final page of the questionnaire includes information about the contact details of the principal researcher and research supervisor if participants have any questions or concerns related to the studies.

6.7 Data Analysis

The information gathered through the questionnaires will be translated into quantitative data. Theories can describe the relationships between theoretical constructs, but they can also specify the relationships between constructs and measures (Edwards & Bagozzi, 2000). The research in this thesis uses multiple regression analyses to examine associations between a model of behaviour and reported dishonesty behaviours that occur during the completion of job applications. However, since the studies in this thesis used self-report data, they required care in developing and assessing the measures behind different constructs.

First, the validation of the measures in each study occurred through the use of both descriptive and confirmatory factor analyses, which test the covariance between all items in a particular measure; therefore, it allows researchers to assess the individual contribution of each scale item and how well the scale measures the target construct (Hair, Black, & Anderson, 2014, p. 20). Each study contains a detailed analysis description, including how different measures met different confirmatory factor analyses assumptions.

Second, the research uses the multiple regression method because it allows identifying the contribution of the variables as a whole and the contribution of each variable. For the studies in this thesis, multiple regression analyses were instrumental because the researcher aimed to find correlations between the variables through observation and not through experiments. Each study contains a detailed description of how the analyses met different multiple regression assumptions.

The analysis of the questionnaire results took place via descriptive and inferential statistics. Because of the large number of respondents and the complexity of the research design, the author used the statistical software available such as R Statistics for the confirmatory factor analysis and SPSS for the exploratory factor analysis and multiple regression analyses.

6.8 Limitations

The studies in this thesis have scope and limits, which result from conscious decisions in the development of this thesis. However, there are some limitations in this thesis that are beyond the researcher's control. Below is a brief description of the scope and limitations of the studies in this thesis.

6.8.1 Correlational Studies

The studies in this thesis use correlational designs. The goal of the studies is to measure the extent to which the variables of interest correlate to dishonest behaviours. Furthermore, the studies collected data on retrospective dishonest behaviours. Thus, the studies attempt to predict the extent to which the variables of interest predict the level of past job application dishonesty.

One crucial limitation of correlational studies is that they cannot establish causation. First, two naturally occurring variables can appear to influence each other without there being a causal relationship. Since there is no manipulation of variables, it is impossible to know if the independent variables really influence the dependent variable. Therefore, even if there is a causal relationship, correlations can only demonstrate that we can predict the behaviour of one variable from the behaviour of another variable.

A more appropriate model for identifying causal relationships would be the experiment; however, there are practical and theoretical reasons for choosing the correlational approach in this thesis. First, manipulating ethical beliefs might be unethical. For example, modifying participants' beliefs could change their level of honesty or dishonesty, which might be irreversible even after the debriefing. Second, the number of participants would need to be very high because of the number of manipulated variables; therefore, the studies would become costly.

Furthermore, modifying the many variables in this thesis' model study might also require several experiments to answer the research questions in this thesis. Again, attempting to re-create in the laboratory an instrument equivalent to a job application form or to recreate the

job selection process would pose many challenges, for example, synchronising the measurement of all the variables with the time participants would be applying for a job.

However, a correlational model is appropriate for the research questions in this thesis because, in such models, a researcher looks for associations among naturally occurring variables. The studies in this thesis investigate variables such as attitudes and personality traits that are not amenable to experimental designs. It also includes measures of behaviours that pose considerable challenges if they were to be performed in a laboratory context. Correlational studies make the investigation of such variables easier since researchers can merely assign different variable values to scales to investigate associations (Mark & Reichardt, 2009).

6.8.2 Self-report Studies

The data collection for the studies will occur through self-reports. The collection of behavioural and attitudinal information will occur with questionnaires specifically designed for the studies in this thesis. However, the studies will also include validated expert questionnaires when those are available and fit for this thesis. The studies do not include observed behaviours or information gathered through interviews.

A critical feature of questionnaires is their increased anonymity. Participants might have reputational concerns regarding their dishonesty; therefore, anonymity is essential for research dealing with sensitive information. Furthermore, among the main advantages of self-report is its practicality. Self-reports are inexpensive and convenient, and they can generate a vast amount of information.

Besides, the development of new technologies allows for the online administration of surveys. In the online questionnaires, each participant will report on their behaviours, beliefs and personality traits. This advancement further adds to the advantages of using questionnaires in research because it broadens the reach of questionnaires and improves efficiency.

Nevertheless, self-report studies have limitations. For example, there is a risk that the participants will not answer the questionnaires truthfully. Ideally, the information should measure the true falsification of job application form and curriculum vitae information. However, collecting this information from each participant would be impractical. Data gathering of this nature would be time-consuming and substantially more intrusive into the lives of participants. Unlike interviews, where respondents can ask clarifying questions, questionnaires define how participants will respond to questions. Although other methods, such as interviews, would add to the understanding of participants decision-making process, it would not be as efficient to administer compared to questionnaires. Furthermore, surveys might force respondents into particular response categories, thereby limiting the range of responses.

Chapter 7 Study One

"The best way to show that a stick is crooked is not to argue about it or to spend time denouncing it, but to lay a straight stick alongside it" — D.L. Moody

This chapter contains the first study in this thesis. This study aims to examine whether the behavioural model proposed in Chapter 5 predicts job application dishonesty. The study also investigates national differences in job application dishonesty and whether a mild form of job application dishonesty (i.e., embellishments) predicts job application lies. The study tests hypotheses H_1, H_3, H_4, H_5, H_6 and H_8.

7.1 Introduction

Job applications often contain discrepancies (Whittington, 2017). Although some of the inconsistencies in job applications might result from errors and mistakes, a large proportion of these inconsistencies stem from deliberate dishonesty (Henle, Dineen, & Duffy, 2019). Unintentional and intentional job application inconsistencies can misinform the selection process and affect organisational performance. Job candidates who present job applications that do not represent their true capabilities might not perform well in their new position. Furthermore, the dishonesty of job candidates during selection may pose an additional risk for organisations if dishonesty is a stable pattern of their behaviour across time and situations. In such cases, the unethical behaviour of job candidates might manifest in different areas of organisational life.

Despite its importance to the study of organisational behaviour, job application dishonesty studies are scarce, and consequently, Organisational Psychology researchers have a poor understanding of the antecedents of job application dishonesty and its consequences. The literature review indicates that personality traits and domain-specific decision-making patterns might modulate different levels of general dishonesty.

Dishonesty might also be the result of broader environmental influences. Countries vary in their levels of national dishonesty (Corruption Perceptions Index, 2019). Since social norms strongly influence individuals' behaviours, job candidates from countries with high levels of national corruption might be more likely to align their behaviours with that of the majority when producing their job applications than job candidates from countries where levels of corruption are lower.

Finally, Job candidates can misinform their job applications in different ways. For example, they may perform serious transgressions such as adding fake qualifications or previous job positions. Job candidates may also add genuine credentials but intentionally modify the credentials' descriptions to make them appear more impressive, consequently misleading the selectors. The literature indicates that dishonesty is a stable pattern of behaviour that influences a broad range of specific acts related to a behaviour domain (e.g., dishonesty). Therefore, job candidates who lie should be more likely to embellish their job applications than honest job applicants.

Therefore, this study has three aims. The first aim is to investigate whether a behavioural model containing the personality trait Conscientiousness and social-cognitive factors (i.e., Attitudes, Social Proof and Perceived Risk) predict self-reported job application dishonesty, including job application lies and embellishments. The study also examines

whether participants from two countries with different levels of perceived national corruption (i.e., the UK and Brazil) differs in their reported job application dishonesty. Finally, the study explores the extent to which job application embellishments predict job application lies.

7.1.1 Personality Traits

The personality trait Conscientiousness contains facets linked theoretically to the decision to lie on job applications and interviews. For example, Conscientiousness negatively correlates with risk-taking behaviours (Fiddick, et al., 2016; Kennison & Messer, 2017). Since dishonest behaviours are intrinsically risky, it is theoretically plausible that they should negatively correlate with measures of Conscientiousness.

Furthermore, measures of Conscientiousness contain facets that relate positively to different forms of achievement (e.g., competence and self-discipline). Individuals high on Conscientiousness are more likely to be higher achievers academically (Schneider & Preckel, 2017; Wingate & Tomes, 2017) and occupationally (Spengler, Lüdtke, Martin, & Brunner, 2014), as well as being successful in highly selective and competitive settings (Chamorro-Premuzic & Furnham, 2003).

Possibly, dishonest candidates add false information and embellish their job applications because they are lower achievers than honest candidates. Since high conscientious individuals are often higher achievers compared to individuals low in Conscientiousness, they should be less likely to use dishonesty to succeed in a selection process.

Indeed, the trait conscientiousness correlates with interview faking, which is a form of behaviour that shares many similarities with job application dishonesty (Roulin & Krings,

2016; Roulin & Bourdage, 2017; Bourdage, Roulin, & Tarraf, 2018). Therefore, job candidates low in Conscientiousness should also be more likely to lie in their job applications to increase their chances of succeeding in selection processes:

H_1: *Conscientiousness is negatively related to reported job application dishonesty.*

7.1.2 Attitudes

Attitudes are adaptive patterns of thoughts, feelings and behaviours that dispose people to react favourably or unfavourably toward objects in the world (Ajzen, 2005, p. 03), but they also relate to evaluations of behaviours and their outcomes (Ajzen, 1991; Ajzen & Madden, 1986). Attitudes regulate behaviours through the mechanism of cognitive dissonance. The cognitive dissonance theory states that when people's thoughts, feelings and behaviours are misaligned, people feel psychological discomfort. In turn, individuals should restore a state of psychological consonance when thoughts, feelings and behaviours re-align (Festinger, 1961). Since people often see themselves as honest individuals, beliefs about being dishonest should affect the extent to which people engage in dishonest behaviours since they create a state of psychological uneasiness (Mazar, Amir, & Ariely, 2008).

Measures of attitudes predict of a range of social behaviours when they follow rigorous methodological guidelines (Kraus, 1995; Glasman & Albarracin, 2006). Furthermore, research on academic dishonesty often finds a relationship between attitudes and different forms of dishonest behaviours, including academic dishonesty (Beck & Ajzen, 1991; Yang, 2012). Job application dishonesty shares many similarities with academic

dishonesty; therefore, people's attitudes should predict the extent to which people lie in their job applications.

> H_3: *Attitudes towards the seriousness of job application dishonesty are negatively related to the reported frequency of job application dishonesty.*

7.1.3 Social Norms

Social psychological studies show that the need to conform influences many aspects of people's behaviours. People will not only change their behaviours under social pressures (Asch, 1956), but they will also change their beliefs to align them with that of others (Isenberg, 1986). People often mould their behaviours by observing the behaviours of others (Rivis & Sheeran, 2003); moreover, beliefs about others' behaviours, even if incorrect, also influence behaviours (Ross, Greene, & House, 1977).

Beliefs that most others are behaving in a certain way is termed Perceived Social Proof. (Cialdini, Reno, & Kallgren, 1990) Perceived social proof can influence behaviours both positively and negatively (Schultz, 1999). Therefore, the perception that others behave dishonestly may also affect how much people behave dishonestly. For example, experimental studies show evidence that people are more likely to behave dishonestly (e.g., lie and cheat) if they observe others committing dishonest acts (Gino, Ayal, & Ariely, 2009; Rauhut, 2013) while correlational studies give evidence that people's beliefs about the behaviours of others influence their decision to behave dishonestly (Jordan, 2001).

> H_4: *Perceived Social Proof about the commonality of job application dishonesty is positively related to job application dishonesty.*

7.1.4 Risk

Situations present different forms of affordances that can facilitate or hinder the execution of behaviours. Dishonest behaviours are socially proscribed behaviours that present many barriers, both physical and procedural. Most importantly, dishonest behaviours are risky since they imply that the behaviours incur a probability of retaliation on the victims and society in general.

Risk is a concept related to personal probabilities, which implies that an outcome will be unfavourable or adverse (Short, 1984). Research shows that increasing perceptions of dishonesty risk in the laboratory decreases the incidence of dishonest behaviours (Nagin & Pogarsky, 2003; Thielmann & Hilbig, 2018). Furthermore, correlational studies corroborate these results. Hollinger and Clark's (1983) study found that self-reported measures of risk perception correlate with self-reported dishonest behaviours, such as theft and fraud, in an occupational setting.

H_5: *Perceived Risk is negatively related to reported job application dishonesty.*

7.1.5 Behavioural Consistency

Personality psychologists theorise that individuals are disposed to manifest stable patterns of behaviours (Ajzen, 2005, p. 31). These dispositional patterns of behaviours, termed personality traits, work as motivational systems containing specific goals which influence relevant behaviours across different situations (MacDonald, 1995). Participants of dishonesty studies often show differential patterns of which are consistent across situations. Individuals who are either honest or dishonest in a particular context show a similar honest-dishonest pattern of behaviour in distinct situations (Halevy, Shalvi, &

Verschuere, 2014)**.** Therefore, individuals who lie in their job applications should be more likely to embellish their job applications with the intent of creating a false impression. At the same time, individuals who decide to add truthful information to their job applications should also be more likely to present an honest description of their real qualifications.

Levashina and Campion's (2007) identified two distinct forms of dishonesty during interviews which are relevant to this study. The authors identified when developing their measure of interview faking two dishonesty factors termed Extensive Image Creation, which measures behaviours related to lying and deception, and Slight Image Creation relates to different forms of embellishment, which the authors conceptualised as a mild form of dishonesty. Despite the factors in Levashina and Campion's (2007) study representing psychometrically distinct constructs, they were highly correlated. Consequently, individuals who lie about their qualifications during interviews are also likely to embellish the same qualifications.

Similarly, Henle et al's (2019) study shows that individuals who lie about their job applications' qualifications are also more likely to embellish the same qualifications. Furthermore, individuals who lie and embellish their qualifications in their job applications are more likely to lie and embellish the same qualifications during interviews. This current study focuses on identifying the factors that influence job applicants in behaving dishonestly. Previous studies indicate that job candidates display consistency in their honesty or dishonesty during the selection process. Therefore, job application embellishments should predict job application lies.

H $_6$*: Job Application Embellishments are positively related to Job Application Lies.*

7.1.6 Cultural Norms

Cultural differences can influence people's interpretations of themselves, others and the relationship between oneself and others (Markus & Kitayama, 1991). Furthermore, belonging to a particular culture moderates how social norms influence behaviour. Studies show that individuals from collective and individualist cultures differ in how conformity (Bond & Smith, 1996), compliance, and social proof affect their behaviours (Cialdini et al. 1999)

Gächter and Schulz (2016) suggest that a corrupt social environment with a prevalence of rule violations (e.g., corruption, tax evasion or political fraud) can compromise individual intrinsic honesty. The authors indexed 23 countries by their general level of rule violations then measured intrinsic honesty with a die-in-the cup task. The results show that countries with high rule violation indices cheated more than those with lower indices. The authors concluded that weak institutions and weak values influence dishonest behaviours.

However, not all experimental studies find a difference in dishonesty between countries with different national corruption levels measured with international corruption indices. For example, Pascual-Ezama et al. (2015) conducted a coin-toss experiment across 16 countries in which participants could earn a reward if they picked the right side of the coin and found no national differences in dishonesty. Similarly, Gelarch et al.'s (2019) meta-analysis showed no significant differences in cross-cultural dishonesty on experimental studies; however, the results indicated that systematic and predictable differences are observed across countries in studies with more real-life domains (e.g., tax evasion and bribery scenarios).

This study investigated levels of job application dishonesty in two countries with very different corruption indexes (i.e., Brazil and the UK). Transparency International corruption indexes place Brazil among the most corrupt countries in the world (Corruption Perceptions Index, 2019). In their 2019 report, which ranks countries based on experts and business executives' perception of a countries public sector level of corruption, Brazil ranks 106th out of 198 countries, whilst the UK ranks 12th, with lower rankings meaning increased corruption. The two countries also differ in their levels of individualism-collectivism. Minkov et al., (2017) ranked 56 countries in their levels of individualism using Hofstede's individualism-collectivism dimension questionnaire. In their study, the UK ranked 9th and Brazil 40th out of the 56 countries, with lower rankings meaning higher individualism and higher rankings meaning higher collectivism.

H_8: *Reported job application dishonest is higher for Brazilian participants than UK participants.*

7.2 Method

This study used a cross-sectional correlational design. The study contained three main inferential analyses.

7.2.1 Variables in the Analyses

The first analysis tested hypothesis H_1, H_3, H_5, H_8 in which job application dishonesty referred to reported CV lies. For this analysis, the independent variables were Attitudes-L (i.e., perceived seriousness of CV Lies), Norms-L (i.e., perceived social proof CV Lies), Risk (i.e., perceived risk of verification of CV Lies) and Nationality (Brazil, UK and Other

Nationalities). Age and gender were added as a control. The dependent variable was Lies (Self-Reported Frequency of CV Lies).

The second analysis tested hypothesis H_1, H_3, H_5, H_8 in which job application dishonesty referred to reported CV embellishments. For this analysis, the independent variables were Attitudes-E (i.e., perceived seriousness), Norms-E (i.e., perceived social proof of embellishments), Risk-E (i.e., perceived risk of verification) and Nationality (Brazil, UK and Other Nationalities). Age and gender was added as a control. The dependent variable was Embellishment (Self-Reported CV Embellishments Frequency).

The second analysis tested hypothesis H_8. For the third analysis, the independent variables were Conscientiousness, Attitudes-L (i.e., perceived seriousness), Norms-L (i.e., perceived social proof), Risk-L (i.e., perceived risk of verification) and Age and Gender as a control. Step 2 had CV Embellishments (i.e., Reported Frequency of JA Embellishments) as an additional predictor. The dependent variable was Lies (Self-Reported Frequency of CV Lies).

The three analyses had Age and Gender as controls since Gerlach's (2019). meta-analysis of dishonesty studies indicates that, although these two variables were not significant predictors of dishonest behaviours in the final analysis, they were significant predictors in many of the individual studies included in Gerlach et al.'s 2019 meta-analysis of dishonesty studies.

7.2.2 Participants

Participants were recruited through requests on social media groups (e.g., Linkedin, Facebook) from Brazil and the UK and by word-of-mouth. The questionnaire did not impose any upper age limit; however, the minimum age was 18. Participants also had to have

previously completed a Curriculum Vitae. The study contained 264 participants with 123 (46.6%) declaring to be from Brazil, 95 (36.0%) from the UK.

Participants from other countries also responded for participating requests. Participants representing other countries were 46 (17.4%). From this total, participants stating having citizenships from Europe were 18 (6.8%), from North America were 8 (3.0%), from Asia were 7 (2.7%), from Africa were 4 (1.5%), from Oceania were 3 (1.1%), Eastern Europe were 3 (1.1%), Central America were 1 (0.4%), the Middle East were 1 (0.4%), and South America were 1 (0.4%). Participants representing other countries who declared living in the UK totalled 19 (41%).

The survey had a Portuguese and English version. Irrespectively of nationality, the number of participants completing the survey in English was 147 (55.7%) and Portuguese was 117 (44.3%). Female participants were 182 (68.9%) while males were 82 (31.1%). The mean age of participants was 36 (SD = 10.9).

7.2.3 Apparatus

The Survey had three main sections: Demographics, Personality and CV Lie Questionnaire (CLQ).

7.2.3.1 Demographics Questionnaire

The demographics questionnaire had questions related to participants' gender, age, nationality and country of residence. The questionnaire also contained questions related to whether participants had ever written a Curriculum Vitae/Resume, their employment

status, annual income, whether they worked in human resources, and whether they were involved in selecting employees.

7.2.3.2 Personality Questionnaire Section

The Personality section contained the Big Five Inventory (BFI), which has a mean reliability for all of the five scales of Crombach's α = 0.83 (John & Srivastava, 1999). The inventory measured items for the five personality traits using an ordinal unidirectional five point-Likert scale with bidirectional labels (1 Disagree strongly to 5 Agree strongly). Brazilian participants completed the Portuguese translated version of the Big Five Inventory (John, 2007).

7.2.3.3 CV Lie Questionnaire Section

The CV Lie Questionnaire (CLQ) was designed originally for this study. The questionnaire has four subsections related to CV lies' beliefs and behaviours, each relating to one of the following measures: Attitudes (i.e., Perceived Seriousness), Norms (i.e., Perceived Social Proof), Risk (Perceived Risk of lies being checked) and CV Lies (Reported Frequency of CV lies).

7.2.3.3.1 Measures

Each measure of the CV Lie Questionnaire contains its own unique stem question. For example, the measure Seriousness contained the stem question: "How serious are the following behaviours?"; the measure Norms contained the stem question: "How often do

you think others behave this way?"; the measure Risk contained the stem question: "How often do you think managers check the behaviour?"; and finally, the measure Reported CV Lies contained the stem question: "How often have you behaved this way?".

7.2.3.3.2 Items

The complete questionnaire has 48 items. Each individual measure contained 12 items related to common types of CV lies. The same 12 items appear in each measure with slight modifications to fit the measure's unique stem questions. The 12 items were presented as vignettes, with nine (9) relating to serious CV transgressions (i.e., CV lies) and three (3) relating mild CV transgressions (i.e., CV embellishments). Examples of serious transgressions items included "changing dates of employment," "adding fake skills," and adding fake previous training", and mild transgressions included "describing previous jobs in a way that makes them seem more impressive."

All 12 items in each measure contained a 5-point scale with labels referring to its stem question. For example, the measure Seriousness contained the stem sentence (i.e., "Please state How Serious you think the behaviours are:"), followed by the 12 items (e.g., "adding fake skills"), each containing a relevant 5-point scale (e.g., *1 = Not Serious to 5 = Very Serious*). Please see Appendix A for the complete set of items.

7.2.3.3.3 Item Order

The questionnaires were designed using an online platform that did not allow for the randomisation of questionnaire order or the scenarios for each participant. Therefore, participants completed questionnaires with identical formats. Although there is a concern

that the order of items might influence responding (Wegener & Fabrigar, 2008), the impact of order effects on questionnaires similar to the one used in this study is minimal (Armitage & Conner, 1999).

7.2.3.3.4 Attentiveness test

Each measure contained an attentiveness test for acquiescence and extreme responding. The 12 items in each measure represented nine scenarios of serious transgressions (e.g., adding false information) and three scenarios of mild transgressions (e.g., presenting information in an impressive manner).

Since there is a clear differentiation in seriousness between questions, it was expected that participants may show different patterns of response between serious and non-serious lies. Consequently, unexpected patterns of answers, such as the lack of differentiation between the two sets of answers, could be an indication of response biases.

7.2.4 Procedure

The survey was presented in an online version. The platform was provided by Bristol Online Surveys. Participants followed a web link, which opened an initial page. They were then informed of data protection, anonymity and their right to withdraw from the study at any moment. Once questionnaires were completed, participants pressed a button that finalised their participation. Participants were then re-directed to the Bristol Survey Online main page (http://www.survey.bris.ac.uk/). No identifiable information about the participants was retained.

On the introductory page, participants were informed about the purposes, the procedures and the ethical safeguards for the study. For example, they were informed that the survey was part of an Organizational Psychology PhD thesis on the determinants of transparency in organizations. They were also told that they would be asked about their own behaviour and attitudes when writing CVs/Resumes and to their opinions on other people's behaviours and attitudes. Furthermore, they were informed that they would have to complete a personality test and that the whole procedure should take around 15 minutes to complete.

Participants were informed that participation was voluntary and that they could withdraw from the study at any time. Furthermore, all their data was anonymous and that the results would be reported in an aggregated and anonymised form. Finally, they were provided with the researcher's and supervisor's contact details.

Upon completing each section, participants clicked on a button that directed them to the next section. This option was only allowed if all the questions were completed in each section. When they reached the last page, they were offered an opportunity to request a summary of the findings and were thanked for their participation.

7.2.5 Validity - CV Lie Questionnaire (CLQ)

Data analyses were conducted using the SPSS 26 software package.

7.2.5.1 Exploratory Factor Analysis

The CV Lies Questionnaire (CLQ) contains four sections, each with nine serious and three mild CV transgressions with a total of 48 items. Exploratory factor analysis with Principal Axis Factoring was performed on the 48 items.

The results of the analysis show that the determinant of the correlation matrix was < 0.00001, which could be an indication of multicollinearity; however, the correlation between items ranged between -.453 and .798. Correlations below .80 suggest no major issues with multicollinearity (Field, 2012, p. 774; Tabachnick & Fidell, 2013, p. 88). Furthermore, the Kaiser-Meyer-Olkin measure of sampling adequacy was .83, well above the recommended value of .6 (Field, 2012, p. 776). Bartlett's test of sphericity was significant ($\chi 2$ (1128) = 8427.13, p < .001). Therefore, the dataset is suitable for a data reduction technique.

Given the above indicators, factor analysis was conducted on the 48 items related to CV lies. The analysis used an eigenvalue larger than "1" as the factor detection criterion, which identified eight distinct factors. The first factor explained 16.1% of the variance, the second factor 13.2%, the third factor 10.7%, the fourth factor 8.7%, the fifth factor 7.5%, the sixth factor 3.6%, the seventh factor 3.5%, and the eighth factor explained 2.6%. The ninth factor explained 2.2% but contained a combination of items not supported by the theoretical model underlying the questionnaire. The scree plot showed levelling of the eigenvalues after the first four factors. The theoretical model underpinning the questionnaire did not support this factor's item combination; therefore, the factor was not retained.

7.2.5.1.1 Rotation

An initial analysis of the Factor Correlation Matrix under an Oblimin rotation showed that 7 out of 8 factor correlations were < .32. Only correlations between Factors 1 and 7 were equal to .4. Therefore, the eight-factor solution was rotated using the direct Varimax

rotation, which is preferable to obtain the final factor structure correlations between the factors are small (Tabachnick & Fidell, 2013, p. 651)

The factor labels fitted the extracted factors and were retained. The final factor labels include Attitudes-L (i.e., Lie Seriousness), Norms-L (i.e., Perceived Social Proof), Risk-L (i.e., Perceived Risk of Verification), CV Lies (i.e., Reported CV Lie), Attitudes-E (i.e., Embellishment Seriousness), Norms-E (i.e., Perceived Social Proof), Risk-E (i.e., Perceived Risk of Verification), CV Embellishments (i.e., Reported CV Embellishments).

7.2.5.1.2 Internal Consistency

Internal consistency for each of the scales was examined using Cronbach's alpha. The alphas are shown in Table 7.1 and ranged from .81 to .91. No substantial increases in alpha for any of the scales could have been achieved by eliminating more items.

Variables in each factor should have a rotated factor loading of at least |0.4| (meaning ≥ +.4 or ≤ –.4) to be considered good. Variables with a loading of .32 or above are still interpretable. However, the choice of cut-off size for a factor analysis also depends on a researcher's preference (Tabachnick & Fidell, 2013, p. 654). One item related to concealing information on a CV had factor loadings below .4 (i.e., item 41); however, the variable was retained in their respective measures since its loading was close to the threshold of .32. Furthermore, Item 41 belongs to a factor that relates to a frequency of behaviours and not to a psychological construct. Measures of behaviours are formative measures with causal indicators and do not require internal consistency. Alternatively, measures of latent constructs, such as a measure of attitudes, require that the items correlate (Bollen & Lennox, 1991).

Table 7.1 - *Exploratory Factor Analysis of the CV Lie Questionnaire*

CV Dishonesty Items	Factor Loadings							
	CV Lies				Embellishments			
	1	2	3	4	5	6	7	8
CV lies								
Attitudes-L								
02. Fake job positions.	**.87**	-.01	.08	-.08	-.11	.02	.07	-.02
03. Fake responsibilities	**.80**	.05	.05	-.07	.16	-.10	.13	-.07
09. Fake references.	**.78**	-.05	.14	-.03	-.10	.00	.02	.11
05. Fake skills	**.76**	.08	.02	-.07	.05	.00	.06	-.15
04. Fake education	**.76**	-.09	.10	-.12	-.09	.02	.02	.12
06. Fake training	**.76**	-.03	.11	-.06	.01	-.03	.04	.00
01. Fake company names	**.69**	-.06	.11	-.27	-.15	.02	-.03	-.04
07. Changing dates	**.65**	.04	.09	-.07	.27	-.11	-.03	.00
08. Concealing information	**.44**	.07	.13	.03	.42	-.21	.02	-.04
Norms-L								
13. Fake company names	.06	**.80**	.03	.10	.04	.04	-.01	-.07
14. Fake job positions.	.05	**.78**	.07	.08	.09	-.04	-.01	.08
18. Fake training	-.05	**.75**	.05	.11	.07	-.07	-.06	.18
16. Fake education	.06	**.72**	.08	.06	-.04	-.08	.03	-.08
21. Fake references.	-.04	**.71**	-.02	.15	.03	-.02	.01	-.03
15. Fake responsibilities	-.02	**.71**	.07	.06	-.02	.03	-.05	.20
19. Changing dates	-.08	**.63**	.13	.11	-.06	.09	-.05	.13
17. Adding fake skills	-.08	**.56**	.05	.02	.04	.00	.00	.43
20. Concealing information	-.05	**.48**	.11	-.02	-.09	.12	-.07	.39
Risk-L								
25. Fake company names	.10	.05	**.81**	-.04	-.04	.05	.00	.09
26. Fake job positions.	.11	.08	**.76**	.06	.01	-.10	.13	.01
28. Fake education	.07	.13	**.76**	-.04	-.02	.06	.02	-.01
29. Fake training	.12	.12	**.75**	.01	.05	-.01	.25	-.05
33. Fake references.	.08	-.05	**.66**	.06	.05	.09	-.11	.13
30. Fake skills	.07	.03	**.65**	-.02	.03	-.04	.35	-.03
27. Fake responsibilities	.06	.01	**.59**	-.01	.03	-.09	.43	.00
32. Concealing information	.04	.08	**.51**	.00	.14	-.06	.43	-.13
31. Changing dates	.08	.06	**.47**	.02	.03	-.01	.22	-.01

Table 7.1 *(Continued)*

	CV Lies				Embellishments			
	1	2	3	4	5	6	7	8
Reported CV Lie								
34. Fake company names	-.01	.09	.01	**.87**	.00	-.07	.06	-.07
37. Fake education	.02	.12	.05	**.83**	-.02	.01	.01	-.07
35. Fake job positions.	-.09	.07	-.01	**.75**	-.02	.04	-.01	-.03
38. Fake training	-.10	.11	-.01	**.74**	-.03	.05	.00	-.06
42. Fake references.	-.07	.15	.01	**.63**	-.05	-.02	.01	.03
39. Fake skills	-.15	-.04	.01	**.61**	.12	.24	-.09	.07
36. Fake responsibilities	-.18	.14	.00	**.51**	.01	.17	-.09	.04
40. Changing dates	-.21	-.01	-.07	**.49**	-.17	.20	-.06	-.01
41. Concealing information	-.10	.13	.05	**.30**	-.16	.39	.02	-.02
CV Embellishments								
Attitudes-E								
11. Job responsibilities	.02	.01	.04	-.04	**.86**	-.17	.11	-.11
10. Job descriptions	-.01	.01	.05	-.01	**.85**	-.19	.08	-.16
12. Personal statement	-.11	.06	.04	-.07	**.78**	-.23	.11	-.13
Reported Embellishments								
47 Job responsibilities	-.11	-.03	-.02	.13	-.25	**.84**	-.09	.22
46. Job descriptions	.00	-.04	-.06	.11	-.20	**.79**	-.04	.20
48. Personal statement	-.03	-.09	.06	.11	-.22	**.74**	-.06	.29
Risk-E								
34. Job descriptions	.09	-.02	.28	-.01	.09	.02	**.77**	-.09
35. Job responsibilities	.06	-.10	.29	-.03	.07	-.15	**.77**	.02
36. Personal statement	.05	-.08	.27	-.05	.09	-.03	**.75**	-.05
Norms-E								
24. Personal statement	.01	.18	-.01	-.05	-.18	.36	-.09	**.71**
23. Job responsibilities	.07	.27	.02	-.11	-.21	.32	-.08	**.67**
22. Job descriptions	-.10	.20	.02	-.06	-.26	.37	-.02	**.62**
Eigenvalues	7.72	6.35	5.16	4.18	3.62	1.74	1.68	1.26
% Variance	16.09	13.23	10.74	8.71	7.53	3.62	3.50	2.62
Cronbach's alpha	.91	.89	.89	.81	.91	.87	.87	.91

Note. N = 264. The method was principal axis factoring and varimax rotation.

Table 7.1 shows factor loadings and reliability results. The variables load into eight factors. Four of the factors relates to CV lies items and are labelled Attitudes-L, Norms-L, Risk-L and Reported CV Lie. The four factors related to CV embellishments are labelled Attitudes-E, Reported Embellishments, Risk-E and Norms-E.

7.2.6 CV Lie Questionnaire - Validity Across Languages

The CV Lies Questionnaire (CLQ) was administered in two languages: English and Portuguese. A common practice in cross-cultural research is to back-translate questionnaires. The procedure involves the re-translation of a questionnaire into its original language and a comparison of the two original-language versions with the goal of identifying discrepancies between them (Behr, 2017). Although back translation can uncover problems, verification procedures are not standardised and they often identify irrelevant discrepancies while missing important translation problems. Therefore, back translation does not provide a guarantee that the actual translation is equivalent to the original version.

The questionnaires in this study were not back-translated. Instead, it used another method to assess access whether a test is valid across languages through the performance of a multigroup invariance test. Invariance tests can assess the psychometric equivalence of a construct; that is, they assess whether a construct has a similar or different structure and meaning across different groups, including groups using translated instruments (Putnick & Bornstein, 2016).

Cultural equivalence of the questionnaires was determined through the multigroup invariance test. In summary, the test showed that participants' understanding of the

questionnaire did not vary between language versions. The steps included searching and correcting for missing items across categories of responses, performing an invariance test to assure the original model has equivalence of responses to the model with collapsed items using a WLSM (Weighted Least Square) estimator, then finally performing an invariance test using a categorical multiple-group confirmatory factor analysis to test the equivalence of responses between the English and Portuguese versions of the questionnaire using a diagonal weighted least squares estimator (DWLS) method for categorical items.

7.2.6.1 Group Equivalence

A requirement for multigroup invariance tests is that the compared models are equivalent; therefore, they must have the same parameters in each group. Multigroup invariance tests on models with ordinal data have an extra requirement in which the number of categories in each measure should be the same. However, groups with small samples often have categories with missing items (Rutkowski, Svetina, & Liaw, 2019).

Missing items might be a particular issue on studies on measures with social undesirable items measuring latent variables with causal indicators. Participants vary considerably in their reported frequency of behaviours, sometimes rarely reporting on some of the items (Spector, et al., 2006). Therefore, when categories have a small number of observations and missing items, researchers often collapse categories (Rutkowski, Svetina, & Liaw, 2019). The data indicates that categories had missing items; they were collapsed to adhere to the multigroup invariance test requirement.

7.2.6.1.1 Empty Categories

The data of the CV Lie Questionnaire (CLQ) was split into two groups (i.e., Group 1 = English and Group 2 = Portuguese). An analysis of frequencies of responses showed that many items at the extremities of the scales within the same factor had empty categories. Therefore, before conducting the multigroup invariance test between language groups, items containing categories with empty cells were collapsed into their closest category. The item collapsing occurred within the same factor for both groups.

7.2.6.1.2 Collapsing Categories

Collapsing categories changed the factors Attitudes-L and Norms-L from a 5-point to a 4-point format. The factor Reported CV lies had most empty cells on the 4th and 5th categories; therefore, those categories were collapsed changing the scale from a 5-point to a 3-point format. The measure of Risk-L retained its 5-point format as it did not contain any empty categories.

Items containing categories with empty cells were collapsed into their closest category. The item collapsing occurred within the same factor for both groups. the remaining measures retained their 5-point format as it did not contain any empty categories.

7.2.6.1.3 Validity of Model with Rescaled Items

Collapsing items might incur a loss of statistical information or changes in their psychometric properties (Rutkowski, Svetina, & Liaw, 2019). Therefore, prior to conducting a multigroup invariance test between language groups with the new dataset

(i.e., with collapsed items), a multigroup invariance analysis was performed to assess whether the four-factor model with a data set containing collapsed item had different psychometric properties from the original four-factor model.

Therefore, a within-subjects comparison between the original dataset (i.e., non-collapsed items) and the new dataset (i.e., collapsed items) was performed to investigate if the re-scaling of the items caused the factors to acquire different psychometric properties.

Since the original data set had empty categories, the analysis was performed using a WLSM (Weighted Least Square) estimator. WLSM implies DWLS (diagonally weighted least squares). It uses robust standard errors and a mean adjusted test statistic, but it does not require the measures to have identical categories like the DWLS (Rosseel, Jorgensen, & Rockwood, 2021). Consequently, it can be used to compare the original model with the new model containing collapsed items.

The analysis used the software R version 3.6.2 to perform a CFA using the package Lavaan version 0.6-5 (Rosseel, Lavaan: an R package for structural equation modeling., 2012).

There were 472 cases and 36 observed variables. The eight factors in the analysis included Attitudes-L (i.e., Lie Seriousness), Norms-L (i.e., Perceived Lie Social Proof), Risk-L (i.e., Perceived Lie Risk of Verification) and CV-Lies (i.e., Reported Frequency of CV lies), Attitudes-E (i.e., Embellishment Seriousness), Norms-E (i.e., Perceived Embellishment Social Proof), Risk-E (i.e., Perceived Embellishment Risk of Verification) and CV Embellishments (i.e., Reported Frequency of CV Embellishments).

7.2.6.1.4 Results – Multigroup Invariance Test for Original and Collapsed Items

An initial analysis of the data showed that the difference in CFI between the collapsed and original measures was .005 (see Table 7.2), which could indicate that the two measures are psychometrically equivalent as the threshold of .01 was not reached.

Table 7.2 - *Within-Subjects Comparison - Original and Collapsed Items*

Model	CFI	RMSEA	SRMR	χ 2 (264)	df	ΔCFI
Original Items	.971	.031	.090	1318.39	1052	-
Collapsed Items	.969	.034	.082	1365.55	1052	.002

Note: CFA with Weighted Least Square (WLSM) estimates, N= 264

Although the initial test did not indicate that the two versions of the questionnaire (i.e., original vs collapsed items model) had psychometrically different properties, further invariance tests were conducted to ascertain that the measures possess equivalent psychometric properties. Invariance testing involves comparing the fit of a succession of nested models, each with more equality constraints on parameters across groups than the previous model (Bowen & Masa, 2015)

The four measurement invariance steps performed were configural, metric, scalar and strict, respectively. Configural invariance assesses if the same items load onto the same factors across groups; metric (or weak invariance) assess if factor loadings are invariant across groups (in addition to the previous test); scalar (or strong invariance) assess if the intercepts in the equations relating to latent variables to observed item scores are invariant

(in addition to the previous tests), and strict (or invariant uniqueness) assess the equivalence of item's residuals or unique variances (in addition to the previous tests).

Table 7.3 - *Multigroup Invariance Test – Original and Collapsed Items*

Test	CFI	RMSEA	SRMR	χ2	df	ΔCFI
Configural	.970	.032	.086	2683.94	2104	-
Metric	.972	.031	.086	2690.87	2144	.002
Scalar	.974	.030	.086	2693.21	2184	.002
Strict	.975	.029	.087	2714.28	2232	.001

Note: CFA with Weighted Least Square (WLSM) estimates, N= 264
ΔCFI significant if result > 0.01

Table 7.3 shows that none of the invariance tests reached the cut-off threshold of .01 for rejecting the hypothesis of invariance. Therefore, the results of the invariance analysis show a strong indication that both models possess similar psychometric properties.

7.2.6.2 Multigroup Invariance Test Between Languages

The multigroup invariance test in the previous section indicates that there are no significant psychometric differences between the measures with collapsed items and the original measure. Therefore, a categorical multiple-group confirmatory factor analysis (MG-CFA) (multigroup test of invariance analysis) was performed on the measures with collapsed items to test the hypothesis that the CV Lie Questionnaire contained psychometric equivalence across languages (i.e., English and Portuguese) on the dataset with collapsed items.

The analysis of multigroup invariance test between languages used a diagonally weighted least squares estimator (DWLS) method for categorical items. The eight factors in the

analysis included Attitudes-L (i.e., Lie Seriousness), Norms-L (i.e., Perceived Lie Social Proof), Risk-L (i.e., Perceived Lie Risk of Verification) and CV-Lies (i.e., Reported Frequency of CV lies), Attitudes-E (i.e., Embellishment Seriousness), Norms-E (i.e., Perceived Embellishment Social Proof), Risk-E (i.e., Perceived Embellishment Risk of Verification) and CV Embellishments (i.e., Reported Frequency of CV Embellishments).

The analysis used the software R version 3.6.2 to perform a CFA using the package Lavaan version 0.6-5 (Rosseel, Lavaan: an R package for structural equation modeling., 2012). Data included 48 items related to serious CV transgressions from the CV Lie Questionnaire (CLQ) and 236 cases.

7.2.6.2.1 Results Multigroup Invariance Test Between Languages

An initial analysis of the data showed that the difference in CFI between the English and Portuguese measures was .002 (Table 7.4) which could indicate that the two measures are psychometrically equivalent as the threshold of .01 was not reached

Table 7.4 - *Within-Subjects Comparison Between Languages Scaled*

Model	$CFI^{(s)}$	$RMSEA^{(s)}$	$SRMR^{(s)}$	$\chi 2^{(s)}$	df	$\Delta CFI^{(s)}$
Portuguese Version	.928	.054	.121	1404.29	1052	-
English Version	.926	.051	.118	1450.65	1052	.002

Note. Portuguese n=117 English n=147; $^{(s)}$ indicates robust indices for ordinal data scaled for ordinal variables

Although the initial test did not indicate that the two versions of the questionnaire had psychometrically different properties, further analyses were conducted to ascertain that the measures possess equivalent psychometric properties. The four measurement invariance steps performed were configural, metric, scalar and strict, respectively. Table 7.5 shows

that none of the invariance tests reached the cut-off threshold of .01 for rejecting the hypothesis of invariance. Therefore, the results of the invariance analysis show a strong indication that both models possess similar psychometric properties.

Table 7.5 - *Multigroup Invariance Test - Between Languages*

Test	CFI$^{(S)}$	RMSEA$^{(S)}$	SRMR$^{(S)}$	$\chi 2^{(S)}$	df	ΔCFI$^{(S)}$
Configural	.925	.052	.119	2856.30	2104	-
Metric	.922	.053	.121	2928.36	2144	.003
Scalar	.921	.052	.120	3036.66	2244	.001
Strict	.921	.052	.120	3036.66	2244	.000

N=264; ΔCFI significant if result > 0.01

$^{(S)}$ indicates scaled/robust indices for ordinal data scaled for ordinal variables

7.2.7 Big Five Inventory (BFI) Validity

A Confirmatory factor analysis was performed to test the hypothesis that a five-factor personality model with a simple structure (i.e., each item loaded into only one variable) fit the data. The factors include the traits Extraversion, Conscientiousness, Agreeableness, Openness and Neuroticism from the BFI five-factor personality inventory (John & Srivastava, 1999).

7.2.7.1 CFA Assumptions (BFI)

The analysis used the software R version 3.6.2 to perform a CFA using the R package Lavaan version 0.6-5 (Rosseel, Lavaan: an R package for structural equation modeling., 2012). Data included items from the Big Five Inventory (BFI) (John & Srivastava, 1999). There were 236 cases and 44 observed variables. The ratio of cases to observed variables was 5:1 (rounded). There were no missing data.

The data contained Likert-scale items which should be treated as ordinal data (Rhemtulla, Brosseau-Liard, & Savalei, 2012). Therefore, the analysis used a diagonally weighted least squares estimator (DWLS). The DWLS is a robust WLS method based on the polychoric correlation matrix of the variables included in the analysis, which provides accurate parameter estimates for ordinal data (Li, 2016).

7.2.7.1.1 Normality

Data screening prior to analysis did not identify any extreme scores. However, Kurtosis and skewness scores indicated that the data was not normally distributed. An assessment of multivariate normality using Mardia's (1970) test revealed kurtosis (17.2) and skewness (19501.3) to be significant. The results indicate that the data was multivariate non-normal and can result in standard error biases; the diagonally weighted least squares (DWLS) method provides accurate parameter estimates in situations in which the assumption of multivariate normality is violated (Li, 2016).

7.2.7.1.2 Multicollinearity

The correlation between items ranged between -.62 and .61, which are below the .90, therefore, suggesting no issues with multicollinearity (Tabachnick & Fidell, 2013, p. 561). Consultation of factor loadings revealed that while most items possessed moderate to high loadings (i.e., above 0.5), some were low, suggesting that not all items loaded meaningfully (Chin, 2010).

7.2.7.2 Fit Indices for Big Five Inventory (BFI)

The analysis contained a range of indices ensures robust assessment of model fit. The indices to evaluate model fit included chi-square test, Relative fit indices (RNI), Goodness of Fit (GFI), Comparative Fit Index (CFI), Tucker Lewis index (TLI), Root-Mean-Square Error of Approximation (RMSEA) and Standardized Root-Mean-Square Residual (SRMR).

7.2.7.2.1 Fit Indices

The results of the analysis using diagonally a weighted least squares estimator (DWLS) showed that the chi-square test was significant, $\chi2$ (892, N = 264) = 1869.06 at $p < .001$. The five-factor model demonstrated inadequate fit for RNI = .81, CFI =.81, TLI =.80. However, RMSEA = .065 was below the threshold of .08 which is adequate. The SRMR = .10 was greater than the recommended .08 and may be interpreted as unacceptable (Hu & Bentler, 1999).

Table 7.6 - *Fit Indices for the Big Five Inventory Model*

Model	RNI$^{(S)}$	CFI$^{(S)}$	TLI$^{(S)}$	RMSEA$^{(S)}$	SRMR$^{(S)}$	$\chi2^{(S)}$ (*df*)
BFI Inventory	.81	.81	.80	.065	.101	1869.06 (892)

Note: diagonally weighted least squares estimator (DWLS)
$^{(S)}$ indicates scaled/robust indices for ordinal data scaled for ordinal variables
BFI Inventory factors: Extraversion, Conscientiousness, Agreeableness, Neuroticism and Openness

7.2.7.3 BFI Bi-factor Model

Personality trait inventories often perform poorly when their structure is evaluated with confirmatory factor analysis (CFA). Poor CFA fit is common for several widely used

personality measures with documented evidence of criterion-related validity (Hopwood & Donnellan, 2010). Applying a bi-factor model when conducting CFAs can improve the fit of personality inventories. A bi-factor model specifies a general factor that accounts for the common variance among all scale items, and group factors that reflect additional common variance among clusters of items (Chen, Watson, Biderman, & Ghorbani, 2016). Therefore, a Confirmatory Factor Analysis was performed to test the hypothesis that a Bi-factor model of the five-factor personality improved model fit.

The results of the analysis using diagonally weighted least squares estimator (DWLS) showed that the chi-square test was significant, $\chi 2$ (858, N = 264) = 1497.29 at $p < 0.001$. The five-factor model demonstrated marginal fit on all indices: RNI = .88, CFI =.88, TLI =.87. The results were RMSEA = .053 which is close to a good fit.

The result was SRMR = .086. Although the SRMR in this analysis was greater than the recommended .08, it was below the .10 which may be interpreted as acceptable (Hu & Bentler, 1999).

Table 7.7 - *Fit Indices for the Big Five Inventory Bi-Factor Model*

Model	RNI$^{(S)}$	CFI$^{(S)}$	TLI$^{(S)}$	RMSEA$^{(S)}$	SRMR$^{(S)}$	$\chi 2^{(S)}$ (*df*)
BFI Inventory - Bi-factor	.88	.88	.87	.053	.086	1497.29 (858)

Note: diagonally weighted least squares estimator (DWLS)
$^{(S)}$ indicates scaled/robust indices for ordinal data scaled for ordinal variables
BFI Inventory factors: Extraversion, Conscientiousness, Agreeableness, Neuroticism and Openness

Note that the CFI and RMSEA indices disagree. The CFI was not adequate, but the value for RMSEA was slightly above the .05 threshold. Further analysis shows that baseline model's RMSEA is .145. Incremental fit indices like the CFI may not be very informative

because the model has a baseline model's RMSEA which is less than .158 (Kenny, Kaniskan, & McCoach, 2015). Two indices can disagree for many reasons. First, CFIs and RMSEAs evaluate a model's fit from a different perspective. Second, cut-off values for fit indices are arbitrary, and the relationship between fit indices and a good fit is not well understood (Lai & Green, 2016).

The RMSEA is adequate, which might indicate that the model is specified, despite the low CFI. The use of confidence intervals and tests of PCLOSE can help understand the sampling error in the RMSEA. The confidence interval is very informative about the precision in the estimate of the RMSEA when the lower value of the 90% confidence interval includes or is very near zero (or no worse than 0.05), and the upper value is not very large, i.e., less than .08. Analysis of the PCLOSE shows a robust RMSEA = .053 (90% CI: .049 - .058). The results of the P-value RMSEA <= 0.05 was 0.118. These results indicate that the model might be a close-fitting model.

7.2.7.3.1 Model Comparison

The original and the bi-factor models were compared using the Scaled Chi-Squared Difference Test (method = "satorra.2000"). The test is conducted using the standard test statistics, not the robust test that should be reported per model. A robust difference test is a function of two standard (not robust) statistics. The results of Table 7.8 show that the differences between the first model ($\chi 2$ = 2695.5) and the second bi-factor model (2695.5) were 269.27, $p < .001$. The difference was significant, indicating that the bi-factor model is a better model than the original model.

Table 7.8 - *Fit Indices for the Big Five Inventory Model*

Model	RNI$^{(S)}$	CFI$^{(S)}$	TLI$^{(S)}$	SRMR	RMSEA$^{(S)}$	$\chi2^{(S)}$	$\chi2$ (df)
1. Five-Factor Model	.81	.81	.80	.065	.101	1869.06	2695.50 (892)
2. Five-Factor Model (Bi-factor)	.88	.88	.87	.053	.053	1497.29	2426.23 (858)
					$\Delta\chi2^{(S)}$	371.77	
					$\Delta\chi2$		269.27***

Note. *** $p < 0.001$; diagonally weighted least squares estimator (DWLS)

7.2.7.3.2 Big Five Inventory (BFI) Convergent Validity

The convergent validity of the measurement model was assessed by the Average Variance Extracted (AVE) and Composite Reliability (CR). Table 7.9 shows that values of AVE for all measures were below the 0.5 thresholds, which is considered unacceptable. Therefore, the level of variance captured by a construct compared to the level due to measurement error is small. However, values for CR for all measures were above the accepted threshold of 0.7, which means that measures have adequate internal consistency. When AVE is less than 0.5 but composite reliability is higher than 0.6, the convergent validity of the construct is still adequate (Fornell & Larcker, 1981).

Table 7.9 - *Big Five Inventory (BFI) Reliability Tests*

	Factor Loadings				
	E	C	A	N	O
CR	.87	.88	.80	.83	.83
AVE	.49	.45	.33	.39	.36

Note: AVE and CR were calculated from a polychoric correlation table

E=Extraversion, C=Conscientiousness, A=Agreeableness, N=Neuroticism, O=Openness

7.2.7.3.3 Discriminant Validity - Heterotrait-monotrait ratio

Discriminant Validity was further examined using the heterotrait-monotrait ratio of correlations (HTMT). The HTMT is a measure of similarity between latent variables. Discriminant validity is established if the HTMT is smaller than one. However, an upper threshold of 0.85 reliably determines if a pair of latent variables is validly discriminant (Henseler, Ringle, & Sarstedt, 2015).

Table 7.10 shows that all comparisons between the big five traits were below the threshold of 0.85. Therefore, all measures of the Big Five inventory shows discriminant validity.

Table 7.10 - *Heterotrait-monotrait ratio for The Big Five Inventory (BFI)*

Measures	1	2	3	4
1. Extraversion	-			
2. Conscientiousness	.31	-		
3. Agreeableness	.42	.39	-	
4. Neuroticism	.47	.41	.64	-
5. Openness	.41	.27	.28	.36

N= 264

7.3 Results

7.3.1 Descriptive Statistics

Data analyses were conducted using the SPSS 26 software package.

7.3.1.1 Descriptive Statistics for Variables in the Analyses

Table 7.11 displays the rate of dishonest individuals for each single dishonesty act related to job application dishonesty by nationality. The table also displays the aggregated rate of liars for serious (i.e., Reported CV lies) and mild transgressions (i.e., Reported CV Embellishments). The rate of liars is different across different types of serious and mild transgressions. Overall, more participants report embellishing their CVs (87.9%) than lying (58.3%).

Table 7.11 - *Percentage CV dishonesty admissions by rate individual dishonesty*

CV Dishonesty Description	Brazil *(N=123)*		The UK *(N=95)*		Other *(N=46)*		Total *(N=264)*	
	%	*n*	*%*	*n*	*%*	*n*	*%*	*n*
Individual Items								
Concealed personal information	30.9	38	37.9	36	32.6	15	33.7	89
Changed dates of employment	18.7	23	31.6	30	34.8	16	26.1	69
Added fake responsibilities	20.3	25	33.7	32	21.7	10	25.4	67
Added fake skills	5.7	7	27.4	26	30.4	14	17.8	47
Added fake training	8.9	11	7.4	7	10.9	5	8.7	23
Added fake job positions	8.1	10	7.4	7	6.5	3	7.6	20
Added fake references	8.1	10	5.3	5	8.7	4	7.2	19
Added fake education	5.7	7	4.2	4	2.2	1	4.5	12
Added fake company names	3.0	4	2.4	3	4.3	2	3.4	9
Individual Items (Embellishments)								
Embellished personal statements	61.8	76	92.6	88	93.5	43	78.4	207
Embellished previous Jobs	62.6	77	91.6	87	93.5	43	78.4	207
Embellished previous Responsibilities	60.2	74	91.6	87	82.6	38	75.4	199
Aggregated Items (Lies)	51.2	63	63.2	60	67.4	31	58.3	154
Aggregated Items (Embellishments)	78.9	97	95.8	91	95.7	44	87.9	232

N = 264

All scales start at 1 with a maximum score of 5. The table shows that magnitude of the reported frequency of CV lies (*M* = 1.23) is smaller than the magnitude of CV embellishments (*M* = 2.88), which is expected. Differences between Attitudes-L (*M* = 4.06) and Attitudes-E (*M* = 2.75), Norms-L (*M* = 2.73) and Norm-E (*M* = 3.92), and Risk -L (*M* = 3.04) and Risk E (*M* = 2.70) also follow plausible directions. That is, participants report that CV lies are more serious, less commonly performed by others and riskier than CV embellishments. Similar trends occur when comparing scores across countries.

Table 7.12 displays the means and standard deviation of variables in the analysis divided by nationality. The table also reports on the total means and standard deviation of variables.

Table 7.12 - *Mean and standard deviation of variables by Nationality*

CV Dishonesty Description	Brazil *(N=123)*		UK *(N=95)*		Other *(N=46)*		Total *(N=264)*	
	M	*Sd*	*M*	*Sd*	*M*	*Sd*	*M*	*Sd*
Reported CV lies	1.22	.45	1.26	.35	1.22	.31	1.23	.39
Reported Embellishments	2.29	1.16	3.42	1.12	3.33	1.12	2.88	1.26
Conscientiousness	3.88	.69	3.91	.45	4.03	.63	3.92	.67
Attitudes-L	4.16	.63	4.06	.84	3.80	1.09	4.06	.81
Attitudes-E	3.00	.88	2.53	.81	2.53	.66	2.75	.85
Norms-L	2.78	.69	2.71	.45	2.65	.59	2.73	.60
Norms-E	3.62	.82	4.17	.53	4.19	.75	3.92	.76
Risk-L	3.11	.88	2.96	.67	3.01	.64	3.04	.77
Risk-E	2.83	.89	2.55	1.01	2.63	1.01	2.70	.96

Note: All scales start at 1 with a maximum score of 5.

7.3.1.2 Correlations

7.3.1.3 Job Application Lies

Table 7.13 contains the correlations between the independent variables and the dependent variable Reported frequency of CV Lies. The correlation table shows that Attitudes-L (r = - .26, p < .01), Norms-L, (r = .22, p < .01), Conscientiousness (r = .17, p < .01) and Gender (r = 28, p < .01) are associated with Reported frequency of CV Lies. Correlations between Reported frequency of CV Lies and the remaining big five personality traits (i.e., Agreeableness, Neuroticism, Openness, Extraversion), Reported frequency of CV Lies and Risk-L, and between Reported frequency of CV Lies and Age were not statistically significant.

Table 7.13 - *Means, Standard Deviations and Correlations for Job Application Lies*

	1	2	3	4	5	6	7	8	9	10
1. CV Lies	_									
2. Attitudes-L	-.26**	_								
3. Norms-L	.22**	-.02	_							
4. Risk-L	-.02	.23**	.14*	_						
5. C [a]	-.17**	.21**	.02	.05	_					
6. A [b]	-.08	.03	-.08	.08	.28**	_				
7. N [c]	.07	-.08	.04	-.03	-.34**	-.50**	_			
8. O [d]	.02	.05	.09	.06	.16**	.10	-.23**	_		
9. E [e]	-.01	-.01	.02	-.04	.19**	.26**	-.36**	.24**	_	
10. Age	-.03	.08	-.14*	-.10	.07	.07	-.17**	.20**	.09	_
11. Gender [f]	.28**	-.08	.11	.00	-.06	-.06	-.08	.08	-.05	.02
Mean	1.23	4.06	2.73	3.04	3.92	3.87	2.74	3.93	3.43	36.0
SD	.39	.81	.59	.77	.67	.58	.74	.57	.78	10.9

N= 264, ** p < 0.01; * p < 0.05

[a] Conscientiousness, [b] Agreeableness, [c], Neuroticism, [d] Openness, [e] Extraversion
[f] Gender: 1 = Female; 2 = Male

7.3.1.3.1 Job Application Embellishments

Table 7.14 contains the correlations for the CV Embellishment model. The correlations show that Attitudes-E (r = - .45, p < .01), Norms-E (r = .56, p < .01), Risk-E (r = -.15, p < .05), Conscientiousness (r = -.15, p < .05) and Gender (r = .18, p < .01) are associated with Reported CV Embellishment. Correlations between the CV Embellishment and remaining big five personality traits (i.e., Agreeableness, Neuroticism, Openness, Extraversion), and between CV Embellishment and Age were not statistically significant.

Table 7.14 - *Means, Standard Deviations and Correlations for Job Application Embellishments Model*

	1	2	3	4	5	6	7	8	9	10
1. Embellishing	_									
2. Attitudes-E	-.45**	_								
3. Norms-E	.56**	-.35	_							
4. Risk-E	-.15*	.24**	-.16**	_						
5. C [a]	-.15*	.14*	-.08	.01	_					
6. A [b]	-.06	.03	-.04	.09	.28**	_				
7. N [c]	.01	-.01	.02	-.14	-.34**	-.50**	_			
8. O [d]	.03	-.02	.09	.12	.16**	.10	-.23**	_		
9. E [e]	.07	.02	.06	.10	.19**	.26**	-.36**	.24**	_	
10. Age	-.02	.04	-.07*	.04	.07	.08	-.17**	.20**	.09	_
11. Gender [f]	.18**	-.01	.05	.02	-.06	-.06	-.08	.08	-.05	.02
Mean	2.88	2.75	3.91	2.70	3.92	3.87	2.74	3.93	3.43	36.0
SD	1.26	.85	.76	.96	.67	.58	.74	.57	.78	10.9

N= 264, ** p < 0.01; * p < 0.05

[a] Conscientiousness, [b] Agreeableness, [c], Neuroticism, [d] Openness, [e] Extraversion

[f] Gender: 1 = Female; 2 = Male

7.3.1.3.2 Correlations between CV Lies, Embellishments and Nationality

Table 7.15 contains the correlations between CV Lies, Embellishments and Nationality. Nationality is a nonmetric variable with three Categories.

Table 7.15 - *Means, Standard Deviations and Correlations for Behaviour Consistency Model*

Correlations

	1	2	3	4	5	6	7	8
1. CV Lies	_							
2. Emb	.31**	_						
3. Attitudes-L	-.26**	-.14*	_					
4. Norms-L	.22**	-.02	-.02	_				
5. Risk -L	-.02	-.06	.23**	.14*	_			
6. Attitudes-E	-.22	-.46**	.40**	-.01	.17**	_		
7. Norms-E	.06	.56**	-.06	.36**	.00	-.35**	_	
8. Risk-E	-.09	-.15*	-.15*	-.08	.51**	.24**	-.16**	_
9. UK	.04	.32**	.01	-.04	-.07	-.19**	.24**	-.11
10. Other Nation.	-.03	.16**	-17**	-.05	-.03	-.12	.17**	-.35**
Mean	1.23	2.88	4.06	2.73	3.04	2.75	3.91	2.70
SD	.39	1.26	.81	.60	.77	.85	.76	.96

N= 264, ** $p < 0.01$; * $p < 0.05$

Note. dummy-coded reference variable is Nationality Brazilian

Brazilian Nationality was the reference variable which is the omitted variable. The table shows that the correlations between Nationality (Brazilian = 0, UK = 1) and CV Lies were not significant (r = .04, p > .05), and that the correlations between Nationality (Brazilian = 0, Other Nationalities = 1) were also not significant (r = -.03, p > .05). However, the correlations between Nationality (Brazilian = 0, UK = 1) and CV Embellishments (r = .32, p < .01), and between Nationality (Brazilian = 0, Other Nationalities = 1) and Embellishments (r = .16, p < .01) were statistically significant.

7.3.2 Inferential Statistics

7.3.2.1 First Analysis – Job Application lies

A multiple regression analysis was performed with heteroscedasticity-robust SE to test the hypotheses of this study, which included CV lies as the criterion and Conscientiousness, Attitudes, Norms, Risk and Nationality as predictors. Extraversion, Agreeableness, Openness, Neuroticism, Age and Gender were added to the model as controls.

7.3.2.1.1 Dummy Codding Nationality

The variable nationality was added to examine differences in reported frequency of CV lies due to national differences in dishonesty. The dummy-coded reference variable was Nationality Brazilian while the second level variables were Nationality UK and Other Nations. The differences can be evaluated using regression analysis. Regression analysis is a general linear model which can be used for both continuous and categorical variables. Different parametric methods (i.e., ANOVA) are subsumed under the parameters of regression and therefore can be analysed using regression (Cohen, 1968)

7.3.2.1.2 Assumptions

The analysis tested for violations of multiple regression analysis. The analysis tested for normality of residuals, outliers, influential data points, collinearity, independent errors, and homoscedasticity.

7.3.2.1.2.1 Normality of Residuals

Analysis of kurtosis and skewness showed that the data was not normally distributed. The distribution was right skewed since a large proportion of participants stated never lying on a CV. Therefore, the criterion variable CV Lies (i.e., reported frequency of CV lies) was transformed using the reciprocal inverse formula [2-(1/x)] which improved normality. After the transformation of the dependent variable, a visual examination of the multiple regression residuals showed the data had a normal distribution shape. Furthermore, a measure of skewness was .71 (*SE* = .150) and kurtosis was 1.00 (*SE* = .299) which are within acceptable ranges.

7.3.2.1.2.2 Outliers

An analysis of standard residuals was carried out before the data was transformed using z-scores to identify any outliers. The analysis indicated that 4 participants appeared to be outliers ($z > 3.0$). An inverted transformation of the dependent variable (i.e., reported frequency of CV lies), since this variable was positively skewed. After a second z-score analysis of the residuals, only one participant appeared to be an outlier. The participant scores were not removed from the final analysis as the removal did not change the interpretability of the results.

7.3.2.1.2.3 Influential Data Points

Cook's distances were examined, and its maximum value was .122, which is below the cut-off value of 1. The lowest probability for the Chi-square ($\chi 2$) distribution p-value of the Mahalanobis distance scores with degrees of freedom df = 12 was .00176, which is greater than the cut-off value of ≤ .001 for the identification of multivariate outliers.

7.3.2.1.2.4 Collinearity

Tests investigating if the data met the assumption of collinearity indicated that multicollinearity was not a concern. The variable with the highest VIF was Neuroticism (*VIF* = 1.598).

7.3.2.1.2.5 Independence of Errors

The data met the assumption of independent errors (Durbin-Watson value = 2.04). Ideally, Durbin-Watson scores should be equal to 2.0. Alternatively, a rule of thumb for independence of errors state that values less than 1 and greater than 3 are cause of concern (Hair, Black, & Anderson, 2014, p. 221).

7.3.2.1.2.6 Homoscedasticity

The scatterplot of standardised predicted values showed that the data did not meet the assumptions of homogeneity of variance and linearity. Furthermore, Homoscedasticity was tested using the EndoS Macro for SPSS (Daryanto, 2020). Heteroscedasticity was

detected. Breusch-Pagan (45.27) and Koenker tests (44.04) were both highly significant ($p < .001$)

7.3.2.1.3 Main Analysis

Since the data did not meet the assumption of homoscedasticity, the multiple regression analysis was performed using Daryanto's standard error robust procedure, which corrects for heteroscedasticity. The results of this analysis are reported in Table 7.16.

Using the enter method, the regression analysis was significant with the model explaining 24.8 % of the variance and that the model was a significant predictor of Job Application Lies, $R^2 = .25$ ($R^2_{Adjusted} = .21$), F (12, 263) = 6.914, $p < .001$. The total effect size for the analysis was $f^2 = .33$ which signifies a moderate ($f^2 \geq 0.15$ and ≤ 0.35) effect size, but is close to a large effect size, according to Cohen's (1988) guidelines.

The results of the analysis show that Agreeableness (β= -.045, p= ns), Neuroticism (β = .030, p= ns), Openness (β= .002, p= ns), Extraversion (β = .007, p= ns), Risk-L (β= -.005, p= ns), Age (β= .025, p = ns) were not significant. Furthermore, the dummy coded variables UK (β= .090, ns) and Other Nations (β= .059, ns) were not significant different from the reference variable Brazil.

However, Conscientiousness (β= -.189, p = .001) Attitudes-L (β= -.247, $p < .001$) and Norms-L (β= .173, $p < .05$) and Gender, coded as Female = 1 and Male = 2, (β = .239, p< .001) were predictors of reported CV lies. Therefore, the results show that as Conscientiousness decreases, Attitudes-L (i.e., perceives seriousness of CV lies) decreases, Norm (i.e., Perceived Social Proof) increases, and as the levels change for Gender from Females to Males, reported frequency of CV lies increases.

Table 7.16 - *Multiple Regression Analysis for Job Application Lies Model (heteroscedasticity-robust SE)*

Variables	*B*	*SE*	*β*	*F*	R^2	f^2
				6.914	.25	.33
Conscientiousness	-.046	.017	-.189**			
Agreeableness	-.013	.019	-.045			
Neuroticism	.007	.018	.030			
Openness	-.001	.016	.002			
Extraversion	-.001	.013	-.007			
Attitudes-L	-.050	.017	-.247**			
Norms-L	.047	.019	.173*			
Risk-L	-.001	.012	-.005			
Nationality UK	.031	.021	.090			
Nationality Other	.025	.027	.059			
Age	.000	.001	.025			
Gender $_{(F = 1, M = 2)}$	.084	.024	.239**			

Dependent Variable: CV Lies (transformed)

N= 264; ** $p < 0.01$, * $p < 0.05$

Note. dummy-coded reference variable is Nationality Brazilian

7.3.2.2 Second Analysis – Job Application Embellishments

A multiple regression analysis was performed with heteroscedasticity-robust SE to test the hypotheses of this study, which included CV Embellishments as the criterion and Conscientiousness, Attitudes, Norms, Risk and Nationality as predictors. Extraversion, Agreeableness, Openness, Neuroticism, Age and Gender were added to the model as controls.

7.3.2.2.1 Assumptions

The analysis tested for violations of multiple regression analysis. The analysis tested for normality of residuals, outliers, influential data points, collinearity, independent errors, and homoscedasticity.

7.3.2.2.1.1 Normality of Residuals

A visual examination of the multiple regression residuals showed the data had a normal distribution shape. Furthermore, analysis of kurtosis and Skewness showed that the data was normally distributed. A measure of skewness was .046 (*SE* = .150) and kurtosis was -.449 (*SE* = .299) which are within acceptable ranges.

7.3.2.2.1.2 Outliers

An analysis of standard residuals was carried using z-scores to identify any outliers. The analysis indicated no outliers within the data set (min z-score = -2.49; max z-score = 2.58).

7.3.2.2.1.3 Influential Data Points

Cook's distances were examined, and its maximum value was .037, which is below the cut-off value of 1. The lowest probability for the Chi-square ($\chi 2$) distribution p-value of the Mahalanobis distance scores with degrees of freedom df = 12 was .00179, which is greater than the cut-off value of ≤ .001 for the identification of multivariate outliers.

7.3.2.2.1.4 Collinearity

Tests investigating if the data met the assumption of collinearity indicated that multicollinearity was not a concern. The variable with the highest VIF was Neuroticism (*VIF* = 1.590).

7.3.2.2.1.5 Independence of Errors

The data met the assumption of independent errors (Durbin-Watson value = 1.95). A rule of thumb for independence of errors state that values less than 1 and greater than 3 are cause of concern (Hair, Black, & Anderson, 2014, p. 221).

7.3.2.2.1.6 Homoscedasticity

The scatterplot of standardised predicted values showed that the data met the assumptions of homogeneity of variance and linearity.

Furthermore, Homoscedasticity was tested using the EndoS Macro for SPSS (Daryanto, 2020). Heteroscedasticity was not detected; instead, the Breusch-Pagan (10.0, p = .617) and Koenker tests (13.0, p = .369) were both non-significant, showing that the data displays homoscedasticity.

7.3.2.2.2 Analysis

The results of this analysis are reported in Table 7.17. Using the enter method, the regression analysis was significant with the model explaining 46.9 % of the variance and that the model was a significant predictor of Job Application Embellishments, R^2 = .47 (R^2

$_{Adjusted}$ = .44), F (12, 263) = 18.466, p < .001. The total effect size for the analysis was f^2 = .88 which is above Cohen's (1988) estimated high effect size of .35 for multiple regressions.

The results of the analysis show that Conscientiousness (β = -.093, ns.), Agreeableness (β= -.031, ns.), Neuroticism (β = .022, ns.), Openness (β= -.018, ns.), (Extraversion (β = .080, ns.), Risk-E (β= -.004, ns), Age (β= -.048, ns.) were not significant.

However, Attitudes-L (β= -.210, p < .001) and Norms-L (β= .369, = .016) and Gender, coded as Female = 1 and Male = 2, (β = .152, p< .01) were predictors of reported CV Embellishments. Therefore, the results show that as Attitudes-E (i.e., Perceived Seriousness of CV Embellishments) decreases and Norms (i.e., Perceives Social Proof) increases, and as the levels change for Gender from Females to Males, reported frequency of CV Embellishments increases.

Furthermore, the results show that there are significant differences in reported CV embellishments between participants from Brazil and the UK (β = .269, p< .001), and between participants from Brazil and other nations (β = .190, p< .001). Contrary to the stated hypotheses, participants from Brazil reported less embellishments (M = 2.29, SD = 1.16) than participants from the UK (M = 3.42, SD = 1.12) and other nations (M = 3.33, SD = 1.12)

Table 7.17 - *Multiple Regression Analysis for Job Application Embellishments Model*

Variables	*B*	*SE*	*β*	*F*	R^2	f^2
				18.466	.47	.88
Conscientiousness	-.174	.094	-.093			
Agreeableness	-.067	.117	-.031			
Neuroticism	.037	.099	.022			
Openness	-.039	.109	-.018			
Extraversion	.129	.082	-.080			
Attitudes-E	-.311	.077	-.210***			
Norms-E	.609	.087	.369***			
Risk-E	-.005	.064	-.004			
Nationality UK	.703	.149	.269***			
Nationality Other	.628	.175	.190***			
Age	-.006	.006	-.048			
Gender $(F = 1, M = 2)$	.413	.129	.152**			

Dependent Variable: CV Embellishments

N= 264, *** $p < 0.001$, ** $p < 0.01$

Note. dummy-coded reference variable is Nationality Brazilian

7.3.2.3 Third Analysis - Behavioural Consistency

A hierarchical multiple regression analysis was performed to test the hypotheses that CV Embellishments, predict reported CV Lies. The variables in this analysis included CV lies as the criterion, and Conscientiousness, Attitudes, Norms, Risk and Nationality as

predictors. Age and Gender were added to the model as controls. Model two included and CV Embellishments as a criterion. The results of this analysis are reported in Table 7.18.

Table 7.18 - *Multiple Regression Analysis for Dishonesty Consistency Model (heteroscedasticity-robust SE)*

	Model 1			Model 2		
Variables	*B*	*SE*	*β*	*B*	*SE*	*β*
Step 1						
Conscientiousness	-.046	.017	-.189**	-.032	.016	-.132*
Agreeableness	-.013	.019	-.045	-0.08	.018	-.027
Neuroticism	.007	.018	.030	.003	.016	.013
Openness	-.001	.016	.002	-.005	.016	-.017
Extraversion	-.001	.013	-.007	-.006	.013	-.029
Attitudes-L	-.050	.017	-.247**	-.048	.015	-.238**
Norms-L	.047	.019	.173*	.047	.018	.170*
Risk -L	-.001	.012	-.005	.000	.011	.000
Nation UK	.031	.021	.090	-.032	.024	-.095
Nation Other	.025	.027	.059	-.032	.030	-.075
Age	.000	.001	.025	.001	.001	.079
Gender (F = 1, M = 2)	.084	.024	.239**	.050	.023	.163*
Step 2						
CV Embellishments				.050	.009	.385***
F	6.914***			10.517***		
ΔF				40.646.***		
R^2	.25			.35		
ΔR^2				.10		

Dependent Variable: CV Lies (transformed)

N= 264, *** p < 0.001, ** p < 0.01; * p < 0.05

Note. The dummy-coded reference variable is Nationality United Kingdom

The original model (Step 1) explains 24.8% of the variance and that the model was a significant predictor of Job Application Lies, $R^2 = .25$ ($R^2_{Adjusted} = .21$), F (12, 261) = 6.914, $p < .001$.

The results show that introducing Reported CV Embellishment to the analysis (Step 2) explained an additional 10.5 % of variation in reported CV lies and this change in R^2 was significant, $\Delta R^2 = 0.10 < .001$ [ΔF (1, 250) = 40.646, $p < .001$]. Together, the new model with the addition of Reported CV Embellishment explained 35.4 % of the variance in reported CV lies $R^2 = .35$ ($R^2_{Adjusted} = .32$), F (13, 261) = 6.914, $p < .001$. The total effect size for the analysis was $f^2 = .54$ which signifies a moderate strong effect size ($f^2 \geq 0.35$) according to Cohen's (1988) guidelines.

The results of the analysis show that reported CV embellishments ($\beta = .385$, $p < .001$) significantly explained reported job application Lies. Therefore, as reported CV embellishments increases, reported job application Lies also increases.

7.4 Discussion

This study investigated whether a behavioural model containing social-cognitive factors (i.e., Attitudes, Perceived Social Proof and Perceived Risk) and the personality trait Conscientiousness predicts self-reported job application dishonesty, including lies and embellishments. Furthermore, the study examined whether job application embellishments predict job application lies beyond the variables in the behavioural model.

The study also investigated whether participants from two countries with different levels of perceived national corruption (i.e., the UK and Brazil) differ in their reported job application dishonesty. Age, Gender and the remaining four personality traits from the Big

Five Inventory (Agreeableness, Neuroticism, Openness and Extraversion) were added as controls to each analysis.

7.4.1 Summary of Results

Overall, the analyses in this study partially confirm the hypotheses that a social-cognitive model of behaviour consisting of the personality trait Conscientiousness and the domain-specific variables Attitudes and Norms predicts different forms of job application dishonesty. The measure of Risk and the control variable Age did not correlate with Lies and Embellishments and therefore, it did not add predictive power to the regression model. However, Attitudes and Norms and the control variable Gender added unique variance to the prediction of both Lies and Embellishments. Conscientiousness and Nationality only predicted Embellishments. Finally, Brazilian participants reported fewer frequencies of the behaviour than UK participants, and participants from other nations.

7.4.1.1 First Analysis

The first analysis tested whether the model predicted job CV lies. It also tested whether there are national differences in the reported frequency of CV lies. The results show that Conscientiousness, perceived seriousness of lies (Attitudes-L), perceived social proof (Norms-L) and Gender are predictors of job application lies. However, the predictor perceived risk of verification of CV Lies (Risk-L) did not correlate significantly with CV lies. Therefore, the results of the analysis indicated that the model partially predicts CV lies.

The results of the first analysis also show that there were no significant differences in reported lies between participants from Brazil and the UK and between participants from

Brazil and participants from an aggregate of different nationalities. Therefore, the hypothesis stating that Brazilians should behave more dishonestly than UK participants when completing their job applications was not confirmed. Finally, the control variable Gender was a significant predictor of CV lies; however, Age and the remaining four personality traits were not significant predictors.

The total effect size for the first analysis was $f^2 = .33$, which signifies a moderate ($f2 \geq 0.15$ and ≤ 0.35) effect size, but is close to a large effect size, according to Cohen's (1988) guidelines.

7.4.1.2 Second Analysis

The second analysis tested whether the model predicted CV embellishments. It also tested whether there are national differences in the reported frequency of CV embellishments. The results show that perceived seriousness of lies (Attitudes-E), perceived social proof (Norms-E) and Gender are predictors of CV embellishments. However, the Conscientiousness and perceived risk of verification of CV Lies (Risk-L) did not correlate significantly with CV embellishments. Therefore, the results of the analysis indicated that the model partially predicts CV embellishments. Therefore, the same types of variables predicts both types of job application dishonesty (i.e., CV lies and CV embellishments).

The results of the second analysis also show that there were significant differences in reported CV embellishments between participants from Brazil and the UK and between participants from Brazil and participants from an aggregate of different nationalities. However, the results were in the opposite to the hypothesised direction. Participants from the UK and from other nationalities report embellishing their job applications more than

participants from Brazil. The control variable Gender was a significant predictor of CV lies; however, Age and the remaining four personality traits were not significant predictors. The total effect size for the second analysis was $f^2 = .88$ which is above Cohen's (1988) estimated high effect size of .35 for multiple regressions.

7.4.1.3 Third Analysis

The third analysis tested whether CV Embellishments predicted CV Lies after controlling for the Big Five Inventory personality traits, the variables in the social-cognitive model (Attitudes-L, Norms-L and Risk-L), Age, Gender and Nationality. The results show that the measure of CV Embellishments is a significant predictor of CV Lies beyond and above the other variables.

The third analysis which differed from the first analysis by the addition of CV embellishments as a predictor had a total effect size of $f^2 = .54$ which signifies a strong effect size ($f^2 \geq 0.35$) according to Cohen's (1988) guidelines. Adding CV embellishments significantly improved the model from the first analysis.

7.4.2 Evaluation of the Hypotheses

7.4.2.1 Conscientiousness

The first hypothesis tested whether the personality trait Conscientiousness is negatively related to reported job application dishonesty (H_1). The results of Study One indicate that the Big Five personality trait Conscientiousness explains unique variance of CV lies ($\beta = -.189$, $p < .01$) above and beyond the measures of domain-specific beliefs, in addition to

other Big Five personality traits, Nationality, Gender and Age , but it was not significant in predicting embellishments (β =-.093, ns). .

The results concerning the relationship between Conscientiousness and CV lies were expected since the personality traits such as the Big Five Conscientiousness are often implicated in predicting different forms of unethical behaviours (Shayne, Miller, & Lynam, 2011). However, Conscientiousness did not significantly predict CV embellishments. Therefore, the lack of relationship necessitates further explanation.

Personality refers to behavioural systems containing mechanisms that modulate a broad range of behavioural reactions within a particular domain (MacDonald, 1995). Personality traits are behavioural dispositions that spontaneously influence behaviours without much input from the environment (Funder, 2006). Furthermore, personality traits are non-evaluative stable patterns of behaviours (Ajzen, 2005, p. 29). Therefore, personality traits help individuals navigate their social environment in a relatively automatic fashion.

However, humans are also rational beings because they are capable of evaluating events and changing their behaviours accordingly. An essential characteristic of dishonesty behaviours included being socially proscribed. Unethical behaviours such as job application dishonesty are often risky. Futhermore, individuals high on the trait of Conscientiousness are more likely to be risk-averse (Fiddick, et al., 2016; Kennison & Messer, 2017). Consequently, they should be more likely to refrain from job application dishonesty. Alternatively, individuals scoring low on this trait should be more likely to engage in job application lies and embellishments.

However, Table 7.13 and Table 7.14 show that the trait Conscientiousness did not correlate significantly with the measures of Risk related to lies and embellishments. The lack of relationship between conscientiousness and measures of Risk might result from operationalisation issues associated with the latter. The section on the Risk in this discussion further explores the operationalisation of this measure.

It is also plausible to assume that individuals who engage in job application dishonesty do not have the qualifications necessary to compete for their preferred job positions. Individuals high in the Conscientiousness trait are more likely to be higher achievers academically (Schneider & Preckel, 2017; Wingate & Tomes, 2017) including highly selective and competitive settings (Chamorro-Premuzic & Furnham, 2003) and occupationally success (Spengler, Lüdtke, Martin, & Brunner, 2014), they should be under less pressure to misinform their job applications to get employed. Therefore, such individuals should have fewer reasons to be dishonest in their job applications than individuals with lower scores on this particular trait.

However, embellishments are different from lies since the former implies that individuals add credentials that they do not possess. The latter means that, although job candidates might have the credentials for a particular position, they attempt to describe these credentials in a manner that makes them appear more impressive. Conscientiousness links theoretically and empirically with the ability to acquire qualifications; alternatively, Conscientiousness might have a weaker influence on the decision to embellish qualifications that job candidates already have.

Although job applicants who embellish their job appliations might have attained the qualifications for a particular position, their qualifications might not allow them to stand

out against more conscientious individuals. Therefore, evaluative mechanisms such as attitudes and perceived norms might still influence the decision to embellish job applications. In competitive job market situations where the investment in additional credentials results in diminished returns, job candidates might attempt to differentiate themselves through self-promotion. However, if job candidates are rational, they would realise that self-promotion will not necessarily increase their chances of acquiring a job position if other candidates are doing the same.

Therefore, job candidates may be tempted to deceptively self-promote their achievements. This study indicates that when participants evaluate embellishments as less serious and more common, they are more likely to embellish their credentials more extensively. Since the correlation between Conscientiousness and embellishments is weak, Conscientiousness loses significance with the inclusion of other variables in the regression analysis. Future research could investigate whether the lack of qualifications for the desired position influences job applicants' decision to be dishonest when completing a job application.

Moreover, the results indicate that participants perceive embellishments are less serious and, consequently, less risky than lies. If Conscientiousness embodies risky decision making, it should have a lesser influence on unethical behaviours that are inherently less risky than behaviours that have more severe consequences, such as CV.

7.4.2.2 Social-Cognitive Model

When completing their application forms, job candidates can either present correct or false information to their future employers. This study contains the hypotheses that when deciding whether or not they will behave dishonestly, job candidates evaluate the

seriousness of the act, whether the action is common among other job candidates, and the level of risk involved.

7.4.2.2.1 Attitudes

Attitudes are people's evaluations of a particular behaviour (Ajzen, 1991). In this study, attitudes refer to participants perceived seriousness of job application dishonesty. The study contained the hypothesis that the seriousness of job application dishonesty is negatively related to the reported frequency of job application dishonesty (H_3). This study indicates that job candidates are significantly more likely to report higher frequencies of job application lies and job application embellishments if they believe that the act is less serious. Furthermore, the measures of Attitudes explain unique variance for both job applications lies and job application embellishments.

7.4.2.2.2 Norms

In this study, Norms measures refer to job candidates' beliefs about the extent to which others behave dishonestly when completing their job applications. The study contains a hypothesis (H_4) stating that job candidates Perceived Social Proof is positively related to job application dishonesty. The results indicate that job candidates are significantly more likely to report higher frequencies of job application lies and embellishments if they believe others behave similarly. Furthermore, the measures of Norms explain unique variance for both job applications lies and job application embellishments.

People have a natural tendency to conform to others' behaviours (Asch, 1956). Research shows the simple knowledge of what others are doing is enough to influence someone's

behaviour (Rivis & Sheeran, 2003). When people observe the behaviours of others, they make comparisons with their own behaviours and then adjust their behaviours accordingly (Festinger, 1954).

Research shows that social proof is a reliable predictor of a range of behaviours (Rivis & Sheeran, 2003). These perceptions have a similar effect on behaviours as observing the real behaviours of others (Mullen, et al., 1985; Klein, et al., 2018) and extend to dishonest behaviours. For example, people will increase their dishonesty if they observe that others are behaving more dishonestly (Gino, Ayal, & Ariely, 2009), or they will decrease their behaviours if they perceive others are behaving more honestly (Rauhut, 2013)

7.4.2.2.3 Risk

The measure of Risk refers to job candidates' beliefs about the perceived risk of verification of job application dishonesty. The study contained the hypothesis (H_5) stating that job candidates Perceived Social Proof is positively related to job application dishonesty. However, the measure of Risk did not correlate with either CV lies or CV embellishments, despite correlating positively with both Attitudes and negatively with Norms.

Perceptions of risk is a form of outcome expectancy. Outcome expectancy depends on beliefs about the probability that a behaviour will lead to the desired outcome (Yzer, 2012). Perceptions of risk relate to the estimated probability that an outcome will be unfavourable or harmful (Short, 1984). Experimental research on the influence of risk perceptions and dishonest behaviours indicate that individuals have different baseline beliefs related to risk, which in turn influences their decision to behave dishonestly. For example, in risk-free

conditions, some individuals behave dishonestly in an attempt to maximise the opportunity; however, other individuals refrain from behaving dishonestly despite attempts from researchers to make the opportunity for dishonesty salient (Shu & Gino, 2012). Furthermore, research on risk-dishonesty relationships indicates that self-reported measures of risk often correlate with self-reported dishonest behaviours (Hollinger & Clark, 1983).

The lack of statistical power in the relationship between Risk and Job Application Dishonesty could have been the result of the indirect influence of the other variables in the analyses. However, Risk also did not display a relationship with Job Application Dishonesty before the performance of the regression. An explanation for the results might be that perceptions of Risk do not influence participants' decision to behave dishonestly on their job applications. Outcome expectancy, such beliefs of behavioural control often do not correlate with behaviours (Armitage & Conner, 2001). The lack of risk-behaviour relationships might occur because of ceiling and floor effects, when either the participants have complete control or no control over the behaviour or interest.

Job applications pose few barriers to the extent that individuals can add information, including false information. However, it is reasonable to assume that job candidates are aware that procedural barriers, such as the organisation verification of claims, might prevent job candidates from being hired. Alternatively, job candidates might be unaware of the possible consequences of job application dishonesty. Nevertheless, measures of Risk positively correlated with measures of Attitudes and Norms. Therefore, participants relate the Risk of behaviour with its seriousness with how often others behave dishonestly (see Table 7.15).

Perhaps other factors not included in the analyses, such as pressures to find employment, might have mediated the effects of risk on the decision to be dishonest on job applications. Therefore, even if participants believe that behaviour is risky, serious and that job candidates do not misinform their job applications, they might still behave dishonestly if the pressures to have a job outweigh their moral beliefs.

However, before adding new variables to the model, Study two investigates whether the lack of relationship between Risk and Job application dishonesty is due to methodological issues. In the current study, the stem statement for the measure of risk asks participants to report on how often they think managers do further checks on the information provided by candidates on their CVs. The wording of the stem question asks participants to think about behaviours of others for which they might have little knowledge.

According to Kahneman (2012, p. 35), mental effort has a cost, and people generally make decisions using the least amount of mental effort and will usually use a mental path that provides the least resistance. Therefore, since the question might have added additional levels of cognition, they might not represent the mental path people use when deciding to misinform job applications. Therefore, Study Two contains a modified version of the measure of Risk that directs participants decisions to think about the risk related to the behaviours in question.

7.4.2.3 Nationality

An auxiliary hypothesis in this study related to social norms states that Reported job application dishonesty is higher for Brazilian participants than UK participants (H_8). Since many participants stated being national of other countries, the analyses split the

observations into three national groups. The results show no significant differences between the groups on their reported frequency of CV lies. However, contrary to the hypothesis, Brazilians reported less reported frequency of CV embellishments than UK participants and participants with other nationalities.

As previously mentioned in the Norms section, when people observe the behaviours of others, they make comparisons with their own behaviours and then adjust their behaviours accordingly (Festinger, 1954). Brazil ranks 106th out of 198 countries in an index of perceived national corruption, whilst the UK ranks 12th, with lower rankings meaning increased corruption (Corruption Perceptions Index, 2019). Therefore, it is reasonable to assume that Brazilian participants observe more instances of dishonesty than participants from the UK. Brazil also ranks 40th out of the 56 countries, while the UK ranked 9th in a measure of collectivism, with lower rankings meaning higher collectivism (Minkov, et al., 2017). Therefore, it was expected that Brazilians would be susceptible to the influence so social norms.

The results of Gelarch et al.'s (2019) meta-analysis of dishonesty studies show no significant differences in cross-cultural dishonesty in experimental studies. Therefore, one explanation for the lack of differences in reported CV lies between countries is that individuals might rely on domain-specific beliefs in their decision to behave dishonestly. The post-hoc analysis results on differences in beliefs related to job application dishonesty indicate that participants from Brazil and the UK have similar levels of job perceived seriousness, social proof, and perceived risk associated with CV lies.

The results also show significant differences in perceived seriousness of CV lies between participants from Brazil and other countries, with the latter reporting CV lies to be more

serious than the former. Still, there were no significant differences in reported CV lies between these two groups. The proportion of participants from other countries was considerably less than participants from the UK and Brazil. This third group is also nationally heterogeneous. Therefore, these results might be an artifact of the sampling.

Futher research is necessary to investigate the reasons for such disparities. Perhaps the differences might be the result of differences in job selection competition between the two countries. For example, developed countries have more graduates with similar qualifications competing for a particular position than third-world countries. Consequently, they might resort to embellishments to differentiate themselves from equally qualified competitors.

Finally, measures of national corruption summarise different domain-specific concepts of dishonesty as if they are heterogeneous. Consequently, individuals from other countries sometimes differ in their beliefs about the ethicality of various acts. For example, Americans viewed scenarios such as an auditing company sharing information regarding one client with another client as more unethical than Russian subjects viewed the same situations (Beekun, Stedham, Yamamura, & Barghouti, 2003).

Furthermore, specific cultures might have attitudes in a particular direction for one behaviour and an opposite direction for a similar but distinct dishonest act. For instance, a study comparing the U.S., Korean, and Indian managers found that Indian and Korean subjects viewed questionable practices such as software piracy, nepotism, or the sharing of insider information as relatively more ethical than participants in the United States. At the same time, Korean and Indian subjects viewed injury to the environment as more unethical than the U.S. participants (Christie, Kwon, Stoeberl, & Baumhart, 2003)

Therefore, a fruitful approach to the study of dishonesty would be to investigate specific instances of dishonest behaviours across countries using a predictor compatible with each domain-specific behaviour. Although only the measure of perceived social proof differs significantly between Brazilian and UK participants, it correlates with the other beliefs in the model.

Furthermore, all measures of beliefs in this study correlate with each other, despite being psychometrically different constructs. Consequently, measuring differences in baseline domain-specific beliefs across countries might help explain why while dishonesty studies do not find any significant cross-country differences in dishonesty in experimental studies, while the results of studies with more real-life domains (e.g., tax evasion and bribery scenarios) observe systematic and predictable differences across countries (Gerlach, Teodorescu, & Hertwig, 2019).

7.4.2.4 Behavioural Consistency

This study also evaluated the appropriateness of using measures of CV embellishment to predict CV Lies. CV embellishments predicted CV lies above and beyond the other measured in the analysis. The control variables, which included the same criterion as analysis one, were Conscientiousness, Attitudes, Norms, Risk and Nationality, Gender and Age.

This analysis is important for theoretical but also for practical reasons within Organisational Psychology. First, if dishonesty is a broad construct that influences different types of dishonest behaviours, then participants who embellish their job applications should also be more likely to lie. Second, participants of dishonesty study

often refrain from reporting the full extent of their dishonesty. Therefore, it is possible that self-report investigations on job candidates' extent of CV lies during the selection process might not be fruitful. However, job candidates are more likely to more accurately report on embellishments since they see embellishments as less serious transgressions than CV lies. Similarly, job candidates might be willing to report accurately on their beliefs about CV lies. Therefore, collecting information on CV embellishments and CV lie attitudes and beliefs might help organisations flag job applications for further scrutiny regarding its informational accuracy.

7.4.2.5 Age and Gender

The analyses included measures of age and gender as controls. The age of participants might have influenced the reporting of frequency of lying as older participants might have had more opportunities to participate in job selections than younger participants. Age did not correlate with job application dishonesty. As individuals age, they also become more Conscientiousness (Donnellan & Lucas, 2008). Therefore, the higher Conscientiousness of older individuals offset the effects of age on the reported frequency of job application dishonesty.

However, in this study, age did not correlate significantly with Conscientiousness. The measures of job application dishonesty refer to the frequency with which participants misrepresent their information, in contrast to how often they have misrepresented their information in the past. Therefore, the measure represents a global and timeless representation of the behaviour.

Perhaps changing the operationalisation of the measures might reveal differences in reported misreported dishonesty according to age. In contrast, Gender was also a significant predictor of job application dishonesty, with male participants reporting significantly more CV lies and embellishments than females. Gerlach et al.'s (2019) meta-analysis of dishonesty studies shows a small but significant difference in dishonesty between the genders, with males being more dishonest than females across experiments. Gerlach explains that most studies on dishonesty do not theorise about gender differences and more research is necessary to explain why males may behave more dishonestly than females.

7.4.3 Limitations

Correlational research designs have both strengths and limitations. For example, the present study contains variables that are hard to manipulate, such as attitudes and personality traits, as well as variables that cannot be manipulated at all, such as nationality, age and gender. Consequently, an experimental design that requires the manipulation of variables may not be practical to test the study's hypotheses. Furthermore, the study investigates behaviours that occur in everyday life. The correlational design in this study allows for the investigation of such behaviours. Alternatively, designing a study that investigates job application dishonesty in the lab would be costly in addition to raising issues of external validity.

That being said, the results of correlational studies only allow researchers to imply that relationships exist between the variables in a study; however, it is not possible for the researcher to infer causation. The correlational approach is prevalent in the Social

Sciences, and researchers justify using correlational studies to imply causality based on theory-heavy frameworks (Shmueli, 2010). For example, research in the Social Sciences often contains explanatory regression models to explore their theoretical predictions and justify predictions using an appropriate theoretical model (Azen & Budescu, 2003).

However, since correlational studies do not allow for the random assignment of participants to different conditions, there is always the possibility that a third variable not present in the analysis might be responsible for the occurrence of an effect on the criterion variable. In addition to the hypothesised variables, this study included control variables to rule out the influence of third variables. However, in correlational studies, it is always possible that an unknown variable exists that might explain an observed relationship.

For example, the results indicate that the personality trait Conscientiousness predicts job application dishonesty. Conscientiousness is a construct that closely resembles measures of integrity, such as the HEXACO measure of Honesty-Humility, which, in turn, provides a more adequate theoretically link with dishonest behaviours. Therefore, the analyses in Study Two will contain the addition of a measure of Honesty-Humility, alongside Conscientiousness.

Another limitation of the study is the lack of back-translation of the CV Lies Questionnaire (CLQ). This study contained two similar versions of the questionnaire, one in English and another in Portuguese. A common practice in cross-cultural research is to back-translate questionnaires using the help of language experts who evaluate levels of similarities while attempting to identify discrepancies between translations (Behr, 2017). However, the translation in the current study depended solely on the researcher's knowledge of both

languages due to budgetary concerns. Therefore, the lack of expert evaluation of the translation might have allowed for differences in meaning between the questionnaires.

Nevertheless, the use of back-translation with the help of experts does not guarantee that the translation is adequate (Behr, 2017). Therefore, evaluating whether participants using different languages had an equal understanding of the text occurred using the performance of a multigroup invariance test. Invariance tests help researchers to assess whether a construct has a similar or different structure and meaning across different groups, including groups using translated instruments (Putnick & Bornstein, 2016). The results of the test showed that participants' understanding of the questionnaire did not vary between versions. Therefore, the results assured that the translation was adequate.

Finally, compared to the measures related to CV lies, the measures referring to CV embellishments were limited in their content validity. While CV lies contained nine items, CV embellishments only contained three items. Since participants vary considerably in their reported frequency of behaviours, sometimes rarely reporting on some of the items (Spector, et al., 2006), the strong correlations between predictors and criterion in the CV embellishment model could have occurred due to composite artifacts of the measures. Therefore, in Study Two the measure of embellishment contains more items, which should improve its content validity.

Chapter 8 Study Two

"Show me a liar and I will show thee a thief." — George Herbert

This chapter contains the second study in this thesis. This study aims to examine whether the behavioural model proposed in Chapter 5 replicates the results of Study One related to job application dishonesty. However, the model presented in the current study contains changes after the results of Study One. There is the addition of the personality trait Honesty-humility as a predictor of job application dishonesty. Furthermore, the measure of risk contains an improved conceptualisation and conceptualisation and all the measures in the model contain extra items. Finally, in addition to investigating whether a mild form of job application dishonesty (i.e., embellishments) predicts job application lies, the current study examines whether job application dishonesty predicts counterproductive work behaviours.

8.1 Introduction

Study One addressed whether a social-cognitive model of dishonesty can explain and predict job application dishonesty, including CV lies and CV embellishments. The previous study investigated whether the personality trait Conscientiousness, perceived seriousness, Perceived Social Proof of the commonality and perceived risk of job application dishonesty predicted reported job application dishonesty. The study also examined whether CV embellishments predicted CV lies. Finally, the study examined if

participants from two nations with different levels of perceived national corruption differ in their reported frequency of job application dishonesty.

The current study attempted to replicate the findings of study one with a more homogeneous sample of participants and methodological changes that might improve the predictive model's effectiveness. Therefore, the study attempted to recruit participants mainly from a single geographic location (i.e., the United Kingdom). The methodological changes included extra items for the measures related to job application Lies and Embellishments. Furthermore, the measures related to embellishments now include items that make the measure more equivalent to embellishments. In other words, the items referring to Lies and Embellishments represent similar sections of a job application.

Another difference between the studies includes the operationalisation of the Risk Measure. Study one contained the following stem question for the measure of risk: "How Often you think managers do further checks on the information provided by candidates on their CVs." Participants then responded to each scenario with a scale containing a relevant 5-point scale (e.g., *1 = Never to 5 = Always*). In the current study, the stem question for the measure of risk asks participants to state their opinion on the risk of detection of each behaviour during the selection process. Participants then responded to each scenario with a scale containing a relevant 5-point scale (e.g., *1 = 0% Chance to 5 = 100% Chance*).

The lack of a relationship between Risk and Job Application Dishonesty in study one could have resulted from the participants' interpretation of risk. The measure of Risk in study one only indirectly taps into the notion of the riskiness of the behaviours since it relates to frequencies of verification and not to the risk of performing the act. Verification of job applications does not necessarily mean that organisations will uncover dishonesty.

Furthermore, the wording of the stem question asks participants to think about behaviours of others for which they might have little knowledge. Alternatively, the wording of Risk in the current study is an attempt to make the reference clearer.

There are also theoretical changes related to the role of personality traits in predicting job application dishonesty. The results of Study One indicate that the personality trait Conscientiousness predicts job application dishonesty. Conscientiousness is a construct that closely resembles measures of integrity, such as the HEXACO measure of Honesty-Humility, which, in turn, might provide a more adequate theoretical link with dishonest behaviours. Therefore, the analyses in study 2 will contain a measure of Honesty-Humility, alongside Conscientiousness.

Finally, this study investigates the possible implications of job application dishonesty to organisational behaviour. It examines whether the reported frequency of job application dishonesty relates to two forms of counter-productive work behaviours, namely, organisational and interpersonal deviance.

8.1.1 Conscientiousness

The results in Study One indicate that the Big Five personality trait Conscientiousness explains unique variance of CV lies above and beyond the measures of domain-specific beliefs, in addition to other Big Five personality traits, Nationality, Gender and Age. This result was expected since personality traits such as the Big Five Conscientiousness is often implicated in different forms of unethical behaviours (Shayne, Miller, & Lynam, 2011).

The trait Conscientiousness correlates with interview faking, which is a form of dishonesty that shares many similarities with job application dishonesty (Roulin & Krings, 2016; Roulin & Bourdage, 2017; Bourdage, Roulin, & Tarraf, 2018). Therefore, job candidates low in Conscientiousness should also be more likely to lie in their job applications to increase their chances of succeeding in selection processes:

H_1: *Conscientiousness is negatively related to job application dishonesty.*

8.1.2 Honesty-Humility

Individuals low on Conscientiousness are less likely to be higher achievers academically (Schneider & Preckel, 2017; Wingate & Tomes, 2017) and occupationally (Spengler, Lüdtke, Martin, & Brunner, 2014), as well as being successful in highly selective and competitive settings (Chamorro-Premuzic & Furnham, 2003). Therefore, higher levels of job application dishonesty observed in individuals low on Conscientiousness might result from higher incentives to acquire and provide credentials for their preferred job positions. Therefore, the trait conscientiousness might only partially represent a dishonesty personality construct.

While low Conscientiousness might predict lower qualifications, making it harder for applicants to have successful job applications, other factors might predispose them to tell lies. Another personality trait that may provide a better presentation of a dishonest personality is the Honesty-Humility trait. The personality trait Honesty-humility is part of the HEXACO personality inventory, which also contains measures of Extraversion, Agreeableness, Conscientiousness, Openness and Neuroticism, equivalent to the ones in the Five-Factor model of personality. The Honesty-Humility trait measures individual

differences in peoples' sincerity, fairness, greed avoidance, and modesty which predicts different forms of dishonest behaviours (Ashton & Lee, 2008). Therefore, the measure contains facets which theoretically relates to dishonesty.

Studies on interview faking, which shares many conceptual similarities to job application dishonesty, indicates that Honesty-Humility is a predictor of reported dishonesty during interviews (Buehl & Melchers, 2017; Roulin & Bourdage, 2017). Furthermore, in some studies, such as De Vries et al.'s (2011) investigation of counterproductive academic behaviours (CAB), the personality trait Honesty-Humility explains variance of dishonesty alongside the personality trait Conscientiousness.

Dishonesty experiments that include personality traits theoretically linked to dishonesty (e.g., Conscientiousness and Honesty-Humility) also find that such personality traits account for the decision to behave dishonesty above and beyond experimental manipulations (Hilbig & Zettler, 2015; Heck, Thielmann, Moshagen, & Hilbig, 2018). Therefore, since honesty-humility often predicts different forms of dishonestly behaviours, beyond the personality trait conscientiousness, Honesty-humility should also predict job application dishonesty.

H_2: *Honesty-humility is negatively related to job application dishonesty.*

8.1.3 Domain-Specific Measures

The measures of Attitudes and Norms significantly predicted job application dishonesty in Study One. Therefore, the current study retains the same hypotheses as Study One regarding these two measures.

- H_3: *Attitudes towards the seriousness of CV lies are negatively related to job application dishonesty.*
- H_4: *Perceived Social Proof about the commonality of job application dishonesty is positively related to job application dishonesty.*

8.1.4 Risk

The measure of Risk in Study one was not predictive of job application dishonesty. The lack of prediction might have been the result of issues related to the operationalization of the measure. Therefore, the current study contains a re-designed measure of Risk which relates conceptually to the risk perception construct. This study contains the prediction as perception of risk increases, job application dishonesty decreases.

- H_5: *Perceived Risk is negatively related to job application dishonesty.*

8.1.5 Behavioural Consistency

The results of Study One shows that Job Application Embellishments are positively related to Job Application Lies. However, the measures referring to CV embellishments were limited in its content validity compared to measures related to Lies. While CV lies contained nine items, CV embellishments only contained three items. Therefore, the observed relationship between Embellishments and Lies, as well as the relationships between predictors and criterion in the CV embellishment model could have occurred due to composite artifacts of the measures.

In the current study, the measures related to embellishments contain stronger content validity, as the new measures contain more items representing job application information.

The measures in this study contain eight scenarios related to embellishments, in contrast to three in Study One. Similarly to the previous study, this study contains the hypothesis stating that as embellishments increase, lies also increase.

- H_6 *Job Application Embellishments are positively related to Job Application Lies.*

8.1.5.1 Unethical Consistency

Henle et al.'s (2019) examined the relationship between counterproductive work behaviour and different measures of job application and interview dishonesty. The results show that measure of CWBs, which includes Organisational and Personal Deviance correlated positively with both job application and interview dishonesty. Most importantly, CWBs correlated positively with measures of job application and interview dishonesty which share similarities with the ones in this study, namely, resume and interview inventing and resume and interview embellishing which relates to the measure of lies and embellishment in this study, respectively. Therefore, job application dishonesty should positively correlate with CWBs (i.e., Organisational and Personal Deviance).

H_{7a}: *Job application dishonesty is positively related to Organizational Deviance Measure of Counterproductive Work Behaviours.*

H_{7b}: *Job application dishonesty is positively related to Interpersonal Deviance Measure of Counterproductive Work Behaviours.*

8.2 Method

This study used a cross-sectional correlational design. The study contains four main inferential analyses.

8.2.1 Variables in the Analyses

The first analysis tested hypothesis H_1, H_2, H_3, and H_5 in which job application dishonesty referred to reported lies. For the first analysis, the independent variables were Conscientiousness, Honesty-humility, Attitudes-L (i.e., perceived seriousness of Lies), Norms-L (i.e., perceived social proof of Lies), Risk (i.e., perceived risk of verification of Lies). Age and gender were added as a control. The dependent variable was Job Application Lies (i.e., Reported Lies frequency).

The second analysis tested hypothesis H_1, H_2, H_3, and H_5 in which job application dishonesty referred to reported embellishments. For the first analysis, the independent variables were Conscientiousness, Honesty-Humility, Attitudes-E (i.e., perceived seriousness of embellishments), Norms-E (i.e., perceived social proof of embellishments), Risk-E (i.e., perceived risk of verification of embellishments). Age and gender were added as a control. The dependent variable was Embellishment (i.e., Self-Reported Embellishment frequency)

The third analysis tested hypothesis H_6. For Step 1, the independent variables were Conscientiousness, Honesty-Humility Attitudes-L (i.e., perceived seriousness of Lies), Norms-L (i.e., perceived social proof of Lies), Risk-L (i.e., perceived risk of verification) and Age and Gender as a control. Step 2 had Embellishments (i.e., Reported Frequency of

Embellishments) as an additional predictor. The dependent variable was Reported Job Application Lies (i.e., Reported Lies frequency).

The fourth analysis tested hypothesis H_{7a} and H_{7a}. For the fourth and fifth analysis, the independent variables were Self-Reported CV Lies (i.e., Reported Lies frequency) and Embellishments (i.e., Reported Embellishments frequency), controlling for Gender, Honesty-humility and Conscientiousness. The independent variables were CWB-Organisation and CWB-Person, respectively.

8.2.2 Participants

Participants were recruited by word-of-mouth, through requests on social media groups (e.g., Linkedin, Facebook), and through the paid online research platform Prolific.co. No limits were placed on the age of the respondents other than they were over 18 and had previously completed a curriculum vitae or job application form. The study recruited 376 participants. Female participants were 219 (58.2%), while males were 157 (41.8%). The mean age was 33.06 (SD = 11.24).

Participants who volunteered to take part in the study were 97 (25.8 %), while 279 (74.2 %) received monetary payment. Participants who reported being UK nationals were 288 (76.4%), while 88 (23.6%) reported being nationals of other countries.

8.2.3 Excluded Participants

Participants whose responses displayed long sequence of invariant answers across measures and participants that failed the attentiveness tests. In total, two participants were excluded. Therefore, the final analyses contained 374 participants.

8.2.4 Apparatus

The complete Survey had three main sections: Demographics, Personality and Job Application Dishonesty Questionnaire (JADQ). The Demographics section contained general demographic information questions (e.g., age, gender, nationality).

The Personality section contained a subsection composite of the measures of Conscientiousness, Honesty-Humility and Empathy from the HEXACO Personality Inventory (Lee & Ashton, 2004). The section also included items measure of Conscientiousness from the Big Five Inventory (John & Srivastava, 1999) and Tangney, Baumeister and Boone's (2004) Brief Self-Control Scale (BSCS) for the purpose of validity testing.

A sample with 222 participants completed an extra section containing a measure of counterproductive work behaviours from the Counterproductive Work Behaviour Checklist CWB-C (Spector, et al., 2006)

8.2.4.1 Personality Inventory

The personality questionnaire contained a custom format with selected individual measures from two personality inventories. For example, the questionnaire contained 16 items related to the personality traits Honesty-humility, 16 items for Conscientiousness and four items for Altruism from the HEXACO Personality Inventory (Lee & Ashton, 2004). It also contained nine items related to the personality trait Conscientiousness from the Big Five Inventory (John & Srivastava, 1999).

All items were measured with an ordinal unidirectional 5-point Likert scale with bidirectional labels (1 Disagree strongly to 5 Agree strongly). The HEXACO's Honesty-humility, Conscientiousness traits have reported reliability of α = .92, α = .88, respectively, while the BFI's Conscientiousness has a reported reliability of α = .82 (John & Srivastava, 1999).

The study did not include the remaining four measures of personality from each inventory since they did not correlate with job application dishonesty in study one. Furthermore, the addition of the remaining measures would increase the number of responses from participants substantially.

The Brief Self-Control Scale (BSCS) contains 13 items that were measured with ordinal unidirectional 5-point Likert scale with bidirectional labels (1 Disagree strongly to 5 Agree strongly). The reported reliability for the Brief Self-Control Scale (BSCS) is α = .83 (Tangney, Baumeister, & Boone, 2004).

8.2.4.2 CWB-C 32-item

A sub-sample of participants (N=222) completed the counterproductive Work Behaviour Checklist CWB-C which is a measure of workplace deviance. The total called CWB-Total measure contains 32 items (e.g., made fun of a co-worker, falsified a receipt to get more money reimbursed) and divides into two subscales CWB-Organisation and CWB-Person. The measure contains a 7-point Likert scale, ranging from 1 (never engaged in the behaviour) to 7 (engaged in the behaviour daily). The scale has overall internal consistency reliability estimates (coefficient alpha) for CWB-Total, CWB-Organisation and CWB-person of α = .90, α = .86, α = .86, respectively (Spector, et al., 2006).

8.2.4.3 The Job Application Dishonesty Questionnaire (JADQ)

The Job Application Dishonesty Questionnaire (JADQ) was designed originally for this study. The questionnaire has four subsections with measures related to beliefs about job application dishonesty beliefs reported dishonest behaviours: Attitudes (i.e., dishonest behaviour seriousness), Norms (i.e., Perceived Social Proof), Risk (i.e., Perceived Risk of dishonesty being checked) and Job Application Dishonesty (i.e., Reported Frequency of dishonesty).

8.2.4.3.1 Stem Questions

Each of the separate four measures contained 19 items related to common types of job application lies and embellishments. The items are nearly identical across the four measures. What differentiates each measure is its unique stem question. For example, the measure Seriousness contained the stem question: "Please state your opinion on how serious you think each behaviour is"; the measure Norms contained the stem question: "Please state your opinion on how often you think job candidates behave this way; the measure Risk contained the stem question: "Please state your opinion on the risk of detection of each behaviour during the selection process"; and finally, the measure Job Application Dishonesty contained the stem question: "Please state how often you have behaved this way."

The complete questionnaire had 76 items. Each measure is divided into eleven (11) items related to common job application lies and eight (8) items related to job application embellishments. The 19 items in each measure were presented as vignettes. Examples of

items job application dishonesty include “changing dates of employment,” “adding fake skills,” and “adding fake previous training.” Examples of job application embellishments include “Describing previous job responsibilities in a way that made them look more impressive” and “Describing education (e.g., qualification, an institution in a way that made it look more impressive.”

8.2.4.3.2 Scales

All items in each measure contained a 5-point scale with labels referring to its stem question. For example, the measure Seriousness contained the stem sentence (i.e., “Please state How Serious you think the behaviours are:”), followed by the 11 items (e.g., “adding fake skills”), each containing a relevant 5-point scale (e.g., *1 = Not Serious to 5 = Very Serious*). Please see Appendix B for the complete set of items.

8.2.4.3.3 Item Order

The questionnaires were designed using an online platform that did not allow for the randomisation of questionnaire order or the scenarios for each participant. Therefore, participants completed questionnaires in identical formats. Although there is a concern that the order of items might influence responding (Wegener & Fabrigar, 2008), the impact of order effects on questionnaires similar to the one used in this study is minimal (Armitage & Conner, 1999).

8.2.4.3.4 Attentiveness test

Finally, each measure contained an attentiveness test for acquiescence and extreme responding. The 19 items in each measure represented 11 scenarios of serious transgressions (e.g., adding false information) and eight scenarios of mild transgressions (e.g., presenting information in an impressive manner). Participants answers should differentiate between serious and non-serious lies; therefore, unexpected patterns of answers, such as the lack of differentiation between the two sets of answers, could indicate response biases.

8.2.5 Procedure

The survey was presented in an online version. The platform was provided by Bristol Online Surveys. Participants followed a web link provided by the author, which opened an initial page. They were then informed of data protection, anonymity and their right to withdraw from the study at any moment. Most participants took approximately 20 min to complete the survey during piloting. Once questionnaires were completed, participants were directed to the Bristol Survey Online main page (http://www.survey.bris.ac.uk/). No identifiable information about the participants was retained.

On the introductory page, participants were informed about the purposes, the procedures and the ethical safeguard of the study. For example, they were informed that the survey was part of an Organizational Psychology PhD thesis on the determinants of transparency in organizations. They were also told that they would be asked about their own behaviour and attitudes when writing CVs/Resumes and Job Application forms, and to their opinions on other people's behaviours and attitudes. They were also informed that they would have to

complete a personality test and that the whole procedure should take around 25 minutes to complete.

Participants were informed that participation was voluntary and that they could withdraw from the study at any time. Furthermore, all their data was anonymous and that the results would be reported in an aggregated and anonymised form. They were also provided with the researcher's and supervisor's contact details. Upon completing each section, participants clicked on a button that directed them to the next section. This was only allowed if all the questions were completed in each section. When they reached the last page, they were offered an opportunity to request a brief summary of the findings and were thanked for their participation.

8.2.6 Survey Validity and Reliability

This section examines the validity and reliability of the Job Application Dishonesty Questionnaire (JADQ), the measures of Conscientiousness, Honesty-Humility, and Counterproductive Work Behaviour Checklist CWB-C.

8.2.6.1 The Job Application Dishonesty Questionnaire (JADQ)

A Confirmatory factor analysis was performed to test the hypothesis that an eight-factor model with a simple structure (i.e., each item loaded into only one variable) fit the data. The eight factors in the analysis included Attitudes-L (i.e., Seriousness of Lies), Norms-L (i.e., Perceived Social Proof of Lies), Risk-L (i.e., Perceived Risk of Verification of Lies); JA Lies (i.e., Reported Frequency of Lies), Attitudes-E (i.e., Seriousness of Embellishments), Norms-E (i.e., Perceived Social Proof of Embellishments), Risk-E (i.e.,

Perceived Risk of Verification of Embellishments) and JA Embellishments (i.e., Reported Frequency of Job Application Embellishments).

The analysis used the software R version 3.6.2 to perform a CFA using the package Lavaan version 0.6-5 (Rosseel, 2012). Data included items related to serious and mild job application transgressions from the Job Application Dishonesty Questionnaire (JADQ). There were 374 cases and 72 observed variables. The ratio of cases to observed variables was 5:1 (rounded), and there were no missing data.

8.2.6.1.1 Assumptions

The analysis tested for the assumptions related to Ordinal Data, Normality and Multicollinearity.

8.2.6.1.1.1 Ordinal Data

The data contained Likert-scale items which should be treated as ordinal data (Rhemtulla, Brosseau-Liard, & Savalei, 2012). Therefore, the analysis used a diagonally weighted least squares estimator (DWLS). The DWLS is a robust WLS method based on the polychoric correlation matrix of the variables included in the analysis, which provides accurate parameter estimates for ordinal data (Li, 2016).

8.2.6.1.1.2 Normality

Data screening prior to analysis did not identify any extreme scores. However, Kurtosis and skewness scores indicated that the data was not normally distributed. An assessment of multivariate normality using Mardia's (1970) test revealed kurtosis (64.2) and skewness (21047.3) to be significant. The results indicate that the data was multivariate non-normal

and can result in standard error biases; the diagonally weighted least squares (DWLS) method provides accurate parameter estimates in situations in which the assumption of multivariate normality is severely violated (Li, 2016).

8.2.6.1.1.3 Multicollinearity

The correlation between items ranged between ≥ -.40 or ≤ .75, which are below the .90, therefore suggesting no issues with multicollinearity (Tabachnick & Fidell, 2013, p. 561).

8.2.6.1.1.4 Loadings

Consultation of factor loadings on Table 8.1 revealed that most items. possessed moderate to high loadings (i.e., above 0.7), suggesting that most items loaded meaningfully (Chin, 2010). Please note that, items are similar across factors. What differentiate the factors is the stem questions (see section 8.2.4.3.1). Therefore, the factor loadings are presented side-by-side for brevity. Item 1 in the measure of Attitudes-L, Items 4 and 7 in the measure of Norms-L, and items 1 and 9 in the measure of Risk-L had loadings > 0.5 but < 0.7. Items 1 and 9 in the measure of Norms-L and Item 11 in the measure Risk-L had loadings > 0.4 but < 0.5. However, all items were retained in the analysis since they were theoretically meaningful to the model.

Table 8.1 - *Confirmatory Factor Analysis- Factor Loadings for Job Application Dishonesty Questionnaire (JADQ)*

	Factor Loadings			
	Attitudes-L	Norms-L	Risk-L	Lies
Items referring to Lies				
01. Changing dates of employment	0.58	0.49	0.55	0.69
02. Adding fake job positions.	0.87	0.77	0.69	0.88
03. Adding fake previous responsibilities	0.82	0.66	0.73	0.82
04. Adding fake work achievements	0.82	0.54	0.73	0.73
05. Adding fake education	0.83	0.68	0.64	0.94
06. Adding fake education achievements	0.86	0.79	0.71	0.85
07. Adding fake skills	0.80	0.52	0.61	0.71
08. Adding fake training	0.83	0.67	0.69	0.80
09. Adding fake personal information	0.71	0.46	0.54	0.73
10. Adding fake letter of recommendation	0.74	0.65	0.61	0.81
11. Adding fake referee	0.79	0.71	0.49	0.73
CR	0.94	0.88	0.87	0.94
AVE	0.63	0.41	0.41	0.63
	Attitudes-E	Norms-E	Risk-E	Emb.
Items referring to Embellishments				
12. Embellishing job positions	0.90	0.76	0.82	0.88
13. Embellishing job responsibilities	0.78	0.77	0.88	0.88
14. Embellishing work achievements	0.90	0.71	0.79	0.86
15. Embellishing education	0.88	0.80	0.85	0.84
16. Embellishing education achievements	0.91	0.77	0.80	0.89
17. Embellishing skills	0.85	0.79	0.82	0.89
18. Embellishing Training	0.90	0.81	0.81	0.81
19. Embellishing personal information	0.85	0.72	0.73	0.74
CR	0.96	0.92	0.94	0.95
AVE	0.76	0.59	0.66	0.72

Note. CFA method: diagonally weighted least squares estimator (DWLS) for ordinal variables
AVE and CR were calculated from a polychoric correlation table
N = 374

8.2.6.1.2 Discriminant Validity

The convergent validity of the measurement model was assessed by the Average Variance Extracted (AVE) and Composite Reliability (CR). Table 8.1 shows that values of AVE for the measures Attitudes-L, JA Lies, Attitudes-E, Norms-E and Risk-E were above the 0.5 thresholds, which is considered acceptable. However, Norms-L and Risk-L were below 0.5 thresholds. Therefore, the level of variance captured by a construct compared to the level due to measurement error is small for those measures.

Nevertheless, values for CR for all measures were above the accepted threshold of 0.7, which means that measures have adequate internal consistency. When AVE is less than 0.5 but composite reliability is higher than 0.6, the convergent validity of the construct is still adequate (Fornell & Larcker, 1981).

8.2.6.1.3 Results

The analysis used a diagonally weighted least squares (DWLS) estimator to examine fit indices, which includes a robust assessment of the model fit for ordinal data (Li, 2016). The main index to evaluate model fit was a chi-square test. Generally, non-significant chi-square signifies good data-model fit; however, the statistic is sensitive to sample size and thus insufficient as a standalone CFA index (Hu & Bentler, 1999). Therefore, the analysis included indices that supplement the chi-square test.

Alternative fit indices (AFIs) included were the Relative fit indices (RNI), Comparative Fit Index (CFI), Tucker Lewis index (TLI), Root-Mean-Square Error of Approximation (RMSEA) and Standardized Root-Mean-Square Residual (SRMR).

8.2.6.1.3.1 Fit Indices

The results of the analyses show that the robust chi-square test was significant, $\chi 2$ (2746, N = 374) = 4449.81 at $p < .001$. The eight-factor model demonstrated adequate fit on the indices: RNI = .93, CFI =.93, TLI =.93, RMSEA = .041 (CI of .039 to .043), and a marginal fit for SRMR = .090 (see Table 8.2). The p of Close Fit (PCLOSE) was $p = 1.00$ which indicates that the model has a close fit (Xia & Yang, 2019).

Table 8.2 - *Fit Indices (Robust) for the Job Application Dishonesty Four-Factor Model (Robust) for the CV Lie Four-Factor Model*

Model	RNI$^{(r)}$	CFI$^{(r)}$	TLI$^{(r)}$	RMSEA$^{(r)}$	SRMR	$\chi 2^{(r)}$ (*df*)
1. JA Dishonesty Model	.93	.93	.93	.041	.090	4449.81 (2746)

Note: CFA with diagonally weighted least squares (DWLS) estimator

$^{(r)}$ indicates robust indices for ordinal data

Established cut-off values for indices which indicate a good fit between the hypothesized model and the observed data should be close to ≥ .95 for RNI, CFI and TLI; a cut off close to (or ≤) .06 for RMSEA and a cut-off close to ≤ .08 for SRMR (Hu & Bentler, 1999). Although the SRMR in this analysis was greater than the recommended .08, SRMR values smaller than .10 may be interpreted as acceptable, especially when CFA is close to .95 (Hu & Bentler, 1999).

Note that the CFI and RMSEA indices disagree slightly. The CFI was below .95, but it was adequate, while the value for RMSEA indicates a good fit as it was below the 0.06 threshold. Further analysis shows that the baseline model's RMSEA is 0.150. Incremental

fit indices like the CFI may not be very informative because of the baseline model's RMSEA < 0.158 (Kenny, Kaniskan, & McCoach, 2015).

Two indices CFI and RMSEA can disagree for many reasons. First, the indices evaluate a model's fit from a different perspective. Second, cut-of values for fit indices are arbitrary, and the relationship between fit indices and a good fit is not well understood (Lai & Green, 2016). For example, if the analysis did not use robust indices, CFI would be .97, which indicates a good fit, while RMSEA would increase to .064.

8.2.6.1.4 Removing Items

Removing items with factor loadings < .6 improves the model. Item1 was removed from Attitudes-L, Items 1, 4, 7 and 9 from Norms-L and Items 1, 9 and 11 for Risk-L.

The results of the analyses show that the robust chi-square test was significant, $\chi 2$ (2182, N = 374) = 3500.93 at $p < .001$. However, the eight-factor model demonstrated adequate fit on the indices: RNI = .95, CFI =.95, TLI =.94, RMSEA = .040 (CI of .038 to .043), and a marginal fit for SRMR = .090 (see Table 8.3). The p of Close Fit (PCLOSE) was $p = 1.00$ which indicates that the model has a close fit (Xia & Yang, 2019).

Table 8.3 - *Fit Indices (Robust) for the Job Application Dishonesty Four-Factor Model (Robust) with items removed*

Model	RNI$^{(r)}$	CFI$^{(r)}$	TLI$^{(r)}$	RMSEA$^{(r)}$	SRMR	$\chi 2^{(r)}$ (*df*)
1. JA Dishonesty Model 2	.95	.95	.94	.040	.090	3500.93 (2182)

Note: CFA with diagonally weighted least squares (DWLS) estimator

$^{(r)}$ indicates robust indices for ordinal data

8.2.6.1.5 Discriminant Validity - Heterotrait-monotrait ratio

Discriminant Validity was further examined using the heterotrait-monotrait ratio of correlations (HTMT). The HTMT is a measure of similarity between latent variables. It is a ratio of the between-trait correlations to the within-trait correlations. Discriminant validity is established if the HTMT is smaller than one. However, an upper threshold of 0.85 reliably determines if a pair of latent variables is validly discriminant (Henseler, Ringle, & Sarstedt, 2015).

Table 8.4 shows that all comparisons between the big five traits were below the threshold of 0.85. Therefore, all measures of the Job Application Dishonesty Questionnaire (JADQ*)* show discriminant validity.

Table 8.4 - *Heterotrait-monotrait ratio for Job Application Dishonesty Questionnaire (JADQ)*

Measures	1	2	3	4	5	6	7
1. Attitudes-L	-						
2. Norms-L	0.16	-					
3. Risk-L	0.30	0.24	-				
4. JA Lies	0.37	0.34	0.30	-			
5. Attitudes-E	0.18	0.11	0.23	0.12	-		
6. Norms-E	0.13	0.30	0.16	0.20	0.41	-	
7. Risk-E	0.13	0.14	0.51	0.14	0.63	0.38	-
8. JA Embellishing	0.10	0.16	0.12	0.30	0.39	0.61	0.40

N= 374

8.2.6.2 Conscientiousness and Honesty-Humility

A Confirmatory factor analysis was performed to test the hypothesis that the personality traits Conscientiousness and Honesty-humility fit the data with a simple structure (i.e., each item loaded into only one variable). There are only two factors in the analysis since only items related to Conscientiousness and Honesty-Humility are included in the hypothesis in this study. Furthermore, as Study One in this thesis indicates, the remaining traits, Agreeableness, Neuroticism, Openness and Extraversion, did not correlate with job application dishonesty.

The analysis used the software R version 3.6.2 to perform a CFA using the package Lavaan version 0.6-5 (Rosseel, Lavaan: an R package for structural equation modeling., 2012). Data included items related to the personality traits Conscientiousness and Honesty-Humility from the HEXACO personality inventory. There were 374 cases and 32 observed variables. The ratio of cases to observed variables was 12:1 (rounded), and there were no missing data.

8.2.6.2.1 Assumptions

The analysis tested for the assumptions related to Ordinal Data, Normality and Multicollinearity.

8.2.6.2.1.1 Ordinal Data

The data contained Likert-scale items which should be treated as ordinal data (Rhemtulla, Brosseau-Liard, & Savalei, 2012). Therefore, the analysis used a diagonally weighted least squares estimator (DWLS). The DWLS is a robust WLS method based on the polychoric

correlation matrix of the variables included in the analysis which provides accurate parameter estimates for ordinal data (Li, 2016).

8.2.6.2.1.2 Normality

Data screening before analysis did not identify any extreme scores. However, Kurtosis and skewness scores indicated that the data was not normally distributed. An assessment of multivariate normality using Mardia's (1970) test revealed kurtosis (9100.7) and skewness (28.46) to be significant. The results indicate that the data was multivariate non-normal and can result in standard error biases; the diagonally weighted least squares (DWLS) method provides accurate parameter estimates in situations in which the assumption of multivariate normality is severely violated (Li, 2016).

8.2.6.2.1.3 Multicollinearity

The correlation between items ranged between ≥ –.19 or ≤ .63, which are below the .90, therefore suggesting no issues with multicollinearity (Tabachnick & Fidell, 2013, p. 561).

8.2.6.2.2 Loadings Model 1

Consultation of factor loadings revealed that all items possessed low loadings (i.e., < 0.7), suggesting that most items did not load meaningfully (Chin, 2010). Many items had loadings < 0.5. Therefore, the two-factor model was rejected.

8.2.6.2.3 Loadings Model 2

Within the HEXACO model, factors have sub-factors. Conscientiousness contains the scales Organization, Diligence, Perfectionism and Prudence, while Honesty-Humility contains the scales Sincerity, Fairness, Greed Avoidance and Modesty. Therefore, a new CFA was conducted with facets as factors.

Consultation of factor loadings revealed that most items (in bold) possessed moderate to high loadings (i.e., above 0.7), suggesting that most items loaded meaningfully (Chin, 2010). Some items had loadings > 0.5 but < 0.7. Two items had loadings < 0.5. However, all items were retained in the analysis since they were theoretically meaningful to the model.

8.2.6.2.3.1 Discriminant Validity

The convergent validity of the measurement model was assessed by the Average Variance Extracted (AVE) and Composite Reliability (CR). The measures Fairness and Greed had AVEs > 0.5. The remaining measures had AVEs ≥ 0.4. The CR values for all measures were > 0.7, which means that measures have adequate internal consistency. Although some of the measures had AVEs below the 0.5 thresholds when AVE is less than 0.5, composite reliability is higher than 0.6, the convergent validity of the construct is still adequate (Fornell & Larcker, 1981).

8.2.6.2.4 Results

The main CFA analysis used a diagonally weighted least squares (DWLS) estimator to examine fit indices which includes a robust assessment of the model fit for ordinal data (Li,

2016). The main index to evaluate model fit was a chi-square test. Generally, non-significant chi-square signifies good data-model fit; however, the statistic is sensitive to sample size and thus insufficient as a standalone CFA index (Hu & Bentler, 1999). Therefore, the analysis included indices that supplement the chi-square test. Alternative fit indices (AFIs) included were the Relative fit indices (RNI), Comparative Fit Index (CFI), Tucker Lewis index (TLI), Root-Mean-Square Error of Approximation (RMSEA) and Standardized Root-Mean-Square Residual (SRMR).

8.2.6.2.4.1 Fit Indices

The results of the analyses show that the robust chi-square test was significant, $\chi2$ (436, N = 374) = 853.45 at $p < 0.001$. The four-factor model demonstrated moderate fit on the indices: RNI = .92, CFI =.92, TLI =.90. The RMSEA = .051 (CI of .046 to .056) was better than the cut off to (or ≤).06 for RMSEA (Hu & Bentler, 1999). The analysis shows a good fit for SRMR = .065, since it was below the cut-off of ≤ .08 for SRMR (Hu & Bentler, 1999). The p of Close Fit (PCLOSE) was p = .07, which indicates that the model has a close fit (Xia & Yang, 2019).

Table 8.5 - *Fit Indices (Robust) for the eight-factor Conscientiousness/Honesty-Humility Model*

Model	RNI$^{(r)}$	CFI$^{(r)}$	TLI$^{(r)}$	RMSEA$^{(r)}$	SRMR	$\chi2^{(r)}$ (*df*)
1. Personality Model 2	.92	.92	.90	.051	.065	853.5 (436)

Note: CFA with diagonally weighted least squares (DWLS) estimator

$^{(r)}$ indicates robust indices for ordinal data

8.2.6.2.5 Discriminant Validity - Heterotrait-monotrait ratio

Discriminant Validity was further examined using the heterotrait-monotrait ratio of correlations (HTMT). The HTMT is a measure of similarity between latent variables. Discriminant validity is established if the HTMT is smaller than one. Alternatively, an upper threshold of 0.85 reliably determines if a pair of latent variables is validly discriminant (Henseler, Ringle, & Sarstedt, 2015).

The analysis include the measures of Conscientiousness (HEXACO), Conscientiousness (BFI), Self-Control, Honesty-Humility (HEXACO) and Empathy (HEXACO). Table 8.6 shows that Conscientiousness (HEX), Conscientiousness (BFI) converge as expected. An important characteristic of Conscientiousness is self-control. The measure of Self-control approximates the threshold of conversion with Conscientiousness (HEX) and Conscientiousness (BFI) as expected. Honesty-Humility (HEX) and the Conscientiousness measures show discriminant validity.

Table 8.6 - *Heterotrait-monotrait ratio for Personality Traits*

Measures	1	2	3	4
1. Conscientiousness (HEX)	-			
2. Conscientiousness (BFI)	0.967	-		
3. Self-Control	0.844	0.831	-	
4. Honesty-Humility (HEX)	0.441	0.361	0.445	-
5. Altruism (HEX)	0.309	0.241	0.263	0.582

N = 374

8.2.6.3 Counterproductive Work Behaviour Checklist CWB-C

A Confirmatory factor analysis was performed to test the hypothesis that a two-factor model with a simple structure (i.e., each item loaded into only one variable) fit the data. The two factors in the analysis included CWB-Organisation and CWB-Person. The analysis used the software R version 3.6.2 to perform a CFA using the package Lavaan version 0.6-5 (Rosseel, Lavaan: an R package for structural equation modeling., 2012). Data included items related to workplace deviance behaviours and divided into two subscales CWB-Organisation and CWB-Person. There were 222 cases and 32 observed variables. The ratio of cases to observed variables was 7:1 (rounded), and there were no missing data.

8.2.6.3.1 CFA Assumptions

The analysis tested for the assumptions related to Ordinal Data, Normality and Multicollinearity.

8.2.6.3.1.1 Ordinal Data

The data contained Likert-scale items which should be treated as ordinal data (Rhemtulla, Brosseau-Liard, & Savalei, 2012). Therefore, the analysis used diagonally weighted least squares estimator (DWLS). The DWLS is a robust WLS method based on the polychoric correlation matrix of the variables included in the analysis, which provides accurate parameter estimates for ordinal data (Li, 2016).

8.2.6.3.1.2 Normality

Data screening prior to analysis did not identify any extreme scores. However, Kurtosis and skewness scores indicated that the data was not normally distributed. An assessment of multivariate normality using Mardia's (1970) test revealed kurtosis (202.4) and skewness (52257.8) to be significant. The results indicate that the data was multivariate non-normal and can result in standard error biases; the diagonally weighted least squares (DWLS) method provides accurate parameter estimates in situations in which the assumption of multivariate normality is severely violated (Li, 2016).

8.2.6.3.1.3 Multicollinearity

The correlation between items ranged between ≥ –.05 or ≤ .84, which are below the .90, therefore suggesting no issues with multicollinearity (Tabachnick & Fidell, 2013, p. 561).

8.2.6.3.2 Loadings

Consultation of factor loadings revealed that most items possessed moderate to high loadings (i.e., above 0.7) suggesting that most items loaded meaningfully (Chin, 2010). Some items had loadings > 0.5 but < 0.7, but none were below 0.5. Therefore, all items were retained in the analysis since they were theoretically meaningful to the model.

8.2.6.3.3 Discriminant Validity

The convergent validity of the measurement model was assessed by the Average Variance Extracted (AVE) and Composite Reliability (CR). The values of AVE for the measures CWB-Organisation (AVE = 0.65) were above the 0.5 thresholds, which is considered

acceptable, and CWB-Person (AVE = 0.47) was slightly below the threshold. The values for CR for CWB-Organisation (CR = 0.96) and CWB-Person (CR = 0.91) were above the accepted threshold of 0.7, which means that measures have adequate internal consistency (Fornell & Larcker, 1981).

8.2.6.3.4 CFA Results

The analysis used a diagonally weighted least squares (DWLS) estimator to examine fit indices, which includes a robust assessment of the model fit for ordinal data (Li, 2016). The main index to evaluate model fit was a chi-square test. Generally, non-significant chi-square signifies good data-model fit; however, the statistic is sensitive to sample size and thus insufficient as a standalone CFA index (Hu & Bentler, 1999). Therefore, the analysis included indices that supplement the chi-square test. Alternative fit indices (AFIs) included were the Relative fit indices (RNI), Comparative Fit Index (CFI), Tucker Lewis index (TLI), Root-Mean-Square Error of Approximation (RMSEA) and Standardized Root-Mean-Square Residual (SRMR).

8.2.6.3.4.1 Fit Indices

The results of the analyses show that the robust chi-square test was significant, $\chi 2$ (463, N = 222) = 652.8 at $p < 0.001$. The tow-factor model demonstrated good fit on the indices: RNI = .95, CFI =.95, TLI =.95, RMSEA = .043 (CI of .035 to .051), and a marginal fit for SRMR = .113. The p of Close Fit (PCLOSE) was $p = 1.00$ which indicates that the model has a close fit (Xia & Yang, 2019).

Table 8.7 - *Fit Indices (Robust) for the CWB two-Factor Model*

Model	RNI$^{(r)}$	CFI$^{(r)}$	TLI$^{(r)}$	RMSEA$^{(r)}$	SRMR	$\chi 2^{(r)}$ (*df*)
1. CWB Model	.95	.95	.95	.043	.113	652.8 (463)

Note: CFA with diagonally weighted least squares (DWLS) estimator

$^{(r)}$ indicates robust indices for ordinal data

Established cut-off values for indices which indicate a good fit between the hypothesized model and the observed data were ≥ .95 for RNI, CFI and TLI; a cut off close to (or ≤).06 for RMSEA. However, the SRMR was above the cut-off of ≤ .08 for SRMR (Hu & Bentler, 1999).

The SRMR in this analysis was greater than the recommended .08, SRMR values were above .10 and may be interpreted as unacceptable, and that the model does not capture the data well, despite the CFI being close to .95 (Hu & Bentler, 1999). Nevertheless, The CFI = .95 indicates that the variables are highly correlated and the RMSEA = .043 means that your model fits well relative to its degrees of freedom.

8.3 Results

8.3.1 Descriptive Statistics

Data analyses were conducted using the SPSS 26 software package.

8.3.1.1 Descriptive Statistics for Variables in the Analyses

Table 8.8 displays the rate of dishonest individuals for each single dishonesty act related to job application dishonesty. The table also display the aggregated rate of liars for serious (i.e., Reported Job Application lies) and mild transgressions (i.e., Reported Job Application Embellishments). Overall, more participants report embellishing their job applications (94.4%) than lying on their job applications (63.4%).

Table 8.8 - *Descriptive statistics including rate of dishonesty, mean and standard deviation*

CV Dishonesty Description	Rate of Liars		M	Sd
	n	%		
Lies				
Changed dates of employment	146	39.1	1.71	1.07
Added fake job responsibilities	99	26.5	1.42	0.81
Added fake skills	98	26.2	1.39	0.76
Added fake work achievements	89	23.8	1.37	0.75
Added fake personal information	59	15.8	1.23	0.61
Added fake training	42	11.2	1.16	0.49
Added fake educational achievements	32	8.6	1.15	0.56
Added fake job positions	29	7.8	1.11	0.42
Added letters of recommendations	21	5.6	1.10	0.47
Added fake referees	21	5.6	1.10	0.46
Added fake education	17	4.5	1.08	0.40

Table 8.8 *(Continued)*

CV Dishonesty Description	Rate of Liars		M	Sd
	n	%		
Embellishments				
Embellished skills	338	90.4	3.34	1.19
Embellished previous job positions	324	86.6	3.15	1.24
Embellished previous responsibilities	323	86.4	3.21	1.24
Embellished previous work achievements	301	80.5	2.96	1.29
Embellished personal information	276	73.8	2.80	1.40
Embellished previous training	258	69.0	2.50	1.29
Embellished educational achievements	237	63.4	2.48	1.40
Embellished education	232	62.8	2.48	1.45
Aggregated Items (Lies)	237	63.4	1.26	.41
Aggregated Items (Embellishments)	353	94.4	2.87	1.07

8.3.1.2 Correlations

8.3.1.3 Serious Transgressions

Table 8.9 contains the correlations between the independent variables and the depend variable Reported frequency of Job Application Lies. The correlation table shows that Conscientiousness (r = -.18, p < .01), Honesty-humility (r = -.27, p < .01), Attitudes-L (r = - .36, p < .01), Norms-L, (r = .30, p < .01) and Risk (r = -.22, p < .01) are associated with Reported Frequency of Lies. Age and Gender correlation with job application lies were not statistically significant.

Table 8.9 - *Means, Standard Deviations and Correlations for variables in the Job Application Lies Model*

	1	2	3	4	5	6	7
1. JA Lies							
2. Conscientiousness	-.18**						
3. Honesty-Humility	-.27**	.24**					
4. Attitudes-L	-.36**	.18**	.15**				
5. Norms-L	.30**	.03	.02	-.11*			
6. Risk-L	-.22**	.20**	.12*	.26**	-.10*		
7. Age	-.07	.08	.31**	.08	.09	-.15**	
8. Gender [a]	.11*	-.10	-.24**	-.05	-.01	-.15**	-.18**
Mean	1.26	3.61	3.42	3.62	2.56	3.33	3.98
SD	.40	.54	.58	.84	.47	.68	11.98

N= 374, ** p < 0.01; * p < 0.05

[a] Gender: 1 = Female; 2 = Male

8.3.1.3.1 Mild Transgressions

Table 8.10 contains the correlations between the independent variables and the depend variable Reported frequency of Job Application Lies. The correlation table shows that Conscientiousness (r = -.14, p < .01), Honesty Humility(r = -.35, p < .01), Attitudes-L (r = - .33, p< .01), Norms-L, (r = .56, p < .01), Risk (r = -.28, p < .01), as well as the control variables Age (r = -.16, p < .05), and Gender (r = .13, p < .05), correlated statistically with Reported frequency of Embellishments.

Table 8.10 - *Means, Standard Deviations and Correlations and Correlations for variables in the Job Application Embellishments Model*

	1	2	3	4	5	6	7
1. JA Embellishments.							
2. Conscientiousness	-.14**						
3. Honesty-Humility	-.35**	.24**					
4. Attitudes-E	-.33**	.15**	.15**				
5. Norms-E	.56**	.00	-.13**	-.36**			
6. Risk-E	-.28**	.16**	.21**	.58**	-.29**		
7. Age	-.16**	.08	.31**	-.01	-.11*	.02	
8. Gender [a]	.13*	-.10	-.24**	.04	-.02	-.13*	-.18**
Mean	2.87	3.61	3.42	1.71	3.91	2.09	32.98
SD	1.07	.54	.58	.77	.60	.77	10.98

N= 374, ** p < 0.01; * p < 0.05

[a] Gender: 1 = Female; 2 = Male

8.3.1.3.2 Correlations between CV lie Model and Embellishment Model

Table 8.11 contains the correlations between variables in the Job Application Lies model and Job Application Embellishment model. The correlation table shows that Job application Lies correlates positively with Job Application Embellishments (r = .29, p < .01).

Table 8.11 - *Means, Standard Deviations and Correlations and Correlations for variables in the Behavioural Consistency Model*

	1	2	3	4	5	6	7	8
1. JA Lies	_							
2. JA Embellishments	.29**							
3. Attitudes-L	-.36**	-.08						
4. Norms-L	.30**	-.12*	-.11*					
5. Risk -L	-.22**	-.11*	.27**	-.10*				
6. Attitudes-E	.03	-.33**	.12*	.03	.14**			
7. Norms-E	-.10	.56**	.07	.24**	.01	-.36**		
8. Risk-E	-.02	-.28**	.06	.04	.35**	.58**	-.29**	_
Mean	1.26	2.87	3.62	2.56	3.33	1.71	3.91	2.09
SD	.41	1.07	.84	.47	.68	.78	.60	.77

N= 374, ** p < 0.01; * p < 0.05;

8.3.1.3.3 Correlations between Job Application Dishonesty and CWBs

Table 8.12 contains the correlations between Job Application and two measures of counterproductive work behaviours (i.e., CWB-Organisations and CWB-Person).

CWB-Organisations correlates with Job Application Lies (r = .42, p < .01), Job Application Embellishments (r = .18, p < .01), Conscientiousness (r = -.25, p < .01), Honesty Humility (r = -.27, p < .01), Age (r = -.15, p< .05), and Gender (r = .21, p< .05). CWB-Person correlates with Job Application Lies (r = .33, p < .01), Honesty-humility (r = -.21, p < .01), Age (r = -.14, p < .05), and Gender (r = .21, p < .05). However, CWB-

Person did not correlate significantly with Job Application Embellishments (r = .11, p > .05), Conscientiousness (r = -.07, p > .05)

Table 8.12 - *Means, Standard Deviations and Correlations and Correlations for variables in the CWB Model*

	1	2	3	4	5	6	7
1. CWB-Organisations	_						
2. CWB-Person	.51**						
3. JA Lies	.42**	.33**					
4. JA Embellishments	.18**	.11	.29**				
5. Conscientiousness	-.25**	-.07	-.18**	-.14**			
6. Honesty-Humility	-.27**	-.21**	-.27**	-.35**	.24**		
7. Age	-.15*	-.14*	-.07	-.16**	.08	.31**	
8. Gender	.21**	.21**	.11*	.13*	-.10	-.24**	-.18**
Mean	1.34	1.17	1.26	2.87	3.61	3.42	32.98
SD	.33	.24	.38	1.06	.54	.58	10.97

N= 374, ** p < 0.01; * p < 0.05.

8.3.2 Inferential Statistics

8.3.2.1 First Analysis – Job Application Lies

A hierarchical multiple regression analysis was performed with heteroscedasticity-robust SE to test the hypotheses of this study which included in step 1, Job Application lies as the criterion and Conscientiousness, Attitudes, Norms, Risk as predictors. Age and Gender were added to the model as controls. Step 2 had Honesty-humility as an additional predictor.

8.3.2.1.1 Assumptions

The analysis tested for violations of multiple regression analysis. The analysis tested for normality of residuals, outliers, influential data points, collinearity, independent errors, and homoscedasticity.

8.3.2.1.1.1 Normality of Residuals

Analysis of kurtosis and Skewness showed that the data was not normally distributed. The criterion variable Job Application Lies was positively skewed; therefore, it was transformed using the reciprocal inverse formula [(2-(1/x)] which improved normality.

A visual examination of the multiple regression residuals showed the data had a normal distribution shape. Furthermore, a measure of skewness was .698 (*SE* = .126) and kurtosis was .326 (*SE* = .252) which are within acceptable ranges.

8.3.2.1.1.2 Outliers

An analysis of standard residuals was carried out before the data was transformed using z-scores to identify any outliers. The analysis indicated that 2 participants appeared to be outliers (z > 3.0). An inverted transformation of the dependent variable (i.e., reported frequency of Job Application lies), since this variable was positively skewed. After a second z-score analysis of the residuals, only one participant appeared to be an outlier. The participant scores were not removed from the final analyses as the removal did not change the interpretability of the results.

8.3.2.1.1.3 Influential Data Points

Cook's distances were examined, and its maximum value was .035, which is below the cut-off value of 1. Two observations had lower probability for the Chi-square (χ 2) distribution p-value of the Mahalanobis distance scores with degrees of freedom df = 7 smaller than the cut-off value of ≤ .001. Deleting the observations did not change the results of the analysis; therefore, the observations were retained.

8.3.2.1.1.4 Collinearity

Finally, variables did not display multicollinearity as VIF scores were ≤ 1.223. Therefore, all 374 cases were retained for the multiple regression analyses.

8.3.2.1.1.5 Independence of Errors

The Durbin-Watson score was 1.78. Ideally, Durbin-Watson scores should be equal to 2.0. However, a rule of thumb for independence of errors state that values less than 1 and greater than 3 are cause of concern (Hair, Black, & Anderson, 2014, p. 221).

8.3.2.1.1.6 Homoscedasticity

Homoscedasticity was tested using the EndoS Macro for SPSS (Daryanto, 2020). Heteroscedasticity was detected. Breusch-Pagan (43.70) and Koenker tests (37.90) were both highly significant $p < .001$. Therefore, the multiple regression analysis was performed using Daryanto's standard error robust procedure which corrects for heteroscedasticity.

8.3.2.1.2 Results of First Analysis

Since the data did not meet the assumption of homoscedasticity, the hierarchical multiple regression analysis was performed using Daryanto's standard error robust procedure which corrects for heteroscedasticity. The results of this analysis are reported in Table 8.13.

Table 8.13 - *Multiple Regression Analysis for Job Application lies (heteroscedasticity-robust SE)*

	Model 1			Model 2		
Variables	*B*	*SE*	*β*	*B*	*SE*	*β*
Step 1						
Conscientiousness	-.032	.015	-.103*	-.020	.014	-.062
Attitudes-L	-.059	.011	-.272***	-.056	.010	-.278***
Norms-L	.102	.018	.269***	.103	.017	.281***
Risk-L	-.033	.013	-.158*	-.027	.013	-.109*
Age	-.001	.001	-.059	.000	.001	.003
Gender (F = 1, M = 2)	.024	.016	.076	.012	.016	.034
Step 2						
Honesty-Humility				-.068	.015	-.230***
F	21.942***			23.204***		
Δ*F*	21.942			22.915***		
R^2	.264			.307		
ΔR^2	.264			.043		

Note: N= 374, *** p < 0.001, ** p < 0.01; * p < 0.05

Dependent Variable: Job Application Lies (Transformed)

Using the enter method, the first step of the regression analysis was significant with the model explaining 26.4 % of the variance and that the model was a significant predictor of Job Application Lies, $R^2 = .26$ ($R^2_{Adjusted} = .25$), F (6, 373) = 21.94, $p < .001$. The total effect size for the analysis was $f^2 = .35$ which signifies a large effect size ($f^2 \geq 0.35$) according to Cohen's (1988) guidelines.

The results of the analysis show that Age ($\beta = -.060$, $p = .20$) and Gender ($\beta = .070$, $p = .13$), were not significant. However, Conscientiousness ($\beta = -.101$, $p = .03$) Attitudes-L ($\beta = -.292$, $p < .001$) and Norms-L ($\beta = .279$, $p < .001$) and Risk ($\beta = -.130$, $p = .012$) significantly predicted Reported Job application Lies. Therefore, the results show that as Conscientiousness and Attitudes-L (i.e., perceives seriousness of Job Application lies) decreases, and Norms-L (i.e., Perceives Social Proof) increases, reported frequency of Job Application lies increases.

Step 2 had Honesty-humility as an additional predictor. The results show that introducing Honesty-Humility to the analysis explained an additional 4 % of variation in reported job application lies and this change in R^2 was significant, $\Delta R^2 = .043$, $p < .001$ [ΔF (1, 366) = 22.915, $p < .001$]. Together, the new model with the addition Honesty-Humility explained 30.7 % of the variance in reported Job Application lies $R^2 = .31$ ($R^2_{Adjusted} = .29$), F (7, 373) = 23.204, $p < .001$. The total effect size for the analysis was $f^2 = .44$ which signify a large effect size ($f^2 \geq 0.35$) according to Cohen's (1988) guidelines.

The results of the analysis show that Conscientiousness lost statistical significance ($\beta = -.06$, $p = .170$) while Honesty-humility ($\beta = -.230$, $p < .001$) significantly explained reported job application Lies. Therefore, as Honesty-Humility decreases, reported frequency of Job Application lies increases.

8.3.2.2 Second Analysis – Job Application Embellishments

A hierarchical multiple regression analysis was performed to test the hypotheses of this study which included in Step 1, Job Application Embellishments as the criterion and Conscientiousness, Attitudes-E, Norms-E, Risk-E as predictors. Age and Gender were added to the model as controls. Step 2 had Honesty-humility as an additional predictor.

8.3.2.2.1 Assumptions

The analysis tested for violations of multiple regression analysis. The analysis tested for normality of residuals, outliers, influential data points, collinearity, independent errors, and homoscedasticity.

8.3.2.2.1.1 Normality of Residuals

Analysis of kurtosis and Skewness showed that the data was normally distributed. First, a visual examination of the multiple regression residuals showed the data had a normal distribution shape. Furthermore, a measure of skewness was -.029 (se = .126) and kurtosis was -.157 (se = .252) which are within acceptable ranges. When sample sizes are sufficiently large (>30), the sampling distribution of means will approximate that of the population (Field, 2012, p. 914).

8.3.2.2.1.2 Outliers

An analysis of standard residuals was carried out before the data was transformed using z-scores to identify any outliers. The analysis did not indicate any outliers ($z > 3.0$).

8.3.2.2.1.3 Influential Data Points

Cook's distances were examined, and its maximum value was .057, which is below the cut-off value of 1. Three observations had lower probability for the Chi-square (χ 2) distribution p-value of the Mahalanobis distance scores with degrees of freedom df = 7 smaller than the cut-off value of ≤ .001. Deleting the observations did not change the interpretation of the analysis; therefore, the observations were retained.

8.3.2.2.1.4 Collinearity

Finally, variables did not display multicollinearity as VIF scores were ≤ 1.633. Therefore, all 374 cases were retained for the multiple regression analyses.

8.3.2.2.1.5 Independence of Errors

The Durbin-Watson score was 1.911. Ideally, Durbin-Watson scores should be equal to 2.0. However, a rule of thumb for independence of errors state that values less than 1 and greater than 3 are cause of concern (Hair, Black, & Anderson, 2014, p. 221).

8.3.2.2.1.6 Homoscedasticity

Homoscedasticity was tested using the EndoS Macro for SPSS (Daryanto, 2020). Heteroscedasticity was not detected. Breusch-Pagan (6.20, p = .52) and Koenker tests (6.79, p = .45) were not significant. Therefore, the standard multiple regression analysis was performed.

8.3.2.2.2 Results of Second Analysis

A hierarchical multiple regression analysis was performed using SPSS 26. The results of this analysis are reported in Table 8.14.

Using the stepwise method, the first step of the regression analysis was significant with the model explaining 36.7 % of the variance and that the model was a significant predictor of Job Application Embellishments, $R^2 = .37$ ($R^2_{Adjusted} = .36$), F (6, 371) = 35.52, $p < .001$. The total effect size for the analysis was $f^2 = .58$ which signify a strong effect size ($f^2 \geq 0.35$) according to Cohen's (1988) guidelines.

The results of the analysis show that Attitudes-E, ($\beta = -.13$, $p = .059$), Risk-E ($\beta = -.03$, $p = .649$) and Age ($\beta = -.07$, $p = .08$) were not significant. However, Conscientiousness ($\beta = -.100$, $p < .05$) and Gender ($\beta = .12$, $p < .01$) were significant predictors of Reported Job Application Embellishments. Therefore, the results show that as Conscientiousness and Attitudes-E (i.e., Perceives Seriousness) decreases, and Norms-E (i.e., Perceives Social Proof) increases, reported frequency of Job Application Embellishments increases. Furthermore, male participants report more Job Application Embellishments than females.

Step 2 had Honesty-Humility as an additional predictor. The results show that introducing Honesty-Humility to the analysis explained an additional 4.4 % of variation in reported job application lies and this change in R^2 was significant, $\Delta R^2 = .044$, $p < .001$ [ΔF (1, 366) = 27.10, $p < .001$]. Together, the new model with the addition of Honesty-Humility explained 41.1 % of the variance in reported Job Application Embellishments $R^2 = .41$ ($R^2_{Adjusted} = .40$), F (7, 374) = 36.48, $p < .001$. The total effect size for the analysis was $f^2 = .70$ which signify a strong effect size ($f^2 \geq 0.35$) according to Cohen's (1988) guidelines.

The results of the analysis show that Conscientiousness (β = -.059, p = .18) and Gender (β = .08, p= .07) lost statistical significance while Honesty-humility (β = -.233, p < .001) significantly explained reported job application Lies. Therefore, as Honesty-Humility decreases, reported frequency of Job Application lies increases.

Table 8.14 - *Multiple Regression Analysis for Embellishments (heteroscedasticity-robust SE)*

	Model 1			Model 2		
Variables	*B*	*SE*	*β*	*B*	*SE*	*β*
Step 1						
Conscientiousness	-.200	.088	-.100*	-.119	.088	-.059
Attitudes-E	-.175	.092	-.127*	-.158	.083	-.115*
Norms-E	.882	.092	.496***	.858	.084	.482***
Risk-E	-.043	.094	-.031	-.009	.090	-.006
Age	-.007	.005	-.074	-.001	.005	-.015
Gender (F = 1, M = 2)	.252	.092	.116**	.168	.091	.078
Step 2						
Honesty-Humility				-.431	.082	-.233***
F	35.520***			36.483***		
Δ*F*	35.520			27.102***		
R^2	.367			.411		
ΔR^2	.367			.044		

Note: N= 366, *** p < 0.001, ** p < 0.01; * p < 0.05

Dependent Variable: Job Application Embellishments

8.3.2.3 Third Analysis – Behavioural Consistency

A hierarchical multiple regression analysis was performed with heteroscedasticity-robust SE to test the hypotheses of this study which included in Step 1, Job Application lies as the

criterion and Conscientiousness, Honesty-Humility, Attitudes, Norms, Risk as predictors. Age and Gender were added to the model as controls. Step 2 had reported Job application Embellishments as an additional predictor.

8.3.2.3.1 Assumptions

The analysis tested for violations of multiple regression analysis. The analysis tested for normality of residuals, outliers, influential data points, collinearity, independent errors, and homoscedasticity.

8.3.2.3.1.1 Normality of Residuals

Analysis of kurtosis and Skewness showed that the data was not normally distributed. The criterion variable Job Application Lies was positively skewed; therefore, it was transformed using the reciprocal inverse formula [(2-(1/x)] which improved normality.

A visual examination of the multiple regression residuals showed the data had a normal distribution shape. Furthermore, a measure of skewness was -.029 (*SE* = .126) and kurtosis was -.157 (*SE* = .252) which are within acceptable ranges. When sample sizes are sufficiently large (>30), the sampling distribution of means will approximate that of the population (Field, 2012, p. 914).

8.3.2.3.1.2 Outliers

An analysis of standard residuals was carried out before the data was transformed using z-scores to identify any outliers. The analysis indicated that 2 participants appeared to be outliers (z > 3.0). An inverted transformation of the dependent variable (i.e., reported

frequency of Job Application lies), since this variable was positively skewed. After a second z-score analysis of the residuals showed, only one participant appeared to be an outlier. The participant scores were not removed from the final analyses as the removal did not change the interpretability of the results.

8.3.2.3.1.3 Influential Data Points

Cook's distances were examined, and its maximum value was .044, which is below the cut-off value of 1. Two observations had lower probability for the Chi-square (χ 2) distribution p-value of the Mahalanobis distance scores with degrees of freedom df = 8 smaller than the cut-off value of ≤ .001. Deleting the observations did not change the results of the analysis; therefore, the observations were retained.

8.3.2.3.1.4 Collinearity

Variables did not display multicollinearity as VIF scores were ≤ 1.345. Therefore, all 374 cases were retained for the multiple regression analyses.

8.3.2.3.1.5 Independence of Errors

The Durbin-Watson score was 1.77. Ideally, Durbin-Watson scores should be equal to 2.0. However, a rule of thumb for independence of errors state that values less than 1 and greater than 3 are cause of concern (Hair, Black, & Anderson, 2014, p. 221).

8.3.2.3.1.6 Homoscedasticity

Homoscedasticity was tested using the EndoS Macro for SPSS (Daryanto, 2020). Heteroscedasticity was detected. Breusch-Pagan (51.87) and Koenker tests (44.25) were both highly significant $p < .001$. Therefore, the multiple regression analysis was performed using Daryanto's standard error robust procedure which corrects for heteroscedasticity.

8.3.2.3.2 Results of Third Analysis

Since the data did not meet the assumption of homoscedasticity, the hierarchical multiple regression analysis was performed using Daryanto's standard error robust procedure which corrects for heteroscedasticity. The results of this analysis are reported in Table 8.15.

8.3.2.3.2.1 Step 1

Using the enter method, Step 1 of the hierarchical multiple regression analysis was significant with the model explaining 30.7 % of the variance and that the model was a significant predictor of Job Application Lies $R^2 = .31$ ($R^2_{Adjusted} = .29$), F (7, 374) = 23.20, $p < .001$. The total effect size for the analysis was $f^2 = .44$ which is above Cohen's (1988) estimated strong effect size of .35 for multiple regressions.

The results of the analysis show that Conscientiousness (β= -.06, p = .18), Age (β = -.003, p= .95) and Gender (β= .034, p= .46), were not significant. However, Honesty-Humility (β= -.23, $p < .001$), Attitudes-L (β= -.28, $p < .001$) and Norms-L (β= .28, $p < .001$) and Risk (β= -.11, $p < .05$) were predictors of reported job application lies. Therefore, the results show that as Honesty-Humility and Attitudes-L (i.e., perceives seriousness of Job

Application lies) decreases, and Norms-L (i.e., Perceives Social Proof) increases, reported frequency of Job Application lies increases.

8.3.2.3.2.2 Step 2

Step 2 had Job Application Embellishments as an additional predictor. The results show that introducing Job Application Embellishments to the analysis explained an additional 4 % of variation in reported job application lies and this change in R^2 was significant, $\Delta R^2 = .039$, $p < .001$ [ΔF (1, 365) = 21.733, $p < .001$]. Together, the new model with the addition of Job Application Embellishments explained 34.6 % of the variance in reported Job Application lies $R^2 = .35$ ($R^2_{Adjusted} = .33$), F (8, 374) = 24.171, $p < .001$. The total effect size for the analysis was $f^2 = 0.52$ which signifies a strong effect size ($f^2 \geq 0.35$) according to Cohen's (1988) guidelines.

The results of the analysis show that Job Application Embellishments ($\beta = .21$, $p < .001$) significantly explained reported job application Lies. Therefore, as Job Application Embellishments increases, reported frequency of Job Application lies increases.

Table 8.15 - *Multiple Regression Analysis for Job Application lies (heteroscedasticity-robust SE)*

	Model 1			Model 2		
Variables	*B*	*SE*	*β*	*B*	*SE*	*β*
Step 1						
Conscientiousness	-.020	.014	-.062	-.016	.014	-.050
Honesty-Humility	-.068	.015	-.230***	-.049	.015	-.164 **
Attitudes-L	-.056	.010	-.278***	-.057	.010	-.279***
Norms-L	.103	.017	.281***	.092	.017	.252***
Risk-L	-.027	.013	-.109*	-.025	.012	-.098*
Age	.000	.001	.003	.000	.001	.019
Gender (F = 1, M = 2)	.012	.016	.034	.010	.016	.214
Step 2						
JA Embellishments				.034	.007	.214***
F	23.204***			24.171***		
ΔF				21.733***		
R^2	.307			.346		
ΔR^2				.039		

Note: N= 374, *** p < 0.001, ** p < 0.01; * p < 0.05

Dependent Variable: Job Application Lies (Transformed)

8.3.2.4 Forth Analysis – CWB Organisation

A multiple regression analysis was performed with heteroscedasticity-robust SE to test the hypotheses of this study which included CWB-Organisation as the criterion. Step 1 had Conscientiousness as the predictor, Age and Gender were added to the model as controls. Step 2 had Honesty-Humility as an additional predictor. Step 3 had Job Application

Embellishments as an additional predictor, and Step 4 had Job Application Lies as an additional predictor.

8.3.2.4.1 Assumptions

The analysis tested for violations of multiple regression analysis. The analysis tested for normality of residuals, outliers, influential data points, collinearity, independent errors, and homoscedasticity.

8.3.2.4.1.1 Normality of Residuals and Linearity

An initial visual examination of the multiple regression residuals showed the data had a normal distribution shape. However, the measure of skewness was 1.470 (*SE* = .164) and kurtosis was 4.332 (*SE* = .326) which are above acceptable ranges. Analysis of kurtosis and Skewness showed that the data was not normally distributed.

The criterion variable CWB-Organisation was positively skewed; therefore, it was transformed using the reciprocal inverse formula [(2-(1/x)] which improved normality. After the transformation, the measure of skewness was .361 (*SE* = .164) and kurtosis was .017 (*SE* = .326) were within acceptable ranges.

8.3.2.4.1.2 Outliers

An analysis of standard residuals was carried out after the data was transformed using z-scores to identify any outliers. The analysis indicated that 1 observation appeared to be an outlier ($z > 3.0$). The participant scores were not removed from the final analyses as the removal did not change the interpretability of the results.

8.3.2.4.1.3 Influential Data Points

Cook's distances were examined, and its maximum value was .111, which is below the cut-off value of 1. Three observations had lower probability for the Chi-square (χ 2) distribution p-value of the Mahalanobis distance scores with degrees of freedom df = 6 smaller than the cut-off value of ≤ .001. Deleting the observations did not change the results of the analysis; therefore, the observations were retained.

8.3.2.4.1.4 Collinearity

Finally, variables did not display multicollinearity as VIF scores were ≤ 1.400. Therefore, all 221 cases were retained for the multiple regression analyses.

8.3.2.4.1.5 Independence of Errors

The Durbin-Watson score was 1.95. Ideally, Durbin-Watson scores should be equal to 2.0. However, a rule of thumb for independence of errors state that values less than 1 and greater than 3 are cause of concern (Hair, Black, & Anderson, 2014, p. 221).

8.3.2.4.1.6 Homoscedasticity

Homoscedasticity was tested using the EndoS Macro for SPSS (Daryanto, 2020). Heteroscedasticity was detected. Breusch-Pagan (13.65) and Koenker tests (13.72) were both highly significant at $p < .05$. Therefore, the multiple regression analysis was performed using Daryanto's standard error robust procedure which corrects for heteroscedasticity.

8.3.2.4.2 Results of Fourth Analysis

Since the data did not meet the assumption of homoscedasticity, the hierarchical multiple regression analysis was performed using Daryanto's standard error robust procedure which corrects for heteroscedasticity. The results of this analysis are reported in Table 8.15.

8.3.2.4.2.1 Step 1

Using the enter method, the first step of the regression analysis was significant with the model explaining 15.6 % of the variance and that the model was a significant predictor of CWB-Organisation, $R^2 = .16$ ($R^2_{Adjusted} = .14$), F (3, 221) = 13.322, $p < .001$. The total effect size for the analysis was $f^2 = .19$ which signify a moderate ($f^2 \geq 0.15$ and ≤ 0.35) effect size according to Cohen's (1988) guidelines.

The results of the analysis show that Age ($\beta = -.108$, $p = .08$) was not significant. However, Conscientiousness ($\beta = -.292$, $p < .001$) and Gender ($\beta = .206$, $p < .01$) were predictors of reported CWB-Organisation.

Therefore, the results show that as Conscientiousness decreases, CWB-Organisation increases. The results also show that male participants report more CWB-Organisation than females.

8.3.2.4.2.2 Step 2

Step 2 had Honesty-Humility as an additional predictor. The results show that introducing Honesty-Humility to the analysis explained an additional 3.3 % of variation in CWB Organisation and this change in R^2 was significant, $\Delta R^2 = .033$, $p < .001$ [ΔF (1, 216) = 8.688, $p < .01$].

Together, the new model with the addition of Honesty-Humility explained 18.8 % of the variance in CWB Organisation, $R^2 = .19$ ($R^2_{Adjusted} = .17$), F (4, 221) = 12.517, $p < .001$. The total effect size for the analysis was $f^2 = .23$ which signifies a moderate ($f^2 \geq 0.15$ and ≤ 0.35) effect size according to Cohen's (1988) guidelines.

The results of the analysis show that Honesty-Humility ($\beta = -.20$, $p < .01$) was significant. Therefore, the results show that as Honesty-Humility decreases, CWB-Organisation increases.

8.3.2.4.2.3 Step 3

Step 3 had Job Application Embellishments as an additional predictor. The results show that introducing Job Application Embellishments to the analysis explained an additional 3.3 % of variation in CWB Organisation and this change in R^2 was not significant, $\Delta R^2 = .013$, $p = .058$, [ΔF (1, 215) = 3.635, $p = .058$].

Together, the new model with the addition of Job Application Embellishments explained 20.2 % of the variance in CWB Organisation, $R^2 = .20$ ($R^2_{Adjusted} = .18$), F (5, 220) = 10.863, $p < .001$. The total effect size for the analysis was $f^2 = .25$, which signify a moderate ($f^2 \geq 0.15$ and ≤ 0.35) effect size according to Cohen's (1988) guidelines.

Therefore, the results show that Job Application Embellishments did not predict CWB-Organisation ($\beta = .12$, $p = .058$) or improve the model significantly.

8.3.2.4.2.4 Step 4

Step 4 had Job Application lies as an additional predictor. The results show that introducing Job Application Lies to the analysis explained an additional 5.5 % of variation

in CWB Organisation and this change in R^2 was significant, $\Delta R^2 = .06$, $p < .001$ [ΔF (1, 214) = 15.947, $p < .001$].

Together, the new model with the addition of Job Application lies explained 25.7 % of the variance in CWB Organisation, $R^2 = .26$ ($R^2_{Adjusted} = .24$), F (4, 221) = 12.339, $p < .001$. The total effect size for the analysis was $f^2 = .35$, which signify a large ($f^2 \geq 0.35$) effect size according to Cohen's (1988) guidelines.

The results of the analysis show that Honesty-Humility lost statistical significance ($\beta = -.08$, $p = .284$) while Reported Job Application Lies ($\beta = .26$, $p < .01$) significantly explained CWB-Organisation. Therefore, as Reported Job Application Lies increases, CWB-Organisation also increases.

Table 8.16 - *Multiple Regression Analysis for the CWB-Organisation Model (heteroscedasticity-robust SE)*

	Step1			Step2			Step3			Step4		
Variables	*B*	*SE*	*β*	*B*	*SE*	*β*	*B*	*SE*	*β*	*B*	*SE*	*β*
Step 1												
Conscientiousness	-.089	.016	-.292***	-.077	.016	-.252***	-.073	.016	-.240***	-.070	.016	-.229***
Age	-.002	.001	-.108	-.001	.001	-.056	-.001	.001	-.054	-.001	.001	-.070
Gender	.063	.020	.206**	.051	.021	.168*	.052	.020	.169*	.051	.020	.167*
Step 2												
Honesty-Humility				-.055	.021	-.198***	-.034	.021	-.159*	-.025	.023	-.089
Step 3												
JA Embellishments							.018	.011	.124	.011	.011	.076
Step 4												
JA Lies										.093	.031	.255**
F	13.322***			12.517***			10.863***			12.339***		
ΔF	13.322***			8.688**			3.635			15.947***		
R^2	.156			.173			.183			.236		
ΔR^2	.156			.033			.013			.055		

Note: N= 221, *** $p < 0.001$, ** $p < 0.01$; * $p < 0.05$, Dependent Variable: CWB – Organisation (Transformed)

8.3.2.5 Fifth Analysis – CWB-Person

A multiple regression analysis was performed with heteroscedasticity-robust SE to test the hypotheses of this study which included CWB-Person as the criterion. Step 1 had Conscientiousness as the predictor, Age and Gender were added to the model as controls. Step 2 had Honesty-Humility as an additional predictor. Step 3 had Job Application Embellishments as an additional predictor, and Step 4 had Job Application Lies as an additional predictor.

8.3.2.5.1 Assumptions

The analysis tested for violations of multiple regression analysis. The analysis tested for normality of residuals, outliers, influential data points, collinearity, independent errors, and homoscedasticity.

8.3.2.5.1.1 Normality of Residuals and Linearity

An initial visual examination of the multiple regression residuals showed the data had a normal distribution shape. However, the measure of skewness had a value of 4.405 (*SE* = .164) and kurtosis have a value of 27.533 (*SE* = .326) which are above acceptable ranges. Therefore, the analysis of kurtosis and Skewness showed that the data was not normally distributed.

The criterion variable CWB-Person was positively skewed; therefore, it was transformed using the reciprocal inverse formula [(2-(1/x)] which improved normality. After the

transformation, the measure of skewness and kurtosis improved to values 1.422 (*SE* = .164) and was 3.604 (*SE* = .326), respectively. However, z-tests, which are obtained through dividing skewedness and kurtosis values by their standard errors was above the acceptable threshold of 3.29 for both measures (Field, 2009, p. 139). When sample sizes are sufficiently large (> 30), the sampling distribution of means will approximate that of the population (Field, 2012, p. 914).

8.3.2.5.1.2 Outliers

An analysis of standard residuals was carried out after the data was transformed using z-scores to identify any outliers. The analysis indicated that 5 observations appeared to be an outlier (z > 3.0). Removing the observations improved skewedness and kurtosis however, the removal did not change the interpretability of the results. Therefore, the participant scores were not removed from the final analyses.

8.3.2.5.1.3 Influential Data Points

Cook's distances were examined, and its maximum value was .161, which is below the cut-off value of 1. Three observations had lower probability for the Chi-square (χ 2) distribution p-value of the Mahalanobis distance scores with degrees of freedom df = 6 smaller than the cut-off value of ≤ .001. Deleting the observations did not change the results of the analysis; therefore, the observations were retained.

8.3.2.5.1.4 Collinearity

Finally, variables did not display multicollinearity as VIF scores were ≤ 1.400. Therefore, all 221 cases were retained for the multiple regression analyses.

8.3.2.5.1.5 Independence of Errors

The Durbin-Watson score was 1.83. Ideally, Durbin-Watson scores should be equal to 2.0. However, a rule of thumb for independence of errors state that values less than 1 and greater than 3 are cause of concern (Hair, Black, & Anderson, 2014, p. 221).

8.3.2.5.1.6 Homoscedasticity

Homoscedasticity was tested using the EndoS Macro for SPSS (Daryanto, 2020). Heteroscedasticity was detected. Breusch-Pagan (47.63) and Koenker tests (17.33) were both highly significant at $p < .05$. Therefore, the multiple regression analysis was performed using Daryanto's standard error robust procedure which corrects for heteroscedasticity.

8.3.2.5.1 Results of First Analysis

Since the data did not meet the assumption of homoscedasticity, the hierarchical multiple regression analysis was performed using Daryanto's standard error robust procedure which corrects for heteroscedasticity. The results of this analysis are reported in Table 8.16.

8.3.2.5.1.1 Step 1

Using the enter method, the first step of the regression analysis was significant with the model explaining 9.8 % of the variance and that the model was a significant predictor of CWB-Person $R^2 = .10$ ($R^2_{Adjusted} = .86$), F (3, 221) = 7.883, $p < .001$. The total effect size for the analysis was $f^2 = .10$ which signify a small ($f^2 < 0.15$) effect size according to Cohen's (1988) guidelines.

The results of the analysis show that Conscientiousness ($\beta = -.05$, $p = .377$) was not significant. However, Age ($\beta = -.167$, $p < .05$) and Gender ($\beta = .241$, $p < .001$) were predictors of reported CWB-Person. Therefore, the results show that as Age increases, CWB-Person decreases. The results also show that male participants report more CWB-Person than females.

8.3.2.5.1.2 Step 2

Step 2 had Honesty-Humility as an additional predictor. The results show that introducing Honesty-Humility to the analysis explained an additional 3.4 % of variation in CWB-Person and this change in R^2 was significant, $\Delta R^2 = .034$, $p < .001$ [ΔF (1, 216) = 8.408, $p < .01$].

Together, the new model with the addition of Honesty-Humility explained 13.2 % of the variance in CWB Organisation, $R^2 = .13$ ($R^2_{Adjusted} = .12$), F (4, 221) = 8.216, $p < .001$. The total effect size for the analysis was $f^2 = .15$ which signify a moderate ($f^2 \geq 0.15$ and ≤ 0.35) effect size according to Cohen's (1988) guidelines.

The results of the analysis show that Honesty-Humility (β= -.20, p < .01) was significant. Therefore, the results show that as Honesty-Humility decreases, CWB-Person increases. Age become non-significant (β= -.12, p = .06).

8.3.2.5.1.3 Step 3

Step 3 had Job Application Embellishments as an additional predictor. The results show that introducing Job Application Embellishments to the analysis explained an additional 0.6 % of variation in CWB Person and this change in R^2 was not significant, ΔR^2 = .006, p = .058 [ΔF (1, 215) = 1.373, p = .243]. Together, the new model with the addition of Job Application Embellishments explained 13.8 % of the variance in CWB Person, R^2 = .14 ($R^2_{Adjusted}$ = .12), F (5, 220) = 6.859, p < .001. The total effect size for the analysis was f^2 = .16 which signify a moderate ($f^2 \geq 0.15$ and ≤ 0.35) effect size according to Cohen's (1988) guidelines. Therefore, the results show that Job Application Embellishments did not predict CWB-Organisation (β = .08, p = .21) or improve the model significantly.

8.3.2.5.1.4 Step 4

Step 4 had Job Application lies as an additional predictor. The results show that introducing Job Application Lies to the analysis explained an additional 7.3% of variation in CWB Person and this change in R^2 was significant, ΔR^2 = .06, p < .001 [ΔF (1, 214) = 19.713, p < .001].

Together, the new model with the addition of Job Application lies explained 21 % of the variance in CWB-Person, R^2 = .21 ($R^2_{Adjusted}$ = .19), F (6, 221) = 9.499, p < .001. The total

Table 8.17 - *Multiple Regression Analysis for the CWB-Person Model (heteroscedasticity-robust SE)*

	Step1			Step2			Step3			Step4		
Variables	*B*	*SE*	*β*	*B*	*SE*	*β*	*B*	*SE*	*β*	*B*	*SE*	*β*
Step 1												
Conscientiousness	-.014	.016	-.052	-.003	.016	-.011	-.001	.015	-.004	-.002	.015	.008
Age	-.002	.001	-.167**	-.002	.001	-.115	-.002	.001	-.114	-.002	.001	-.131*
Gender	.065	.019	.241**	.055	.019	.203**	.055	.019	.203**	.055	.018	.201**
Step 2												
Honesty-Humility				-.050	.018	-.201**	-.044	.019	-.177*	-.024	.021	-.096
Step 3												
JA Embellishments							.010	.008	.079	.003	.008	.024
Step 4												
JA Lies										.095	.033	.292**
F	7.883***			8.216***			6.859***			9.499***		
ΔF	7.883***			8.408**			1.373			19.713***		
R^2	.098			.132			.138			.210		
ΔR^2	.098			.034			.006			.073		

Note: N= 374, *** $p < 0.001$, ** $p < 0.01$; * $p < 0.05$; Dependent Variable: CWB-Person (Transformed)

effect size for the analysis was f 2 = .27, which signifies a moderate (f 2 ≥ 0.15 and ≤ 0.35) effect size according to Cohen's (1988) guidelines. The results of the analysis show that Honesty-Humility lost statistical significance (β = -.10, p = .267) while Age became statistically significant again (β = -.13, p < .05). Finally, Reported Job Application Lies (β= .29, p < .01) significantly explained CWB-Person. Therefore, as Reported Job Application Lies increases, CWB-Person also increases.

8.4 Discussion

This study investigated whether a behavioural model containing social-cognitive factors (i.e., Attitudes, Perceived Social Proof and Perceived Risk) and the personality trait Conscientiousness and Honesty-Humility predicts self-reported job application dishonesty, including lies and embellishments. Overall, the analyses partially confirm the main hypotheses in this study.

The personality trait Conscientiousness correlated negatively with job application Lies and Embellishments, but it became non-significant in the hierarchical multiple regression analyses. Nevertheless, Honesty-Humility, Attitudes and Perceived Social Proof and Perceived Risk significantly predicted job application Lies and Embellishments.

The study also examined whether job application embellishments predict beyond the variables in the behavioural model. The results of the analysis show that this hypothesis was confirmed. Furthermore, the study examines whether job application dishonesty predicts counterproductive work behaviours beyond personality traits and other control variables, including Gender and Age. Job application Lies and Embellishments correlate

positively with both CWB-Organisation and CWB-Person. However, the results of two hierarchical multiple regressions show that only Job application Lies significantly predicted the two forms of CWBs.

8.4.1.1 First Analysis – Job Application Lies

The first analysis examined whether the model predicted job application lies. The results show that Honesty-Humility, perceived seriousness of lies (Attitudes-L), perceived social Proof of lies (Norms-L) and perceived risk of lies (Risk-L), predicted job application lies. Conscientiousness, Age and Gender did not correlate significantly with job application lies. Therefore, the result of the analysis indicates that the model's main variables partially predict job application lies. The total effect size for the analysis was $f^2 = .35$, which signifies a large effect size ($f^2 \geq 0.35$) according to Cohen's (1988) guidelines.

8.4.1.2 Second Analysis – Job Application Embellishments

The second analysis tested whether the model predicted job application embellishments. The results of the second analysis show that Honesty-Humility, perceived seriousness of lies (Attitudes-E), perceived social Proof (Norms-E). Perceived risk of Embellishments (Risk-E), Conscientiousness, Age and Gender did not correlate significantly with job application embellishments. Therefore, the result of the analysis indicates that the model's main variables partially predict job application embellishments. The total effect size for the second analysis was $f^2 = .58$, which signify a large effect size ($f^2 \geq 0.35$) according to Cohen's (1988) guidelines.

8.4.1.3 Third Analysis – Behavioural Consistency

The third analysis tested whether Job Application Embellishments predicted Job Application Lies after controlling for the personality traits Conscientiousness and Honesty-Humility, the variables in the social-cognitive model (Attitudes-L, Norms-L and Risk-L), Age and Gender. The results show that Job Application Embellishments is a significant predictor of Job Application Lies beyond and above the other variables in the analysis. The third analysis, which differed from the first analysis by adding CV embellishments as a predictor, had a total effect size for the analysis was $f^2 = .44$, which is above Cohen's (1988) estimated strong effect size of .35 for multiple regressions.

8.4.1.4 Fourth Analyses – CWB Organisation

The fourth analysis tested whether Job Application Lies and Job Application Embellishments predicted CWB-Organisation (i.e., Organisational Deviance) after controlling for the personality traits Conscientiousness, Honesty-humility, Age and Gender. The results show that Job Application Lies is a significant predictor of CWB-Organisation beyond and above the other variables in the analysis. The fourth analysis had a total effect size for the analysis was $f^2 = .19$, which signify a moderate ($f^2 \geq 0.15$ and ≤ 0.35) effect size according to Cohen's (1988) guidelines.

8.4.1.5 Fifth Analyses - CWB Person

The fifth analysis tested whether Job Application Lies and Job Application Embellishments predicted CWB-Person (i.e., Interpersonal Deviance) after controlling for

the personality traits Conscientiousness, Honesty-Humility, Age and Gender. The results show that Job Application Lies is a significant predictor of CWB-Person beyond and above the other variables in the analysis. The fourth analysis had a total effect size for the analysis was $f^2 = .10$, which signify a small ($f^2 < .15$) effect size according to Cohen's (1988) guidelines.

8.4.2 Evaluation of the Hypotheses

8.4.2.1 Personality Traits

This study investigates whether personality traits theoretically linked to dishonest behaviours predict job application dishonesty. The first hypothesis in this study tested whether the personality trait Conscientiousness is negatively related to reported job application dishonesty (H_1). The second hypothesis states that Honesty/Humility negatively predict job application dishonesty (H_2).

Conscientiousness and Honesty-Humility are theoretically distinct constructs; therefore, each should explain additional variance in the criterion variables. For example, during the selection process, job candidates advertise their capacity to perform work-related tasks through the display of credentials (Spence, 1973). Since individuals high in the conscientiousness trait are more likely to be successful highly selective and competitive settings (Chamorro-Premuzic & Furnham, 2003), as well as higher achievers academically (Schneider & Preckel, 2017; Wingate & Tomes, 2017) and occupationally (Spengler,

Lüdtke, Martin, & Brunner, 2014). Therefore, they should be under less pressure to misinform their job applications to get employed.

In contrast, Honesty-humility is associated with cooperation (Zettler, Hilbig, & Heydasch, 2013), fairness (Hilbig, Thielmann, Hepp, & Zettler, 2015) and an overall tendency to maintain social contract behaviours (Fiddick, et al., 2016). Selection processes are competitive interactions that contain a social contract that dictates that job candidates should display their true credentials and abilities. Therefore, individuals low in Honesty-humility should be more likely to breach the contract since they display a lack of sincerity, fairness, greed avoidance, and modesty (Ashton & Lee, 2008).

The results of this study show that both personality measures correlated negatively with job application lies and embellishments. However, after the addition of the personality trait Honesty-Humility to the hierarchical multiple regressions, Conscientiousness become a non-significant predictor for both Job Application Lies and Embellishments. Therefore, the results of this study only gave support to hypothesis (H_2:).

The literature shows that both Conscientiousness and Honesty-humility predicts different forms of dishonest behaviours. However, experimental (Hilbig & Zettler, 2015) and correlational studies indicate that Honesty-humility outperforms Conscientiousness in predicting and different forms of real-life dishonest behaviours, including academic dishonesty (De Vries, De Vries, & Born, 2011) and interview dishonesty (Bourdage, Schmidt, Wiltshire, Nguyen, & Lee, 2019). Hilbig and Zettler (2015) argue that Honesty-humility might be theoretically a more adequate trait than Conscientiousness to account for

differences in dishonest behaviours. The results of this study indicate that Honesty-humility might also be more adequate to explain job application dishonesty than Conscientiousness.

8.4.2.2 Social-Cognitive Model

When completing their application forms, job candidates can present correct or false information to their future employers. This study contains the hypotheses that individuals might have a non-evaluative tendency to be either honest or dishonest, which was presented in the previous section. While personality traits influence a broad range of behaviours relatively in a non-evaluative and automatic way, humans also have to evaluate specific problems in complex environments before deciding to perform an act. This study hypothesises that when deciding to misinform their job applications, job candidates make evaluations related to the seriousness of the act, whether or not the action is common among other job candidates, and the level of risk involved.

8.4.2.2.1 Attitudes

Attitudes are people's evaluations of a particular behaviour (Ajzen, 1991). In this study, attitudes refer to participants' perceived seriousness of job application dishonesty. The study contained the hypothesis that the seriousness of job application dishonesty was negatively related to the reported frequency of job application dishonesty (H_3). This study indicates that job candidates are significantly more likely to report higher frequencies of job application lies and job application embellishments if they believe that the act is less

serious. This study replicates the findings of Study One in which the measures of Attitudes explain unique variance for both job applications lies and job application embellishments.

8.4.2.3 Norms

In this study, Norms measures refer to job candidates' beliefs about the extent to which others behave dishonestly when completing their job applications. The study contains a hypothesis (H_4) stating that job candidates Perceived Social Proof is positively related to job application dishonesty. The results indicate that job candidates are significantly more likely to report higher frequencies of job application lies and embellishments if they believe that the act is common among other candidates. This study replicates the findings of Study One in which the measures of Norms explain unique variance for both job applications lies and job application embellishments.

8.4.2.4 Risk

The measure of Risk refers to job candidates' beliefs about the perceived risk of verification of job application dishonesty. The study contained the hypothesis (H_5) stating that job candidates Perceived risk is positively related to job application dishonesty. However, in Study One, the measure of risk did not correlate with either CV lies or CV embellishments, despite correlating positively with both Attitudes and negatively with Norms.

The current study investigates whether the lack of relationship between Risk and Job application dishonesty in Study One is due to methodological issues. In Study One, the

stem statement for the measure of risk asks participants to report on how often they think managers do further checks on the information provided by candidates on their CVs. Therefore, the wording of the stem question asks participants to think about behaviours of others for which they might have little knowledge.

Perceptions of risk relate to the estimated probability that an outcome will be unfavourable or harmful (Short, 1984). Therefore, in the current study, the stem question differs from the measure of risk in study one since it directs the participants to evaluate the risk of detection of each behaviour during the selection process, in contrast to evaluating the behaviour of individuals involved in the selection process. The results of this study indicate job candidates are significantly more likely to report higher frequencies of job applications lies and job application embellishments if they believe that the act is less risky. Furthermore, Risk explains unique variance for both job applications lies and job application embellishments.

8.4.2.5 Behavioural Consistency

This study also evaluated the appropriateness of using measures of CV embellishment to predict CV Lies. CV embellishments predicted CV lies above and beyond the other measured in the analysis. In study One, the measure of Embellishments only contained three items. Consequently, the strong correlations between predictors and the criterion in the CV embellishment model could have occurred due to composite artifacts of the measures.

Therefore, in the current study, the measure of embellishment contains eight items referring to a different section of a job application (i.e., Employment, Education, References and Personal Information. The analysis replicates the results of Study One. Job application Embellishments predicted Job Application Lies above and beyond. The control variables, which included the same criterion as analysis one, were Conscientiousness, Honesty-Humility, Attitudes, Norms, Risk, Age and Gender.

8.4.2.5.1 Counterproductive Work Behaviours

Finally, this study investigates the possible implications of job application dishonesty to organisational behaviour. It examines whether the reported frequency of job application dishonesty relates to two forms of counter-productive work behaviours, namely, organisational and interpersonal deviance. Examining whether job application dishonesty has a relationship with counter-productive work behaviours has important practical implications for organisations. While the content of job applications might be indicative of future employees' performance, the way they present their information might signal that such employees will further influence organisational goals by behaving in a deviant manner against the organisation, as well as other employees.

The results show that job application embellishments and lies positively correlate with two forms of organisational deviance (i.e., CWB-Person and CWB-Organisation). However, hierarchical multiple regressions show that only job application Lies was a significant predictor CWB-Person and CWB-Organisation after controlling for the personality traits Conscientiousness and Honesty-Humility, in addition to Age and Gender.

8.4.3 Limitations

Similarly to Study One, the current study employed a correlational research design. The results of correlational studies only allow researchers to imply that relationships exist between the variables in a study; however, it is not possible for researchers to infer causation.

Furthermore, since correlational studies do not allow for the random assignment of participants to different conditions, there is always the possibility that a third variable not present in the analysis might be responsible for the occurrence of an effect on the criterion variable. For example, the current study had the addition of the personality trait Honesty-humility, which explain variance in the model beyond and above the personality trait Conscientiousness, which was the main personality factor in Study One. The addition of Honesty-humility occurred due to a better theoretical understanding of the factors implicated in dishonest behaviours; however, since human behaviour is complex and multi-determined, there is always the possibility that third variables might be better predictors of dishonesty.

Finally, researchers have to be attentive to the connection between constructs and their operationalisations. Scientists abstract and organise the world through the development of conceptualisations and operationalisations (Margolis & Laurence, 2014). Abstractions allow scientists to successfully achieve their aims of understanding the world (Chomsky, 2008, p. 240).

Descriptions of the world are often translated into abstractions of ideas and concepts which provide access to the essential features of the phenomena. Sometimes, the translation of the world into abstractions of ideas occurs in the form of mathematical formulations (Bailer-Jones, 2002, p. 109). However, the translation of concepts into operationalizations does not mean that the operations perfectly translate into the concepts; instead, such transformations are performed to make the concepts manageable (Shmueli, 2010). Furthermore, the researcher beliefs and theoretical knowledge mediate the transformation of observations into data (Klee, 1997, p. 12). However, beliefs and theories can be faulty. They can also change with the acquisition of new knowledge.

Chapter 9 Discussion

"Science is not about making predictions or performing experiments. Science is about explaining."
— Bill Gaede

This final chapter summarises the research presented in this thesis. The first section summarises the main empirical findings and discusses theoretical contributions to Organisational Psychology literature and practice. The subsequent sections contain an overview of the limitations of the research and a programme for future research.

9.1 Summary of Findings

This thesis had two aims. First, it investigated whether personality traits and domain-specific beliefs influence job candidates' decision to misinform their job applications. Second, the thesis examined whether job application dishonesty might link to negative consequences in the form of counter-productive work behaviours such as organisational and interpersonal deviance.

9.1.1.1 Behavioural Model and Hypotheses

This thesis proposed a model of job application dishonesty, which included factors related to general dispositions and domain-specific psychological mechanisms. First, the model

contains the assumption that general dispositions underpin people's tendencies to behave dishonestly. The model assumes that these broad dispositions are non-evaluative patterns of behaviours which individuals display with little or no input from the environment. Therefore, they are part of comprehensive motivational systems that help individuals navigate their complex environments relatively automatically without much need for mental effort.

The model identifies two broad strategies from the literature as the personality traits Conscientiousness and Honesty-humility, which modulates the extent to which individuals behave dishonestly across situations. Consequently, the studies in this thesis test two hypotheses related to the influence of Conscientiousness and Honesty-humility on job application dishonesty. Hypothesis 1 states that Conscientiousness is negatively associated with reported job application dishonesty, while Hypothesis 2 states that Honesty/Humility is negatively related to job reported application dishonesty.

The model also states that individuals can be rational in domain-specific situations. In other words, individuals make actionable and specific decisions after evaluating the behaviours, including dishonest behaviours and the context in which these behaviours occur. First, the model identifies from the literature that beliefs about the extent to which a behaviour is favourable or unfavourable influences the decision to perform the behaviour. The model conceptualises this attitudinal disposition concerning job application dishonesty as evaluations of its seriousness. Since the literature indicates that attitudes influence behaviours, the model contains hypothesis 4 stating that attitudes toward the seriousness of job application dishonesty are negatively related to reported job application dishonesty.

There are also two hypotheses in the model related to the context or situation in which the behaviours occur. First, the literature indicates that individuals tend to conform to the behaviours of others, whether these behaviours are observable or implied. Consequently, beliefs about the social perception that others perform a particular dishonest act should influence the decision to behave dishonestly. Therefore, the model contains hypothesis 5, stating that perceived social proof of the commonality of job application dishonesty is positively related to reported job application dishonesty.

Second, the regulation of social norms often occurs with social approval or disapproval of social behaviours. Dishonest behaviours are proscribed behaviours because they breach social norms related to fairness in cooperative and competitive contexts. Breaches of social norms, particularly those related to dishonesty, can incur different forms of punishment ranging from negative evaluations of others to legal actions; consequently, dishonest behaviours such as job application dishonesty are inherently risky. The literature indicates that evaluations of risk influence the decision to perform a particular behaviour; therefore, the model contains hypothesis 5, stating that perceived risk of job application dishonesty is negatively related to job application dishonesty.

The studies also contain hypotheses that widen the understanding of job application dishonesty, despite not being part of the proposed behavioural model. Three hypotheses state that a broad behaviour pattern underpins the tendency to behave unethically across situations, including different organisational domains. The final hypotheses refer to the influence of cultural differences in job application dishonesty.

For example, hypothesis 6 states that Reported Job Application Embellishments are positively related to reported Job Application Lies. The hypotheses related to organisational domains are hypothesis 7a stating that Reported Job application dishonesty is positively related to reported Interpersonal Deviance Measure of Counterproductive Work Behaviours, and hypothesis 7b, which states that Reported Job application dishonesty is positively related to reported Interpersonal Deviance Measure of Counterproductive Work Behaviours. Finally, hypothesis 8 states that National Dishonesty is positively related to reported Job Application Dishonesty.

9.1.1.2 Outline of the Studies

The thesis had two studies that helped it accomplish its aims. Study One investigated whether a behavioural model containing social-cognitive factors (i.e., Attitudes, Perceived Social Proof and Perceived Risk) and the personality trait conscientiousness predicts self-reported job application dishonesty, including job application lies and embellishments. The study also investigated whether participants from two countries with different levels of perceived national corruption (i.e., the UK and Brazil) differ in their reported job application dishonesty and whether job application embellishments predict beyond the variables in the behavioural model. Therefore, Study One tested hypotheses H_1, H_3, H_4, H_5, H_6 and H_8.

Study Two replicated the findings of Study One related to whether a behavioural model containing social-cognitive factors (i.e., Attitudes, Perceived Social Proof and Perceived Risk) and the personality trait Conscientiousness predicts job application lies and

embellishments. However, the model in Study Two contains modifications to the conceptualisation and operationalisation of Perceived Risk and the addition of the personality Honesty-Humility. All measures had the inclusion of extra items that increased the content validity of the measures. Moreover, the participant sample was more homogeneous than Study One since it contained primarily participants from the United Kingdom. Therefore, Study Two tested hypotheses H_1, H_2, H_3, H_4, H_5, H_6, H_{7a} and H_{7b}.

9.1.2 Main Findings

The results of Study One partially confirmed the hypotheses stating that a social-cognitive model of behaviour consisting of the personality trait Conscientiousness and the domain-specific variables Attitudes and Norms predicted different forms of job application dishonesty. The measure of Risk and the control variable Age did not correlate with Lies and Embellishments, and therefore, it did not add predictive power to the regression model. However, Conscientiousness, Attitudes and Norms, as well as the control variable Gender, added unique variance to the prediction of both Lies and Embellishments.

Nationality only predicted Embellishments, with Brazilian participants reporting fewer frequencies of the behaviour than UK participants, and participants from other nations, while Embellishments was a significant predictor of Lies beyond and above the control variables.

Study 2 had a revised model with the addition of the personality trait honesty-humility and changes to the conceptualisation and operationalisation of the Risk measure. The results of Study 2's first analysis showed that Honesty-Humility, perceived seriousness of lies

(Attitudes-L), perceived social proof of lies (Norms-L) and perceived risk of lies (Risk-L) predicted job application lies. However, Conscientiousness, Age and Gender did not correlate significantly with job application lies. Therefore, the result of the analysis indicates that, except for the personality trait Conscientiousness, the model's main variables predict job application lies.

The second analysis results showed Honesty-Humility, Perceived Seriousness of Lies (Attitudes-E), and Perceived Social Proof (Norms-E) predicted job application embellishments. However, Perceived Risk of Embellishments (Risk-E), Conscientiousness, Age and Gender did not correlate significantly with job application embellishments. Furthermore, the analysis results indicate that, except for the personality trait Conscientiousness and Perceived risk of Embellishments (Risk-E), the model's remaining variables (i.e., Honesty-humility Attitudes-E and Norms-E predict job application embellishments.

The results of the third analysis show that Job Application Embellishments are a significant predictor of Job Application Lies beyond and above the other variables in the analysis. Finally, the results of the fourth analysis show that Job Application Lies is a significant predictor of CWB-Organisation (i.e., Organisational Deviance) and CWB-Person (i.e., Interpersonal Deviance) beyond and above the other variables in the analysis.

9.2 Evaluation of Findings

The proposed predictive model in this thesis contains individual differences and social-cognitive elements. Specifically, the model includes the personality traits Honesty-humility and Conscientiousness, which are broad traits that influence a range of behaviours related to maintaining social contracts and task morality, respectively. It also contains domain-specific psychological mechanisms such as Attitudes, Perceived Social Proof, and Perceived risk. This section evaluates the results of the two studies in this thesis, taking into account the main variables in the model separately.

9.2.1 Personality

This thesis investigated whether personality traits theoretically linked to dishonest behaviours predict Job Application Dishonesty. The first hypothesis, presented in Study One and Study Two, tested whether the personality trait Conscientiousness is negatively related to reported job application dishonesty (H_1). Study Two contains the second hypothesis, which stated that Honesty/Humility negatively predicts job application dishonesty (H_2).

The analyses of the results show that while in Study One, Conscientiousness explained unique variance on reported lies and embellishments, in Study Two, Conscientiousness became a nonsignificant predictor of reported lies and embellishments after the addition of Honesty-Humility to the analyses. Therefore, Study Two indicates that Honesty-Humility explains variance in job application dishonesty above and beyond Conscientiousness.

Although Conscientiousness and Honesty-humility often predict different forms of dishonest behaviours, they are theoretically distinct constructs and should differentially predict job application dishonesty. First, Conscientiousness should be negatively related to reported job application dishonesty since individuals high in the Conscientiousness trait should be under lower pressure to misinform their job applications to get employed. For example, compared to high Conscientiousness individuals, individuals low in this trait are more likely to be higher achievers academically (Schneider & Preckel, 2017; Wingate & Tomes, 2017), including highly selective and competitive settings (Chamorro-Premuzic & Furnham, 2003). High Conscientiousness individuals are also more likely to achieve occupational success (Spengler, Lüdtke, Martin, & Brunner, 2014). In contrast, Low Conscientious individuals should be more likely to misinform their job applications since they might lack the credentials necessary to compete in the job market for the positions of their choice.

However, in Study Two, the trait Conscientiousness became a non-significant predictor of job application lies and embellishments after the addition of Honesty-humility to the analyses. Therefore, personality characteristics related to honesty such as sincerity, fairness, greed avoidance, and modesty might be more important in directing job applicants' behaviours than organisation, diligence, perfectionism and prudence, which composes the trait Conscientiousness and which might indirectly influence participants capacity to meet job requirements.

Honesty-humility associates positively with cooperation (Zettler, Hilbig, & Heydasch, 2013), fairness (Hilbig, Thielmann, Hepp, & Zettler, 2015) and an overall tendency to

maintain social contract behaviours (Fiddick, et al., 2016). Selection processes are competitive interactions that contain a social contract that dictates that job candidates should display their true credentials and abilities. Therefore, individuals low in Honesty-humility should be more likely to breach the contract since they display a lack of sincerity, fairness, greed avoidance, and modesty (Ashton & Lee, 2008). A job application includes social contracts in which job candidates compete with each other and cooperate with organisations to demonstrate their suitability for a particular job role. Since the trait Honesty-humility influences how individuals behave in situations related to social contracts in general, it also determines the extent that individuals will behave dishonestly while completing their job applications.

The literature shows that both Conscientiousness and Honesty-humility predict different forms of dishonest behaviours. However, Hilbig and Zettler (2015) state that Honesty-Humility might be theoretically a more suitable trait than Conscientiousness to account for differences in dishonest behaviours. Experimental (Hilbig & Zettler, 2015) and correlational studies, including academic dishonesty (De Vries, De Vries, & Born, 2011) and interview dishonesty (Bourdage, Schmidt, Wiltshire, Nguyen, & Lee, 2019) studies, indicate that Honesty-humility outperforms Conscientiousness in predicting and different forms of real-life dishonest behaviours including academic dishonesty. Similarly, the results of Study Two in this thesis indicate that Honesty-humility might also be more suitable for explaining job application dishonesty than Conscientiousness.

9.2.2 Attitudes

In addition to personality traits, this thesis investigated whether evaluations of dishonest behaviours in the form of attitudes predict job application dishonesty. In this thesis, the Attitudes referred to the perceived seriousness of job application dishonesty. Hypothesis (H_3) stated that perceived seriousness of job application dishonesty is negatively related to the reported frequency of job application dishonesty and the results of the two studies indicate that Attitudes accounted for the unique variance of lies and embellishments beyond and above the other dependent variables in the model.

Attitudes are adaptive patterns of thoughts, feelings and behaviours that dispose people to react favourably or unfavourably toward objects in the world. They also extend to evaluations of particular behaviours and are part of a survival mechanism that helps humans identify threats and rewards in the world. Attitudes form indirectly through affective and cognitive experiences with attitudinal objects (Kraus, 1995). Having repeated exposure to an initially affectively neutral object can help form a positive attitude (Zajonc, 1968). However, attitudes can also form from classical conditioning, where affectively neutral objects are paired with affectively charged objects (Hofmann, De Houwer, Perugini, Baeyens, & Crombez, 2010).

Once attitudes form through experiences with the world, they remain relatively stable through the mechanism of cognitive dissonance. In other words, people align their behaviours to their attitudes, which consists of affective and cognitive evaluations. Since people have different experiences with attitudinal objects, they will vary in their evaluations and consequently vary in their behaviours accordingly.

The idea that people make heterogenous evaluations of behaviours contrast with normative views of behaviours found in economic approaches to behaviour. For example, the Rational Choice Theory contains the premise that individuals are rational in the sense that they will always choose a course of action that maximises their outcomes (Baron, 2008, p. 44). When faced with an opportunity in which the benefits of being dishonest are higher than its costs, the theory states that individuals should invariably act dishonestly (Becker G. , 1968). However, the results of the two studies in this thesis contradict the normative premises of the Rational Choice Theory.

There is strong evidence from dishonesty studies that also disconfirms Rational Choice predictions. For instance, in experimental studies on dishonest behaviours, a considerable proportion of participants behave consistently honest despite the opportunities and incentives to behave otherwise (Gerlach, Teodorescu, & Hertwig, 2019). Economic studies on dishonesty often ignore the role of mental processes. However, investigating the role of baseline beliefs such as those related to Attitudes might help explain differences in honesty amongst participants.

9.2.3 Norms

This thesis also investigated the role of perceived norms in job candidates' decision to misinform their job applications. In this thesis, the conceptualisation of Social Norms relates to job candidates' perceived frequency of dishonesty among other job candidates. Hypothesis (H_4) stated that perceived consensus of job application dishonesty is negatively related to the reported frequency of job application dishonesty. The results of the two

studies in this thesis indicate that norms accounted for the unique variance of lies and embellishments beyond and above the other dependent variables in the model.

Therefore, in addition to aligning their decision to behave dishonestly to their evaluation of these behaviours, job candidates evaluate the social context in which the behaviours occur and make decisions based on these social evaluations. Humans are social creatures who have a need to conform to the behaviours (Asch, 1956) and beliefs of others (Isenberg, 1986). The cognitive mechanisms underlying social influence are similar to that of Attitudes since people acquire an overall perception of how others behave through experience. For example, people adapt their behaviours through observing the behaviours of others (Rivis & Sheeran, 2003).

People align their behaviours to that of their social observations, even if their interpretations of these behaviours are incorrect (Ross, Greene, & House, 1977). Furthermore, people have beliefs about the social norm even if they have never observed the behaviour. In such cases, individuals display a false consensus of the best course of action from what they have done in the past or their intentions to behave in a certain way. Therefore, they will form a belief about the attitudes and behaviours of others based on their own behaviour, even if, in reality, others do not behave in that manner (Mullen, et al., 1985; Klein, et al., 2018).

The two studies also show that, although norms predict both job application lies and embellishments, the correlations with embellishments are much higher than lies. When judging the frequency with which others embellish their job applications, participants might also be recollecting their own behaviours. It is reasonable to argue that job

candidates have had few experiences with the dishonesty of others; therefore, the correlations between norms and embellishments might be substantial due to false consensus and representativeness heuristics.

For example, according to the representativeness heuristic hypothesis, people tend to search their memory for similar events before making judgements about the likelihood of a particular event (Tversky & Kahneman, 1978). Tables 7.11 in Study One and table 8.8 in Study Two show that the reported frequency of different forms of embellishments is homogeneous while the reported frequency of lies is more heterogeneous. That is, people who embellish an item of their job application are more likely to embellish other items. At the same time, there is more variation on which items job candidates decide to lie.

When attempting to recall instances of others lying or embellishing, the participants most likely will fail to come up with observed examples of the dishonesty of others. That is, since job application dishonesty is socially prescribed, people will be less likely to expose their behaviours to others. However, individuals should be aware of their own dishonesty frequency. Since they embellish more often and in a more homogenous way across items than lying, the memory of the frequency of their own behaviours may add consistency between what they think others do and what they report doing. Therefore, representativeness heuristics might help explain why correlations between norm perceptions and reported embellishments were higher than correlations between norm perceptions and reported lies.

9.2.4 Risk

Risk is the final variable in the predictive model. Hypothesis (H_5) stated that the perceived risk of job application dishonesty is negatively related to the reported frequency of job application dishonesty. The results of study one indicated that risk did not account for unique variance of lies and embellishments. In Study Two, the measure of Risk correlated with reported lies and embellishments. However, in the multiple regression analyses in study two, the measure Risk only predicted lies beyond and above the other variables in the analysis. It did not predict embellishments.

The reason for this lack of relationship between risk and job application dishonesty in study one might have been related to issues of conceptualisation of risk. In study one, the stem statement for the measure of risk asks participants to report on how often they think managers do further checks on the information provided by candidates on their job applications. Therefore, there was the possibility that the working of the stem question, which refers to the behaviour of managers, did not correspond to the participants' risk perceptions of job application dishonesty.

The measure of risk in Study Two had a different operationalisation than Study One. The stem question directed participants to think about the risk of the behaviour and report on the probability of detection of each behaviour. Translating concepts into operationalisations does not mean that the operations perfectly represent the concepts; instead, such transformations only make concepts manageable. What connects the concept to an operation is the theoretical is the theory (Shmueli, 2010). However, if the theoretical knowledge behind the operationalisation is wrong, the results are likely to be wrong.

Therefore, the operationalisation of risk in study two contained a format that more closely resembles the concept of risk made the correlations between the measure of risk and job application dishonesty visible. Consequently, the measure of risk in study two correlated negatively with both lies and embellishments.

However, in the multiple regression analyses, the measure Risk only predicted job application lies beyond and above the other variables in the analyses. The reasons why Risk was not predictive of job application embellishments might be due to representativeness and availability heuristics. According to the representativeness heuristic hypothesis, people tend to search for known similar events before making judgements about the likelihood of a particular event. In contrast, the availability heuristic hypothesis states examples from memory people which they have easier access influences the evaluation of a particular course of action (Tversky & Kahneman, 1978).

First, since job application lies are more serious transgression than job application embellishments, more participants likely have more experiences having their lies detected during selection processes than their embellishments. Therefore, their perceptions of risk for those detected behaviours might be stronger since their mental search for similar instances of detection is more accurate for lies than for embellishments. Second, job application embellishments are less risky and bring milder consequences than job application lies. Therefore, it might be easier to evaluate the risk of lies than embellishments since lies might bring a more vivid image to mind.

However, since participants might have limited experience with the detection of embellishments, they might judge the perception of risk based on their beliefs about the

frequency with which other job candidates embellish their job applications. For example, although Risk and Norms correlated with embellishments, the multiple regression analysis predicting embellishments (Table 8.14) shows that Norms ($\beta = .482$, $p < .001$) accounted for considerable variance while the influence of Risk was close to zero. When social situations are uncertain, people often search for social proof before taking a particular course of action (Cialdini & Goldstein, 2004). Therefore, it is possible that perceptions of social proof mediate perceptions of risk of job application embellishments. Embellishments are discussed further in the discussion of the national differences in dishonesty.

Dishonest behaviours are intrinsically risky behaviours. They are socially proscribed behaviours with social consequences. Consequently, the strategy people use to achieve their dishonest goals contains deceptive and covert tactics. The literature on dishonesty studies indicates that people make risk judgments before behaving dishonestly (Hollinger & Clark, 1983; Nagin & Pogarsky, 2003; Thielmann & Hilbig, 2018). These differences in the risk perception and the influence in risk perception on dishonest behaviours contrasts with the normative approach of the Rational Choice Theory, which states that individuals have similar perceptions of risk and should reach the same conclusion after deliberation over whether they will behave dishonestly (Becker G. , 1993). On the contrary, people have different beliefs and knowledge about frequencies and logical possibilities and differ in their probability judgements (Baron, 2008, p. 109).

9.2.5 Behavioural Consistency

Studies one and two included the hypothesis that job application embellishments are positively related to job application lies. The results of both studies indicate that embellishments accounted for the unique variance of lies and increases confidence in the ability of a measure of embellishments to predict lies. The results were similar despite the differences in the number of items that composed the measures of embellishments in the two studies. In Study One, the measure of Embellishments had three items, while in Study Two, it contained eight items and the correlations with Lies were $r = 31$ and $r = 38$, respectively.

Although Embellishments is a mild form of dishonesty, in comparison to Lies, the results of the studies in this thesis indicate that the dishonesty of individuals in one behavioural domain spills over to other domains. In other words, individuals who embellish their job applications are more likely also to include lies. These results are important for theoretical but also for practical reasons. First, if dishonesty is a broad construct influencing different dishonest behaviours to a similar extent, participants should display consistency in their job application embellishments and lies. Since that is the case in the results of both studies, the correlation between Lies and Embellishments indicates the existence of such broad and latent personality trait related to honesty.

The second practical implication relates to the limited capacity of self-report measures to capture real behaviours. Participants of dishonesty studies often refrain from reporting the full extent of their dishonesty (Peer, Acquisti, & Shalvi, 2014). Therefore, it is possible

that self-report investigations on job candidates' extent of job application lie during the selection process might not be fruitful. However, job candidates are more likely to report on their embellishments accurately since they see embellishments as less serious transgressions than job application lies. Similarly, job candidates might be willing to report accurately on their beliefs about job application lies. Since embellishments and lies correlate positively, collecting information on job application embellishments and job application attitudes toward lies might help organisations flag job applications for further scrutiny regarding their informational accuracy.

A question remains on why measures of personality traits theoretically linked to dishonesty do not explain variance in job application lies beyond job application embellishments. That is the case, for example, of the predictive power of the measure of Honesty-humility, which only partially predicts Lies. Some factors that influence responses in self-reports might relate to participants' limitations, including issues related to social desirability, limited self-knowledge, limited memory and tendencies to present biased patterns of responses.

However, an important factor that might influence the relationship between Honesty-humility and behaviours relates to the design of the measure. Conceptually, the items of the Honesty-humility measure relate only indirectly to dishonest behaviours. Instead, the items refer to instances of sincerity, fairness, greed avoidance, and modesty, which correlate with dishonest behaviours. If the measure contained items that were direct descriptions of dishonest behaviours, its relationship with specific dishonest behaviours would be tautological. Therefore, the design of the Honesty-humility measure avoids using a circular

logic in its selection of items but loses fidelity with the behaviours it is trying to measure through the inclusion of effect indicators that only indirectly relate to dishonest behaviours.

Furthermore, as the studies in this thesis indicate, the decision to lie on a job application also depends on participants' beliefs related to each dishonest behaviour. Therefore, while personality traits might capture broad tendencies to behave in a particular manner, the decision of lying on a job application might also depend on specific beliefs about each specific behaviour. Although Honesty-humility correlates with different domain-specific beliefs exemplified through the measures of Attitudes, Norms and Risk, each works independently in predicting job application lies. For example, a job candidate might have an overall tendency to behave dishonestly but at the same time believe that lying on a job application is too serious, that others do not behave in this particular way, and that the behaviour is too risky; therefore, refraining from performing this dishonesty act, but not others.

9.2.6 Unethical Consistency

Study Two included the hypothesis that job application lies are positively related to two forms of counterproductive work behaviours, namely, CWB-Person and CWB-Organisation. Both studies indicate that Lies accounted for the unique variance of the two forms of counterproductive work behaviours mentioned above and beyond the control variables..

According to Spector et al. (2006), counterproductive work behaviours are volitional behaviours, harm or intend to harm organizations. Counterproductive work behaviours

often include abuse toward others, production deviance, and withdrawal, but measures also include dishonest behaviours such as sabotage, theft. Counterproductive work behaviours also include acts that violate norms for appropriate behaviours (Robinson & Bennett, 1995). CWB-Person refers to abusive behaviours towards others in the workplace, and the measure includes items related to mistreating others either physically or verbally. CWB-Organisation refers to different forms of deviant work behaviours, including purposely performing the job incorrectly (i.e., Production Deviance), not working the hours an employee should be working (i.e., Withdrawal), purposely damaging or defacing company property or reputation (i.e., Sabotage), and taking the employer's property without permission (i.e., Theft). Therefore, CWB-Organisation includes deviant behaviours related to performance and ethicality.

Henle, Dineen, and Duffy (2019) examined the relationship between job application dishonesty and counterproductive work behaviours and found positive relationships between the two measures. However, the studies did not control for variables that might confound the relationships such as age, gender and personality traits linked to dishonesty. Study Two in this thesis provides further evidence that job application lies have a unique role in predicting counterproductive work behaviours.

From a theoretical standpoint, the analyses in Study Two concerning the relationship between Lies and counterproductive work behaviours indicate that the level of dishonesty of job candidates predicts other forms of unethical behaviours which are not exclusively within a dishonesty dimension. For example, counterproductive work behaviour measures contain, in addition, dishonesty, items related to aggression, sabotage and production

deviance. Therefore, an honesty trait may be part of a broader strategy of behaviours in which individuals low in this trait are more likely to breach a broad range of social contracts than those related to cooperation and competition.

The analyses in Study Two are important from a practical perspective since their results indicate those job candidates who lie on their job applications are likely to behave unethically in other areas of organisational life, which might influence organisational functioning.

9.2.7 National Differences in Dishonesty

Study One examined differences in job application dishonesty between two countries (i.e., Brazil and the UK) with different levels of perceived national corruption and individualism/collectivism. The study contained the prediction that participants from Brazil would report higher frequencies of job application lies and embellishments than participants from the UK. However, the results show no significant differences in reported Lies. Furthermore, participants from the UK reported significantly higher frequencies of embellishments than participants from Brazil.

Research on cultural differences between countries indicates that Brazil ranks lower in individualism and have a higher rating of perceived national corruption than in the UK. The results were counterintuitive since participants from more collectivist countries have the propensity to conform to the behaviours of similar others. However, the null results in relation to national differences in reported lies align with cross-cultural experimental

dishonesty studies, which often find that participants from different countries display similar levels of dishonesty (Gerlach, Teodorescu, & Hertwig, 2019).

This thesis proposes a behaviour model with domain-specific psychological mechanisms such as attitudes, perceived social proof, and perceived risk. Table 8.15 shows no significant correlations between nations, with Brazil dummy code = 1, and the UK = 2, and job application lies and the domain-specific factors in the model. One of the main arguments of this thesis is that domain-specific factors predict job application lies. Since there are no significant differences in domain-specific factors across the two nations, the conclusion that there are no differences in reported job application lies follows logically.

The counter-intuitive result that participants from the UK report a higher frequency of job application embellishments than Brazilian participants is explainable using the same argument. Table 8.15 shows that compared to Brazilians, participants from the UK report significantly less evaluation of behaviour seriousness, more social proof and less risk perception of job application embellishments. Therefore, according to the model in this thesis, they should also report more job application embellishments.

However, it is intriguing that this configuration exists since Brazil scores higher in its overall corruption perception. Evaluations of the seriousness of behaviour through interactions with the behaviour. A similar process occurs with the formation of perceptions of social proof. Although people form a false consensus from the frequency of their own behaviours, they also form true social proof by observing others behave similarly. In turn, risk perceptions refer to the subjective probability assessments or expectancy that a negative outcome will result from the behaviour.

It is arguably easier to attain qualifications in the UK, a developed country with many opportunities for personal development, compared to Brazil, a developing country with many deficits in its educational system. Since many candidates in the UK are qualified for the positions for which they apply, there may be pressure for candidates to differentiate themselves from equally qualified candidates. Hence the culture of "marketing oneself" to employers.

Alternatively, in a country with a lack of qualified employees, those who attain the right credentials might not be under the same pressure to present secondary characteristics to hiring organisations. Therefore, presenting oneself in a better light through the use of embellishments might indeed be a less serious offence in the UK than in Brazil. Consequently, more candidates embellish their job applications without the risk of retaliation.

9.2.8 Summary Evaluation of the dishonesty predictive model

In light of the findings from the literature review on dishonesty behaviours, this thesis proposed a predictive model of job application dishonesty, which contains individual differences in personality traits and social-cognitive elements that refer to beliefs and evaluation of the particular behaviours. Despite some modifications as the research evolved during the development of this thesis, the model overall is an adequate tool to predict reported job application lies and embellishments.

First, the model predicted that the traits Conscientiousness and Honesty-humility predicted job application lies and embellishments. In Study One, Conscientiousness was a significant

predictor of job application lies and embellishments beyond the other variables in the model. Study Two had the addition of the personality trait Honesty-humility. Both traits correlated with job application dishonesty; however, only the Honesty-humility provided unique variance above and beyond the other variables in the model. Therefore, characteristics of individuals relating to their tendencies to subscribe to social contracts appear to have more prevalence in predicting job application dishonesty than characteristics related to task morality.

The domain-specific factors relate to the perceived seriousness of job application dishonesty, and the social proof of dishonesty predicted both job application lies and embellishments in both studies. However, the measure of perceived risk did not correlate with job application lies and embellishments in Study One. The lack of association was due to poor conceptualisation and operationalisation of the measure. After including a modification of the measure to a format that better represented the concept of risk took place in Study Two, the measure of risk perception correlated negatively with job application lies and embellishments. However, after introducing control measures, the measure of risk perception only retained significance when predicting job application lies.

Overall, the study results in this thesis indicate that Honesty-humility meaningfully accounts for variations in participants' honesty-dishonesty. However, this broad disposition or tendency to behave ethically or unethically only accounts for a limited proportion of variance in job application dishonesty. Individuals also appear to make behavioural evaluations which influences their decision to lie and embellish their job applications. Therefore, the alignment of moral dispositions with beliefs regarding the

appropriateness of being dishonest when producing a job application strongly predicts whether job candidates will present false information in the form of lies and embellishments during the selection process.

9.3 Limitations

The preceding chapters put forward many of the limitations of the studies in this thesis. Therefore, this section contains a recapitulation of these limitations with some added comments related to the overall research design of the studies, the conceptualisation and operationalisation of measures, data collection tools, and participant behaviour.

First, the research design for the studies in this thesis is correlational. In correlational studies, researchers assign different variable values to scales and investigate their associations without the use of manipulations (Mark & Reichardt, 2009). This choice of research design often occurs in the Social Sciences when the research requires examining variables that are not easily manipulated (Kirk, 2009). Consequently, an important limitation of correlational studies is that they cannot establish causation, only relationships between variables.

Nevertheless, correlational studies can contribute to knowledge creation and hypothesis testing. For example, the movement of a clock gives some confidence that the concept of time represents something that exists in the world. However, scientists cannot directly observe or manipulate time. Similarly, this thesis's model of behaviour contains theoretical elements that represent functional regularities in human behaviours. Previous research has tested these constructs in different contexts with relative success, and although the studies

in this thesis do not contain manipulations of these variables, the resulted associations increase the confidence that the theoretical model represents latent mental mechanisms within the human mind.

Therefore, researchers in the Social Sciences justify performing correlational studies to explore their theoretical predictions using theoretical models (Azen & Budescu, 2003; Shmueli, 2010). However, the extent to which theories relate to the facts they are supposed to represent is limited. For instance, scientists use models which are selective and simplified descriptions of objects and events in the world (Bailer-Jones, 2002, p. 134). They work through analogies and abstractions to help describe and interpret phenomena (Bailer-Jones, 2002, p. 108). Consequently, theoretical models are only an approximation of the true state of the world. Scientific models are represented through scientific discourse, which contains concepts that might have meanings in everyday speech or even between scientific subdisciplines (Kampourakis, 2018).

The way scientists describe entities in the world is crucial to uncovering the systematic nature of the world (Bem & de Jong, 1997, p. 07). Scientists abstract and organise the world with the aid of conceptualisations and operationalisations (Margolis & Laurence, 2014). While theoretical abstractions allow scientists to successfully achieve their aims of understanding the world (Chomsky, 2008, p. 240)**,** the conceptualisations that compose scientific theories are not identical to the phenomena described (Worrall, 2002, p. 32). Therefore, there is always the risk that the flexibility of conceptual definitions might influence research (Ioannidis, 2005).

Furthermore, concepts contain descriptions of facts and events in the world that go beyond what is observed (Ladyman, 2002, p. 7)**.** Consequently, the inclusion of Chapters 4 and 5 is an attempt to bring a series of implicit theories from Philosophy of Science and Research Methodology, respectively, which should help make the observations in this thesis intelligible, beyond their description behavioural model. While Chapter 4 covers the limits of understanding, how the concepts relate to each other, and the logic behind the interpretation of findings relevant to this thesis, Chapter 5 contains a description and justification of the methods included in the studies. Both chapters also present number of limitations related to the studies in this thesis and how such limitations can be overcome.

First, this thesis examines psychological mechanisms such as personality traits and attitudes which are not physical entities. Instead, they relate to latent constructs such as people's thoughts, feelings which psychologists infer externally, through verbal and non-verbal behaviours, as well as the context in which these behaviours occur (Ajzen, 2005, p. 02). Chapter 4 presents the idea that acceptance of what is real related to psychological constructs depends on the accumulation of scientific knowledge related to the characteristics construct. For example, the interpretation of how constructs relate to each other depends on the theoretical position of the researcher (White P. A., 1990). Therefore, scientific endeavours within the Social Sciences may inevitably contain a degree of subjectivity, despite some researchers' effort for objectivity. However, subjectivity is not a unique issue of the Social Sciences. Physicists find it difficult to provide an objective description of some fundamental physical phenomena, such as gravity, space, and time, despite accurately measuring such phenomena.

Chapter 5 presents many methodological issues related to operationalising concepts that might influence the results and ways to mitigate such problems. For example, the studies in this thesis contain customised questionnaires and questionnaires designed by other investigators. The purpose of these questionnaires is the measurement of psychological constructs. However, achieving validity is challenging since mental constructs are unobservable compared to concepts in the hard sciences.

One important methodological issue in Psychology is that researchers often do not agree on how they should measure psychological constructs (Smith, 2005). For example, Social Psychologists attempt to study the effects of the situation on behaviours, but the concept of situation is ambiguous (Rauthmann, Sherman, & Funder, 2015).-While some researchers define the situation as objective affordances and constraints in the environment, others take an information processing approach in which the situation results from inductive and deductive assessments of the individual in relation to external events (Miller, 2008). Consequently, if a concept varies in its definition, there will also be differences in what Psychologists measure since operationalisations are the expression of concepts into a format that allows its measurement (Bogen, 2017)**.**

Therefore, there is the possibility of definitional disagreement of at least two measures in the model. For example, researchers might disagree whether the variable Norms, which refers to beliefs about social proof that dishonesty is prevalent and Risk, which refers to the beliefs of the degree to which behaving dishonesty is detectable by the hiring organisation, are dependent on an internal assessment of the situation or is exclusively a product of objective affordances and constraints in the environment. Although these variables

correlated with job application dishonesty, it is challenging to know the extent to which they refer to objective evaluations of situational affordances.

Some dishonesty experiments contain manipulations referring to observable dishonesty of others and observable risk of being caught, while correlational studies that measure norms and risk will have questionnaires measuring the participants' subjective beliefs. It is an open question whether the different locus of the concept yields different results in people's tendencies to behave dishonestly. Perhaps using both experimental manipulations and self-report measures of these situational factors in a study might help disentangle the influence of these different modes of measurements. However, since the studies in this thesis are correlational, only applying the self-report format is possible.

A similar definitional issue arises with the concept of Attitudes. Attitudes are internal dispositions to process information about the world. More specifically, Attitudes refer to favourable or unfavourable evaluations of objects and behaviours. Consequently, it is implicit in this definition that Attitudes are internal mental mechanisms. Furthermore, attitudes also refer to the states or outcomes that the hypothesised mechanism produces. Therefore, the behavioural evaluations that form an attitude contain mental processes related to beliefs on the results, or consequences, of specific behaviour and the assessment of these results (Ajzen & Madden, 1986).

Researchers hypothesise that these evaluative states form from the interaction between the evaluative capacity of the mechanism and the characteristics of external objects and behaviours. In turn, these evaluations influence decision-making and behaviours related to these external entities. That being said, dishonesty experiments can contain perceptual

manipulations of objects, which influence participants' decisions to behave dishonestly, without invoking or measuring Attitudes.

For example, in a study of lie aversion (Hilbig & Hessler, 2013), participants can lie on the outcomes of a die-cast for a reward. The rewards are constant independent of the number cast; however, participants are more likely to lie if the number cast is closer to 1 than if it is closer to 6. It is implicit in the study that participants differ in their evaluations of the seriousness of the dishonesty dependent on their interaction with the die-cast; however, the study focus on the features of the behaviour, such as the salience of the perceptual "size" of the dishonest reward and there are no measurements related to changes in attitudes concerning the dishonesty.

Furthermore, the conceptualisation of Attitudes and their hypothesised influence on dishonest behaviours closely resemble that of perception of social proof and perceptions of risk. For example, researchers hypothesise that Attitudes form through the consequences or outcomes or interactions with attitudinal objects and behaviours. If experiences with objects and behaviours are positive, their subsequent attitudinal evaluations should be positive. Alternatively, negative attitudinal evaluations will form from negative interactions with the same objects and behaviours. First, perceptions of social proof form from observing the behaviour of others and its outcomes and consequences. In turn, perceived outcomes link theoretically to perceptions of risk, which refers to the personal probability that a course of action will have an undesirable result. Since both perceptions of social proof and risk link theoretically to behavioural outcome beliefs, it is plausible that

they constitute different dimensions of the latent attitudinal mechanism that influences behaviours.

This thesis's model of dishonest behaviours contains the hypothesis that attitudes, perceived social proof, and perceived risk concerning dishonest behaviours are separate psychological mechanisms. The evidence that they are separate constructs comes from the results of exploratory and confirmatory factor analyses in the two studies in this thesis since the different measures load separately into unique factors. Therefore, the results indicate that the operationalisation of the measures in the model indicates they are separate constructs.

Furthermore, the correlations between the measures are low when they refer to job application lies (see Table 8.10). However, the measures show a moderate to a high degree of intercorrelations when referring to job application embellishments. What might explain these differences in intercorrelations between the predictive measures is how individuals have experiences with job application lies and embellishments.

As already mentioned, Attitudes form through the consequences or outcomes or interactions with attitudinal objects and behaviours. Therefore, experiences with attitudinal objects might also influence the strength of attitude-behaviour relationships. Since participants report a higher frequency of embellishments than lies, it is plausible that beliefs about embellishing job applications have a higher degree of cognitive availability than beliefs about lies.

Moreover, the reported frequencies of embellishments are more homogeneous than the reported frequencies of embellishments (see Table 8.7). Therefore, individuals who

embellish a particular section of their job applications are likely to embellish in other areas to a similar degree. In contrast, individuals who lie about a particular credential might not lie about other credentials to the same degree, or they might not lie at all. The lack of invariance of responses regarding items referring to lies might diminish intercorrelations between the predictive measures since the participants might be presenting beliefs about specific behaviours that they have not experienced directly.

Still, the question remains on whether the domain-specific measures within the model represent unique individual constructs or whether they are components of a higher-level attitudinal factor. Furthermore, the studies in this thesis cannot establish whether hypothesised causal direction between the domain-specific predictors and criterion variables are correct. For example, the model states that the domain-specific constructs influence the decision to behave dishonestly on job applications; however, it could be the case that behaving dishonestly influences participants' evaluations of the behaviours. Since the studies in this thesis contain a cross-sectional and retrospective design, it is impossible to establish such influences' direction.

Alternatively, a longitudinal design would have been more appropriate to test whether the domain-specific measures in the model are components of a higher-level attitudinal factor and the causal direction between these variables and dishonest behaviours. First, the study would investigate at the first point in time whether the domain-specific factors in the model predict intentions to behave. Then at s second point in time, the study would compare the predictive power in relation to job application dishonesty of a model containing only the domain-specific variables with another containing the additional measure of intentions.

Future research could attempt to experimentally manipulate participants' beliefs to examine their effects on participants' future job application dishonesty. However, such a study would raise ethical issues since job application dishonesty might have legal consequences to the participants.

The final limitation presented in this section relates to the degree of accuracy of the measures of reported job application lies and embellishments. First, the measures do not quantify observable behaviours; instead, they reflect participants recollections of their past behaviours. Consequently, they depend on the capacity of participants to recall the true extent to which they behave dishonestly. Section 5.3.1 from Chapter 5 deals with the first issue related to the cognitive capacity of participants. The section leads to the conclusion that self-reports are often accurate enough for the testing of theoretical hypotheses.

Second, even if participants are able to recall their behaviours, the validity of the measurements depend on the participants' willingness to report accurately on their dishonesty. There is always the possibility that participants refrain from reporting the true extent of their dishonesty since such reporting might conflict with socially desirable standards of conduct. In the case of job application dishonesty, an alternative would be to measure discrepancies directly through the investigation of real job applications. However, such a procedure would be prohibitive as it would require resources not available to the researcher.

Furthermore, in Peer et al.'s (2014) dishonesty study, although a considerable proportion of confessions were lower than participants' actual cheating, most dishonest participants openly reported cheating when asked about their level of transgression after a cheating

experiment was over. Therefore, taking the results of Peer et al.'s (2014) study into consideration, even if participants were unwilling to reveal the full extent of their dishonesty in the studies contained in this thesis, it might seem unplausible to conclude that their confessions are completely inaccurate.

9.4 Future Research

Understanding job application dishonesty is important to organisational psychology theory and practice, and therefore, the lack of studies on this topic open opportunities for different lines of future research. This section explores research propositions that expand on the theoretical model presented in this thesis, in addition to those related to the potential influence of job application dishonesty on organisational functioning.

The studies in this thesis use a cross-sectional and retrospective design to investigate factors that influence job application dishonesty. Since the studies in this thesis contain a cross-sectional and retrospective design, it is impossible to establish the directional influence of the variables in this thesis' behavioural model and job application dishonesty.

Alternatively, a future study could use a longitudinal design to investigate whether the model predicts future job application dishonesty. The study could ask prospective job candidates to complete the measures on personality and social cognitive factors at a point in time before they apply for a job (e.g., one month before). Then, at the second point in time, after candidates applied for jobs, they would complete a section on the extent of their job application dishonest. The study would help rule out the influence of their behaviour on their answers related to the behaviour model.

Furthermore, the studies in this thesis rely on self-report. Since some participants might be reluctant to disclose the true extent of their dishonesty, a future study could investigate with the proper resources whether the variables in the model correlate with measures of verified job application discrepancies. Despite the procedural difficulties in verifying the content of job applications, institutions such as the Risk Advisory Group conduct such procedures. The study would be feasible if the researcher could establish a partnership with such organisations.

Although job application dishonesty occurs before job candidates become part of an organisation, this form of transgression shares similarities with counterproductive work behaviour. Therefore, researchers could apply the model to predict this form of workplace deviance. Furthermore, the model might also apply to other forms of dishonesty behaviours, including those that occur in the workplace, such as larceny and fraud.

Arguably, candidates are dishonest because they aim to get a job or increase the chances a candidate will receive an invitation for an interview. Therefore, future research could investigate whether the attempt to be dishonest has the desired outcome. In other words, future research could investigate whether candidates who lie on their job applications have beliefs that dishonesty will increase their chances of attaining their goals. Moreover, the study could also examine whether dishonest job applicants are more likely to receive an invitation for an interview and be hired.

From a rational choice point of view, candidates who have fewer qualifications should be more likely to be dishonest in their job applications since they might receive a higher payoff in the form of a job position for being dishonest. Future research could investigate

differences in credentials between dishonest and honest candidates. Since it is plausible that dishonest candidates are less capable of fulfilling job descriptions, the study could also investigate whether dishonest job candidates display different levels of performance when compared to honest candidates.

9.5 Contribution to Knowledge

The contribution to knowledge of this thesis is manifold. The contribution of this thesis has theoretical implications to the field of Organisational Psychology, as well as practical implications to practitioners involved in employee selection processes. First, it synthesised the knowledge of previous research in dishonest behaviours to develop a model of dishonest behaviour that successfully predicts job application dishonesty. The model demonstrates that a general disposition to behave honestly or dishonestly, in addition to domain-specific beliefs, influence the decision to lie and embellish in job applications. Second, the thesis shows that job application dishonesty relates to other forms of unethical behaviours, in the form of counterproductive work behaviours, which might influence the functioning of organisations. People might display a general behavioural strategy in which they behave with relative consistency across situational contexts. Therefore, the combination of general and specific factors explains why people who are consistently dishonest individuals across situations might behave honestly in very specific contexts.

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522

Appendix A – CV Dishonesty Questionnaire

Attitudes

The questions below are related to CV/Résumé writing.

Please use the scale below to state How Serious you think the behaviours are:

Not Serious	Somewhat Serious	Moderately Serious	Serious	Very Serious
1	2	3	4	5

(Please choose the appropriate answer for each scenario)

1. The candidate added company names which he/she has not worked for.

2. The candidate added job positions that he/she has not previously had.

3. The candidate added previous responsibilities he/she has not previously had.

4. The candidate added education that he/she does not have.

5. The candidate added skills that he/she did not possess.

6. The candidate added training that he/she does not have.

7. The candidate changed dates of employment to fill an employment gap.

8. The candidate concealed personal details in order to fit a job description

9.. The candidate has given made-up references.

10. The candidate has described previous jobs held in a way that makes the jobs seem more impressive.

11. The candidate described previous responsibilities in a way that makes them seem more impressive.

12. The candidate has written a personal statement that makes him/her seem more impressive.

Norms

The questions below are related to CV/Résumé writing.
Please use the scale below to state How Often you think candidates behave in the following ways:

Never	Rarely	Sometimes	Often	Always
1	2	3	4	5

(Please choose the appropriate answer for each scenario)

13. Adding company names the candidate has not worked for.

14. Adding job positions that the candidate has not previously had.

15. Adding previous responsibilities the candidate has not previously had.

16. Adding education that a candidate does not have.

17. Adding skills that the candidate does not possess.

18. Adding training that the candidate does not have.

19. Changing the dates of employment to fill an employment gap.

20. Concealing personal details in order to fit a job description.

21. Giving made-up references

22. Describing previous jobs held in a way that makes the jobs seem more impressive.

23. Describing previous responsibilities in a way that makes the candidate seem more impressive.

24. Writing a personal statement that makes the candidate seem more impressive.

Risk

The questions below are related to Managers verifying candidates' CV/Résumé writing.

Please use the scale below to state to state How Often you think Managers do further checks on the information provided by candidates on their CVs.

Not Serious	Somewhat Serious	Moderately Serious	Serious	Very Serious
1	2	3	4	5

(Please choose the appropriate answer for each scenario)

25. Adding company names a candidate has not worked for.

26. Adding a job position that the candidate has not previously had.

27. Adding previous responsibilities a candidate has not previously had.

28. Adding education that the candidate does not have.

29. Adding training that the candidate does not have.

30. Adding skills that the candidate does not possess.

31. Candidates changing the dates of employment to fill an employment gap.

32. Concealing personal details in order to fit a job description.

33. Giving made-up references.

34. Describing previous jobs held in a way that makes the candidate seem more impressive.

35. Describing previous responsibilities in a way that makes the candidate seem more impressive.

36. Writing a personal statement that makes the candidate seem more impressive.

Reported CV Dishonesty

The questions below are related to YOUR OWN CV/Résumé writing.

Please use the scale below to state how often YOU have behaved in the following ways:

Never	Rarely	Sometimes	Often	Always
1	2	3	4	5

(Please choose the appropriate answer for each scenario)

37. Added company names you have not worked for.

38. Added job positions that you have not previously had.

39. Added previous responsibilities you have not previously had.

40. Added education that you do not have.

41. Added training that you do not have.

42. Added skills that you do not possess.

43. Changed the dates of employment to fill an employment gap.

44. Concealed personal details in order to fit a job description.

45. Given made-up references.

46. Described previous jobs held in a way that makes you seem more impressive.

47. Described previous responsibilities in a way that makes you seem more impressive.

48. Written a personal statement that makes you seem more impressive.

Appendix B – Job Application Dishonesty Questionnaire

Attitudes

Below you will read examples related to job candidates completing a job application forms and/or CV/Resume.

Please read the examples below and, using the scale provided, state your opinion on

HOW SERIOUS you think each behaviour is:

Not Serious	Somewhat Serious	Moderately Serious	Serious	Very Serious
1	2	3	4	5

(Please choose the appropriate answer for each scenario)

1. changing the start/finish dates of employment in order to fill an employment gap.

2. adding job positions that they did not have.

3. adding previous job responsibilities that they did not have.

4. adding work achievements (e.g., results, targets, etc.) that they did not have.

5. adding education (qualification, institution attended, etc.) that they did not have?

6. adding educational achievements (e.g., grades, honours, awards, etc.) that they did not have.

7. adding skills that they do not have.

8. adding training that they do not have.

9. adding incorrect personal information to fit a job specification.

10. adding a fictitious letter of recommendation to the job application.

11. adding fictitious referee names.

12. describing previous job positions in a way that made them look more impressive.

13. describing previous job responsibilities in a way that made them look more impressive.

14. describing work achievements (e.g., results, targets, etc.) in a way that made them look more impressive.

15. describing education (e.g., qualification, institution attended, etc.) in a way that made it look more impressive.

16. describing educational achievements (e.g., honours, awards, grades, etc.) in a way that made them look more impressive.

17. describing skills in a way that made them look more impressive?

18. describing previous training in a way that made it look more impressive.

19. presenting personal information in a way that made it look more impressive?

Norms

Below you will read examples related to completing a job application forms and/or CV/Resume. Please read the examples below and, using the scale provided, state your opinion on HOW OFTEN you think job candidates behave this way:

Never	Rarely	Sometimes	Often	Always
1	2	3	4	5

(Please choose the appropriate answer for each scenario)

1. changing the start/finish dates of employment in order to fill an employment gap.

2. adding job positions that they did not have.

3. adding previous job responsibilities that they did not have.

4. adding work achievements (e.g., results, targets, etc.) that they did not have.

5. adding education (qualification, institution attended, etc.) that they did not have?

6. adding educational achievements (e.g., grades, honours, awards, etc.) that they did not have.

7. adding skills that they do not have.

8. adding training that they do not have.

9. adding incorrect personal information to fit a job specification.

10. adding a fictitious letter of recommendation to the job application.

11. adding fictitious referee names.

12. describing previous job positions in a way that made them look more impressive.

13. describing previous job responsibilities in a way that made them look more impressive.

14. describing work achievements (e.g., results, targets, etc.) in a way that made them look more impressive.

15. describing education (e.g., qualification, institution attended, etc.) in a way that made it look more impressive.

16. describing educational achievements (e.g., honours, awards, grades, etc.) in a way that made them look more impressive.

17. describing skills in a way that made them look more impressive?

18. describing previous training in a way that made it look more impressive.

19. presenting personal information in a way that made it look more impressive?

Risk

Below you will read examples related to completing a job application and/or CV/Resume.

The main question relates to your opinion on the likelihood that each behaviour might be detected during the selection process.

Please read the examples below and, using the scale provided, state your opinion on

the RISK OF DETECTION of each behaviour during the selection process:

0 % chance	25% chance	50% chance	75% chance	100% chance

(Please choose the appropriate answer for each scenario)

1. changing the start/finish dates of employment in order to fill an employment gap.

2. adding job positions that they did not have.

3. adding previous job responsibilities that they did not have.

4. adding work achievements (e.g., results, targets, etc.) that they did not have.

5. adding education (qualification, institution attended, etc.) that they did not have?

6. adding educational achievements (e.g., grades, honours, awards, etc.) that they did not have.

7. adding skills that they do not have.

8. adding training that they do not have.

9. adding incorrect personal information to fit a job specification.

10. adding a fictitious letter of recommendation to the job application.

11. adding fictitious referee names.

12. describing previous job positions in a way that made them look more impressive.

13. describing previous job responsibilities in a way that made them look more impressive.

14. describing work achievements (e.g., results, targets, etc.) in a way that made them look more impressive.

15. describing education (e.g., qualification, institution attended, etc.) in a way that made it look more impressive.

16. describing educational achievements (e.g., honours, awards, grades, etc.) in a way that made them look more impressive.

17. describing skills in a way that made them look more impressive?

18. describing previous training in a way that made it look more impressive.

19. presenting personal information in a way that made it look more impressive?

Reported Job Application Dishonesty

The questions below are related to **YOUR OWN** CV/Résumé writing.

Please use the scale provided to report on

How often YOU have behaved this way

Never	Rarely	Sometimes	Often	Always
1	2	3	4	5

(Please choose the appropriate answer for each scenario)

1. changed the start/finish dates of employment in order to fill an employment gap?

2. added job positions that you did not have?

3. added previous job responsibilities that you did not have?

4. added working achievements (e.g., results, targets, etc.) that you did not have?

5. added education (qualification, institution attended, etc.) that you do not have?

6. added educational achievements (e.g., grades, honours, awards, etc.) that you did not have?

7. added skills that you do not have?

8. added training that you did not have?

9. added incorrect personal information to fit a job specification?

10. added a fictitious letter of recommendation to your application?

11. added fictitious referee names?

12. described previous job positions in a way that made them look more impressive?

13. described previous job responsibilities in a way that made them look more impressive?

14. described work achievements (e.g., results, targets, etc.) in a way that made them look more impressive?

15. described education (e.g., qualification, institution attended, etc.) in a way that made it look more impressive?

16. described educational achievements (e.g., honours, awards, grades, etc.) in a way that made them look more impressive?

17. described skills in a way that made them look more impressive?

18. described previous training in a way that made it look more impressive?

19. presented personal information in a way that made it look more impressive?