School of Management Studies

Predicting Work-related Behaviour from Personality Traits and Situational Characteristics

Demi Wertheimer

WRTDEM002

Supervisor: Prof Francois de Kock

A dissertation submitted in partial fulfilment of the requirements for the award of the degree of Master of Commerce in Organisational Psychology

Faculty of Commerce

University of Cape Town

2022

COMPULSORY DECLARATION

This work has not been previously submitted in whole, or in part, for the award of any degree. It is my own work. Each significant contribution to, and quotation in, this dissertation from the work, or works, of other people has been attributed, and has been cited and referenced.

Signature: Signed by candidate Date: 27 January 2022

Acknowledgements

I would like to express my deepest appreciation to my supervisor, Professor Francois De Kock, for his ongoing guidance, support, and enthusiasm throughout the process. Your patience has been unwavering, your expertise invaluable, and your insightful feedback always drove me to sharpen my thinking.

Abstract

The dual influence of person characteristics and situational contexts on behaviour has long been debated on by personality and social psychologists alike. Traditionally, personality traits have been emphasised, whilst the assessment of situational influences has received limited attention. As a result, there has been little progress in understanding how situational contexts impact individuals' daily organisational behaviour – a key imperative of organisational psychology. This study leverages recent developments in situation assessment to investigate the extent to which personality traits and situational characteristics independently, and in combination, predict work-relevant behaviour. Survey response data from 256 South African participants within the International Situations Project (ISP; Baranski et al., 2017) were analysed. Sets of multiple regression analyses were conducted with each of seven work-related behaviours as criteria, using the Big Five personality traits and DIAMONDS situational characteristics as predictors. Next, barebones meta-analysis (Hunter & Schmidt, 1990) of the resulting multiple correlation coefficients was conducted to estimate the relative predictive power of traits vs. situations, averaged across target behaviours. The results revealed that the combination of personality traits and situational characteristics explained more variance in work-related behaviour than their independent effects. Although situational characteristics independently predicted all work-related behaviours, personality traits were not strong predictors of particular behaviours. These findings highlight the importance of integrating knowledge of *both* traits and situations to enhance our understanding of why people behave the way they do. Practically, results further suggest that organisations may increase the ability to predict employee behaviour on the job by incorporating measures of situations, in combination with traits, into human resource management applications (e.g., personnel selection and assessment).

Keywords: personality, Big Five, situations, situational characteristics, Riverside Situational Q-Sort (RSQ), DIAMONDS, behaviour, Brief Behaviour Inventory (BBI), South Africa

Table of Contents

List of Tables

List of Figures

List of Acronyms

AC	Assessment Centre
BBI	Brief Behaviour Inventory
BFI-2	Big Five Inventory-2
CAPS	Cognitive-Affective Personality System
CAQ	California Adult Q-Set
CFA	Confirmatory Factor Analysis
DIAMONDS	Duty, Intellect, Adversity, Mating, pOsitivity, Negativity, Deception, Sociality
EFA	Exploratory Factor Analysis
ISP	International Situations Project
IWPQ	Individual Work Performance Questionnaire
RBQ	Riverside Behavioural Q-sort
RSQ	Riverside Situational Q-sort
SJT	Situational Judgement Test
TAT	Trait Activation Theory

Chapter 1: Introduction

This chapter introduces the background to the current study, whilst identifying the deficiencies in the research that deserve attention. The research questions under investigation are presented, and the study's aim and objectives, outlined. Subsequently, insight into the practical and theoretical significance of the present research is provided. The chapter concludes with an outline of the remaining chapters.

Background

One of the fundamental and intriguing aims of psychology is the understanding and explanation of human behaviour (Allport, 1937) – why people do what they do. Lewin's (1951) famous equation, B = f(P, E), expressed behaviour (B) as a function of the person (P) *and* his or her environment (E). Accordingly, in order to understand why an individual behaves the way that they do, Lewin emphasised the need to account for both the person and the environment in which they find themselves.

The person (P) variable has later been understood in terms of dispositional constructs or traits - that is - stable personality characteristics that describe and affect individual behaviour across situations (e.g., trait extraversion) (Allport, 1966). For example, whether an individual is generally more outgoing or reserved is determined, in part, by some quality of that person. The environment variable (E) has later been understood in terms of situational characteristics that have an impact on behaviour (Funder, 2006). In this regard, something specific about the situation (e.g., whether a situation is pleasant or stressful) prompts a particular behaviour. For example, a situation where one is having lunch with close colleagues may be likely to trigger talkativeness, whereas a situation with tight deadlines for task completion may trigger concentration. The term 'situation', however, is often used vaguely or incongruously throughout literature. To simplify this, Rauthmann et al. (2015) proposed three types of situational information: cues (physical stimuli in an environment), characteristics (psychological meaning of perceived cues), and classes (groups of similar situation cues or characteristics). As advocated for by Rauthmann et al (2015), for the purposes of this study, situations will be understood as situational characteristics, since it is an individual's perception of their environment that drives behaviour.

These three elements of Lewin's equation form the "personality triad" of persons, situations, and behaviours, in which each component is understood with reference to the other two (Funder, 2006).

An analogy can be used to clarify how personality traits and situational characteristics may enhance our understanding of human behaviour. Consider the following scenario: Grace is hastily rushing to an urgent meeting with her manager. Along the way, her close colleague stops her in an emotional state, asking for some guidance. She promises that it will only take five minutes of Grace's time. Will Grace offer her help, of will she hurry on her way? Before answering such a question, many would want to know more about Grace. Is she renowned for her compassion and consideration, or is she known to be unsympathetic? Ultimately, what kind of individual is Grace and how has she behaved in similar situations in the past? Only once this information is obtained, would most people agree that they could make an accurate prediction. However, this type of information about Grace's personality would likely be of little help in predicting her behaviour. Details relating to the specifics of the situation, however, could be invaluable (Ross & Nisbett, 2011). For example, is Grace late for her meeting? How urgent is the meeting? What is Grace's relationship like with her manager? What is Grace's relationship like with her colleague? Such considerations are understandably important to provide a more accurate answer to the question as to whether Grace will stop to help, or hurry on her way.

In spite of lay theories that behaviour is a function of both the person *and* his or her experienced situation, researchers have traditionally placed more emphasis on the evaluation of the person (i.e., personality traits), at the expense of situational characteristics (Sherman, Nave & Funder, 2010). Where situations have been considered, it has commonly involved manipulating one or two elements of experimental settings and assessing the behavioural outcome, as opposed to assessing whole situations and the psychologically meaningful characteristics thereof (Funder, 2016). This trend has extended to the field of organisational psychology, the very name of which signifies the importance of the organisational context (Johns, 2006). In this regard, a considerable body of research on selection and performance appraisal has largely overlooked the social and situational context in which differing methods and instruments are employed (Johns, 2006). As such, slow progress in understanding how situational influences impact organisational behaviour is evident in organisational research.

The limited attention to situations has largely been attributed to the absence of a comprehensive taxonomy and/or suitable measure for quantifying the psychologically meaningful aspects of situations (Rauthmann et al., 2015). Much research has been dedicated to measuring the person (P) aspect, including numerous personality trait taxonomies and measures such as the Big Five Inventory (Soto & John, 2017) and the California Adult Q-sort (Block, 1978). There are also multiple measures for different types of behaviours (B), for example, a general tool for measuring a wide range of behaviours is the Riverside Behavioural Q-sort (Funder et al., 2000). However, the third element of the personality triad – situations (S) – has lagged behind in terms of measurement and characterisation. An inability to effectively measure situation characteristics has stunted development of a comprehensive view of the causes of behaviour.

However, the status quo seems to be changing for the better. The recently developed Riverside Situational Q-sort (RSQ)[1] – a measure that comprehensively samples situational characteristics - aims to address this deficiency, and may therefore be used to enhance our understanding of how situations and personality traits contribute to behaviour (Wagerman & Funder, 2009). In particular, we are interested in their relative unique and combined effects on behaviour. Moreover, the extent to which we are able to incrementally predict behaviour from either set of measures (traits vs. situations) is a practically important issue.

Addressing this question particularly in the organisational context, is relevant because situations form an important facet in many measurement approaches—such as situational judgment tests and assessment centres (Lievens, 2017)—that are routinely used in personnel selection and assessment. In situational judgement tests (SJTs), test-takers are provided with multiple work-related situations and asked how they would behave in these situations (McDaniel et al., 2001). In assessment centre (AC) exercises, candidates partake in several simulations (e.g., presentations, group activities and role plays), while trained assessors observe and evaluate their behaviour (Lievens, 2017). As such, candidates are afforded the opportunity to show how suitably they can behave in a fictitious workplace situation. Evident in both SJTs and ACs, is the intent to predict how individuals would behave in the workplace, so that improved selection and hiring decisions can be made.

[1] Through factor analysis of the RSQ, the DIAMONDS taxonomy (Duty, Intellect, Adversity, Mating, pOsitivity, Negativity, Deception, and Sociality) of situation characteristics emerged (Rauthmann et al., 2014).

It has been demonstrated that predictive validity can be improved if ratings are acquired in situations comparable to the future work environment (Shaffer & Postlethwaite, 2012). Despite this, SJTs and ACs frequently rely on assumptions about the similarity of situations designed for these assessments, and those confronted on the job (Ziegler, 2014). By employing a comprehensive set of situational characteristics whilst taking into account personality traits, organisations may be in a better position to predict behaviour in the workplace.

A large body of empirical research has corroborated the predictive validity of personality traits for important work behaviours, such as interpersonal facilitation (Hurtz & Donovan, 2000), persuading others and gaining control (Barrick et al., 2001), teamwork (Ones at al., 2005), and job performance (Barrick & Mount, 2005). Empirical research examining the predictive power of situations in the work context, however, appears to be limited to the evaluation of one theory-relevant features (e.g., job design or work relationships), as opposed to a broad range of situational properties. This is likely due to the aforementioned absence of an organising taxonomy for situations. Nevertheless, studies focusing on a distinct situational feature have demonstrated the importance of situational characteristics in the work context (e.g., Colbert et al., 2004; Parker et al., 2006). Empirical research on the joint effects of personality traits and broad situational characteristics on work relevant behaviour appears to be sparse.

Research Question

Given recent developments in situation assessment, the present study sets out to address a significant gap in the literature - considering the influence of *both* personality and the work context on work-related behaviour – to gain an improved understanding of the contribution of personality and situations towards work behaviour. Consequently, the current study aims to address the following two research questions:

RQ_1: To what extent do personality traits and situational characteristics independently predict work-related behaviour?

RQ_2: To what extent do the combination of personality traits and situational characteristics predict work-related behaviour?

Research Aim and Objectives

In line with the abovementioned research questions, the present study aims to investigate the extent to which personality and situational characteristics independently, and in combination, predict work-related behaviour. Specifically, the objectives of this study are:

1. To investigate the extent to which situational characteristics predict work-related behaviour.
2. To investigate the extent to which personality traits predict work-related behaviour.
3. To investigate the extent to which situational characteristics increment personality traits to predict work-related behaviour.
4. To investigate the extent to which personality traits increment situational characteristics to predict work-related behaviour.

Significance of the Study

This study extends efforts toward understanding what causes variance in work-related behaviours by demonstrating how personality and situational characteristics can be utilised in combination to predict daily behaviour. This is a significant contribution to the literature as empirical work is presently lacking considering the influence of *both* personality and the work context on work-related behaviour (Barrick et al., 2013). Such research is important since gaining an improved understanding of situations in combination with personality attributes, may enhance behavioural prediction, in order to improve organisational decision-making and better understand work performance (Horstmann et al., 2017).

By maximising behavioural prediction, we are able to explain more variance in behaviour and include richer information into our models. This is beneficial for running predictive models in machine learning contexts, where the key aim is to predict future behaviour as accurately as possible (Yarkoni & Westfall, 2017). By creating more accurate predictive models through an increased understanding of the determinants of behaviour, prediction error can be minimised (Yarkoni & Westfall, 2017). Through minimising prediction error, more reliable and proactive decisions may be made concerning important individual and organisational outcomes.

An improved understanding of situations in combination with personality traits could also create an opportunity for predicting the types of situations in which certain people thrive and work well (Wagerman & Funder, 2009). In this regard, by understanding the types of behaviours people are likely to express based on their personality and the situation they find themselves in, organisations can identify the right people for the right contexts. For example, if we know that Thabo is conscientious, that he exhibits thriving behaviours in complex and ambiguous situations, and that personality *and* situational characteristics are predictive of work behaviour,

Thabo may be an optimal candidate for an organisation characterised by complexity and ambiguity. Such prediction could be extremely invaluable for ensuring person-environment fit in organisational settings.

Further, gaining insight into the predictive power of both personality and situational characteristics could assist in the enhancement of personnel selection, assessment design, and explanation of behaviour on the job. If situational characteristics are shown to explain significant variance in behaviour, a situational taxonomy such as the DIAMONDS could be used to build situational judgement test scenarios to tap into specific situational dimensions (Lievens, 2017). Moreover, in assessment centres, a setting could be constructed whereby a specific DIAMONDS dimension is intended to be salient in order to trigger individual variation in trait-relevant behaviours (Rauthmann, 2017). Such settings would enable the identification of individual differences among job applicants, current employees and/or managers that are critical for a specific task, profession, group, work environment or organisation.

In addition to the above, the present study is to our knowledge the first in South Africa to incorporate comprehensive measures of all three elements of the personality triad – persons, behaviours, and situations. Prior studies have examined only a few properties thereof (Sherman et al., 2010). Consequently, the use of comprehensive measurement instruments in the current study could shed light on how personality and psychological characteristics of situations relate to work behaviour.

Ultimately, the present study may advance our understanding towards a more integrative science of the person (Mischel, 2004), and provide deeper insight into the complex nature of human behaviour (i.e., why people behave the way that they do).

About the International Situations Project

The International Situations Project (ISP) seeks to understand the cross-cultural interplay between behaviour, personality, and situations (see https://www.situationslab.com/the-international-situations-project). Data have been collected across 65 countries around the world assessing the daily experiences of individuals. The ISP is exploratory in nature and has consequently enabled collaborators to analyse the collected data in varying ways, to gain insight into situational experience and test a multitude of hypotheses (see Furr & Funder, 2018; Gardiner, Guillaume, et al., 2019; Gardiner, Lee, et al., 2020; Guillaume et al., 2016). This research has important applications for understanding intercultural relations and handling

cultural diversity in a world where growing numbers of individuals with different cultural backgrounds share situations with one another.

The Present Study

The present study compares the relative predictive power of personality traits and situational characteristics to predict work-related behaviour in a sample of young adults[2] enrolled at a South African university. To this end, secondary response data from the International Situations Project (ISP) were analysed to address the presenting research question.

Structure of the Dissertation

This introductory chapter details the background, rationale and research aims for the present study. Chapter Two provides a comprehensive review of the literature on personality, situations, and behaviour at work to derive a conceptual framework and plausible hypotheses. Thereafter, Chapter Three describes the study's research methodology, data collection procedure, measurement instruments, and statistical analysis approach. The findings are subsequently presented in Chapter Four. Lastly, Chapter Five provides an interpretation and discussion of the results, as it relates to the existing body of research concerning the current topic. Theoretical and practical implications, limitations, and suggestions for future research are presented.

[2] A sample of young adults was leveraged due to the availability of a rich dataset covering all study variables of interest and comprising of data that were internationally comparable. It can also be argued that there exist parallels between paid work and university work. In both contexts there are often defined tasks and deadlines, hierarchical structures, and varying degrees of support and control, with progress being contingent upon performance (Cotton et al., 2002).

Chapter 2: Literature Review

This chapter provides a structured overview of the theoretical and empirical research relating to behaviours, personality, and situations in the work context. The review begins by delving into each element of the personality triad, whilst considering definitions, conceptual frameworks/typologies, measurement approaches, and empirical research findings. Next, the person-situation debate is outlined, and an integrative approach to explaining behaviour is presented. Lastly, the hypotheses and theoretical model for the current study are put forward.

Behaviour

The study of behaviour is of fundamental importance in many conceptualisations of psychology. Human behaviour, however, is very complex in nature. Such complexity makes it difficult to understand, define, explain, and predict behaviour (Naylor et al., 1990). Broadly, defined, behaviour can be referred to as observable actions that are socially meaningful (Deaux & Snyder, 2014). In the present study, understanding behaviour in the work context is of particular interest.

Defining Behaviour at Work

In the organisational context, work behaviours refer to actions and interactions that occur at work by members of an organisation, which impact both directly and indirectly, upon the running and success of the organisation (Chirumbolo, 2017). Using this definition, both intrapersonal and interpersonal behaviours are accounted for. Intrapersonal behaviours may include aspects such as learning and stress management, while interpersonal behaviours may involve team dynamics, leadership, and communication (Aswathappa, 2016). Although researchers have traditionally placed considerable emphasis on the impact of traits on job performance, there has been an increased focus on the role of employee work behaviours external to task performance, known as contextual performance (Dalal et al., 2009).

Contextual performance refers to behaviours that are not job or target specific, but enhance the efficiency and success of individuals, teams and organisations (Reilly & Aronson, 2012). Such behaviours include: cooperating with and assisting others, abiding by organisational policies, persisting with enthusiasm and grit, defusing hostility and conflict, sharing information with others, taking initiative, and self-development. These behaviours essentially sculpt the

social and organisational context that act as the catalyst for work activities and operations (Dalal et al., 2009). Prior research demonstrates that both task and contextual performance behaviours play a role in work effectiveness (Borman & Motowidlo, 1997). Arguably though, the most effective organisations are likely those where employees go beyond what is required of them and act in ways that assist their organisation, fellow colleagues, and clients (Chirumbolo, 2017). Moreover, meta-analytic research has shown that the traits from the five-factor model of personality are more powerful predictors of contextual performance than task performance (Chiaburu et al., 2011). It is therefore essential that we measure behaviour at work, particularly given its pivotal role in a multitude of organisational processes, including selection, compensation and reward, and training efforts.

Measuring Behaviour

There are a variety of ways in which behaviour can be measured. Firstly, one can directly observe the overt actions of others. Studying behaviour using this objective approach can offer convincing insight into the social behaviours that individuals truly enact. However, it can also be costly in terms of time, money and effort (Furr et al., 2010). Given this, the most common approach to measuring behaviour in both personality and social psychology is through self-report data (Funder et al., 2000).

In the work context specifically, the Individual Work Performance Questionnaire (IWPQ; Koopmans et al., 2014) is an 18-item self-report questionnaire consisting of three dimensions, namely: task performance, contextual performance, and counterproductive work behaviour. The IWPQ focuses on the behaviours or actions of workers and can be used across various occupations and positions. The scales were operationalised based on a systematic review of the organisational psychology, management, health and economics literature. Its advantage in comparison with other work behavioural scales rests in the fact that existing scales tend to measure these three dimensions separately, and do not appear generic in nature to allow for use across differing contexts and occupations. Further, the IWPQ has demonstrated sound internal consistency and construct validity (Koopmans, et al., 2014).

It is important to note that relying on an individual's own report of their behaviour also poses numerous limitations. For example, respondents may have limited self-knowledge, misrepresent themselves to preserve their self-esteem, or be reluctant to reveal certain information about themselves. Moreover, retrospective self-report may be hampered by one's

ability to correctly recall an event. A recent approach to studying behaviours that aims to address some of these limitations is the Riverside Behavioural Q-sort (RBQ; Funder et al., 2000). An adapted and shortened version – the Brief Behaviour Inventory – was employed in the International Situations Project and therefore relevant to the present study.

Riverside Behavioural Q-sort. The RBQ was developed with the goal of creating a behavioural measure suitably aimed at significant personality phenomena (Funder et al., 2000). As such, the RBQ was derived from the California Adult Q-Set (CAQ; Block, 1978), a well-validated and commonly used personality measure. The intention was to derive measures of behaviours that could be pertinent to the features of personality described by the CAQ. For example, the RBQ item "Is talkative" was designed as a parallel for the CAQ item "Is a talkative individual". By constructing items with a behaviour-personality correspondence, the RBQ is well-positioned to be of use in drawing inferences relating to an individual's personality. The items (e.g., "seeks advice" and "behaves in a competitive manner") describe behaviour at a general level intended to be intrinsically significant and meaningful, whilst still sufficiently distinctive to enable reliable rating (Funder, 2009). As such, the RBQ can be useful across a broad range of situations (Funder et al., 2000). Studies of behaviour as measured by the RBQ have been informative about cross-situational consistency (Funder & Colvin, 1991) and the prediction of children's interpersonal behaviours (Markey et al., 2004).

Although the RBQ does not cover the full spectrum of work behaviours that one would find in a work-specific questionnaire, specific items included in the RBQ may be relevant to the workplace. Consequently, the RBQ or its adapted form (Brief Behaviour Inventory) can be used as a starting point for the examination of particular work-related behaviours. In this regard, it can be argued that some items in the Brief Behaviour Inventory form part of contextual work behaviours and are therefore of use in answering the present study's research question. Such items include: "I displayed ambition", "I was interested in what someone had to say", "I showed high enthusiasm and a high energy level", "I sought advice", "I concentrated on or worked hard at a task", "I exhibited a high degree of intelligence", and "I tried to control the situation". These items align with the contextual work behaviours mentioned above and specified in the literature. Particularly, this set of items encompass behaviours that may serve to enhance the efficiency and success of individuals, teams and/or organisations (Reilly & Aronson, 2012).

The use of the Q-sort method[3] also assists in addressing some of the aforementioned limitations of self-report data, and provides various benefits over traditional Likert-type measurements, particularly in reducing response biases (Block, 1978). Respondents cannot merely agree with every item (acquiescence responding), nor can they select moderate responses for all items (midpoint responding). Further, since the sorting procedure necessitates that each item be arranged in relation to every other item, the respondent is driven to make improved and possibly more thoroughly contemplated distinctions than conventional rating techniques (Funder et al., 2000).

Although participants involved in the International Situations Project were university students, it can be argued that work behaviours performed by students are similar to those required in paid employment. Evident in most paid work, students work within hierarchical structures with specified tasks and deadlines. Moreover, they experience varying degrees of support and control, with advancement being contingent upon performance (Cotton et al., 2002). In both circumstances, there is also a need to persist in task completion. Thus, the identified work-related behaviours selected from the Brief Behaviour Inventory can be used as a starting point to address the present study's research question.

Causes of Behaviour

There have been numerous approaches to understanding why people behave the way that they do. In social psychology, behaviour was traditionally understood as a function of the physical, and more importantly, the social context. Contrastingly, in personality psychology, behaviour was traditionally understood as a function of personality attributes such as traits (Allport, 1966). The classic framework for the understanding of social behaviour was put forward by Lewin (1951) who maintained that behaviour (B) is a function of the person (P) *and* his or her environment (E). In order to better understand their influences on work-related behaviour, *both* concepts relevant to the prediction of behaviour according to Lewin are incorporated in the present study.

---

[3] The Q-sort method is a data collection procedure whereby a participant or independent rater orders a set of stimuli into a designated number of categories, with a predetermined number of stimuli placed in each category (Block, 1978).

Explaining Behaviour: Personality and Situations

Personality

Although several approaches for understanding personality have been identified over the years, trait theory has been widely acknowledged and has achieved broad consensus. According to this approach, personality dispositions can be refined to a set of fundamental traits (Allport, 1966). The term 'trait' has been used to represent consistent patterns of behaviour across situations and settings. Between-individual differences in behaviour and attitudes are thus said to be captured with regards to the personality traits that are unique to each individual, consequently providing an important descriptive and predictive tool that has been broadly utilised in social psychology and organisational research (Gundogdu et al., 2017).

Dimensions of Personality. Historically, research on traits concentrated predominantly on questions concerning the quantity, nature and structure of 'basic' traits (Barenbaum & Winter, 2008). For many years, the commonly known approaches were those of Cattell and Eysenck. Through factor analysis, Cattell identified 16 dimensions of human personality traits and subsequently developed the 16PF personality assessment based on these factors (Cattell et al., 1970). Contrastingly, Eysenck (1957) initially argued for a two-factor approach, which included Extraversion and Neuroticism. He later added a third factor (Psychoticism), which critics still perceived as being too narrow.

Contemporary research in both personality and organisational psychology has converged on the Five Factor Model as a commonly accepted taxonomy that comprehensively encapsulates the key stable individual differences in personality (Barrick et al., 2013). The Big Five posits a hierarchical structure of personality traits with five broadly-defined factors, made up of more narrowly defined traits (or facets). The Big Five factors include Extraversion, Emotional Stability (also called Neuroticism), Agreeableness, Conscientiousness, and Openness to Experience (also known as Intellect) (Costa & McCrae, 1992).

Extraversion is the tendency to be sociable, assertive, cheerful and energetic. Emotional stability refers to one's tendency to experience affects including fear, anger, sadness or guilt. Individuals who score high on agreeableness are altruistic, cooperative, sympathetic, and flexible. Conscientiousness represents those who are achievement-oriented, organised, self-disciplined and dependable. Finally, Openness to Experience incorporates active imagination, intellectual inquisitiveness, and a preference for variation (Costa & McCrae, 1992). Literature

has shown that the majority of variables used to measure personality traits in the academic research of personality psychology can be mapped into one or more of these Big Five factors (McCrae & Costa, 2010).

It should be noted that competing models exist – such as the HEXACO Model which includes Honesty-Humility as an essential and comparatively distinct trait from the Big Five (Ashton & Lee, 2005). However, extensive evidence has shown support for the Big Five structure as a useful taxonomy for personality across diverse theoretical frameworks, cultures, assessment approaches and languages (McCrae & Costa, 2010). Further, these individual differences in personality traits have been shown to play a role in predicting and explaining a variety of behaviours, including those occurring in the organisational context, as is discussed next.

Empirical Research Findings: Personality and Work Behaviour. Throughout the past three decades, personality traits have surfaced as some of the most prominent predictors of work criteria, and meta-analytic studies have corroborated the predictive validity of personality traits for job performance and other work outcomes (Barrick et al., 2001). Early meta-analytic studies revealed that the Big Five could be useful in selecting employees into a multitude of occupations (Barrick & Mount, 1991; Tett et al., 1991). Moreover, research has shown that personality is meaningfully related to numerous work-related behaviours that matter to organisations including turnover, truancy, organisational citizenship behaviours, accomplishment in teams, job satisfaction, safety, leadership success, and job performance (Barrick & Mount, 2005).

Hurtz and Donovan (2000) demonstrated that Conscientiousness, Emotional Stability, and Agreeableness have a stable impact on interpersonal facilitation. In line with this, a meta-analysis by Hogan and Holland (2003) confirmed that these three traits are the best predictors when the outcome involves getting along with others. On the other hand, Extraversion has shown to be a significant predictor when job interactions focus on persuading others and gaining control (Barrick et al., 2001). Numerous studies have also shown the validities of Conscientiousness and Emotional Stability in predicting overall job performance across occupational groups (Barrick & Mount, 2005). Evidently, each of the Big Five traits have demonstrated the ability to independently predict various work-related behaviours.

The bulk of the earlier meta-analytic research focused on individual traits when predicting work behaviours as opposed to the combined set of Big Five personality traits. This is

surprising given that compound traits can also be assessed and tend to be particularly predictive of work criteria (Ones & Viswesvaran, 2001). When employing meta-analytic examinations and computing multiple correlations for the Big Five as a set with various work-related dimensions, substantial validities in predicting teamwork (Multiple R = .47), training performance (Multiple R = .44), citizen performance (Multiple R = .43), and organisational behaviour criteria (e.g., leadership) (Multiple R's = .40 - .50) were found (Ones et al., 2005). Indeed, it has been recommended that when examining the predictive validity of personality to behaviour, one should consider all relevant personality traits used together (Barrick & Mount, 2005). If the purpose is to increase understanding surrounding which personality traits influence which behavioural components, it is then appropriate to evaluate the validity of each trait independently. Although this approach can enhance our theoretical understanding, Barrick and Mount (2005) highlighted that we must study people, not traits, if we are interested in how well personality predicts.

Ultimately, through the use of meta-analysis and personality constructs such as traits measured within the Big Five framework, researchers have been able to consolidate findings quantitatively amongst a substantial number of studies to illustrate that personality traits are of importance in predicting work-related behaviours.

Situations

Defining Situations. The term 'situation' is often used vaguely or incongruously throughout literature. Rauthmann et al. (2015) proposed that in order to simplify and provide a common language for researchers, situations should be described and measured using three types of situational information, namely: cues (physically measurable stimuli), characteristics (psychologically meaningful qualities of perceived cues) and classes (groups of complete situations). When investigating how and why individuals behave in particular ways in a given situation, perceptions of situation characteristics are believed to be the most appropriate situational information to examine. This is due to the fact that situations only have consequences for persons' thinking feeling, desiring, and performing through their psychological processing of the situation. The way in which a situation is perceived will determine which behaviours are executed (Rauthmann et al., 2015). Cues and classes, on the other hand, convey minimal information and often suggest little about what situations mean psychologically (Rauthmann et al., 2015).

Dimensions of Situations. In recent years, several situational taxonomies have been proposed, such as the CAPTION (Parrigon et al., 2017) and Situation 5 (Ziegler, 2014) taxonomies. The CAPTION taxonomy is grounded in the lexical approach and describes broad, everyday situations. A seven-factor taxonomy was identified, including: Complexity, Adversity, Positive Valence, Typicality, Importance, humOr, and Negative Valence (Parrigon et al., 2017). Comparably, the Situation 5 is also grounded in the lexical approach but was designed to assess occupational settings. Based on factor analyses, five dimensions of situational perception were identified: Mental and physical load, cognitive load, monotony, expectation of results; and vitality. The Situation 5 makes use of vignettes whereby a hypothetical work situation is presented. Respondents are required to rate the situation on one of the five dimensions listed above on a six-point Likert type scale ranging from 1 ("*strong agreement*") to 6 ("*strong disagreement*").

The commonly cited concern with existing taxonomies is that they do not fully encapsulate the different types of situation characteristics, and few offer psychometrically validated measurement tools to assess the situation characteristics identified. In an attempt to address this divide, the DIAMONDS taxonomy was derived through an analysis of the dimensional structure (factor analysis) of the Riverside Situational Q-sort (RSQ, Wagerman & Funder, 2009).

The DIAMONDS taxonomy consists of eight broad dimensions upon which people perceive, describe and assess psychological situations (Rauthmann et al., 2014). These dimensions are: *Duty* (Situation is perceived as containing work, fulfilling duties, resolving problems, assisting others or formulating decisions), *Intellect* (Situation affords intellectual engagement, cognitive demands, deep reflection, or rumination), *Adversity* (Situation entails difficulty, conflict, competition, blame, criticism or threat), *Mating* (Situation is perceived as being conducive to sex, love and romance), *pOsitivity* (Situation is pleasant, fun, simple, clear or straight-forward to navigate), *Negativity* (Situation may prompt negative feelings, such as anxiety, stress, guilt, anger or frustration), *Deception* (Situation encompasses mistrust, disloyalty, hostility or deception), and *Sociality* (Situation affords an opportunity for social interaction).

The DIAMONDS taxonomy combines the majority of previously identified situation characteristics dimensions and is similar to major dimensions of personality, such as the Big Five (Rauthmann et al., 2014). The similarity between situation and personality dimensions suggests

that both taxonomies share related content. This may be due to the fact that people persistently and unconsciously shape perceptions of situations as if they were actual entities (Nystedt, 1981; Rauthmann, 2012). As a result, content dimensions captured in taxonomies of personality traits or how we perceive people are likely to come up in perceptions of situations (ten Berge & de Raad, 2002).

In comparison with the previously mentioned taxonomies, the DIAMONDS dimensions can be used to capture perceptions of any situation and were developed among participants across several countries[4] (N = 1589). Additionally, since the DIAMONDS dimensions were extracted from multiple languages and the RSQ from which it is derived has been used in more than 20 countries (Guillaume et al., 2016), the DIAMONDS taxonomy may be better suited for cross-cultural research. The CAPTION and Situation 5, however, are more restrictive and were not developed using a representative sample (United States and Germany, respectively). Accordingly, the DIAMONDS situational taxonomy serves as a valuable point of departure for empirical research.

DIAMONDS at Work. It can be argued that several dimensions of the DIAMONDS taxonomy may be particularly relevant to workplace situations. Firstly, it is likely that there exists obligations and tasks to be completed (Duty), which require thought, decision making or problem-solving (Intellect). Moreover, there may be circumstances of conflict and competition, or feedback scenarios requiring one to handle criticism or blame (Adversity). Whether a working environment is seen as positive or engaging and how one accepts or gets distracted from playful elements could further impact one's behaviour (pOsitivity). In terms of the Negativity dimension, work situations have the potential to evoke stress, frustration, or anxiety such as a demotion or taxing task load. Moreover, exposure to hazardous conditions or equipment could be possible. With regards to Deception, there are likely ethical principles and standards to be upheld. Furthermore, the extent to which a trusting, open and transparent work environment exists has consequential impacts on behaviour (Rauthmann, 2017). Lastly, it is common for organisations to afford opportunities for teamwork and co-operation. Personnel may also be required to deal with external customers, lead others and/or establish good relations with team members (Sociality).

[4] These countries include Austria, India, Germany, Spain, and the United States.

The Mating dimension does not concretely lend itself to an evaluative behaviour assessment in organisational settings. Although sexual and romantic relationships can transpire at work, mating situational characteristics are generally unlikely to be of pertinence in recruiting, promoting, or developing personnel (Rauthmann, 2017). Consequently, seven of the eight DIAMONDS dimensions appear to encapsulate the types of situations people may find themselves in, in a work context. Therefore, these dimensions are of interest in addressing the presenting research question.

Measurement of Situations. The traditional method of assessing situations in social psychology has commonly involved manipulating one or two elements of experimental settings and assessing the behavioural outcome (Funder, 2016). For example, we might place people in a stressful situation with a demanding task that requires completion, and a situation that is relaxed in which they have the freedom to do as they please, and measure how quiet people are in each situation, on average. In such experimental settings, the situational independent variables are rarely representative of real-life situations and the emphasis on one or two independent variables implies that whole situations are seldom evaluated or weighed up against one another (Funder, 2016). For researchers seeking to study the effects of situations on behaviour, it has remained unclear how exactly situations should be conceptualised or measured.

Fortunately, recent developments in situation assessment have resulted in the design of an instrument to fill this void, namely, the Riverside Situational Q-sort**.** The RSQ was designed to assess psychologically relevant attributes of situations (Rauthmann et al., 2015). It has been documented as the only available measure that samples situation characteristics in a relatively comprehensive manner (Rauthmann et al., 2014). The RSQ was the final measure developed to examine the complete Person-Situation-Behaviour triad, with the California Adult Q-Sort (Block, 1978) assessing personality and the Riverside Behavioural Q-Sort (Funder et al., 2000) measuring behaviours. The RSQ was not grounded on any specific theory concerning which characteristics a situation should have, since no such theory exists and any theory would likely have limited the range of characteristics (Rauthmann et al., 2015). Rather, its item content was developed to be all-encompassing and applicable to an extensive range of situations.

Given the content similarity between situation and personality taxonomies, the RSQ was derived from the CAQ, a widely validated personality measure. CAQ items were transformed into phrases that explain characteristics of situations which provide the opportunity for

expression of each related personality characteristic. The RSQ has already proven valuable in a diversity of empirical applications in spite of its relatively recent development. An initial study demonstrated that situations experienced over time by a single participant are described more similarly to each other than to situations encountered by others (Sherman et al., 2010). A subsequent study investigated implications of the extent to which one's personality is consistent with one's behaviour in certain situations (Sherman et al., 2012). Additionally, the RSQ has been utilised to create prototypical templates of situations enabling behavioural predictions to be empirically examined (Morse et al., 2015), and has even been used in cross-cultural research (Guillaume et al., 2016).

Empirical Research Findings: Situations and Behaviour. The situationist perspective maintains that behaviour is explained more strongly by contextual factors and less so by inner dispositions. This view was accelerated by Mischel's (1968) pivotal findings, which revealed that personality traits were weak predictors of behavioural outcomes and rarely correlated more than $r = .30$. Mischel's stance was that universal traits, in trying to summarise behavioural dispositions exclusive of situational contingencies, were inadequate to encompass the intricacy of the discriminations that individuals regularly make. Advocates for the situationist view often used this to support their case against accepting evidence from personality psychology.

Regardless, classical social psychology studies have reiterated the power of situational variables on behaviours. The famous studies by Darley and Latane (1968) demonstrated that individuals felt diminished responsibility to offer assistance when there were an increasing number of bystanders present. Moreover, Milgram's (1974) series of obedience experiments revealed how the presence of an authority figure could provoke one to go against their morals and instigate supposed life-threatening shocks. In each instance, the effect size of the situational variables on behaviours was between $r = .30$ and $r = .40$, which was close to that of the personality coefficient (Funder, Guillaume, Kumagai, Kawamoto, & Sato, 2012).

In a meta-analysis of social psychology research which included over 25 000 studies, an average effect size of $r = .21$ was found for situational variables to predict behaviour (Richard et al., 2003). The majority of these studies examined the impact of social interactions or other individuals on behaviour. It is therefore evident that situations are also essential in understanding behaviour.

In a separate study that used the DIAMONDS situational dimensions to predict various self-reported behaviours, it was found that Duty was associated with achievement behaviours, Intellect with intellectual behaviours, Adversity with conflict behaviours, Mating with romantic behaviours, pOsitivity with enjoyable and socially interactive behaviours, Negativity with unpleasant behaviours, Deception with antagonistic behaviours, and Sociality with socially interactive behaviours (Rauthmann et al., 2014). The DIAMONDS dimensions have also exhibited strong incremental and unique predictive abilities over and above the Big Five personality traits and competing situation taxonomies, in predicting behaviour (Rauthmann et al., 2014). These findings further confirm situational characteristics' ability to predict a broad range of behaviours.

Person-Situation Debate

Lewin's (1951) proposition that behaviour is a function of both the person *and* his or her environment fuelled an enduring debate surrounding which is a more powerful predictor of behaviour. Psychologists devoted a significant amount of time and energy to a competitive viewpoint of persons and situations. In this regard, personality psychologists highlighted the importance of dispositions (traits as the main determinant of behaviour), whilst social psychologists emphasised the power of situations in governing human behaviour. When perceived in such a way, dispositions and situations were theorised as drivers pushing on behaviour from opposing directions (Furr & Funder, 2018). To this end, the more important one of them was, the less important the other was seen to be (Funder et al., 2012). The primary conceptual objection to perceiving dispositions and situations as competing forces is that each needs the other in order for any of them to exert an impact on behaviour. Persons cannot exist outside of a particular kind of situation, and in a situation devoid of people, no behaviour will transpire whatsoever (Funder, 2008).

Integrating Personality and Situations as Explanations of Behaviour

To wholly understand behaviour in the workplace, it is evident that both personality *and* the situation need to be considered. By taking both into account, we can progress towards an improved and more comprehensive understanding of why people behave the way that they do (Sherman et al., 2015). Accordingly, contemporary personality theories have recognised the significance of situational influences. Such theoretical frameworks include Trait activation

theory (Tett & Burnett, 2003) and the cognitive-affective personality system theory (CAPS; Mischel & Shoda, 1995).

Theoretical Frameworks

Trait activation theory posits that the interaction of the person and the situation explains their behaviour in response to trait-related cues present in the situation (Tett & Burnett, 2003). As such, situations that activate personality traits that are beneficial at work (i.e., their expression is advantageous in achieving quality job tasks) lead to more constructive work behaviours (Chirumbolo, 2017). For example, conscientiousness is more likely to result in a trait-relevant behaviour being executed when an individual is required to handle detailed and complex information in a methodical way, than in situations that do not require detail, accuracy, and organisation. In this way, situation characteristics moderate the relationship between personality traits and behaviour.

The cognitive-affective personality system (CAPS) theory proposes *if…then* contingencies to behaviour: if particular situational stimuli are perceived, then a behavioural reaction is elicited (Mischel & Shoda, 1995). In this regard, individuals differ in the way they select, encode and process features of a situation. Features of a situation elicit affective and cognitive mental representations, and dependent on the triggered representation, particular behavioural scripts are prompted. For example, if an individual's perception of a situation triggers the cognitive representation of conscientiousness, the behaviour pattern being prompted is that of conscientiousness. Therefore, variation in specific behaviours is suggested to be caused by situational differences. How an individual processes the situation characteristics, and the thoughts and affects that are triggered in response to them, are presumed to reflect peoples' stable personality structures (Mischel & Shoda, 1995). Therefore, personality mediates the relationship between situation characteristics and behaviour.

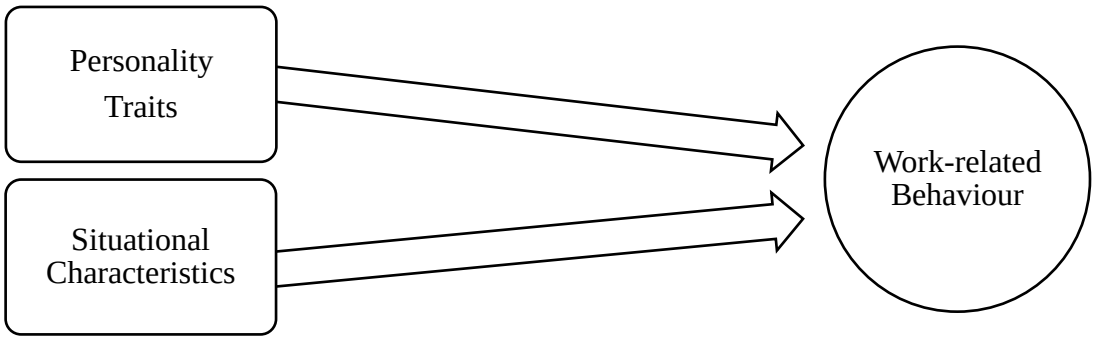
Compared to Trait activation theory, CAPS recognises individual differences in situation perception. CAPS, therefore, accounts for both consistency in behaviour and variability in behaviour across situations. Despite this acknowledgement, however, it takes little account of what constitutes a situation, or what makes one situation distinctive from or comparable to another (Sherman et al., 2010). Although both theories form part of the interactionist approach to psychology, the present study's focus rests on the joint effects of persons and situations as opposed to person-situation interaction. Nevertheless, both contemporary personality theories

take the situation into account, emphasising the need to consider both personality and situations when wanting to explain behaviour.

This study aims to address a significant gap in the literature as there is minimal empirical research accounting for the concurrent influence of both personality and the work situation on work-related behaviour (Barrick et al., 2013). To summarise and direct focus for the study, the below theoretical model (See Figure 1) and hypotheses are presented.

Figure 1

Theoretical Model Representing the Proposed Relationships for the Present Study



Hypotheses

With the intention of clarifying the relationships outlined in Figure 1 with respect to persons, situations and behaviours in a work context, the following four hypotheses will be tested:

Hypothesis 1: *Situational characteristics will strongly predict work-related behaviour*.

As aforementioned, classical social psychology research has consistently demonstrated that situations are powerful predictors of behaviour. Further, Rauthmann et al. (2014) demonstrated that the DIAMONDS situational characteristics strongly predicted behaviour. It was argued above that seven of the eight DIAMONDS situational characteristics may be considered relevant to the work context, and thus of importance in the present study. In addition, it was argued that certain items in the Brief Behaviour Inventory form part of contextual work behaviours and are therefore of use in addressing the research questions under investigation. Taken together, it is expected that:

H_1: Behaviour will be significantly predicted by situational characteristics (Duty, Intellect, Adversity, pOsitivity, Negativity, Deception, Sociality) for the following work-related behaviours:

H_{1a}: "I tried to control the situation".

H_{1b}: "I displayed ambition".

H_{1c}: "I showed high enthusiasm".

H_{1d}: "I concentrated on or worked hard at a task".

H_{1e}: "I was interested in what someone had to say".

H_{1f}: "I sought advice".

H_{1g}: "I exhibited a high degree of intelligence".

Hypothesis 2*: Personality will strongly predict work-related behaviour*. In line with trait theory, and the meta-analytic findings unpacked above which demonstrated the predictive power of the set of Big Five personality traits in predicting important organisational behaviour criteria (Multiple *R*'s = .40 - .50) (Ones et al., 2005), the following hypothesis is formulated:

H_2: Behaviour will be significantly predicted by personality traits (Open-Mindedness, Conscientiousness, Extraversion, Agreeableness, Negative Emotionality) for the following work-related behaviours:

H_{2a}: "I tried to control the situation".

H_{2b}: "I displayed ambition".

H_{2c}: "I showed high enthusiasm".

H_{2d}: "I concentrated on or worked hard at a task".

H_{2e}: "I was interested in what someone had to say".

H_{2f}: "I sought advice".

H_{2g}: "I exhibited a high degree of intelligence".

Incremental Validity: The Combined Effect of Situational Characteristics and Personality Traits

As aforementioned, Rauthmann et al. (2014) demonstrated that the combination of the Big Five personality traits and DIAMONDS situational characteristics explained more variance in behaviour than did their independent effects. Although the researchers included general

behaviours as criteria, as opposed to work relevant behaviours, to our knowledge, no current research examines the combined effect of personality traits and broad situational dimensions on work behaviour. Given that the Big Five traits and situational characteristics have shown to be independently relevant to workplace contexts throughout this review, in combination with Lewin's (1951) renowned truism that behaviour is a function of the person *and* his or her environment, it is expected that the combined effect of situational characteristics and personality will predict work-related behaviour over and above their individual effects.

Hypothesis 3*:* Situational characteristics will show significant incremental validity over personality traits to predict work-related behaviour, for the following behaviours:

H_{3a}: "I tried to control the situation".

H_{3b}: "I displayed ambition".

H_{3c}: "I showed high enthusiasm".

H_{3d}: "I concentrated on or worked hard at a task".

H_{3e}: "I was interested in what someone had to say".

H_{3f}: "I sought advice".

H_{3g}: "I exhibited a high degree of intelligence".

Hypothesis 4: Personality traits will show significant incremental validity over situational characteristics to predict work-related behaviour, for the following behaviours:

H_{4a}: "I tried to control the situation".

H_{4b}: "I displayed ambition".

H_{4c}: "I showed high enthusiasm".

H_{4d}: "I concentrated on or worked hard at a task".

H_{4e}: "I was interested in what someone had to say".

H_{4f}: "I sought advice".

H_{4g}: "I exhibited a high degree of intelligence".

Conclusion

This chapter provides an overview of personality, situations, and behaviour – the three elements of the 'personality triad' – as they relate to the work context. An account of existing frameworks, taxonomies, measurement approaches, and empirical support for each element is provided, and located within the wider context of the personality, social and organisational psychology literature. The present study's hypotheses are presented in accordance with the research aim i.e., to investigate the extent to which personality and situational characteristics independently, and in combination, predict work-related behaviour. This research is critical for progressing towards a more comprehensive understanding of why people behave the way they do, and addressing a gap in the literature, which currently lacks empirical account of the concurrent influence of both personality and the work situation on work-related behaviour.

Chapter 3: Method

This chapter presents the research methodology employed in the current study. The research design, sampling approach, data collection procedure and measurement instruments are discussed. The chapter concludes with an outline of the statistical techniques used to analyse the data.

Research Design

The present study analysed survey response data from a prior international study (International Situations Project, ISP; Baranski et al., 2017), although analyses were limited to responses from South African participants[5]. A quantitative approach was employed using the secondary data obtained. Quantitative analysis is most suitable when seeking to evaluate the empirical relationships between variables or when wanting to understand the best predictors of a particular outcome (Creswell, 2015). Consequently, this approach enabled the current research aim to be addressed: to investigate the extent to which personality traits and situational characteristics predict work-related behaviour.

The ISP employed a cross-sectional design whereby data was collected at a single point in time. Self-report surveys allowed for the measurement of behaviour, situation, and personality variables, and enabled the subsequent statistical analyses of the data. The use of retrospective self-report for evaluating situation perception, behaviour, and personality may pose several limitations. Firstly, respondents may have lacked appropriate awareness of the situation, their behaviour and/or their personalities. Secondly, respondents may not have wanted to specify their behaviours or situations. Thirdly, respondents may have been inclined to present a favourable image of themselves (social desirability). In an attempt to address these concerns, participants were asked to describe their situations by reporting objective, straightforward and concrete "cues" (Rauthmann et al., 2015). This included answering the following questions: "Where were you?", "What were you doing?" and "Who else was present?".

Participants and Procedure

Prior to commencing the study, written permission was obtained to access the data from the primary researcher involved in the International Situations Project. No additional ethical clearance was required from the University of Cape Town's Ethics in Research Committee

[5] It must be pointed out that the specific research questions in the present study do not overlap with those from the larger international study.

(EiRC), given that the secondary analysis was based on a dataset that had previously received ethics approval prior to collection.

In carrying out the ISP, researchers employed a non-probability sampling technique to source participants. In this approach, all units in the population are not afforded an equal chance of being included in the sample (Field, 2018). In particular, a convenience sampling technique was utilised to access students at a multicultural South African university in the Western Cape in 2016. This approach included the selection of participants based on their availability, and subsequently, provided the researcher with an easily accessible sample group.

An email was sent out to students by the office of the Director of Student Affairs (DSA) inviting them to participate and explaining the nature of the study. Participants were informed of the voluntary nature of the study, the expected completion time (under one hour), the potential benefits, their right to withdraw at any point in time, and the confidentiality of their responses. It was indicated that there were no known risks, and the relevant researchers' contact details were provided. A nominal research participation incentive (R100) was offered for the successful completion of all aspects of the survey. Those interested in participating were required to respond to the email invitation to receive their unique ID allowing them to access the online survey. The unique ID guaranteed anonymity of responses. Respondents had one week to complete the survey and a follow-up email was sent out to those who had not yet completed the questionnaire. Upon accessing the website, participants were prompted to select their language of assessment by clicking on their respective country's flag. They were then required to enter their assigned study and participant ID numbers and sign a consent form. Participants were prompted to provide demographic information and were then required to describe an experience they had encountered the previous day. Specifically, respondents were asked: "1) What were you doing at this time? 2) Where were you? and 3) Who else was present?".

After answering the open-ended questions, respondents quantified their situational experience and, subsequently, their behaviours in this situation. The remaining measures were completed, and upon conclusion, respondents had the option to receive feedback regarding their personality scores.

Table 1 provides demographic information of the respondents (N = 256). The age of participants ranged from 17 to 48 (M = 22.20; SD = 4.74). The gender profile was skewed towards females (Female: N = 170, 66%; Male: 85, 33%). In terms of racial classification, the

majority of participants were those classifying themselves as Black (35%) or White (29%). Most respondents listed English (59%) as their home language, followed by IsiZulu (9%).

Table 1

Participant Demographics (N = 256)

Demographic	Category	Frequency	%
Gender	Female	170	66.4
	Male	85	33.2
	Unknown	1	0.4
Race	Black	89	34.8
	White	74	28.9
	Coloured	36	14.1
	Mixed race	4	1.6
	Asian	6	2.3
	Indian	28	10.9
	Other	19	7.4
Home Language	English	152	59.4
	Afrikaans	11	4.3
	IsiZulu	22	8.6
	IsiXhosa	16	6.3
	Tshivenda	7	2.7
	Shona	7	2.7
	Other	41	16.0

Measures

Of the 17 scales included in the ISP survey, three of them were suitable in addressing the present study's research question, namely: The Brief Behaviour Inventory, the Big Five Inventory-2, and the Riverside Situational Q-sort 4.1.

The Brief Behaviour Inventory

The Brief Behaviour Inventory (BBI; see Appendix A) was used to measure the extent to which participants enacted certain behaviours on a distinct occasion. The BBI is an adapted and shortened form of the Riverside Behavioural Q-sort (RBQ) - a behavioural assessment tool developed to explore behaviour as a manifestation of personality (Furr et al., 2010). The RBQ was modified to avoid drop-out and respondent fatigue. Items were adapted by utilising self-referential parallel forms derived from the RBQ with items beginning with "I…". The BBI consists of 16 items (e.g., "I sought advice"; "I concentrated on or worked at a hard task") which are rated on a nine-point Likert-type scale ranging from 1 ("*Extremely Uncharacteristic*") to 9 ("*Extremely* Characteristic"). As the 16 BBI items assess a broad range of behaviours, we restricted our attention to a subset of seven items that relate to contextual behaviours in the work context, as evidenced by the literature discussed in Chapter 2.

The Big Five Inventory-2

The Big Five Inventory-2 (BFI-2; Soto & John, 2017) was used to measure personality. The BFI-2 (See Appendix B) consists of 60 items that measure the Big Five traits, namely: Extraversion, Agreeableness, Conscientiousness, Negative Emotionality, and Open-Mindedness. The items (e.g., "I am someone who is outgoing") are measured on a five-point Likert-type scale ranging from 1 ("*Strongly Disagree*") to 5 ("*Strongly Agree*"). The BFI-2 has been used in numerous studies internationally and has exhibited considerable reliability, validity, and utility in these contexts (Soto & John, 2017). The domain scales' reliability coefficients for an internet (N = 1000[6]) / student validation sample (N = 470) were: Extraversion (α = .88/.88), Agreeableness (α = .83/.85), Conscientiousness (α = .88/.86), Negative Emotionality (α = .90/.90), Open-mindedness (α = .84/.85) (Soto & John, 2017).

The Riverside Situational Q-sort 4.1

The Riverside Situational Q-sort (RSQ) 4.1.was used to measure perceived situational characteristics. The RSQ (See Appendix C) contains 90 descriptive statements (e.g., "Social interaction is possible"; "Success in this situation requires self-insight"). Participants first assessed the situation they reported being in the previous day by placing each statement into one of three categories including "*Uncharacteristic*", "*Neutral*" or "*Characteristic*", based on how

[6] Participants resided in either Australia, Canada, New Zealand, United Kingdom, or the United States.

accurately each item described the situation. Following this, the same statements were sorted using a nine-bin Q-sort from 1 ("*Extremely Uncharacteristic*") to 9 ("*Extremely Characteristic*"), according to a forced choice, quasi-normal distribution. The number of items placed in each category was 3, 6, 11, 15, 20, 15, 11, 6, and 3 for categories 1–9 respectively. Using factor analyses, the ratings were reduced to eight dimensions of situation perception: *Duty*, *Intellect*, *Adversity*, *Mating*, *pOstivity*, *Negativity*, *Deception*, and *Sociality*. Prior studies employing the RSQ (v4.1) have not reported reliability results. However, average internal consistencies for the DIAMONDS taxonomy using the RSQ (v3.15) across 10 samples (N = 1589) were: Negativity (M_{α} = .74), Mating (M_{α} = .68), Adversity (M_{α} = .65), pOsitivity (M_{α} = .64), Sociality (M_{α} = .63), Duty (M_{α} = .61), Intellect (M_{α} = .60), and Deception (M_{α} = .57) (Rauthmann et al., 2014).

Statistical Analysis

Data were analysed using the Statistical Package for the Social Sciences (SPSS) and Linear Structural Relations (LISREL 9.1). Following data cleaning and preparation, the measurement properties of the RSQ and BFI-2 were evaluated. Data measuring situations via the RSQ were subjected to exploratory factor analysis (EFA) to determine which measured variables were satisfactory indicators of the latent situational dimensions (Brown & Moore, 2012). An exploratory approach was taken since the RSQ is a relatively new measure and its measurement properties have not been thoroughly investigated. Personality data was subjected to confirmatory factor analysis (CFA) using LISREL 9.1. CFA was deemed appropriate since the Big Five structure has been widely confirmed on empirical and theoretical grounds over the years. Following factor analyses, the reliability of each scale was assessed using the SPSS item analysis procedure.

Prior to conducting inferential analyses, descriptive statistics were used to describe the features of the data and the relevant regression assumptions were assessed. Multiple regression analysis is suitable when a research problem is expressed in a form that implies prediction, and when modelling two or more predictors on a single outcome variable (Osborne, 2017). Therefore, in order to investigate the predictive power of both personality trait and situational characteristic variable sets, multiple regression analyses were deemed appropriate. To test hypothesis 1 and 2, personality and situation variable sets were entered independently in order to

examine their individual influences on each of the seven work-related behaviours[7]. To test hypothesis 3 and 4 concerning incremental prediction, two sets of hierarchical multiple linear regression analyses (predicting each work-related behaviour) were conducted. The values of R^2 and $R^2\Delta$ were used to determine how much variance in the outcome variable (i.e., work-related behaviour) was explained by the predictor variables (i.e., personality traits and situational characteristics) (Osborne, 2017).

Following this, a bare-bones meta-analysis of the resulting regression coefficients (R and $R\Delta$) for each model was conducted using Wiernik's (2017) Open Psychometric Meta-analysis computer software (Version 1.0.1.). The meta-analysis enabled the interpretation of the average R value for personality and situations, and the average $R\Delta$ value for the incremental prediction of each variable set. This meta-analysis assisted in determining if, across the set of behaviours, personality traits and situation characteristics predicted work-related behaviour. An outline of the regression models conducted for each hypothesis is presented in Table 2.

Table 2

Overview of Regression Models and Meta-analyses for Hypothesis Tests

Hypothesis	Dependent Variable	Predictor
H_{1a}	I tried to control the situation.	Situational characteristics
H_{1b}	I displayed ambition.	
H_{1c}	I showed high enthusiasm.	
H_{1d}	I concentrated on or worked hard at a task.	
H_{1e}	I was interested in what someone had to say.	
H_{1f}	I sought advice.	
H_{1g}	I exhibited a high degree of intelligence.	
Overall H_1	Meta-analytic R assessing the extent to which situational characteristics predict work-related behaviour	
H_{2a}	I tried to control the situation.	Personality traits

[7] The use of parametric techniques such as standard multiple regression for single-item Likert responses is a contested issue. This is because these items are technically not continuous, but ordinal in nature. As such, some authors suggest the use of ordinal regression. Wu and Leung (2017) indicated that increasing the number of scale points leads to a better approximation of an interval scale and normality. Similarly, single items with more than five-item responses are suggested to represent measures that can be viewed as interval in nature (Norman, 2010; Willits et al., 2016). As the BBI employs a 9-point Likert-type scale and the resulting distributions were relatively normal, standard multiple regression was deemed appropriate.

Hypothesis	Dependent Variable	Predictor
H_{2b}	I displayed ambition.	
H_{2c}	I showed high enthusiasm.	
H_{2d}	I concentrated on or worked hard at a task.	
H_{2e}	I was interested in what someone had to say.	
H_{2f}	I sought advice.	
H_{2g}	I exhibited a high degree of intelligence.	
Overall H_2	Meta-analytic *R* assessing the extent to which personality traits predict work-related behaviour	
H_{3a}	I tried to control the situation.	
H_{3b}	I displayed ambition.	
H_{3c}	I showed high enthusiasm.	Step 1: Personality traits
H_{3d}	I concentrated on or worked hard at a task.	
H_{3e}	I was interested in what someone had to say.	Step 2: Situational characteristics
H_{3f}	I sought advice.	
H_{3g}	I exhibited a high degree of intelligence.	
Overall H_3	Meta-analytic $R\Delta$ assessing the extent to which situational characteristics increment personality traits to predict work-related behaviour	
H_{4a}	I tried to control the situation.	
H_{4b}	I displayed ambition.	
H_{4c}	I showed high enthusiasm.	Step 1: Situational characteristics
H_{4d}	I concentrated on or worked hard at a task.	
H_{4e}	I was interested in what someone had to say.	Step 2: Personality traits
H_{4f}	I sought advice.	
H_{4g}	I exhibited a high degree of intelligence.	
Overall H_4	Meta-analytic $R\Delta$ assessing the extent to which personality traits increment situational characteristics to predict work-related behaviour	

Note. Personality traits included Conscientiousness, Open-Mindedness, Negative Emotionality, Extraversion, and Agreeableness; Situational characteristics included Duty, Intellect, pOsitivity, Negativity and Sociality.

Chapter 4: Results

This chapter presents the results of the statistical analyses conducted. The measurement properties of the instruments are investigated using factor and reliability analysis to validate the measurement models and examine their internal consistency. To test hypothesised bivariate relationships, correlation results from the multiple regression analyses are reported. The chapter concludes with the overall meta-analytic findings and post-hoc analyses.

Data Preparation

Prior to analysis, all variables were assessed for data entry accuracy and missing values. To ensure data accuracy, examination of descriptive statistics and graphic representations of variables was conducted (Tabachnick & Fidell, 2013). No values were found to be out of range. Next, the data were scanned for missing values. No missing values were found since all respondents completed each measure of interest. As such, the final sample consisted of 256 participants.

Measurement Properties

To verify the accuracy and consistency of the scales, the measurement properties of the Big Five Inventory-2 and Riverside Situational Q-sort 4.1 were analysed. As individual items from the BBI were used as the dependent variable, measurement properties are not reported.

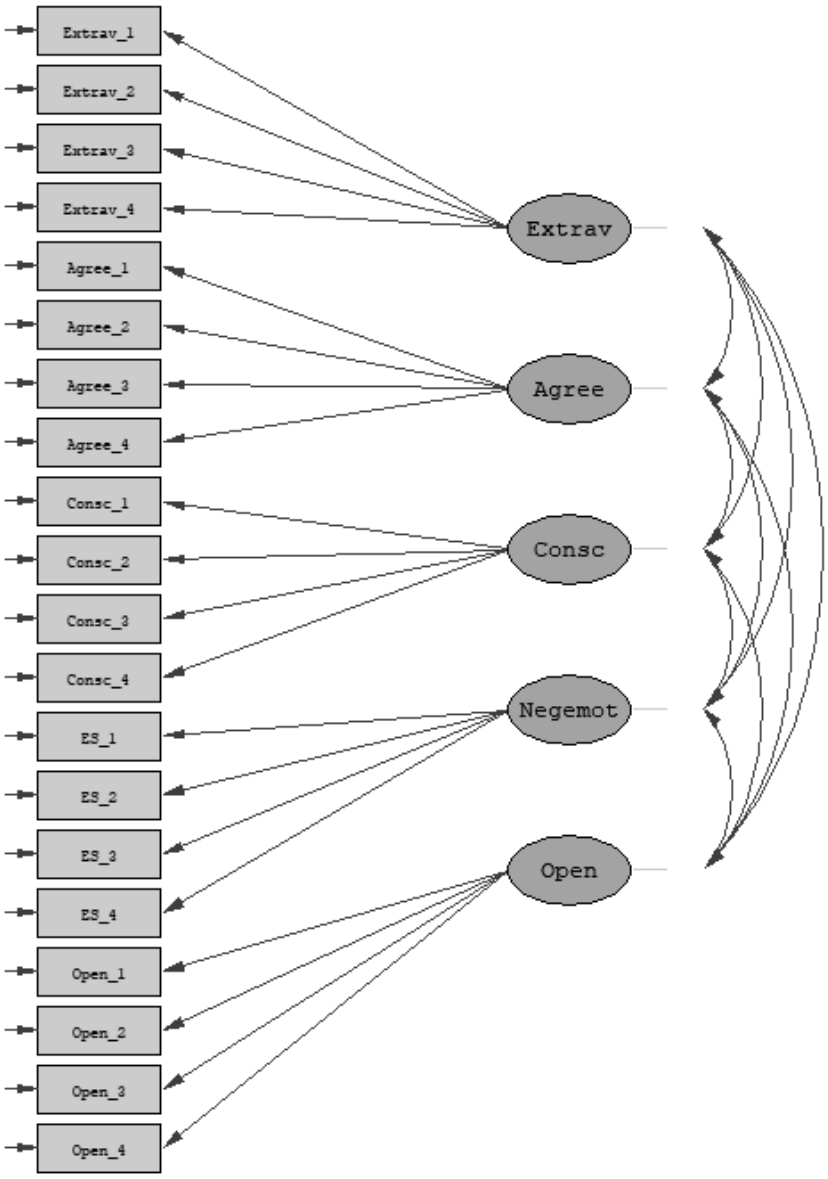
Big Five Inventory-2 (BFI-2)

To evaluate the latent structure of the BFI-2, confirmatory factor analysis (CFA) was conducted. In CFA, the measurement model is specified a priori with the aim of achieving a stronger test of the theory underlying a measure. Consequently, CFA is commonly regarded as more suitable for theory testing than exploratory factor analysis (EFA; Hair et al., 2010). A parcelling technique was used to reduce the number of observed variables given the scale length (60 items). Using parcels in CFA can be advantageous as they enable retention of measurement information from many items and can produce less biased parameter estimates (Hair et al., 2010). A domain-representative approach was employed whereby parcels were created by joining items from different facets into combined item clusters. Four parcels were created for each of the Big Five traits. Each parcel consisted of the average of three items, one taken from each of the facets of the relevant domain. This approach accounted for the multidimensionality inherent in a set of items.

The Hypothesised Model. The hypothesised measurement model is presented in Figure 2, where circles represent latent variables and rectangles represent measured variables. The absence of a line connecting variables infers no hypothesised direct effect. A five-factor model of personality traits is hypothesised.

Figure 2

Conceptual Diagram for the Big Five Inventory-2 Model



Model Estimation. Robust maximum likelihood estimation was employed due to the lack of multivariate normality in the data. The goodness-of-fit indices (GFI) for the measurement model are displayed in Table 3. The independence model that tests the hypothesis that the variables are unrelated was easily rejected, χ^2 (190, N = 256) = 2607.25, p < .01. Next, the hypothesised model was tested and support was found for this model, χ^2 (160, N = 256) = 339.70, p < .001, RMSEA = .07, 90% CI: [0.06; 0.08]. The absolute, relative, and comparative indices all indicated acceptable model fit, goodness-of-fit (GFI) = .88, normed fit index (NFI) = .88, comparative fit index (CFI) = .93.

Reliability. Internal consistency for each sub-scale was examined using Cronbach's alpha. Cronbach alpha values of greater than .70 were considered satisfactory in accordance with Field (2018). Except for *Open-mindedness (*α = .75*)* and *Agreeableness (*α = .77), all subscales exhibited high (α > .80; Field, 2018) reliability. A summary of the internal consistency reliability coefficients is presented in Table 5, where alphas are reported on the diagonal (in brackets).

Table 3

Goodness-of-fit Indices of the CFA Model

CFA Model	RMSEA	$P_{\text{close fit}}$	SRMR	GFI	AGFI	NNFI	NFI	CFI
Indices	.07	.004	.06	.88	.85	.92	.88	.93

Note. RMSEA, Root mean square error of approximation; $p_{\text{close fit}}$, p-value for test of close fit (H_0: RMSEA < .05); SRMR, Standardised root mean residual; GFI, Goodness-of-fit; AGFI, Adjusted goodness-of-fit index; NNFI, Non-normed fit index; CFI, Comparative fit index.

Riverside Situational Q-sort (RSQ) 4.1

Exploratory factor analysis[8] and item analysis were conducted on the sets of items contained within each DIAMONDS dimension. As no prior published studies reported item-to-construct mapping for the DIAMONDS measure - personality researchers generally employ

[8] Factor analysis of ipsative instruments is a controversial issue due to the interdependency among variables (Meade, 2004). In line with Rauthmann et al. (2014)'s factor analysis of the earlier version of the RSQ, EFA with PROMAX rotation was conducted. Although this strategy was followed, caution should be exercised upon interpretation. Such analysis is out of the scope of the current study.

item-level analyses rather than dimension-level scores - two researchers classified items into the respective DIAMONDS dimensions. Disagreements were resolved by discussion and where agreement could not be reached, items were dropped from further analyses. Separate factor analyses (Principal Axis Factoring) were used with PROMAX rotation on items measuring a specific dimension (e.g., Duty). Oblique rotation was chosen as it was expected that the underlying factors would be correlated. The Kaiser-Meyer Olkin (KMO) measure of sampling adequacy, along with Bartlett's test of sphericity were used to assess the factorability of the data. EFA results for all sub-scales except Deception yielded satisfactory KMO values (i.e., greater than .60). Bartlett's test of sphericity revealed significant results for each sub-scale (i.e., $p < .05$), thus indicating that the correlations between variables were significantly different from zero. Accordingly, the data met the conditions required for factor analysis.

Overall, the reliabilities were unsatisfactory[9] (see Table 4) and therefore a scaling strategy was decided upon. Items with low factor loadings (< .30; Field, 2018) on the single largest primary dimension (as identified by the eigenvalue) were trimmed from the scale. This strategy ensured both uni-dimensionality of each scale and retention of items that best represented each dimension (see Appendix D for resulting dominant factor loadings). Next, item analysis was conducted on the remaining items. Corrected item-total correlations[10] were used to further trim items until satisfactory internal consistency reliability was achieved for each scale. A cut-off of $\alpha = .60$ was used (Nunnally, 1967). As the resulting Cronbach alpha coefficients for Deception ($\alpha = .37$) and Adversity ($\alpha = .58$) did not meet acceptable levels of internal consistency[11], these scales were dropped from further analyses. Results for the final measure are reported in Appendix E.

---

[9] The RSQ is a relatively new measure and is still under development and validation. Similar to personality traits, it appears that situations are broad and complex. For example, EFA on Duty reveals a preference for multiple facets, which warrants further investigation. It is also noted that the reliability of ipsatized data is commonly lower than that of normative data (Bartram, 1996).

[10] This data-driven strategy was necessary to construct scales that meet minimum measurement quality criteria. However, it must be noted that results are sample-specific and may, therefore, capitalise on idiosyncrasies in the data. Further replication is necessary to evaluate the generalisability of these findings.

[11] The lower reliabilities are in line with Rauthmann et al. (2014)'s findings, where average internal consistencies for the DIAMONDS taxonomy using the RSQ (v3.15) across 10 samples ($N = 1589$) ranged from $M\alpha = .57 - .74$.

Table 4

Factor Analysis and Reliability Analysis Results

Scale	KMO	Bartlett's Test of Sphericity		No. Items	α
		X	*df*		
Duty	.663	426.495*	136	17	.55
Intellect	.628	318.697*	55	11	.52
Adversity	.618	396.556*	105	15	.40
Mating[a]	.695	205.418*	36	9	.54
pOsitivity	.733	576.623*	78	13	.64
Negativity	.756	295.490*	36	9	.63
Deception	.572	19.234	3	3	.37
Sociality	.650	331.372*	78	13	.44

[a] As noted in the Methods chapter, this dimension was excluded from analyses due to its non-relevance to the work context.

* $p < .05$.

Preliminary Analyses

Prior to further analyses, the data were screened using the process outlined in Appendix F. All variables were assessed for fit between their distributions and the assumptions of multivariate analysis. Although one-sample Kolmogorov-Smirnov tests indicated non-normality for many of the variables' distributions (see Appendix G), visual inspections of the histograms, normal probability plots, and outliers showed variables to be relatively normally distributed. However, there was some evidence of bimodal distributions for the situational characteristics. This may have occurred since the situations measure employs an ordinal scale of measurement where differences across scale values are unequal with regards to what is being measured. As a result, data possessing an ordinal scale does not always satisfy the assumption of normality required by many statistical procedures (Harwell & Gatti, 2001).

Although not critical, transformations of these variables were conducted to identify if normality could be improved, however, they did not change substantive conclusions. The

remedies tended to slightly improve the distributions' skewness but exacerbated their kurtosis. Given that the deviations were slight, and that in large samples ($N > 200$), the data are assumed to follow a normal distribution (Field, 2018), no adaptations were made. Further, *F* tests are robust in that moderate departures from normality commonly have a trivial effect on the validity of null hypothesis tests and power analyses (Cohen, 1988).

Subsequently, multivariate outliers for all models were investigated using Mahalanobis distances. Applying a criterion of $p < .001$, none of the cases had a value in excess of $\chi^2_5 = 20.515$. As such, no multivariate outliers were identified (Tabachnick & Fidell, 2013). The various assumptions for multiple regression were then tested for each model (see Appendix H for detailed assumptions per model).

Ratio of Cases to Independent Variables

With 256 respondents, the number of cases was well above the minimum requirement[12] for testing H_1 and H_2 with five predictors each ($N \geq 90$), and H_3 and H_4 ($N \geq 130$) with 10 predictors each.

Normally Distributed Errors

Visual inspections of the normal probability plots and histograms were conducted to assess if the errors of prediction were normally distributed around all predicted dependent variable scores. Congruent with the above findings of the individual variable plots, there were minor deviations from normality evidenced by slight negatively skewed and bimodal distributions. Given that only extreme deviations from normality are likely to have a significant impact on the findings, the results were still considered valid (Field, 2018).

Linearity of Residuals

Visual inspections of the residual scatterplots were conducted to examine whether there existed a roughly linear relationship between predicted dependent variable scores and errors of prediction. The overall shape of the residual scatterplots for all models was rectangular in nature with no curves evident. This suggested that the assumption of linearity was met (Field, 2018).

Homoscedasticity of Residuals

The residual scatterplots were inspected to investigate if the spread of residuals were fairly constant across the linear models. For a majority of the models, the band enclosing the

[12] $N \geq 50 + 8m$, where m is the number of independent variables (Tabachnick & Fidell, 2013)

residuals was roughly equal in width at all values of the predicted variable. Few models in the personality, situation, and combined models exhibited very slight funnelling. Since these cases were not extreme, in addition to the fact that heteroscedasticity does not invalidate the analysis but only has the potential to weaken it, the data was regarded as fit for further analyses (Tabachnick & Fidell, 2013).

Independence of Residuals

The Durban-Watson statistic was used to detect if errors of prediction were independent of one another. All models had a value close to two, indicating that the residual terms were uncorrelated (Field, 2018).

No Multicollinearity

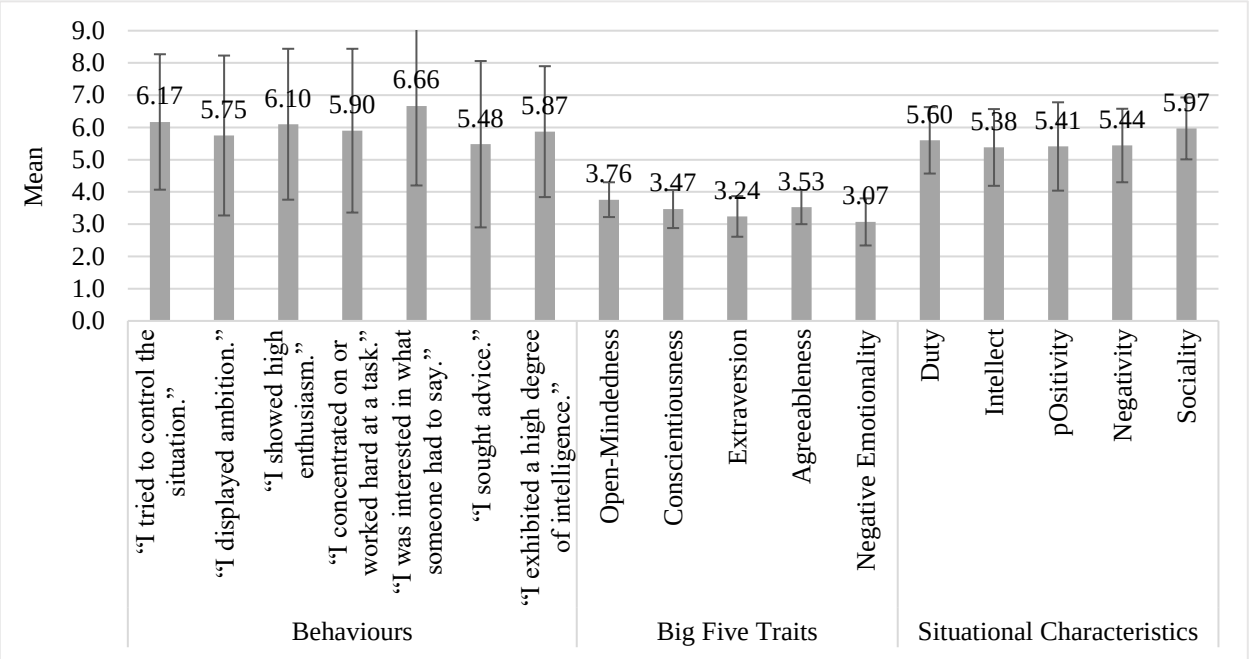
Correlations are considered substantial when they exceed $r = .80$ or $r = .90$ (Field, 2018). As seen in Table 5 below, no correlations exceeded these values. In addition to this, the variation inflation factor (VIF) values which indicate whether a predictor has a strong linear relationship with the other predictors, were well below 10 and tolerance statistics above .20 for all models (Field, 2018). Therefore, multicollinearity was not deemed a concern.

Descriptive Statistics

Descriptive statistics for and correlations among the variables of interest are presented in Figure 3 and Table 5 respectively. The mean scores, based on the Big Five Inventory indicated that the participants' average trait scores were similar across the five sub-scales. The same held true for participants' scores on the situational characteristics. The mean scores based on the Brief Behaviour Inventory were similar across most behaviours except for "I was interested in what someone had to say", where the average scores were slightly higher. The magnitude of the intercorrelations between the situational characteristics and Big Five traits were low ($|r| = .00$ - .18). This is comparable with Rauthmann et al. (2014)'s findings, who found correlations ranging from $|r| = .00$ - .24 between the DIAMONDS dimensions and the Big Five traits.

Figure 3

Descriptive Statistics for the Full Set of Study Variables (N = 256)



Note. Error bars represent standard deviations.

Table 5

Inter-correlations Between Study Variables (N = 256) and Scale Reliabilities

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. BBI 1	-																
2. BBI 2	.19**	-															
3. BBI 3	.09	.34**	-														
4. BBI 4	.26**	.42**	.19**	-													
5. BBI 5	-.09	-.06	.28**	-.11	-												
6. BBI 6	-.02	.17**	.04	.06	.46**	-											
7. BBI 7	.13*	.26**	.21**	.24**	.15*	.10	-										
8. Duty	.17**	.20**	-.07	.47**	-.25**	.00	.06	(.62)									
9. Intellect	-.11	.11	0.1	.04	.33**	.16*	.36**	-.07	(.62)								
10. pOsitivity	-.23**	-.02	.36**	-.05	.22**	-.03	-.07	-.28**	.09	(.78)							
11. Negativity	.19**	-.07	-.42**	.07	-.37**	-.17**	-.08	.28**	-.23**	-.59**	(.71)						
12. Sociality	-.20**	-.18**	.09	-.30**	.44**	.23**	-.05	-.43**	.12	.37**	-.48**	(.63)					
13. Open-Mindedness	-.08	.07	.19**	.03	.08	.01	.07	-.11	.13*	.18**	-.08	.00	(.75)				
14. Conscientious-ness	.04	.17**	.19**	.18**	.05	.05	.01	.09	-.10	.08	-.12	.08	.02	(.80)			
15. Extraversion	.06	.01	.24**	0	.07	0	.16**	-.09	.02	.07	-.12	.10	.28**	.36**	(.83)		
16. Agreeableness	-.03	.03	.05	.06	.14*	.06	-.07	-.01	-.02	-.02	-.10	.07	.05	.22**	.08	(.77)	
17. Negative Emotionality	-.10	-.05	-.11	-.15*	-.08	-.11	-.12*	-.01	-.01	-.01	.17**	-.08	.00	-.32**	-.39**	-.32**	(.88)

Note. BBI1 = "I tried to control the situation."; BBI2 = "I displayed ambition."; BBI3 = "I showed high enthusiasm."; BBI4 = "I concentrated on or worked hard at a task."; BBI5 = "I was interested in what someone had to say."; BBI6 = "I sought advice." BBI7: "I exhibited a high degree of intelligence". Internal consistencies (Cronbach's alpha) are reported in parentheses on the diagonal.
* $p < .05$. ** $p < .01$.

Testing of Hypotheses[13]

Hypothesis 1 stated that behaviour would be significantly predicted by situational characteristics (Duty, Intellect, Adversity*, pOsitivity, Negativity, Deception*, Sociality). To test this hypothesis, standard linear regression analyses were conducted with each behaviour as the independent variable and the combination of situational characteristics as the dependent variable. Results from the regression analyses revealed that overall, H_1 was significant for all behaviours: "I tried to control the situation" (R^2 = .078, F(5, 250) = 4.24, p = .001), "I displayed ambition" (R^2 = .099, F(5, 250) = 5.50, p < .001), "I showed high enthusiasm" (R^2 = .217, F(5, 250) = 13.84, p < .001), "I concentrated on or worked hard at a task" (R^2 = .258, F(5, 250) = 17.37, p < .001), "I was interested in what someone had to say" (R^2 = .285, F(5, 250) = 19.60, p < .001), "I sought advice " (R^2 = .112, F(5, 250) = 6.30, p < .001), and "I exhibited a high degree of intelligence" (R^2 = .157, F(5, 250) = 9.32, p < .001). Therefore, H_1 was supported. The effect sizes[14] for these models ranged from small (f^2 = .08) to large (f^2 = .40).

Hypothesis 2 proposed that behaviour would be significantly predicted by personality traits (Open-Mindedness, Conscientiousness, Extraversion, Agreeableness, Negative Emotionality). To test this hypothesis, standard linear regression analyses were conducted with each behaviour as the independent variable and the combination of Big Five personality traits as the dependent variable. Results from the regression analyses revealed that overall, H_2 was significant for the following behaviours: "I showed high enthusiasm" (R^2 = .088, F(5, 250) = 4.85, p < .001), "I concentrated on or worked hard at a task" (R^2 = .059, F(5, 250) = 3.12, p = .009), and "I exhibited a high degree of intelligence" (R^2 = .047, F(5, 250) = 2.47, p = .033) but not for "I tried to control the situation" (R^2 = .021, F(5, 250) = 1.05, p = .390), I displayed ambition (R^2 = .038, F(5, 250) = 1.96, p = .085), "I was interested in what someone had to say" (R^2 = .027, F(5, 250) = 1.38, p = .234), and "I sought advice." (R^2 = .015, F(5, 250) = 0.75, p = .589). Therefore, H_2 was partially supported, with more findings suggesting that it was not supported. The effect sizes for these models were all small (f^2 < .15; Cohen, 1988).

---

[13] Detailed results for each model including the associated beta and standardised beta coefficients can be found in Tables 6 – 9 below.

[14] Effect size estimates were interpreted using Cohen's (1988) conventions for the effect size f^2 (small = .02; medium = .15; large = .35).

* As mentioned previously, these dimensions were eliminated from further analyses due to insufficient reliability.

Hypothesis 3 stated that situational characteristics would show significant incremental validity over personality traits to predict behaviour. To test this hypothesis, two-stage hierarchical linear regression analyses were conducted for each behaviour. The set of Big Five personality traits were entered into block one and the set of situational characteristics into block two. This was repeated with each behaviour entered as the dependent variable. Results from the regression analyses revealed that overall, H_3 was significant for all behaviours: "I tried to control the situation" ($R^2\Delta$ = .077, p = .001), "I displayed ambition" ($R^2\Delta$ = .093, p < .001), "I showed high enthusiasm" ($R^2\Delta$ = .181, p < .001), "I concentrated on or worked hard at a task" ($R^2\Delta$ = .240, p < .001), "I was interested in what someone had to say" ($R^2\Delta$ = .271, p < .001), "I sought advice " ($R^2\Delta$ = .106, p < .001), and "I exhibited a high degree of intelligence" ($R^2\Delta$ = .150, p < .001). Therefore, H_3 was supported. The effect sizes[15] for these models ranged from small (f^2 = .09) to large (f^2 = .38).

Hypothesis 4 predicted that personality traits would show significant incremental validity over situational characteristics to predict behaviour. To test this hypothesis, two-stage hierarchical linear regression analyses were conducted for each behaviour. The set of situational characteristics were entered into block one and the set of Big Five personality traits into block two. This was repeated for each behaviour entered as the dependent variable. Results from the regression analyses revealed that overall, H_4 was significant for the following behaviours: "I showed high enthusiasm" ($R^2\Delta$ = .053, p = .004), "I concentrated on or worked hard at a task" ($R^2\Delta$ = .041, p = .015), "I exhibited a high degree of intelligence" ($R^2\Delta$ = .040, p = .034), but not for "I tried to control the situation" ($R^2\Delta$ = .020, p = .375), I displayed ambition ($R^2\Delta$ = .032, p = .116), "I was interested in what someone had to say" ($R^2\Delta$ = .012, p = .524), and "I sought advice" ($R^2\Delta$ = .009, p = .795). Therefore, H_4 was partially supported, with more findings suggesting that it was not supported. The effect sizes for the resulting models were all small (f^2 < .15; Cohen, 1988).

[15] Effect size estimates for H_3 and H_4 (testing change in R^2) were calculated using the following formula: $f^2 = \frac{R^2_{Y \cdot A,B} - R^2_{Y \cdot A}}{1 - R^2_{Y \cdot A,B}}$.

Table 6

Multiple Regression Analysis of Situational Characteristics Predicting Work-Related Behaviours (N = 256)

	BBI1			*BBI2*			*BBI3*			*BBI4*			*BBI5*			*BBI6*			*BBI7*		
Var	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*
I	-.14	.11	-.08	.22	.13	.10	.02	.11	.01	.14	.12	.06	.52	.11	.25**	.24	.13	.11	.61	.10	.36**
D	.14	.14	.07	.41	.16	.17*	.07	.14	.03	1.09	.15	.44**	-.14	.14	-.06	.26	.17	.11	.08	.13	.04
S	-.20	.16	-.09	-.55	.19	-.21**	-.37	.17	-.15*	-.50	.18	-.19**	.81	.17	.32**	.66	.20	.25**	-.20	.15	-.09
N	.04	.15	.02	-.46	.18	-.21*	-.78	.16	-.38**	-.18	.16	-.08	-.34	.16	-.16*	-.42	.18	-.18*	-.24	.14	-.13
O	-.24	.12	-.16*	-.05	.14	-.03	.34	.12	.20**	.18	.13	.10	-.06	.12	-.03	-.40	.14	-.21**	-.20	.11	-.14
R^2		.08			.10			.22			.26			.29			.11			.16	
F		4.24**			5.50**			13.84**			17.37**			20.00**			6.30**			9.32**	
f^2		.08			.11			.28			.35			.40			.13			.19	

Note. Var = Variable; D = Duty; I = Intellect; O = pOsitivity; N = Negativity; S = Sociality. BBI1: “I tried to control the situation.”; BBI2: “I displayed ambition.”; BBI3: “I showed high enthusiasm.”; BBI4 “I concentrated on or worked hard at a task.”; BBI5: “I was interested in what someone had to say.”; BBI6: “I sought advice.”; BBI7: “I exhibited a high degree of intelligence”. f^2 = effect size.

*$p < .05$. **$p < .01$.

Table 7

Multiple Regression Analysis of Big Five Traits Predicting Work-Related Behaviours (N = 256)

	BBI1			*BBI2*			*BBI3*			*BBI4*			*BBI5*			*BBI6*			*BBI7*	
Variable	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*
E	.15	.25	.05	-.37	.29	-.09	.55	.27	.15*	-.59	.29	-.15*	.14	.29	.04	-.26	.31	-.06	.40	.24	.13
A	-.23	.26	-.06	-.07	.31	-.02	.01	.28	.00	-.09	.31	-.02	.57	.31	.12	.07	.33	.02	-.44	.25	-.12
C	.03	.25	.01	.80	.29	.19**	.52	.27	.13	.81	.29	.19**	.01	.29	.00	.15	.31	.03	-.16	.24	-.05
N	-.27	.21	-.09	-.10	.25	-.03	-.02	.23	-.01	-.55	.25	-.16*	-.08	.25	-.03	-.40	.26	-.11	-.35	.20	-.13
O	-.34	.26	-.09	.42	.30	.09	.63	.28	.15*	.33	.31	.07	.28	.30	.06	.11	.32	.02	.15	.25	.04
R^2		.02			.04			.09			.06			.03			.02			.05	
F		1.05			1.96			4.85**			3.12**			1.38			0.75			2.47*	
f^2		.02			.04			.10			.06			.03			.02			.05	

Note. E = Extraversion; A = Agreeableness; C = Conscientiousness; N = Negative Emotionality O = Open-Mindedness. BBI1: “I tried to control the situation.”; BBI2: “I displayed ambition.”; BBI3: “I showed high enthusiasm.”; BBI4 “I concentrated on or worked hard at a task.”; BBI5: “I was interested in what someone had to say.”; BBI6: “I sought advice.”; BBI7: “I exhibited a high degree of intelligence.”. f^2 = effect size.

*$p < .05$. **$p < .01$.

Table 8

Incremental Prediction of Situational Characteristics over the Big Five Traits (N = 256)

	BBI1			*BBI2*			*BBI3*			*BBI4*			*BBI5*			*BBI6*			*BBI7*	
Var	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*
Step 1																					
E	.21	.24	.06	-.25	.28	-.06	.58	.24	.16*	-.32	.26	-.08	-.02	.25	.00	-.33	.29	-.08	.43	.22	.13
A	-.22	.26	-.06	-.03	.30	-.01	.02	.26	.01	.06	.27	.01	.47	.27	.10	-.05	.31	-.01	-.43	.24	-.11
C	.03	.25	.01	.78	.28	.18**	.38	.25	.10	.59	.26	.14*	.10	.25	.02	.15	.30	.03	-.02	.22	-.01
N	-.30	.21	-.10	.01	.24	.00	.13	.21	.04	-.49	.22	-.14*	.03	.21	.01	-.29	.25	-.08	-.26	.19	-.09
O	-.18	.26	-.05	.36	.30	.08	.36	.26	.08	.31	.28	.06	.12	.27	.03	.24	.31	.05	.05	.24	.01
Step 2																					
I	-.12	.11	-.07	.24	.13	.12	.03	.11	.01	.17	.12	.08	.53	.12	.26**	.24	.14	.11	.61	.10	.35**
D	.13	.14	.06	.35	.16	.14*	.08	.14	.03	1.03	.15	.42**	-.15	.15	-.06	.24	.17	.10	.09	.13	.05
S	-.22	.16	-.10	-.56	.19	-.22**	-.38	.16	-.16*	-.52	.17	-.20**	.80	.17	.31**	.67	.20	.25**	-.20	.15	-.09
N	.09	.15	.05	-.43	.18	-.20*	-.75	.15	-.37**	-.07	.17	-.03	-.31	.16	-.14	-.38	.19	-.17*	-.21	.14	-.12
O	-.21	.12	-.14	-.09	.14	-.05	.30	.12	.18*	.19	.13	.10	-.05	.12	-.03	-.41	.15	-.22**	-.21	.11	-.14
R^2		.10			.13			.27			.30			.30			.12			.20	
F		2.66**			3.68**			9.05**			10.46**			10.37**			3.35**			6.02**	
$R^2\Delta$		.08			.09			.18			.24			.27			.11			.15	
F $R^2\Delta$		4.21**			5.24**			12.16**			16.81**			18.86**			5.89**			9.16**	
f^2		.09			.11			.25			.34			.38			.12			.19	

Note. Var = Variable; D = Duty; I = Intellect; O = pOsitivity; N = Negativity; S = Sociality. BBI1: "I tried to control the situation."; BBI2: "I displayed ambition."; BBI3: "I showed high enthusiasm."; BBI4 "I concentrated on or worked hard at a task."; BBI5: "I was interested in what someone had to say."; BBI6: "I sought advice."; BBI7:" I exhibited a high degree of intelligence.". R^2 for combined model. f^2 = effect size.

*p < .05. **p < .01.

Table 9

Incremental Prediction of the Big Five Traits over Situational Characteristics (N = 256)

	BBI1			*BBI2*			*BBI3*			*BBI4*			*BBI5*			*BBI6*			*BBI7*		
Var	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*
Step 1																					
I	-.12	.11	-.07	.24	.13	.12	.03	.11	.01	.17	.12	.08	.53	.12	.26**	.24	.14	.11	.61	.10	.35**
D	.13	.14	.06	.35	.16	.14*	.08	.14	.03	1.03	.15	.42**	-.15	.15	-.06	.24	.17	.10	.09	.13	.05
S	-.22	.16	-.10	-.56	.19	-.22**	-.38	.16	-.16*	-.52	.17	-.20**	.80	.17	.31**	.67	.20	.25**	-.20	.15	-.09
N	.09	.15	.05	-.43	.18	-.20*	-.75	.15	-.37**	-.07	.17	-.03	-.31	.16	-.14	-.38	.19	-.17*	-.21	.14	-.12
O	-.21	.12	-.14	-.09	.14	-.05	.30	.12	.18*	.19	.13	.10	-.05	.12	-.03	-.41	.15	-.22**	-.21	.11	-.14
Step 2																					
E	.21	.24	.06	-.25	.28	-.06	.58	.24	.16*	-.32	.26	-.08	-.02	.25	.00	-.33	.29	-.08	.43	.22	.13
A	-.22	.26	-.06	-.03	.30	-.01	.02	.26	.01	.06	.27	.01	.47	.27	.10	-.05	.31	-.01	-.43	.24	-.11
C	.03	.25	.01	.78	.28	.18**	.38	.25	.10	.59	.26	.14*	.10	.25	.02	.15	.30	.03	-.02	.22	-.01
N	-.30	.21	-.10	.01	.24	.00	.13	.21	.04	-.49	.22	-.14*	.03	.21	.01	-.29	.25	-.08	-.26	.19	-.09
O	-.18	.26	-.05	.36	.30	.08	.36	.26	.08	.31	.28	.06	.12	.27	.03	.24	.31	.05	.05	.24	.01
R^2		.10			.13			.27			.30			.30			.12			.20	
F		2.66**			3.68**			9.05**			10.46**			10.37**			3.35**			6.02**	
$R^2\Delta$		.02			.03			.05			.04			.01			.01			.04	
F for $R^2\Delta$		1.08			1.79			3.55**			2.89*			.84			.47			2.45*	
f^2		.02			,04			.07			.06			.02			.01			.05	

Note. Var = Variable; D = Duty; I = Intellect; O = pOsitivity; N = Negativity; S = Sociality. BBI1: "I tried to control the situation."; BBI2: "I displayed ambition."; BBI3: "I showed high enthusiasm."; BBI4: "I concentrated on or worked hard at a task."; BBI5: "I was interested in what someone had to say."; BBI6: "I sought advice."; BBI7: "I exhibited a high degree of intelligence.". R^2 for combined model. f^2 = effect size.

*p < .05. **p < .01.

Meta-analytic Findings

A bare-bones meta-analysis (see Table 10 below) was conducted using Hunter and Schmidt (1990)'s method with the multiple *R* resulting from each model used as the effect size. The mean observed correlations (*R*) were $\bar{R}$ = .41 between situational characteristics and work-related behaviour, and $\bar{R}$ = .20 between the Big Five traits and work-related behaviour. Situational characteristics incremented the Big Five traits in predicting work-related behaviours, on average, by $\overline{\Delta R}$ = .24. The Big Five traits incremented situational characteristics in predicting work-related behaviours, on average, by $\overline{\Delta R}$ = .03. None of the 90% confidence intervals contained the null value of zero, indicating that the results were statistically significant.

Table 10

Meta-Analytic Estimates (Bare-Bones) for Models Predicting Work-related Behaviours (N = 256)

Model	*N*	*k*	$\bar{R}/\overline{\Delta R}$	$SD_{\bar{R}}$	*90% CI*	*80% CV*
Situational characteristics	256	7	.41	.09	[.34, .47]	[.31, .50]
Big Five traits	256	7	.20	.06	[.16, .24]	[.20, .20]
Situations above traits	256	7	.24	.07	[.19, .30]	[.20, .29]
Traits above situations	256	7	.03	.02	[.02, .05]	[.03, .03]

Note. *N* = sample size; *k* = number of models included in the analysis; $\bar{R}$ = mean observed multiple correlations (uncorrected for indirect range restriction, unreliability, criterion unreliability); $\overline{\Delta R}$ = mean observed change in *R;* SD_R = observed standard deviation of correlations; 90% CI = 90% confidence interval around *R*; 80% CV = 80% credibility interval around *R*.

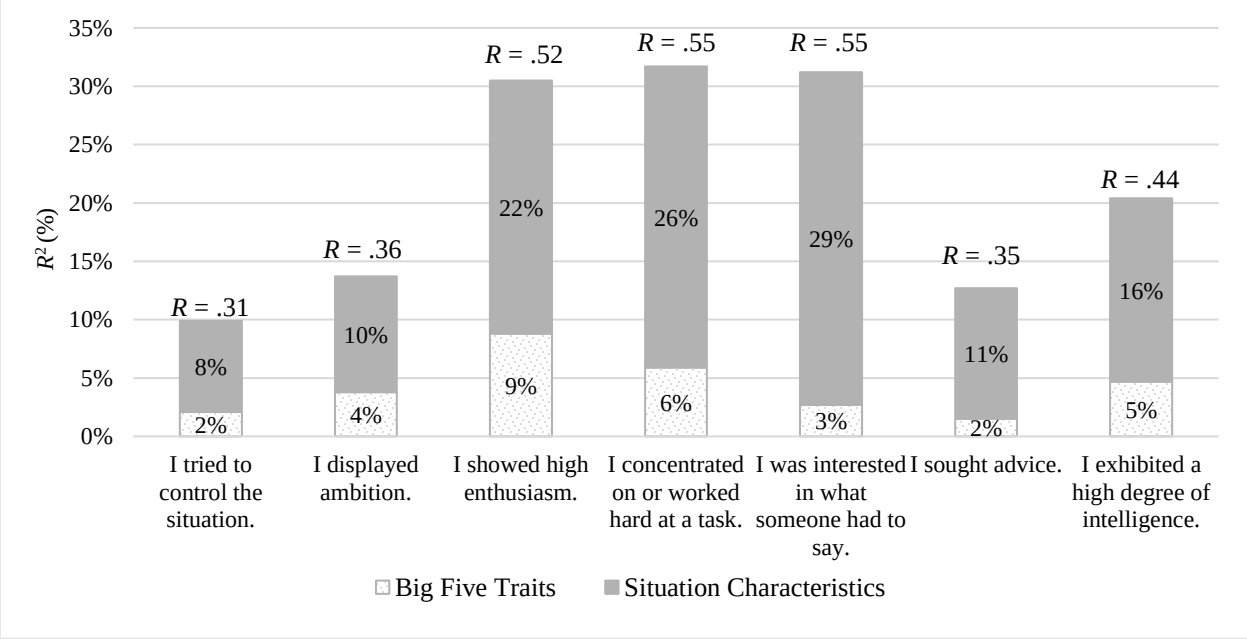
Summary of Results

Taken together (see Figure 4 below), the situational characteristics as a set of predictors consistently occupied more unique variance (8% - 29%) in the prediction of work-related behaviours than did the Big Five traits, as a set of predictors (2% - 9%). Moreover, the set of situational characteristics harboured incremental predictive ability over and above the Big Five personality traits whereas the Big Five traits did not significantly increment situational

characteristics in predicting all work behaviours. As can be seen in Figure 4, the combination of personality traits and situational characteristics explained more variance in all work-related behaviours than did their individual effects.

Figure 4

Proportion of Variance in Behaviour Attributable to the Big Five Traits and Situational Characteristics



Note. The *R* values are those of the combined models which include both the Big Five traits and the situational characteristics.

Further Analyses

Although the main focus of the present study was to investigate the independent and combined contributions of personality traits and situational characteristics to work-related behaviour, results indicated variation in effects dependent upon the behaviour being evaluated. This is evident through the varying sizes in bars for each behaviour in Figure 4. For example, “I concentrated on or worked hard at a task” and “I was interested in what someone had to say” were more easily predicted than “I tried to control the situation” or “I sought advice”, which left much more variance unexplained. This could suggest that certain work behaviours may be easier to predict than others, warranting further investigation.

Statistical Power

A post-hoc power analysis for each regression model was conducted in G*Power3 using an alpha value of .05. The results (see Table 11 below) revealed that the power to detect obtained effects at this level for models with the Big Five traits as a set of predictors ranged from .28 to .98 and took an average of .64. Power values for models with situational characteristics only, models with both the Big Five traits and situational characteristics, and models investigating the incremental prediction of situational characteristics, all ranged from .96 – 1.00. These values were well above Cohen (1988)'s convention of .80 indicating a very adequate sample size (N = 256) to achieve a high level of power, and to reduce the chance of making a Type 2 error. The power values for all models investigating the incremental prediction of the Big Five traits over and above situational characteristics were lower, ranging from .17 to .93 with an average of .59.

Table 11

Post-hoc Power Analyses (N = 256)

Behaviour	Traits	Situations	Combined	Situations above Traits[a]	Traits above Situations[b]
I tried to control the situation.	.39	.96	.97	.96	.40
I displayed ambition.	.67	.99	1.00	.99	.64
I showed high enthusiasm.	.98	1.00	1.00	1.00	.93
I concentrated on or worked hard at a task.	.88	1.00	1.00	1.00	.86
I was interested in what someone had to say.	.50	1.00	1.00	1.00	.31
I sought advice.	.28	1.00	.99	1.00	.17
I exhibited a high degree of intelligence.	.78	1.00	1.00	1.00	.79

Note. Power values are based on *F*-test for linear multiple regression: Fixed model, deviation of R^2 from zero, and, increase of R^2.

[a] Big Five traits in block one, situational characteristics in block two. [b] Situational characteristics in block one and Big Five traits in block two.

Chapter 5: Discussion

This chapter presents the findings obtained for the hypothesised relationships. The implications of these results are considered and possible future research directions are proposed to enhance our understanding of the complex triad of personality, situations, and behaviour. Lastly, the limitations of the study are considered along with practical implications of the results.

Main Findings

The present study sought to investigate the extent to which personality traits and situational characteristics, independently and in combination, predict work-related behaviour. Data was sourced from a completed published study which involved surveying students internationally to gain insight into situational experience across varying cultures. The current study leveraged the South African data obtained to address the unique presenting research questions. Sets of multiple regression analyses were conducted across seven behaviours using the Big Five personality traits and relevant DIAMONDS dimensions as predictors. Following this, a meta-analysis of the resulting multiple correlation coefficients was conducted to estimate the relative predictive power of traits vs. situations averaged across target behaviours. The main findings are presented below.

Traits Alone Do Not Predict Work Behaviour

In contrast to prior research demonstrating that traits are predictive of various work-related criteria (Ones & Viswesvaran, 2001), overall, the set of Big Five personality traits did not consistently predict all work-related behaviours, nor did they increment situations in predicting all work-related behaviours. Weaker personality-behaviour correlations appear to be a common finding throughout the literature. It is interesting to note that the obtained meta-analytic estimate (R = .20) is in line with Mischel's (1968) findings regarding the observed upper limit of personality-behaviour correlations of approximately .30. Moreover, these findings are comparable with popular meta-analyses investigating the validities of the Big Five traits in predicting work-related criteria (e.g., Barrick & Mount, 1991; Barrick et al., 2001; Tett et al., 1991). In these studies, the individual Big Five traits demonstrated weak predictive abilities (i.e., predominantly less than .30).

Despite seemingly small, Oswald and Hough (2010) argued that even modest validities for personality traits could be valuable in applied settings and afford utility across a workforce over time. In this regard, they disputed that a validity coefficient of .20 renders about a 10%

increase in employment success. In a similar vein, it has been proposed that Cohen's effect size categorisation system is largely unsuitable for both organisational behaviour (OB) and human resources (HR) literatures, since it is not grounded on the actual distribution of effect sizes reported in this literature (Paterson et al., 2016). Paterson et al. (2016)'s analysis of over 250 meta-analytic studies in the organisational behaviour/human resources literatures revealed an average uncorrected effect size of $r = .23$. As such, they recommended that researchers refer to the effect size distributions reported in their study to make more informed and significant comparisons between effect sizes in the management literature. In doing so, our obtained meta-analytic estimate of $R = .20$ exceeds, in magnitude, approximately 50% of the effect sizes reported in the HR and OB literatures.

It is important to note that these large-scale meta-analyses (i.e., Barrick & Mount, 1991; Barrick et al., 2001; Tett et al., 1991) focused on job performance criteria (e.g., job proficiency and training proficiency; Barrick & Mount, 1991) unique to specific occupations, rather than general work-related behaviours as in the current study. Nevertheless, in a meta-analytic study investigating the multiple correlations between the set of Big Five traits and a more diverse array of work behaviours (i.e., leadership criteria, team performance, entrepreneurship, work motivation and attitudes), stronger effects were found: organisational citizenship behaviours (R = .31), interpersonal behaviours (R = .33), teamwork (R =.37), and leadership criteria (R = .30 - .49) (Ones et al., 2007). These personality-behaviour correlations are slightly higher than our observed findings and suggest that personality traits do have an impact on a variety of behaviours relevant to the workplace.

Horstmann et al. (2017) provided three explanations for why personality traits may not significantly predict behaviour. The first reason involves methodological reasons, including a lack of measurement reliability. This does not appear to be a concern in the current study as the BFI-2 sub-scales demonstrated satisfactory reliability results ($.75 \leq r \leq .88$). Moreover, the DIAMONDS dimension sub-scales had comparably lower reliability results yet exhibited stronger predictive effects. It is therefore unlikely that the findings were impacted by reliability concerns.

The second explanation given for non-significant predictive effects is due to conceptual issues. Hough (2003) argued that there is a need to match personality traits to conceptually related criteria. Since the Brief Behaviour Inventory behaviours and the Big Five traits come

from different typologies, this may have affected the strength of the correlations between the two. This interpretation seems plausible as contrary to our findings, Rauthmann et al. (2014) found that the combination of Big Five personality traits significantly predicted behaviour. Further, they found that the set of Big Five personality traits incremented situations in predicting behaviour. This discrepancy may have arisen as they selected distinct RBQ items (from which the BBI items were derived) based on conceptual concerns and literature assessing behaviours unique to the Big Five personality traits. In particular, they selected four items for each Big Five trait. Similarly, Sherman et al. (2015) found that personality (using the HEXACO framework) predicted real-time expressions of behaviour when selecting trait relevant behaviours as criterion. Consequently, the conceptual congruence between the Big Five traits and the authors' selection of Big Five relevant behaviours may have contributed to their significant findings. As the current study focused on work-related behaviours as opposed to general day-to-day behaviours, the availability of work relevant items from the BBI were limited, with only seven items being selected based on existing theory. It would be interesting to investigate whether different findings would be obtained if work behaviours based on the Big Five traits were used.

Another explanation for our findings may be because particular personality traits appear to be more predictive of some work behaviours than of others. For example, Conscientiousness has demonstrated to be a stronger predictor of behaviours surrounding task performance than the other four global traits (Barrick & Mount, 1991; Hurtz & Donovan, 2000). Similarly, Extraversion and Agreeableness have shown to more strongly relate to contextual behaviours surrounding interpersonal facilitation (Van Scotter & Motowidlo, 1996). When looking at the resulting Beta coefficients for each of the Big Five traits across all work-related behaviours (see Tables 6 - 9), different traits were indeed unique predictors of different work behaviours. For example, Conscientiousness significantly predicted the behaviour "I displayed ambition" whereas Extraversion and Openness significantly predicted the behaviour "I showed high enthusiasm". Therefore, it may be valuable to use compound personality traits with strong theoretical links to certain work-related behaviours to enhance prediction (Hurtz & Donovan, 2000). When doing so, validities for several compound personality traits have shown to range from .35 to .40 in predicting important work criteria (Ones et al., 2005).

The last reason provided as to why personality traits may not significantly predict behaviour is the need to account for situational influences. To explain and predict behaviour we

need to consider the situation, else the direct impact of personality alone will always be restricted (Robertson & Callinan, 1988). This view is in line with contemporary personality theories such as the Cognitive Affective Personality System (Mischel & Shoda, 1995) and Trait Activation Theory (Tett & Burnett, 2003) explained previously. Both theories consider the role of external influences in explaining individual behaviour. Such a notion is congruent with our findings which demonstrated the importance of situations in predicting work-related behaviour, as is discussed next.

Situations Matter

As hypothesised, our findings revealed that situational characteristics strongly predicted work-related behaviours and incremented personality traits in doing so. Though the effects were already quite sizable, they would have been even more pronounced had we statistically corrected for the unreliability within the situations measure (Asendorpf, 2009). These results highlight the importance of situations in shaping human behaviour within work-relevant contexts.

It is important to reiterate that the DIAMONDS taxonomy measures situational perception as opposed to objective elements of a given situation. Thus, the findings demonstrate that how an individual perceives a situation may impact upon how they behave in that given situation. Existing studies concerning situation perception in the field of industrial and organisational psychology are limited. As such, it is difficult to find research that evaluates situational perception across a range of situational properties (as opposed to one theory-relevant feature e.g., job design or work relationships) as enabled by the DIAMONDS taxonomy. This is likely due to the commonly cited absence of an organising taxonomy for situations. Nonetheless, literature focusing on distinct situational features demonstrates the importance of situational influences in the work environment.

In this regard, perceptions of an individual's work situation (i.e., perceived support and perceived developmental environment) predicted whether they were likely to exert effort at work and engage in interpersonal misconduct with members of the organisation (Colbert et al., 2004). Moreover, perceptions of job autonomy and co-worker trust, described as situational characteristics, predicted proactive behaviour at work (i.e., voicing/implementing ideas and problem solving) (Parker et al., 2006). Consequently, it is evident that perceptions of situational features do matter in the work setting.

Although not assessed in the work context, our findings are also consistent with studies that have utilised the DIAMONDS dimensions to predict general day-to-day behaviours. Sherman et al. (2015) employed a longitudinal design in assessing real-time state-expressions. They found that participants' perceptions of a situation were predictive of their behaviour in that situation. Moreover, in the development of the DIAMONDS situation taxonomy, Rauthmann et al. (2014) investigated whether the taxonomy possessed strong predictive powers. They found that the DIAMONDS dimensions significantly predicted Big Five behaviours. Further, they found that the DIAMONDS outperformed and significantly incremented the Big Five personality traits in the prediction of Big Five relevant behaviours. Although these studies examined day-to-day perceptions of situational experience, our findings suggest that a taxonomy of situations can also be used to predict behaviours relevant to the workplace. Future industrial organisational psychology research could benefit from using a taxonomy of situations to corroborate the current findings, since the focus has previously been on perceptions of one or two distinct workplace situational characteristics.

The Combinations of Traits and Situations Drive Behaviour

Our data showed that the combination of personality traits and situational characteristics explained more variance in work-related behaviour than did their individual effects. This supports Mischel's (2004) assertion that we can better explain behaviour if we consider both personality and situations. These findings correspond with studies that have investigated the role of both personality and situations in personnel selection and assessment (e.g., situational judgement tests (SJT), contextualised personality inventories, and assessment centres).

In a meta-analytic study investigating the validity of SJTs in predicting performance on the job, it was demonstrated that SJTs provided incremental prediction over and above the Big Five traits (McDaniel et al., 2007). Relatedly, the use of contextual personality inventories has shown to more powerfully predict work performance than non-contextualised measures. In this regard, each of the Big Five traits was a more powerful predictor of work behaviour when context was provided (Shaffer & Postlethwaite, 2012). These findings may be attributed to the fact that people tend to present themselves differently across situations. Thus, the context-specification inherent in the SJT and contextual personality measures' items provide respondents with a point of reference for describing their work-specific behaviours, ultimately more strongly predicting behaviours on the job (Shaffer & Postlethwaite, 2012).

In a similar vein, meta-analytic studies concerning the criterion-related validity of assessment centres indicated that assessment centre ratings incremented personality and general mental ability scores in predicting job performance (Meriac et al., 2008). As assessment centres aim to simulate real-life work scenarios, they aid in identifying how people are likely to behave in work situations rather than relying on self-reported behaviours. As such, they are commonly used in combination with personality and cognitive measures to enhance behavioural prediction. These findings confirm that both personality traits and situational characteristics are vital in explaining behaviour in the workplace.

Theoretical Implications

The present study extends efforts toward understanding what causes variance in work-related behaviours by demonstrating how personality traits and situational influences can be utilised to predict these variances. This is a significant contribution to literature as there presently lacks empirical work considering the influence of both personality and the work context on work-related behaviour (Barrick et al., 2013).

Our findings were less supportive of trait theory, as evidenced by the fact that personality traits were not consistent in predicting all work-related behaviours. More support was found for the situationist approach, in that the DIAMONDS situational characteristics exhibited strong predictive abilities across all work-related behaviours. Perhaps most noteworthy is that our findings are supportive of Lewin's (1951) truism, $B = f(P, E)$. To this end, the combination of personality traits and situational characteristics explained more variance in work-related behaviour than did their independent effects. This emphasises the importance of personality and situations in understanding work relevant behaviours.

A corollary of this study was to shed light on situation measurement. The reliability results suggested that it was easier to measure certain situational characteristics (e.g., pOsitivity and Negativity) than others (e.g., Intellect). Low measurement reliability attenuates the relationships between variables, consequently reducing the power to detect significant effects (Henson, 2001). If we are unable to measure situations more effectively, it could stunt the growth of science. Therefore, it is recommended that there be a revision of the RSQ and/or the development and testing of items specifically written to assess work-related contexts. Such a measure may be more useful in predicting behaviour as the situation being assessed would bear a resemblance to an occupational setting. This is in line with trait activation theory which posits

that individuals express a particular trait in response to trait-relevant cues in the situation (Tett & Burnett, 2003). This could prove beneficial for future organisational research and would enable other researchers to confront questions that could not previously be answered, and generally, broaden knowledge regarding the person in their environment.

Additionally, to our knowledge, this is the first study to conduct a meta-analysis to estimate the relative predictive power of traits vs. situations averaged across target work behaviours. This meta-analysis enabled us to identify if overall traits versus situations matter, but also, how consistent findings are when looking at individual work-related behaviours.

Lastly, this study is to our knowledge the first in South Africa to incorporate comprehensive measures of all three elements of the personality triad – persons, behaviours, and situations. Prior studies have examined only one or two of these elements, and when doing so, only assess a few properties thereof.

Directions for Future Research

This study sheds light on opportunities for future research. It would be valuable to sample from an employed population to test whether the study's findings generalise to a working sample. Moreover, future researchers looking to explain behaviour should look at the integrative science of the person and situational effects. We acknowledge that we have taken a crude approach that obscures more complex effects, such as the notion of interactionism. Though the investigation into interactionism was beyond the scope of the current study, traits and situations have shown to exhibit strong interactive effects on behaviour (John & Robins, in press). That is, individuals shape how situations affect behaviour, and situations shape how an individual's personality affects behaviour. As a result, behaviours can vary across differing situations (Mischel, 2004). This is in line with CAPS' *if-then* contingencies where a person is described in relation to their behavioural reactions to a certain situation. For example: *if* in an important work meeting *then* the person is conscientious, yet *if* in a lunchtime cafeteria *then* the person is boisterous. Individuals may be higher than most on a particular trait in certain situations, yet particularly lower than others in alternative situations.

It is also the case that people tend to select the situations in which they engage in. In this regard, a person may look for situations that suit their personality, enabling them to participate in events that they enjoy and/or environments in which they feel at ease (Furr & Funder, 2018). As respondents were asked to report a situation that they had experienced the previous day, they

may have selected a situation that reflected some aspect of their personality. For example, someone high in conscientiousness may have chosen to report a Dutiful situation. Indeed, Wrzus et al. (2016) found relations between the Big Five personality traits and distinct types of situations, where those higher on extraversion reported being with others more than those who were more introverted.

Another way in which individuals can shape how situations affect behaviour is through situation construal. Situation construal refers to the fact that every individual interprets or "construes" the situations they confront in a unique way (Funder, 2016). For instance, when in a meeting with a senior stakeholder, one individual may perceive the meeting as intimidating and respond with behavioural withdrawal. However, another individual may view that same meeting as collaborative, and respond with a high level of engagement. These individual differences in behaviour could therefore be explained by their unique perceptions, as opposed to the situation (i.e., the meeting) itself. The way in which a respondent distinctively interprets a situation can be impacted upon by their personality traits (Rauthmann et al., 2015). For example, someone high on conscientiousness may have perceived a situation requiring work to be done (Dutiful), whereas someone high on neuroticism may have perceived the same situation as threatening (Adversity). In order to separate objectively determined situations and situation construal, future studies could involve independent raters viewing the situation participants truly encountered.

When looking at the size of the bars in Figure 4, it is evident that for certain behaviours, even when personality traits and situational characteristics are considered together, it still doesn't explain behaviour very well (e.g., "I tried to control the situation"). Perhaps these behaviours are better candidates for a more complex interaction effect. Accordingly, future research should explore the interactive effects of personality and situational factors in influencing work-related behaviours.

Lastly, it would be valuable to replicate the present study to see if the results generalise. Repeating the study in all other countries involved in the International Situations Project would shed light on model stability, and further, whether culture and/or country moderates the findings.

Limitations

Certain limitations should be borne in mind with respect to this study. Firstly, it is important to note that the generalisability of the presented results is limited due to the use of a convenient student subject pool unique to a single university. Although there exist parallels

between students and workers[16], it would be noteworthy to assess whether these findings would generalise to a working population and across other countries. The rationale behind the use of a convenience sampling approach was due to time constraints surrounding the project and the desire for standardisation across countries. Although it is yet to be shown empirically, it has been suggested that broader samples of participants are likely to yield greater differences in situational experience (Guillaume et al., 2016). Future research should consider examining the role of personality traits and situational characteristics using samples from working populations across multiple countries.

Secondly, the use of a cross-sectional design provides a snapshot of situational construal and behaviour at only one particular point in time. Moreover, by measuring personality traits at a single point in time, we have captured a fluctuating state rather than a disposition (Asendorpf, 2009). As such, the subsequent results are limited to the extent to which one situation can generalise to understanding the daily experiences and behaviours of individuals. It has been argued that there is variability in trait-relevant behaviour across situations and that there are characteristics of one's personality that cannot be captured by single-occasion trait measures (Judge, Simon, Hurst, & Kelley, 2014). Accordingly, personality may not be particularly useful in predicting momentary behaviour, but rather, it should be used to predict average behaviour over time (Fleeson, 2004; Robinson & Sedikides, 2009). Therefore, a longitudinal time dimension would be more desirable in the context of the present study. In this regard, it would be valuable to sample participants' situational experiences and consequent behaviours numerous times, and on different days of the week. Though this did not seem feasible for an initial project being conducted across various countries, it warrants further investigation.

A further limitation can be inferred from the low reliabilities of the RSQ DIAMONDS dimensions, which may have reduced the correlations between situational characteristics and behaviours. It is evident that measuring situations remains a challenge - a commonly cited notion throughout the literature (Horstmann et al., 2017; Rauthmann et al., 2015). Accordingly, further revision of the item content of the RSQ may be necessary. Moreover, future studies focusing on the work context could use an alternative situation measure such as the recently developed Big

[16] Both students and those in paid employment work within hierarchical structures with specified tasks and deadlines, experience varying degrees of support and control, are required to persist in task completion, and operate in environments where advancement is contingent upon performance (Cotton et al., 2002).

Five Inventory for Personality in Occupational Situations (B5PS; Ziegler, 2014). This measure assesses situation perception and personality concurrently, focusing on hypothetical situations in an occupational setting. This may assist in improving our understanding of situations and their implications for the workplace setting.

The use of retrospective self-report for evaluating situation perception, behaviour, and personality may have had further implications. Respondents may have lacked appropriate awareness of the situation, their behaviour and/or their personalities. Additionally, participants may have been reluctant to specify their behaviours or situations. To address this concern, participants were asked to describe their situations by reporting objective, straightforward and concrete "cues" (Rauthmann et al., 2015). This included answering the following questions: "Where were you?", "What were you doing?" and "Who else was present?" Nevertheless, it may be valuable to replicate the present study using more "objective" reports of personality states, behaviours and situation ratings by several independent raters (Sherman et al., 2010). This could reduce the potential impacts of common methods bias (Podsakoff et al., 2003). Though this was not considered feasible in an international project of this scope for both practical and ethical reasons, it warrants further investigation (Sherman et al., 2010).

Practical Implications

The study's findings highlight the importance of taking situational characteristics into account over and above personality traits when seeking to understand work-related behaviour. This may be particularly valuable in personnel selection and assessment design. Given situational characteristics' ability to explain significant variance in behaviours, it is recommended that contextualised personality inventories, SJTs and assessment centres be used over and above broad personality measures for recruitment and selection purposes.

In this regard, a situation taxonomy such as the DIAMONDS could be used to build situational judgement test scenarios and contextualised personality inventory items to tap into specific situational dimensions. For example, the DIAMONDS dimension *Negativity* encompasses situations which can prompt negative feelings, including anxiety, stress, guilt, anger or frustration. By selecting critical incidents based on these criteria, such as the ability to handle conflict, one could tap into a range of situations within a dimension. The critical incidents selected could either be unique to a role (e.g., handling a difficult customer) or made more generic (e.g., dealing with conflict with team members/colleagues).

Similarly, in assessment centre contexts, a setting could be constructed whereby a specific DIAMONDS dimension is intended to be salient in order to trigger individual variation in trait-relevant behaviours (Rauthmann, 2017). Such settings would enable the identification of individual differences among job applicants or current employees and managers that are critical for a particular task, profession, group, work environment or organisation.

In addition, our findings may be valuable to organisations using machine learning models to make future predictions regarding behaviour at work. Given that more variance in behaviour was explained by the combination of personality traits and situational characteristics, these predictor variables could be used to build more accurate predictive models for individual and organisational outcomes of interest (Yarkoni & Westfall, 2017). Such models could provide human capital personnel with the foresight to make proactive decisions (Gonzalez et al., 2019)

The present study further highlights the value of sharing data from collaborative projects, such as the International Situations Project, for secondary research. Sharing rich datasets from international samples allows for an abundance of analysis opportunities that can be used to advance science. Further, replication of studies across numerous countries can provide insight into the generalisability of the findings, and moreover, into any cross-cultural differences in the lived experiences of individuals.

Conclusion

One of the fundamental and intriguing aims of psychology is the understanding and explanation of human behaviour (Allport, 1937). The present study aimed to investigate the independent and combined power of personality traits and situational characteristics in predicting work-related behaviour. Our findings support Lewin's proposition that behaviour is best predicted by a combination of one's personality *and* the situation in which they find themselves. Though situational characteristics independently predicted all work-related behaviours, personality traits were not strong predictors of certain behaviours.

These findings contribute to the scarce literature on the role of both personality traits and situations in work-related contexts. The results emphasise the importance of integrating knowledge of both traits and situations to enhance our understanding of why people behave the way they do. Ultimately, this advances our understanding towards a more integrative science of the person, where both personality traits *and* situational characteristics matter (Mischel, 2004).

Our findings further emphasise the difficulties associated with measuring situations, and possible ways forward are suggested.

With the findings of the current study in mind, organisations may increase the ability to predict employee behaviour on the job by incorporating measures of situations, in combination with traits into human resource management applications (e.g., personnel selection and assessment). Particularly, the use of situational judgement tests (SJTs) and contextually based assessments over and above personality measures may aid in better predicting employee behaviour on the job.

References

Allport, G. W. (1937). *Personality: A psychological interpretation*. New York: Holt.

Allport, G. W. (1966). Traits revisited. *American Psychologist, 21*(1), 1–10. https://doi.org/10.1037/h0023295

Asendorpf, J. B. (2009). Personality: Traits and situations. In P. J. Corr & G. Matthews (Eds.), *The Cambridge handbook of personality psychology* (pp. 43–53). Cambridge University Press. https://doi.org/10.1017/CBO9780511596544.006

Ashton, M. C., & Lee, K. (2005). Honesty-Humility, the Big Five, and the Five-Factor Model, *Journal of Personality, 73,* 1321–1353.

Aswathappa, K. (2016). *Organisational behaviour* (12th ed.). Mumbai: Himalaya Publishing House.

Baranski, E. N., Gardiner, G., Guillaume, E., Aveyard, M., Bastian, B., Bronin, I., Ivanova, C., Cheng, J. T., Kock, F. S. de, Denissen, J. J. A., Gallardo-Pujol, D., Halama, P., Han, G. Q., Bae, J., Moon, J., Hong, R. Y., Hřebíčková, M., Graf, S., Izdebski, P., … Funder, D. C. (2017). Comparisons of daily behavior across 21 Countries. *Social Psychological and Personality Science, 8*(3), 252–266. https://doi.org/10.1177/1948550616676879

Barenbaum, N. B., & Winter, D. G. (2008). History of modern personality theory and research. In O. P. John, R. W. Robins, & L. A. Pervin (Eds.), *Handbook of personality: Theory and research*. The Guilford Press.

Barrick, M. R., & Mount, M. K. (2005). Yes, Personality Matters: Moving on to More Important Matters. *Human Performance, 18*(4), 359–372. https://doi.org/10.1207/s15327043hup1804_3

Barrick, M. R., Mount, M. K., & Judge, T. A. (2001). Personality and performance at the beginning of the new millennium: What do we know and where do we go next?. *International Journal of Selection and Assessment*, *9*(1-2), 9-30.

Barrick, M. R., Mount, M. K., & Li, N (2013). The theory of purposeful work behavior: The role of personality, higher order goals, and job characteristics. *The Academy of Management Review, 38*(1), 132-153. https://doi.org/10.5465/amr.2010.0479

Bartram, D. (1996). The relationship between ipsatized and normative measures of personality. *Journal of Occupational and Organizational Psychology*, *69*(1), 25-39: https://doi.org/10.1111/j.2044-8325.1996.tb00597.x

Block, J. (1978). *The Q-sort method in personality assessment and psychiatric research*. Palo Alto, CA: Consulting Psychologists Press.

Borman, W. C., & Motowidlo, S. J. (1997). Task performance and contextual performance: The meaning for personnel selection research. *Human Performance, 10*(2), 99–109. https://doi.org/10.1207/s15327043hup1002_3

Brown, T. A., & Moore, M. T. (2012). Confirmatory factor analysis. *Handbook of structural equation modeling*, 361-379.

Cattell, R. B., Eber, H. W., & Tatsuoka, M. M. (1970). *Handbook for the Sixteen Personality Factor Questionnaire*. Champaign, IL: Institute for Personality and Ability Testing.

Chiaburu, D., Oh, I., Berry, C., Li, N., & Gardner, R. (2011). The five-factor model of personality traits and organizational citizenship behaviors: A meta-analysis. *Journal of Applied Psychology, 96*(6), 1140-1166. https://doi.org/10.1037/a0024004

Chirumbolo A. (2017) Personality and Work Behavior. In: Zeigler-Hill V., Shackelford T. (eds) *Encyclopedia of Personality and Individual Differences*. Springer, Cham. https://doi.org/10.1007/978-3-319-28099-8793-1

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. Hillsdale, New Jersey: Lawrence Erlbaum Associates.

Colbert, A., Mount, M., Harter, J., Witt, L., & Barrick, M. (2004). Interactive effects of personality and perceptions of the work situation on workplace deviance. *Journal of Applied Psychology, 89*(4), 599-609. https://doi.org/10.1037/0021-9010.89.4.599

Costa, P.T., & McCrae, R.R. (1992). *NEO PI-R Professional manual*. Odessa, FL: Psychological Assessment Resources.

Cotton, S., Dollard, M., & de Jonge, J. (2002). Stress and student job design: Satisfaction, well-being, and performance in university students. *International Journal of Stress Management, 9*(3), 147-162.

Creswell, J. W. (2015). *A concise introduction to mixed methods research*. Thousand Oaks, CA: Sage.

Dalal, R. S., Lam, H., Weiss, H. M., Welch, E. R., & Hulin, C. L. (2009). A within-person approach to work behavior and performance: Concurrent and lagged citizenship-counterproductivity associations, and dynamic relationships with affect and overall job performance. *Academy of Management Journal, 52*(5), 1051–1066. https://doi.org/10.5465/AMJ.2009.44636148

Darley, J. M., & Latane, B. (1968). Bystander intervention in emergencies: Diffusion of responsibility. *Journal of Personality and Social Psychology, 8*(4, Pt.1), 377–383. https://doi.org/10.1037/h0025589

Deaux, K., & Snyder, M. (2014). *The Oxford handbook of personality and social psychology*. Oxford: Oxford University Press.

Eysenck, H. J. (1957). *The dynamics of anxiety and hysteria; an experimental application of modern learning theory to psychiatry*. Frederick A. Praeger.

Field, A. (2018). *Discovering statistics using IBM SPSS statistics* (5th ed.). London, United Kingdom: SAGE Publications.

Fleeson, W. (2004). Moving personality beyond the person-situation debate. *Current Directions in Psychological Science, 13*(2), 83-87. https://doi.org/10.1111/j.0963-7214.2004.00280.x

Funder, D. C. (2006). Towards a resolution of the personality triad: Persons, situations and behaviors. *Journal of Research in Personality, 40*, 21–34.

Funder, D. C. (2009). Persons, behaviors and situations: An agenda for personality psychology in the postwar era. *Journal of Research in Personality*, *43*(2), 120-126. https://doi.org/10.1016/j.jrp.2008.12.041

Funder, D. C. (2016). Taking situations seriously: The situation construal model and the Riverside Situational Q-sort. *Current Directions in Psychological Science, 25*(3), 203–208. https://doi.org/10.1177/0963721416635552

Funder, D. C., & Colvin, C. R. (1991). Explorations in behavioral consistency: Properties of persons, situations, and behaviors. *Journal of Personality and Social Psychology, 60*(5), 773–794. https://doi.org/10.1037/0022-3514.60.5.773

Funder, D. C., Furr, R. M., & Colvin, C. R. (2000). The Riverside Behavioral Q-sort: A tool for the description of social behavior. *Journal of Personality, 68*(3), 451–489. https://doi.org/10.1111/1467-6494.00103

Funder, D. C., Guillaume, E., Kumagai, S., Kawamoto, S., Sato, T. (2012). The person-situation debate and the assessment of situations. *Japanese Journal of Personality, 21,* 1–11.

Furr, R., & Funder, D. C. (2018). Persons, situations, and person-situation interactions. In O. P. John, R. W. Robins, & L. A. Pervin (Eds.), *Handbook of personality: Theory and research* (p. 568–580). The Guilford Press.

Furr, R. M., Wagerman, S. A., & Funder, D. C. (2010). Personality as manifest in behavior: Direct behavioral observation using the Revised Riverside Behavioral Q-Sort (RBQ-3.0). In C. R. Agnew, D. E. Carlston, W. G. Graziano, & J. R. Kelly (Eds.), *Then a miracle occurs: Focusing on behavior in social psychological theory and research*. Oxford University Press.

Gardiner, G., Guillaume, E., Stauner, N., Bae, J., Han, G., Moon, J., Bronin, I., Ivanova, C., Cheng, J. T., De Kock, F. S., Graf, S., Hřebíčková, M., Halama, P., Hong, R., Izdebski, P., Kulich, C., Lorenzi-Cioldi, F., Penke, L., Szarota, P., … Funder, D. C. (2019). Assessing personality across 13 countries using the California Adult Q-Sort. *International Journal of Personality Psychology*, *5*, 1-17. https://ijpp.rug.nl/article/view/35039

Gardiner, G., Lee, D., Baranski, E., Funder, D., Members of the International Situations Project. (2020). Happiness around the world: A combined etic-emic approach across 63 countries. *PLoS ONE, 15*(12), e0242718. https://doi.org/10.1371/journal.pone.0242718

Gonzalez, M., Capman, J., Oswald, F., Theys, E., & Tomczak, D. (2019). Artificial intelligence and machine learning in talent management systems. *Personnel Assessment and Decisions, 5*. https://doi.org/10.25035/pad.2019.03.005

Guillaume, E., Baranski, E., Todd, E., Bastian, B., Bronin, I., Ivanova, C., Cheng, J. T., de Kock, F. S., Denissen, J. J. A., Gallardo-Pujol, D., Halama, P., Han, G. Q., Bae, J., Moon, J.,

Hong, R. Y., Hřebíčková, M., Graf, S., Izdebski, P., Lundmann, L., . . . Funder, D. C. (2016). The world at 7:00: Comparing the experience of situations across 20 countries. *Journal of Personality, 84*(4), 493–509. https://doi.org/10.1111/jopy.12176

Gundogdu, D., Finnerty, A., Staiano, J., Teso, S., Passerini, A., Pianesi, F., & Lepri, B. (2017). Investigating the association between social interactions and personality states dynamics. *Royal Society Open Science*, *4*(9), 170-194. https://doi.org/10.1098/rsos.170194

Hair, J. F., Black, W.C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis: A global perspective* (7th ed.). Upper Saddle River, New Jersey: Pearson. https://doi.org/10.1016/j.jmva.2009.12.014

Harwell, M., & Gatti, G. (2001). Rescaling ordinal data to interval data in educational research. *Review of Educational Research, 71*(1), 105-131. https://doi.org/10.3102/00346543071001105

Henson, R. K. (2001). Understanding internal consistency reliability estimates: A conceptual primer on coefficient alpha. *Measurement and Evaluation in Counseling and Development, 34*(3), 177–189. https://doi.org/10.1080/07481756.2002.12069034

Hogan, J., & Holland, B. (2003). Using theory to evaluate personality and job-performance relations: A socioanalytic perspective. *Journal of Applied Psychology, 88*(1), 100–112. https://doi.org/10.1037/0021-9010.88.1.100

Horstmann, K. T., Rauthmann, J. F., & Sherman, R. A. (2017). Measurement of situational influences. In V. Zeigler-Hill & T. K. Shackelford (Eds.), *The SAGE Handbook of Personality and Individual Differences* (pp. 465–484). SAGE Publications.

Hough, L. M. (2003). Emerging trends and needs in personality research and practice: Beyond main effects. In M. R. Barrick & A. M. Ryan (Eds.), *Personality and work* (pp. 289–325). San Francisco: Jossey-Bass.

Hunter, J. E., & Schmidt, F. L. (1990). *Methods of meta-analysis: Correcting error and bias in research findings*. Newbury Park, CA: Sage

Hurtz, G., & Donovan, J. (2000). Personality and job performance: The Big Five revisited. *Journal of Applied Psychology, 85*(6), 869-879. https://doi.org/10.1037/0021-9010.85.6.869

Johns, G. (2006). The essential impact of context on organizational behavior. *The Academy of Management Review, 31*(2), 386-408. https://doi.org/10.5465/amr.2006.20208687

John, O. P., & Robins, R.W. (in press). *Handbook of personality: Theory and research* (4th ed.). New York: Guilford

Koopmans, L., Bernaards, C., Hildebrandt, V., de Vet, H., & van der Beek, A. (2014). Construct validity of the Individual Work Performance Questionnaire. *Journal of Occupational and Environmental Medicine, 56*(3), 331-337. https://doi.org/10.1097/jom.0000000000000113

Lewin, K. (1951). *Field theory in social science*. New York, US: McGraw-Hill.

Lievens, F. (2017). Assessing personality–situation interplay in personnel selection: Toward more integration into personality research. *European Journal of Personality, 31*(5), 424–440. https://doi.org/10.1002/per.2111

Markey, P. M., Markey, C. N., & Tinsley, B. J. (2004). Children's behavioral manifestations of the five-factor model of personality. *Personality and Social Psychology Bulletin, 30*(4), 423–432. https://doi.org/10.1177/0146167203261886

McDaniel, M., Hartman, N., Whetzel, D., & Grubb, W. (2007). Situational judgment tests, response instructions, and validity: A meta-analysis. *Personnel Psychology, 60*(1), 63-91. https://doi.org/10.1111/j.1744-6570.2007.00065.x

McDaniel, M. A., Morgeson, F. P., Finnegan, E. B., Campion, M. A., & Braverman, E. P. (2001). Predicting job performance using situational judgment tests: A clarification of the literature. *Journal of Applied Psychology, 86*, 730–740.

McCrae, R. R., & Costa, P. T. (2010). The Five-Factor Theory of Personality. In O. P. John, Robins, R. W. & L. A. Pervin, *Handbook of Personality: Theory and Research*, (3rd edition; pp.159-181). New York: The Guilford Press.

Meade, A. (2004). Psychometric problems and issues involved with creating and using ipsative measures for selection. *Journal of Occupational and Organizational Psychology, 77*(4), 531-551. https://doi.org/10.1348/0963179042596504

Meriac, J. P., Hoffman, B. J., Woehr, D. J., & Fleisher, M. S. (2008). Further evidence for the validity of assessment center dimensions: A meta-analysis of the incremental criterion-related validity of dimension ratings. *Journal of Applied Psychology, 93*, 1042–1052.

Milgram, S. (1974). *Obedience to authority: An experimental view*. New York: Harper and Row.

Mischel, W. (1968). *Personality and assessment*. New York: Wiley

Mischel, W. (2004). Toward an integrative science of the person. *Annual Review of Psychology*, *55*(1), 1-22. https://doi.org/10.1146/annurev.psych.55.042902.130709

Mischel, W., & Shoda, Y. (1995). A cognitive-affective system theory of personality: reconceptualizing situations, dispositions, dynamics, and invariance in personality

structure. *Psychological Review*, *102*, 246–268. https://doi.org/10.1037/0033-295X.102.2.246

Morse, P. J., Neel, R., Todd, E., & Funder, D. (2015). Renovating situation taxonomies: Exploring the construction and content of fundamental motive situation types. *Journal of Personality, 83*(4), 389–403. https://doi.org/10.1111/jopy.12111

Naylor, J. C., Pritchard, R D., & Ilgen, D. R. (1990). *A theory of behavior in organizations*. New York: Academic.

Norman, G. (2010). Likert scales, levels of measurement and the "laws" of statistics. *Advances in Health Sciences Education, 15*(5), 625–632. https://doi.org/10.1007/s10459-010-9222-y

Nunnally, J. C. (1967). *Psychometric theory*. New York: McGraw-Hill.

Nystedt, L. (1981). A model for studying the interaction between the objective situation and a person's construction of the situation. In D. Magnusson (Ed.), *Toward a psychology of situations: An interactional perspective* (pp. 375-391). New York: Academic Press.

Ones, D. S., Dilchert, S., Viswesvaran, C., & Judge, T. A. (2007). In support of personality assessment in organizational settings. *Personnel Psychology*, *60*(4), 995-1027.

Ones, D. S., & Viswesvaran, C. (2001). Personality at work: Criterion-focused occupational personality scales used in personnel selection. In B. W. Roberts & R. Hogan (Eds.), *Decade of behavior. Personality psychology in the workplace* (p. 63–92). American Psychological Association. https://doi.org/10.1037/10434-003

Ones, D. S., Viswesvaran, C., & Dilchert, S. (2005). Personality at work: Raising awareness and correcting misconceptions. *Human Performance*, *18*(4), 389-404. https://doi.org/10.1207/s15327043hup18045

Osborne, J. W. (2017). *Regression & linear modeling: Best practices and modern methods*. Sage Publications.

Oswald, F. L., & Hough, L. M. (2010). Personality and its assessment in organizations: Theoretical and empirical developments. In S. Zedeck (Ed.), *APA handbook of industrial and organizational psychology: Vol. 2. Selecting and developing members for the organization* (pp. 153– 184). Washington, DC: American Psychological Association.

Parker, S., Williams, H., & Turner, N. (2006). Modeling the antecedents of proactive behavior at work. *Journal of Applied Psychology, 91*(3), 636-652. https://doi.org/10.1037/0021-9010.91.3.636

Parrigon, S., Woo, S. E., Tay, L., & Wang, T. (2017). CAPTION-ing the situation: A lexically-derived taxonomy of psychological situation characteristics. *Journal of Personality and Social Psychology, 112*(4), 642–681. https://doi.org/10.1037/pspp0000111

Paterson, T. A., Harms, P. D., Steel, P., & Credé, M. (2016). An assessment of the magnitude of effect sizes: Evidence from 30 years of meta-analysis in management. *Journal of Leadership & Organizational Studies, 23*(1), 66–81. https://doi.org/10.1177/1548051815614321

Podsakoff, P., MacKenzie, S., Lee, J., & Podsakoff, N. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology, 88*(5), 879-903. https://doi.org/10.1037/0021-9010.88.5.879

Rauthmann, J. F. (2012). You say the party is dull, I say it is lively: A componential approach to how situations are perceived to disentangle perceiver, situation, and perceiver x situation variance. *Social Psychological and Personality Science, 3*, 519-528.

Rauthmann, J. F. (2017). Using situations as diagnostic agents for personality assessment. *European Journal of Personality*.

Rauthmann, J. F., Gallardo-Pujol, D., Guillaume, E., Todd, E., Nave, C., & Sherman, R. et al. (2014). The Situational Eight DIAMONDS: A taxonomy of major dimensions of situation characteristics. *Journal of Personality and Social Psychology*, *107*(4), 677-718. https://doi.org/10.1037/a0037250

Rauthmann, J. F., Sherman, R. A., Nave, C. S., & Funder, D. C. (2015). Personality-driven situation experience, contact, and construal: How people's personality traits predict characteristics of their situations in daily life. *Journal of Research in Personality, 55*, 98-111.

Reilly, R., & Aronson, Z.H. (2012). Managing contextual performance. https://ssrn.com/abstract=2193645

Richard, F. D., Bond, C. F., Jr., & Stokes-Zoota, J. J. (2003). One hundred years of social psychology quantitatively described. *Review of General Psychology*, *7*(4), 331–363. https://doi.org/10.1037/1089-2680.7.4.331

Robertson, I., & Callinan, M. (1998). Personality and work behaviour. *European Journal of Work and Organizational Psychology, 7*(3), 321-340. https://doi.org/10.1080/135943298398736

Robinson, M. D., & Sedikides, C. (2009). Traits and the self: Toward an integration. In P. J. Corr & G. Matthews (Eds.), *The Cambridge handbook of personality psychology* (pp. 457–472). Cambridge University Press. https://doi.org/10.1017/CBO9780511596544.029

Ross, L., & Nisbett, R. E. (2011). *The person and the situation: Perspectives of social psychology*. Pinter & Martin Publishers.

Schmidt, F. L., & Hunter, J. E. (2014). *Methods of Meta-Analysis: Correcting error and bias in research findings* (3rd ed.). London: SAGE Publications

Shaffer, J. A., & Postlethwaite, B. E. (2012). A matter of context: A meta-analytic investigation of the relative validity of contextualized and noncontextualized personality measures. *Personnel Psychology, 65*(3), 445–493. https://doi.org/10.1111/j.1744-6570.2012.01250.x

Sherman, R. A., Nave, C. S., & Funder, D. C. (2010). Situational similarity and personality predict behavioral consistency. *Journal of Personality and Social Psychology, 99*(2), 330–343. https://doi.org/10.1037/a0019796

Sherman, R. A., Nave, C. S., & Funder, D. C. (2012). Properties of persons and situations related to overall and distinctive personality-behavior congruence. *Journal of Research in Personality, 46*(1), 87–101. https://doi.org/10.1016/j.jrp.2011.12.006

Sherman, R. A., Rauthmann, J. F., Brown, N. A., Serfass, D. G., & Jones, A. B. (2015). The independent effects of personality and situations on real-time expressions of behavior and emotion. *Journal of Personality and Social Psychology, 109*(5), 872–888. https://doi.org/10.1037/pspp0000036

Soto, C., & John, O. (2017). The next Big Five Inventory (BFI-2): Developing and assessing a hierarchical model with 15 facets to enhance bandwidth, fidelity, and predictive power. *Journal of Personality and Social Psychology, 113*(1), 117-143. https://doi.org/10.1037/pspp0000096

Tabachnick, B., & Fidell, L. (2013). *Using multivariate statistics* (6th ed.). Upper Saddle River, New Jersey: Pearson Education.

ten Berge, M. A., & de Raad, B. (2002). The structure of situations from a personality perspective. *European Journal of Personality, 16*, 81-102.

Tett, R. P., & Burnett, D. D. (2003). A personality trait-based interactionist model of job performance. *Journal of Applied Psychology, 88*(3), 500–517. https://doi.org/10.1037/0021-9010.88.3.500

Tett, R. P., Jackson, D. N., & Rothstein, M. (1991). Personality measures as predictors of job performance: A meta-analytic review. *Personnel Psychology, 44*(4), 703–742. https://doi.org/10.1111/j.1744-6570.1991.tb00696.x

Van Scotter, J. R., & Motowidlo, S. J. (1996). Interpersonal facilitation and job dedication as separate facets of contextual performance. *Journal of Applied Psychology, 81*, 525-531.

Wagerman, S. A., & Funder, D. C. (2009). Situations. In P. J. Corr and G. Matthews (Eds.), *Cambridge Handbook of Personality* (pp. 27-42). Cambridge: Cambridge University Press.

Wiernik, B. M. (2017) Open Psychometric Meta-analysis (r values) [Computer software]. Version 1.0.1.

Willits, F., Theodori, G., & Luloff, A. (2016). Another look at Likert scales. *Journal of Rural Social Sciences, 31*(3), 126–139.

Wrzus, C., Wagner, G. G., & Riediger, M. (2016). Personality-situation transactions from adolescence to old age. *Journal of Personality and Social Psychology, 110*, 782–799.

Wu, H., & Leung, S. (2017). Can Likert scales be treated as interval scales?—A simulation study. *Journal of Social Service Research, 43*(4), 527-532.

Yarkoni, T., & Westfall, J (2017). Choosing prediction over explanation in psychology: Lessons from machine learning. *Perspectives on Psychological Science, 12*(6), 1100-1122. https://doi.org/10.1177/1745691617693393

Ziegler, M. (2014). *B5PS. Big Five Inventory of Personality in Occupational Situations*. Modling, Austria: Schuhfried GmbH

Appendix A

Brief Behaviour Inventory (BBI) – 16 items

Extremely uncharacteristic

Quite uncharacteristic

Fairly uncharacteristic

Somewhat uncharacteristic

Relatively neutral

Somewhat characteristic

Fairly characteristic

Quite characteristic

Extremely characteristic

1. I tried to control the situation. *
2. I said negative things about myself.
3. I behaved in a competitive manner.
4. I displayed ambition. *
5. I dominated the situation.
6. I showed high enthusiasm and a high energy level. *
7. I engaged in physical activity.
8. I concentrated on or worked at a hard task. *
9. I was reserved and unexpressive.
10. I was physically animated, moved around.
11. I was interested in what someone had to say. *
12. I sought advice. *
13. I acted playful.
14. I expressed self-pity or feelings of victimization.
15. I spoke in a loud voice.
16. I exhibited a high degree of intelligence. *

* Items selected for use in the present study.

Appendix B

The Big Five Inventory–2 (BFI-2) (Soto & John, 2017)

Here are a number of characteristics that may or may not apply to you. For example, do you agree that you are someone who likes to spend time with others? Please write a number next to each statement to indicate the extent to which you agree or disagree with that statement.

1	**2**	**3**	**4**	**5**
Disagree strongly	Disagree a little	Neutral; no opinion	Agree a little	Agree Strongly

I am someone who...

1. Is outgoing, sociable.
2. Is compassionate, has a soft heart.
3. Tends to be disorganized.
4. Is relaxed, handles stress well.
5. Has few artistic interests.
6. Has an assertive personality.
7. Is respectful, treats others with respect.
8. Tends to be lazy.
9. Stays optimistic after experiencing a setback.
10. Is curious about many different things.
11. Rarely feels excited or eager.
12. Tends to find fault with others.
13. Is dependable, steady.
14. Is moody, has up and down mood swings.
15. Is inventive, finds clever ways to do things.
16. Tends to be quiet.
17. Feels little sympathy for others.
18. Is systematic, likes to keep things in order.
19. Can be tense.
20. Is fascinated by art, music, or literature.
21. Is dominant, acts as a leader.
22. Starts arguments with others.
23. Has difficulty getting started on tasks.
24. Feels secure, comfortable with self.
25. Avoids intellectual, philosophical discussions.
26. Is less active than other people.
27. Has a forgiving nature.
28. Can be somewhat careless.
29. Is emotionally stable, not easily upset.
30. Has little creativity.
31. Is sometimes shy, introverted.
32. Is helpful and unselfish with others.
33. Keeps things neat and tidy.
34. Worries a lot.
35. Values art and beauty.
36. Finds it hard to influence people.
37. Is sometimes rude to others.
38. Is efficient, gets things done.
39. Often feels sad.
40. Is complex, a deep thinker.
41. Is full of energy.
42. Is suspicious of others' intentions.
43. Is reliable, can always be counted on.
44. Keeps their emotions under control.
45. Has difficulty imagining things.
46. Is talkative.
47. Can be cold and uncaring.
48. Leaves a mess, doesn't clean up.
49. Rarely feels anxious or afraid.
50. Thinks poetry and plays are boring.
51. Prefers to have others take charge.
52. Is polite, courteous to others.
53. Is persistent, works until the task is finished.
54. Tends to feel depressed, blue.

55. Has little interest in abstract ideas.
56. Shows a lot of enthusiasm.
57. Assumes the best about people.
58. Sometimes behaves irresponsibly.
59. Is temperamental, gets emotional easily.
60. Is original, comes up with new ideas.

Appendix C

Riverside Situational Q-sort (v4.1)

1. The situation is potentially enjoyable.
2. The situation is complex.
3. A job needs to be done.
4. Someone is trying to impress you.
5. Someone is trying to convince you of something.
6. Someone is counting on you to do something.
7. Talking is permitted.
8. Talking is expected or demanded.
9. Someone is asking you for something.
10. Someone needs help.
11. Minor details are important.
12. Politics are relevant (for example: a political discussion).
13. Intelligence is important (for example: an intellectual discussion, a complex problem that needs to be solved).
14. It is not clear what is going on; the situation is uncertain.
15. Someone is under threat.
16. Someone is criticizing you
17. Someone is attempting to dominate or boss you.
18. The situation is playful.
19. The situation is rapidly changing
20. Someone is unhappy or suffering.
21. A reassuring person is present.
22. Someone is blaming you for something.
23. A decision needs to be made.
24. Self-control is necessary (for yourself or others).
25. People are competing with each other.
26. Someone needs or desires reassurance.
27. The situation is frustrating (for example: a goal is blocked).
28. Your physical attractiveness is important.
29. It is important for you to make a good impression.
46. Desires could be gratified (for example, food, shopping, sexual opportunities)
47. Social interaction is possible.
48. The situation is humorous or potentially humorous.
49. You are the focus of attention.
50. Sensations are important (for example: touch, taste, smell, physical contact).
51. The situation is relevant to your health (for example: possibility of illness, a medical visit).
52. Clear rules define appropriate behavior (whether or not the rules are being followed).
53. Someone is breaking rules.
54. Art is an important part of the situation.
55. The situation is potentially anxiety-inducing.
56. Ambition can be expressed or demonstrated.
57. The situation could make you feel inadequate.
58. Sexuality is relevant.
59. You are being abused or victimized.
60. The presence of members of the opposite sex is an important part of this situation.
61. Potential or actual romantic partners (for you) are present.
62. The situation is simple and clear-cut.
63. People are comparing themselves to each other.
64. Power is important.
65. Masculinity can be expressed.
66. Others want advice from you.
67. The situation could arouse positive emotions.
68. The situation could arouse negative emotions.

30. The situation could make people tense and upset.
31. The situation includes small annoyances.
32. The situation could make people feel hostile.
33. People are disagreeing about something.
34. Unusual ideas or points of view are being discussed freely.
35. Physical threats are present.
36. Emotional threats are present.
37. Moral or ethical issues are relevant.
38. Quick action is necessary.
39. Emotions can be expressed.
40. It is possible to ruminate, daydream or fantasize.
41. The situation is noisy (low placement means the situation is very quiet).
42. The people who are present have close personal relationships with each other.
43. Someone present (other than you) is counted on to do something.
44. The situation could be intellectually stimulating.
45. Assertiveness is required to accomplish a goal.
69. There are opportunities to display verbal fluency (for example: a debate, a monologue, an active conversation).
70. People who are present occupy different social roles or levels of status.
71. You are being pressured to conform to the actions of others.
72. Success requires cooperation.
73. Someone is complimenting or praising you.
74. Femininity can be expressed.
75. Religion is relevant in this situation (for example: a religious service or discussion)
76. Someone needs to be taken care of.
77. Many things are happening at once.
78. People are being physically active.
79. People are working hard.
80. Food is important in this situation.
81. The situation is physically uncomfortable (for example: too hot, too crowded, too cold, etc.). (Low placement implies the situation is physically very comfortable.)
82. Family is important in this situation.
83. A matter of honor is at stake.
84. Money is important.
85. People are participating in athletics or sports.
86. Someone is feeling shame.
87. Music is an important part of this situation.
88. New relationships could develop.
89. It is important for people to get along.
90. Entertainment is present.

Appendix D

Dominant Factor Loadings of RSQ Items on the DIAMONDS Dimensions

Dimension Items	Factor loading	α	No. Items
Duty		.61	8
3. A job needs to be done.	0.67		
6. Someone is counting on you to do something.	0.61		
79. People are working hard.	0.44		
23. A decision needs to be made.	0.42		
38. Quick action is necessary.	0.35		
9. Someone is asking you for something.	0.35		
11. Minor details are important.	0.31		
10. Someone needs help.	0.32		
Intellect		.62	5
44. The situation could be intellectually stimulating.	0.79		
13. Intelligence is important (for example: an intellectual discussion, a complex problem that needs to be solved)	0.61		
34. Unusual ideas or points of view are being discussed freely.	0.47		
12. Politics are relevant (for example: a political discussion).	0.44		
69. There are opportunities to display verbal fluency (e.g., a debate, a monologue, an active conversation)	0.39		
Adversity		.41	8
15. Someone is under threat.	0.54		
22. Someone is blaming you for something.	0.48		
20. Someone is unhappy or suffering.	0.44		
16. Someone is criticizing you.	0.44		
59. You are being abused or victimized.	0.39		
17. Someone is attempting to dominate or boss you.	0.38		
36. Emotional threats are present.	0.35		
80. Food is important in this situation.	-0.35		
Mating		.61	6
74. Femininity can be expressed.	0.60		
58. Sexuality is relevant.	0.57		
60. The presence of members of the opposite sex is an important part of this situation.	0.48		
65. Masculinity can be expressed.	0.47		

Dimension Items	Factor loading	α	No. Items
28. Your physical attractiveness is important.	0.47		
61. Potential or actual romantic partners (for you) are present.	0.33		
pOsitivity		.74	8
1. The situation is potentially enjoyable.	0.80		
18. The situation is playful.	0.71		
67. The situation could arouse positive emotions.	0.63		
90. Entertainment is present.	0.56		
48. The situation is humorous or potentially humorous.	0.52		
73. Someone is complimenting or praising you.	0.36		
46. Desires could be gratified (for example, food, shopping, sexual opportunities)	0.30		
78. People are being physically active.	0.40		
Negativity		.71	6
55. The situation is potentially anxiety-inducing.	0.66		
68. The situation could arouse negative emotions.	0.64		
27. The situation is frustrating (for example: a goal is blocked)	0.54		
30. The situation could make people tense and upset.	0.48		
57. The situation could make you feel inadequate.	0.47		
31. The situation includes small annoyances.	0.47		
Deception		.37	3
53. Someone is breaking rules.	0.45		
52. Clear rules define appropriate behavior (whether or not the rules are being followed).	0.43		
32. The situation could make people feel hostile.	0.35		
Sociality		.63	8
7. Talking is permitted.	0.58		
8. Talking is expected or demanded.	0.53		
47. Social interaction is possible.	0.52		
89. It is important for people to get along.	0.46		
21. A reassuring person is present.	0.43		
42. The people who are present have close personal relationships with each other.	0.34		
39. Emotions can be expressed.	0.37		
88. New relationships could develop.	0.32		

Note. N = 256. Factoring method: Principal axis factoring; Rotation method: Promax. Only the dominant loading items that uniformly formed a factor are presented. RSQ = Riverside Situational Q-Sort; DIAMONDS = Duty, Intellect, Adversity, Mating, pOsitivity, Negativity, Deception, and Sociality.

Appendix E

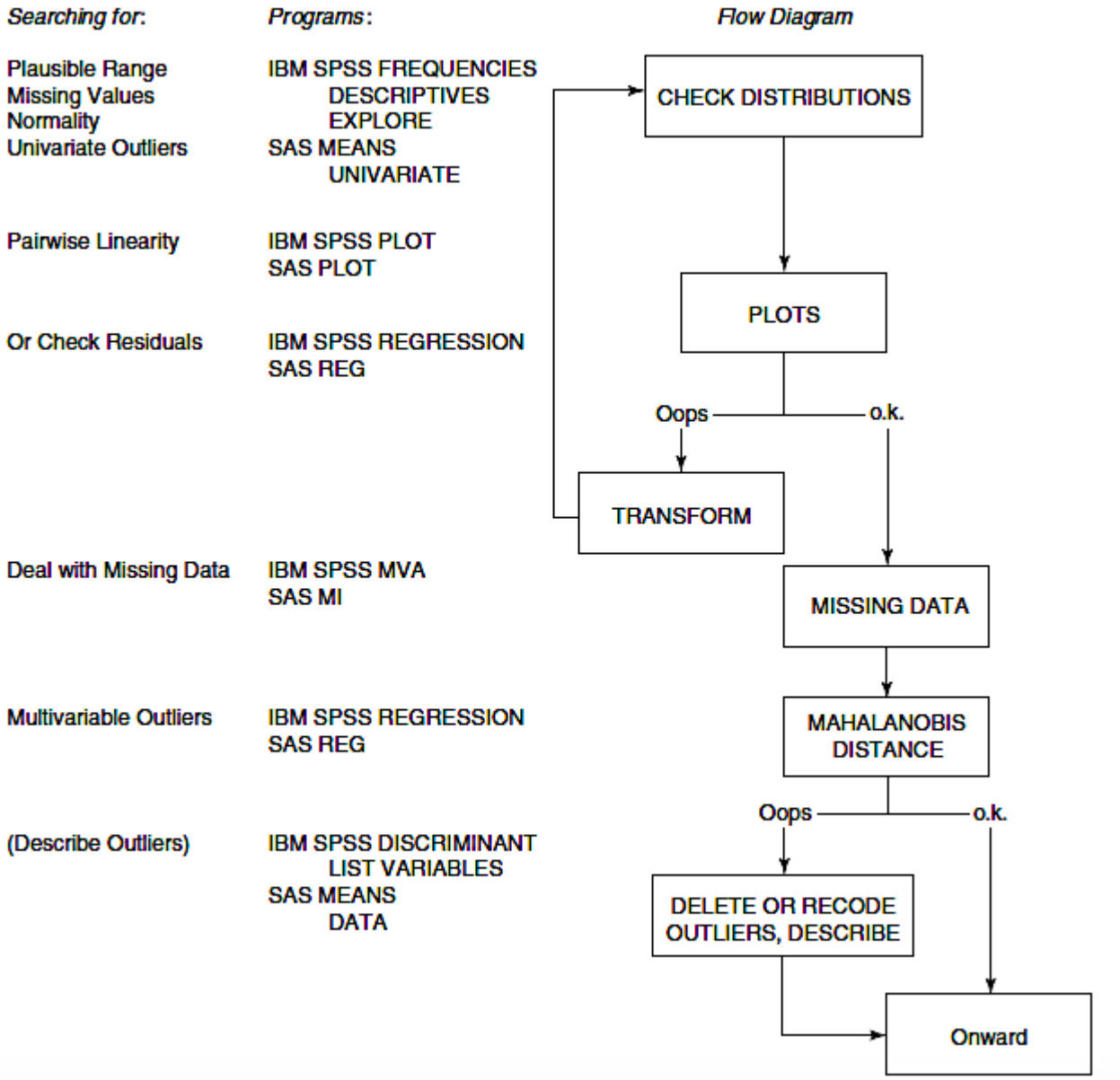
Final Items per DIAMONDS Dimension

Dimension Items	α	No. Items
pOsitivity	.78	5
1. The situation is potentially enjoyable.		
18. The situation is playful.		
48. The situation is humorous or potentially humorous.		
67. The situation could arouse positive emotions.		
90. Entertainment is present.		
Negativity	.71	6
55. The situation is potentially anxiety-inducing.		
68. The situation could arouse negative emotions.		
27. The situation is frustrating (for example: a goal is blocked)		
30. The situation could make people tense and upset.		
57. The situation could make you feel inadequate.		
31. The situation includes small annoyances.		
Sociality	.63	7
7. Talking is permitted.		
8. Talking is expected or demanded.		
47. Social interaction is possible.		
89. It is important for people to get along.		
21. A reassuring person is present.		
42. The people who are present have close personal relationships with each other.		
39. Emotions can be expressed.		
Intellect	.62	5
44. The situation could be intellectually stimulating.		
13. Intelligence is important (for example: an intellectual discussion, a complex problem that needs to be solved)		
34. Unusual ideas or points of view are being discussed freely.		
12. Politics are relevant (for example: a political discussion).		
69. There are opportunities to display verbal fluency (e.g., a debate, a monologue, an active conversation)		
Duty	.62	6

Dimension Items	α	No. Items
3. A job needs to be done.		
6. Someone is counting on you to do something.		
79. People are working hard.		
23. A decision needs to be made.		
38. Quick action is necessary.		
11. Minor details are important.		

Appendix F

Flow Diagram for Screening Data



Note. Adapted from *Using Multivariate Statistics* (6th ed., p.93), by B. Tabachnick and l. Fidell, 2013, Pearson. Copyright 2013 by Pearson Education, Inc.

Appendix G

Univariate Normality Check for the Full Set of Study Variables

Variable	One-Sample Kolmogorov-Smirnov
Open-mindedness	×
Conscientious	✓
Agreeableness	✓
Extraversion	×
Negative Emotionality	×
Duty	×
Intellect	✓
pOsitivity	×
Negativity	×
Sociality	×
“I tried to control the situation.”	×
“I displayed ambition.”	×
“I showed high enthusiasm.”	×
“I concentrated on or worked hard at a task.”	×
“I was interested in what someone had to say.”	×
“I sought advice.”	×
“I exhibited a high degree of intelligence.”	×

Note. ✓ = retain the null hypothesis and conclude that the data are normally distributed; × = reject the null hypothesis and conclude that the data are not normally distributed.

Appendix H

Multiple Regression Assumption Checks

Model	Normally distributed errors	Linearity of residuals	Homogeneity of residuals	No multico-llinearity	Independent residuals	No multivariate outliers
Big 5: BBI1	Slightly negative	✓	✓		✓	✓
Big 5: BBI2	Slightly bimodal	✓	✓		✓	✓
Big 5: BBI3	Slightly negative	✓	✓		✓	✓
Big 5: BBI4	Slightly negative	✓	✓		✓	✓
Big 5: BBI5	Slightly negative	✓	Approximately	✓	✓	✓
Big 5: BBI6	Approximately	✓	✓		✓	✓
Big 5: BBI7	Slightly bimodal	✓	Approximately		✓	✓
Situations: BBI1	Slightly negative	✓	Approximately		✓	✓
Situations: BBI2	Slight negative	✓	✓		✓	✓
Situations: BBI3	Approximately	✓	✓		✓	✓
Situations: BBI4	Slight negative	✓	Approximately	✓	✓	✓
Situations: BBI5	Slight negative	✓	Approximately		✓	✓
Situations: BBI6	Approximately	✓	✓		✓	✓
Situations: BBI7	Approximately	✓	✓		✓	✓
Big 5 + Situations: BBI1	Slightly negative	✓	Approximately		✓	✓
Big 5 + Situations: BBI1	Approximately	✓	Approximately		✓	✓
Big 5 + Situations: BBI1	Slightly negative	✓	Approximately		✓	✓
Big 5 + Situations: BBI4	Slightly negative	✓	✓	✓	✓	✓
Big 5 + Situations: BBI5	Slightly negative	✓	✓		✓	✓
Big 5 + Situations: BBI6	Slightly bimodal	✓	Approximately		✓	✓
Big 5 + Situations: BBI7	Approximately	✓	Approximately		✓	✓

Note. BBI1: “I tried to control the situation.”; BBI2: “I displayed ambition”; BBI3: “I showed high enthusiasm”; BBI4 “I concentrated on or worked hard at a task.”; BBI5: “I was interested in what someone had to say”; BBI6: “I sought advice”; BBI7: “I exhibited a high degree of intelligence”.

✓ = Assumption was met.