

CHAPTER 1

Introduction: Background, rationale and outline

Sex and gender issues are ubiquitous within every facet of life. Apart from the intrinsic differences between the sexes, society, both openly and tacitly, uses sex and gender to categorise and stereotype. Differences between genders, which include socially prescribed skills, attitudes, behaviours and traits, moulded by cultural and societal influences, are pervasive across cultures and time (West & Zimmerman, 1987). It is therefore no surprise that there has been significant interest, and academic research, into the underlying concepts of sex, gender and sex role identity (SRI).

It is important to understand the nature and construction of gender so as to understand the complex process of becoming gendered in society (West & Zimmerman, 1987). Adherence to sex-congruent behaviours, or gender-typing, impacts the choices people make, including talents cultivated, career opportunities pursued and social roles assumed (Bussey & Bandura, 1999). It also impacts self-identity and perception by others. Gendered identity or SRI has such a profound impact on individuals that, according to Bem (1981), one's gender-schema guides one's perception of the world.

There are a number of schools of thought with regard to what determines an individual's SRI. Some theorists believe that the adoption of stereotypical gendered behaviour is intrinsic to one's biological sex, and therefore innate. This is inferred from the fact that people usually do behave in gender-congruent ways (Gergen & David, 1997). Since the 1970s, however, there has been a paradigmatic shift towards social constructionism, which posits the importance of social and cultural expectations and influences on an individual's adoption of an SRI (American Psychological Association, 2011; West & Zimmerman, 1987).

The Social Construction Theory posits that gender reflects prescriptive and normative attitudes of appropriate traits and behaviours for each sex, which an individual can choose whether to embrace. For example, a man can adopt an identity of either predominately feminine traits or masculine traits. Furthermore, in 1974 Bem reconceptualised SRI by introducing the concept of "androgyny". Bem (1974) proposed that an individual could adopt a balance of both masculine and feminine traits, depending on situational appropriateness. This rejected the traditional conception of gender and SRI as a rigid

binary constructs, with masculinity and femininity on either extreme (Terman and Miles, 1936).

Research has been conducted to determine the relationship between SRIs and a wide range of outcomes including wellbeing, stress, work-life balance, depression and illness (Antill & Cunningham, 1979; Aube, 2008; Chow, 1987; Ghaed & Gallo, 2006; Gianakos, 2000; Helgeson, 1994; Helgeson & Fritz, 2000; Spence, Helmreich & Holahan, 1979; Watson, Clark & Harkness, 1994; Woodhill & Samuels, 2003; Wupperman & Neumann, 2006).

This research however has been shown to be methodologically and theoretically flawed, which has in part contributed to the often inconsistent and contradictory findings. A key limitation of much of the previous SRI research is that it has almost exclusively focused on a limited range of sex-based personality traits, namely the positive or socially desirable ones (Berger & Krahe, 2013; Spence, 1993; Wajsblat, 2011). The study of only positive traits fails to measure the complete identity, or self-concept, as this is comprised of both strengths and weaknesses, positive and negative traits (Berger & Krahe, 2013).

Furthermore, negative SRIs have been found to be the dominant SRI for a significant proportion of South African samples. In four studies undertaken to date almost fifty percent of individuals reporting having a negative SRIs (Bernstein, 2013; Chemaly, 2012; 2013; de Freitas, 2013; Solomon, 2012). Therefore, it is critical for research to be expanded to explore correlates of both positive and negative SRIs (Woodhill & Samuels, 2003).

Much of the previous body of research, has focused on the relationship between SRI and the minimisation of pathogenic outcomes, rather than the maximisation of positive outcomes (Bernstein, 2013; Fielden & Cooper; Gianakos, 2000; Greenglass, Burke & Ondrack, 1990; Helgeson & Fritz, 2000; Li, DiGiuseppe & Froh, 2006; Vingerhoets & Van Heck, 1990). Therefore a greater understanding of the relationships between SRIs and positive psychological constructs in the workplace is required (Wajsblat, 2011).

Positive psychology is the study of positive constructs, including cultivating strength, happiness, wellbeing and reaching one's potential (Seligman, 1998; Seligman & Csikszentmihalyi, 2000). The study of positive psychology is relatively recent, having grown dramatically over the last twenty years (Cheng, 1999; Dawkins, Martin, Scott & Sanderson, 2013; Ettiore, 2004; Field & Buitendach, 2011; Luthans, 2002a; 2002b; Luthans & Yossef, 2004; Seckinger, Langerak, Mishra & Mishra, 2010; Snyder, 2000;

2002; Stewart, Reid & Mangham, 1997). Positive Psychology, when applied to organisations is called positive organisational behaviour (POB). POB represents a new paradigm in human resource management, applying positive psychology principles to the workplace by focusing on enhancing employee strengths and capabilities (Luthans, Youssef, & Rawksi, 2011).

A POB concept that has gained momentum, given its impressive influence on employee performance, is Psychological Capital or PsyCap (Ardichvili, 2011). PsyCap is a synergistic higher-order construct comprising the four constructs of self-efficacy, hope, resilience and optimism. The concept of work engagement, another positive psychological construct, has also grown in popularity and importance over the last twenty years, given its relationship with work performance and employee satisfaction.

These positive psychological constructs have become increasingly important, as organisations seek to develop and maintain a competitive advantage by enhancing the psychological resources of employees, and driving work engagement, performance and productivity (Luthans, Avey, Clapp-Smith & Weixing, 2008). Interestingly, however, much positive psychology research does not focus on the workplace and, when it does, it focuses on the work environment, organisations and management rather than individual behavioural choices and traits. While much research has been conducted on the relationship between SRIs and wellbeing, there is a paucity of research focusing on SRIs and a more comprehensive range of positive psychological outcomes (Bernstein, 2013; Chemaly, 2012; 2013; Helgeson, 1994; Steel, Schmidt, & Schultz, 2008; Steel & Ones, 2002; Wajsblat, 2011).

Given the shortcomings of previous research, the purpose of this study is to investigate the relationships between both positive and negative SRIs and the positive psychological constructs of self-efficacy, hope, resilience and optimism (PsyCap), as well as work engagement. This study will utilise a Differentiated Model to classify individuals into one of seven SRIs; namely positive androgyny, negative androgyny, positive masculinity, negative masculinity, positive femininity, negative femininity, and undifferentiated identity. By better understanding the personality traits of SRIs that are linked to positive psychological outcomes, organisations can better understand their workforce and create interventions to increase these positive outcomes in their organisation.

Therefore, the key research objectives of this study are to determine whether:

1. Individuals with different SRIs have different levels of overall PsyCap;

2. Individuals with different SRIs have different levels of self-efficacy;
3. Individuals with different SRIs have different levels of hope;
4. Individuals with different SRIs have different levels of resilience;
5. Individuals with different SRIs have different levels of optimism;
6. Individuals with different SRIs have different levels of work engagement; and
7. Whether there is an interaction between SRI and PsyCap on levels of work engagement.

1.1 Conclusion

This chapter provided background and the rationale for this study. The following chapter, (Chapter 2), defines the key terms – sex, gender, sex role identity, PsyCap and work engagement. The key empirical findings and benefits of these constructs in an organisational context are detailed, and the theoretical framework for this study explained. The limitations of previous empirical research are summarised, highlighting the necessity of this study. Finally, relationships between SRI, PsyCap and work engagement are discussed, based on empirical findings and personality theories.

Chapter 3 describes the research methodology. This includes a description of the research questions and hypotheses of the study. Following this, the research design is explained, including a description of the sample and an overview of each instrument used to collect data. This is followed by an overview of the analysis techniques used, the procedures followed and ethical considerations of this study.

Chapter 4 provides the results of this research. Descriptive statistics are presented, as well as internal reliabilities for all instruments. The results of Pearson's correlations as well as one-way and two-way Analysis of Variance (ANOVAs) between the various SRIs and self-efficacy, hope, resilience, optimism and work engagement are also presented.

Chapter 5 discusses and expands on the results from the previous chapter. The results from this study are compared to previous empirical findings and potential explanations for the results are explored. Furthermore, the theoretical contribution of these results to the existing body of knowledge is discussed, as well as both statistically significant and non-significant findings.

In Chapter 6, the theoretical and practical implications of these findings are outlined, the potential limitations of this study are addressed and recommendations for future research are provided.

CHAPTER 2

Theoretical background of sex role identity, PsyCap and work engagement

2.1 Introduction

This chapter provides the theoretical and empirical background of this study. It begins by defining the key concepts of “gender”, “sex” and “sex role identity” (SRI), including the history and competing theories relating to these concepts. Additionally, this chapter provides background on positive psychology and positive organisational behaviour. This is followed by an in depth discussion of “Psychological Capital” (PsyCap) and “work engagement” and the importance of these constructs in an organisational setting. Finally, the relationships between SRI, PsyCap and work engagement are discussed, which clearly highlights the theoretical gap in existing literature and the need for this study.

2.2 Sex role identity

2.2.1 Definition of gender and sex

There is often confusion and a disregard for the nuances that differentiate the concepts of sex and gender (Borna & White, 2003). Within the literature, these terms are often used interchangeably, which is incorrect. While these concepts are related, they are in fact distinct from one another.

Sex is a biological category of an individual as either male or female, determined by a person’s physiological makeup (Borna & White, 2003; Eagly & Wood, 1999). Physiological differences between the sexes include sex chromosomes, reproductive organs and genitalia (American Psychological Association, 2011).

Unlike sex, which is innate, gender is a social construct encompassing a constellation of stereotypical differences between men and women in terms of behaviours and psychological traits that a particular culture considers more appropriate for one sex than the other (Sasso, 2010). Gender is normative, specifying the traits, attitudes and behaviours appropriate to each sex (American Psychological Association, 2011; West & Zimmerman, 1987). The two gender categories are masculinity and femininity, which are associated with males and females respectively. Therefore gender, while impacted by one’s biological sex, is to a large degree determined and constrained by social, historical and cultural

factors (Borna & White, 2003; Eagly & Wood, 1999; McCreary, Newcomb and Sadava, 1998).

Gender is therefore a constructed schema, used for socially categorising people, based on perceived enduring and fundamental differences (West and Zimmerman, 1987). Phillips (2005) provides a clear example of the difference between sex and gender, explaining that for a woman, being able to give birth to a child is a fundamental biological function (sex), while being a nurturer and parent to the child is tied to cultural expectations (gender).

2.2.2 Definition of sex role identity

While gender is a social construct, SRI is a self-concept. In other words, gender is how *society expects* an individual to behave based on biological sex. Gender requires that men are masculine and females are feminine. SRI refers to an *individual's understanding* of these sex-related traits, the adoption and display of stereotypical masculine and/or feminine traits and the individual's acceptance of this gender-related schema (Williams & Best, 1990). SRI involves the adoption of traits and behaviours culturally appropriate for one's sex only, the opposite sex, or of both sexes, as part of one's self-concept (Borna & White, 2003; Woodhill & Samuels, 2004). A male can therefore adopt a feminine SRI and a female can adopt a masculine SRI.

SRIs are described as sex-based personality traits and thus SRIs and the associated behavioural repertoire are considered relatively stable over time (Bem, 1974; Watson et al., 1994). However, it is possible for adjustments and developments to an individual's SRI to occur over time and across life stages (Phillips, 2005).

SRI has been examined in theoretical and empirical literature under a variety of names, including "sex role orientation" (Bem, 1974), SRI (Spence, Helmreich & Stapp, 1975), "gender self-concept" (McCall & Dasgupta, 2007) and "gender identity" (Sherif 1982). For the purposes of this study, the term SRI is used.

2.2.3 History and development of the concepts of gender and sex role identity

Both gender and SRI have traditionally been conceptualised as dichotomous constructs, with masculinity and femininity falling on opposite ends of a single continuum (Perry & Bussey, 1984). In their influential book 'Sex and Personality', Terman and Miles (1936) introduced the categorisation of masculinity and femininity as opposing traits into the psychological domain. At the core of this notion and measurement of gender was that

women should adopt traditionally feminine traits and men should adopt traditionally masculine traits (Terman & Miles, 1936). This approach subsequently became the prototype for measurement of masculinity and femininity (Hoffman, 2001).

Bakan (1966) continued this conceptualisation of gender as two opposing modes of living, utilising the terms of “agency” and “communion”. An agentic individual is concerned with self-enhancement, self-assertion and self-protection. Conversely, communion is manifested by participation in a group and cooperation with others, with the desire to contribute to group wellbeing. Bakan (1966) asserts that agency is most strongly identified in males, and communion is more representative of females. Therefore these types of gender theories clustered gendered traits on either end of a single masculine-feminine spectrum (Spence et al., 1979). Spence et al. (1979) highlight that these theories assume that it is socially and psychologically advantageous for individuals to display their appropriate sex-typed behaviours. This view of gender as a unifactorial concept prevailed until the mid-1970s (Hoffman, 2001).

From the 1970s, Western societies witnessed great social change. This included a re-invigoration of the women’s liberation movement, which ushered in the conceptually revolutionary androgyny era (Bem, 1974; Constantinople, 1973). This movement disagreed with the notion that a woman’s identity was biologically determined, instead exploring the impact of social constructionism on identity formation (Siebers, 2004). In addition, this period witnessed watershed events such as the gay rights movement, and these social movements sought to challenge dominant societal theories of gender, which served to constrain behaviour and social roles through their associated norms and cultural expectations (Kiguwa, 2004).

Constantinople (1973) challenged the dichotomous conceptualisation of gender, as being inadequately defined and empirically unsound. Theorists proposed that masculinity and femininity may in fact, not be mutually exclusive and that an individual may be able to score highly for both masculine and feminine traits (Bem, 1974; Constantinople, 1973; Spence et al., 1975). It was during this period that researchers such as Bem (1974; 1975) proposed a paradigm shift by introducing the concept of “androgyny” into SRI theory.

Etymologically rooted in classical literature, with “andro” meaning male and “gyne” meaning female, the term suggests that an individual may “be both masculine and feminine, both assertive and yielding, both instrumental and expressive—depending on the situational appropriateness of these various behaviors” (Bem, 1974, p. 155; Hoffman,

2001). Bem (1974) argued that androgynous individuals have a wider behavioural repertoire than traditional sex-typed individuals, thus facilitating more optimal functioning.

The introduction of androgyny, which brought with it the assertion that both males and females could possess a range of both masculine and feminine traits, transformed the definition of gender and reduced the distinction between the sexes (Woodhill & Samuels, 2003). Androgyny theories led to the development of self-report instruments to categorise individuals into the positive personality types of masculine, feminine and androgynous. These instruments include the Bem Sex Role Inventory (Bem, 1974; 1975) and the Personality Attribute Questionnaire, predecessor to the EPAQ (Spence, Helmreich, & Stapp, 1974).

2.2.4 Limitations of sex role identity research

Much of the previous research on SRI explores the impact of only positive, and not negative masculine, feminine and androgynous traits. Researchers acknowledge the flaw in this methodology of measuring only positive traits for SRI, thereby failing to acknowledge negative traits (Bem, 1974; Spence et al., 1979; Woodhill & Samuels, 2003). From a theoretical standpoint, self-concept represents the entire person and therefore the measurement of gendered behaviour and traits cannot be restricted to only positive attributes (Berger & Krahe, 2013; Spence et al., 1979).

Most of the commonly used SRI instruments measure only positive masculine and feminine attributes. This includes the Bem Sex-Role Inventory (BSRI; Bem, 1974) and the Personal Attribute Questionnaire (PAQ; Spence et al., 1974). This reflects a psychometric flaw in the instruments, which purport to measure SRI but, in fact, only measure a limited range of personality traits, namely the positive ones (Berger & Krahe, 2013; Wajsblat, 2011; Spence, 1993).

Many researchers attribute the contradictory and inconsistent relationships found between SRI and positive outcomes, to the failure of this research to differentiate between positive and negative SRIs (Lubinski, Tellegen & Butcher, 1983; O'Heron & Orlofsky, 1990; Skoe, 1995; Spence et al., 1979). Woodhill and Samuels (2003) explain that the effects of negative traits can override the benefits of positive traits and may thus produce deleterious consequences. In a range of international studies, negative SRIs predict a variety of maladjusted psychological and behavioural outcomes, including greater adolescent smoking and drinking (Athenstaedt, Mikula & Bredt, 2009), higher levels of

psychological distress, negative social interactions and greater depression (Fritz, 2000; Helgeson, 1993; Helgeson & Fritz, 1996) as well as greater self-neglect (Danoff-Burg, Revenson, Trudeau & Paget, 2004). Furthermore some of the negative identities are linked to a reluctance to seek or accept social support (Fritz & Helgeson, 1998).

Based on this criticism and the requirement to understand the impact of both socially desirable and undesirable traits, researchers proposed the Differentiated Model of SRI (McCreary, 1990; Ricciardelli & Williams, 1995; Spence et al., 1974; 1975; 1979; Woodhill & Samuels, 2003; 2004). The Differentiated Model incorporates both socially desirable and undesirable traits by classifying SRI into seven categories (Spence et al., 1975; Woodhill & Samuels, 2003, 2004). These categories are described in the following section.

Consistent with the Differentiated Model and its broadened conceptualisation of SRI, the EPAQ instrument was developed. This instrument, which measures undesirable traits in addition to desirable traits, was a revision of the PAQ instrument developed by Spence and colleagues in 1974 (Spence et al., 1979). Furthermore, Bernstein (2013) updated the EPAQ to become the EPAQ-R, to address theoretical and empirical limitations of the instrument and to enhance its applicability and reliability within the South African context. An in-depth discussion as to why the EPAQ was revised is explained in Chapter 3 – Method.

Empirical findings support the assertion that individuals possess positive and negative traits. Negative SRIs have been found to be dominant for a significant proportion of South African samples. In five studies undertaken to date almost fifty percent of individuals in these samples had negative identities (Bernstein, 2013; Chemaly, 2012; de Freitas, 2013; Solomon, 2012). This highlights the importance of measuring both socially desirable and undesirable SRIs. This study therefore seeks to measure both positive and negative traits using the revised EPAQ (EPAQ-R).

2.2.5 Description of sex role identities

The Differentiated Model, proposed by the work of Spence et al., (1974; 1975; 1979), posits that there are seven possible SRIs. These seven identities are positive masculinity (M+), negative masculinity (M-), positive femininity (F+), negative femininity (F-), positive androgyny (A+), negative androgyny (A-) and undifferentiated (U). According to Wajsblat (2001), positive identities include positive androgyny, positive masculinity and

positive femininity, while negative identities include negative masculinity, negative androgyny and negative femininity. Within the literature, while many terms are used synonymously to describe these identities, including agency, unmitigated agency, communion and unmitigated communion, this study follows Wajsblat's terminology cited above.

Positive masculinity (Bakan, 1966) is a construct that broadly involves the focus on one's self (Helgeson & Fritz, 2000). Positive masculinity includes instrumentality, assertiveness, control, competitiveness, ambition, independence, self-sufficiency and goal-orientation (Bem, 1974; Helmreich, Spence, Wilhelm, 1981). While both men and women possess these traits, men typically score higher than women for masculinity on instruments measuring SRI (Danoff-et al., 2004). Negative masculinity, or extreme masculinity, encompasses behaviours including cynicism, excessive aggression, arrogance and hostility (Helgeson & Fritz, 2000). Bakan (1966) defines this identity as the focus on one's self to the exclusion of others, and argues that negative masculinity may have negative consequences for both the individual as well as society

Positive femininity includes the stereotypical feminine traits of being emotional, tactful, considerate, creative, gentle and caring (Spence et al., 1975). Positive femininity is associated with an expressive orientation, focusing on the welfare of others (Bem, 1974). While such traits can be displayed by both sexes, they are more commonly associated with females (Roehling, Koelbel & Rutgers, 1996). Negative femininity involves an extreme focus on others, which leads to the exclusion or neglect of one's own physical and psychological needs (Bakan, 1966; Helgeson, 1994; Helgeson & Fritz, 1998). Negative femininity also includes traits such as timidity, passivity, anxiety, being excessively worried and complaining (Woodhill & Samuels, 2003). In addition, negative femininity may even include forms of passive-aggressive behaviour (Spence et al., 1979).

Positive androgyny is defined as the possession of high levels of both positive masculinity and positive femininity (Woodhill & Samuels 2004). An androgynous person is equally capable and comfortable displaying masculine and feminine behaviours, selecting behaviour based on situational appropriateness, regardless of the whether the behaviour is prescribed or proscribed for the individual's sex (Bem, 1975). Conversely, Woodhill and Samuel (2004) define negative androgyny as a balance of undesirable or negative aspects of both masculinity and femininity. Thus negatively androgynous individuals display both negatively masculine and negatively feminine traits. While

possessing a wider behavioural repertoire, which is typically good, these individuals exhibit the deficits associated with both negative masculinity and negative femininity and therefore this wider range does not promote the adaptability that is noted for positive androgyny. In other words, because these behaviours are undesirable, the positive effects of having a wide range of behaviours does not accrue (Woodhill & Samuels, 2003).

An undifferentiated SRI characterises an individual who displays low levels of both masculinity and femininity, be it positive or negative traits. They therefore score low on all the other SRI profiles (Bem, 1974; 1975; Woodhill & Samuels, 2003). These individuals exhibit a very limited repertoire of behaviours and these behaviours can be indistinct, unpredictable and inconsistent, because they are likely to display both desirable and undesirable masculine and feminine traits (Bem, 1974; Woodhill and Samuels, 2004).

The above section described the various categories of SRI. The following section discusses a number of theories regarding the development and adoption of an SRI.

2.2.6 Theoretical explanation for the development of sex role identity

Sex-typing is the socialisation process by which children “come to acquire the behaviours, attitudes, interests, emotional reactions and motives that are culturally defined as appropriate for members of their sex” (Perry & Bussey, 1984, p. 262). Cross-cultural analysis shows that the acquisition of masculine and feminine traits begins at an early age (Williams & Best, 1990). Infants are classified by sex from birth (or in utero once their sex is discovered), which leads adults to treat the child in a certain way, based on sex driven expectations (Tauber, 1979). A number of psychological theories have been proposed to explain how a child comes to understand gender expectations and develop a gendered identity (SRI). These include social learning theories, cognitive development theories and gender-schema theories. These are explored below.

2.2.6.1 Social learning theories

Social learning theories posit that sex-appropriate behaviour is learned through observation, modeling and imitation of same-sex others (Bandura, 1977; Perry & Bussey, 1979). Early versions of these theories leaned heavily on stimulus-response theory, positing that humans learn appropriate gender-role behaviour through reinforcement, such as the reward or punishment for behaving in gender appropriate or inappropriate ways (Bandura, 1977). Behaving in a sex-appropriate manner is reinforced by parents, who

create sex-appropriate environments for their children, such as through the types of toys provided, room colour and types of interactions with their child (Williams & Best, 1990).

Later theories extended beyond stimulus-response theories to incorporate the importance of observation and imitation in learning sex-specific behaviour. Sex-specific behaviours are observed from a wide range of social influences, including parents, teachers, neighbours and even stories and television shows (Mischel, 1966). Of these influences, Bandura (1973) notes the critical impact that familial modeling has on child development. These theories predict that children prefer to imitate same-sex others, as a guide for their appropriate behaviour (Perry & Bussey, 1979).

In 1986, Bandura further expanded upon these social learning theories by introducing the Social Cognitive Theory (SCT). SCT emphasises the fundamental role of cognition, in addition to observation and imitation. This theory asserts that behaviour is not shaped only by familial experiences and broad environmental influences, but by a multifaceted interaction of cognition regarding behaviour and emotional reactions (Bandura, 1997). Bandura (1986) argues that behaviour is influenced by what a person thinks, believes and feels, in addition to what they see.

Furthermore, this theory argues that gender development is not only a feature of early childhood, but that adoption of stereotypical gender-related traits may change in different social contexts and across an individual's life span. Thus an individual's SRI is continually negotiated, developed and updated (Bussey & Bandura, 1999). The SCT attempts to combine the importance of social learning with the influence of cognition in the development of an SRI.

2.2.6.2 Cognitive development theories

Cognitive development theories (CDT) explore the development of a child's cognitive abilities, asserting that it is crucial to the understanding and development of gender stereotypes and the adoption of an SRI (Martin, Ruble & Szkrybalo, 2002). Kohlberg (1966) was the first to apply a cognitive theory to describe the acquisition of gender. He argued that a child's understanding of gender and the development of a gender identity begins in the child's formative years. Kohlberg (1966) applies Piaget's (1952) age-related cognitive development stages to the process of gender development. The notion of gender constancy, where the child develops an understanding that gender does not vary across situations, parallels Piaget's concrete-operational stage of conservation (Kohlberg, 1966).

According to the CDT, gender development occurs across three sequential cognitive developmental stages (Kohlberg, 1966). The first stage, gender identification, is where a child correctly labels himself/herself and others as either male or female. Stage two, gender stability, involves the child's realisation that gender, or specifically sex, remains stable over time; boys grow into men and girls grow into women. The final stage, gender constancy, occurs between the ages of five and seven. This is the understanding that gender remains constant, regardless of changes in appearance (Maccoby, 1990; Slaby & Frey, 1975). Once gender constancy has been internalised, children begin to develop more realistic and nuanced understandings of gender categories (Martin & Ruble, 2004).

A range of empirical studies supports the importance of gender constancy in the development of gender and sex-congruent preferences. The achievement of gender constancy enables a child to begin imitating same-sex others (Ruble, Balaban & Cooper, 1981; Slaby & Frey, 1975; Warin, 2000). Gender constancy leads children to seek information, mimic actions appropriate to their sex and show preferences for gender-congruent behaviours (Ruble, Balaban & Cooper, 1981; Slaby & Frey, 1975; Warin, 2000).

CDT highlights the active involvement of a child in the development and understanding of gender differences. The child constantly collects and processes environmental information into sex-different categories, which are then enacted into gender-appropriate behaviour (Kohlberg, 1966; Maccoby, 1990; Martin & Ruble, 2004). This contrasts with social learning theories, which view children merely as passive recipients of social pressures (Maccoby, 2000).

2.2.6.3 Gender-schema theories

Beginning in the early 1970s, gender-schema theories expanded on cognitive development theories to explain, in greater detail, the cognitive processes involved in gender identity or SRI development. According to these theories, the understanding of gender requires the creation of gender-schemas. A gender-schema is an organised cognitive structure, encompassing mental representations of information about typical and appropriate behaviour for each sex (Bem, 1981).

The Development of Intergroup Theory (DIT; Bigler & Liben, 2006), which also extends cognitive development theories, explains how and why children develop gender-schemas. The DIT asserts that children learn that sex is a salient feature to use for grouping people and behavior, given that adults regularly draw attention to different sex groupings

(Bigler & Liben, 2007). For example by addressing boys and girls differently, the psychological salience of sex difference is made explicit to the child (Bigler & Liben, 2007). Bem (1981) supports this explanation, positing that it is society's ubiquitous desire to dichotomise gender that encourages the child's focus on gender difference.

Therefore, once a child is able to differentiate between sexes and can label one's own sex as male or female, they can use this information as a framework for self-generated learning about sex-appropriate behaviours, traits and roles (Martin et al., 2002). According to gender-schema theories, this process starts at a very early age. This contrasts with CDT, which asserts that the process of gender development only truly starts after gender constancy is achieved around the age of five (Martin et al., 2002; Perry & Bussey, 1984).

Gender-schemas allow a child to identify which traits and behaviours are appropriate for their sex, and which are not (Bem, 1981). Furthermore, the development of gender-schemas enables a child to create expectations about typical behaviours, based on the understanding of behaviours and traits associated with each sex (Bem, 1976; Ruble & Stangor, 1986).

The process of developing a gender-schema is dynamic. Gender-schemas become more complex and detailed as more information is selected, processed and organised into these schemas (Bem, 1981; Martin & Halverson, 1981). It is the increasing complexity of the gender-schemas that reflects the development of a gender identity (Bem, 1981).

Researchers note the implications of developing gender-schemas. The development of gender-schemas creates a generalised readiness to perceive information congruent with a child's own gender-schemas, and therefore a reduced focus on incongruent information. Children process, assimilate and remember gender-congruent information more easily than gender-incongruent information (Bem, 1981; Ruble & Stangor, 1986). Furthermore, adherence to appropriate gender-schemas may have significant implications for a child, influencing the development of certain cognitive abilities and the display of certain behaviours (Ruble et al., 1981; Serbin & Connor, 1979).

2.2.7 Process of development and adoption of a sex role identity

Society places subtle but continual pressure on men and women to conform to gender-stereotypical behaviours. This includes the inculcation of the belief that such conformity is necessary to successfully fulfill one's role in society (Hoffman, 2001; Woodhill & Samuels, 2004). Gergen and Davis (1997) argue that society legitimises and rewards these

gendered behaviours when individuals enact them. Individuals become so accustomed to behaving in a gender congruent way that they perceive gender to be intrinsic to physiological makeup, leading individuals to conform to these gendered expectations (Gergen & Davis, 1997). The adoption and enactment of this internalised standard of sex appropriate behaviours is referred to as sex-typing (Bem, 1975).

However, Lewin (1984) explains that narrow definitions of gender (expecting men and women to adhere to stereotypical traits), assumes that everyone fits into the traditional 'template' of masculinity or femininity. Instead allowances should be made for individual interpretation of what it means for that particular individual to be a particular sex, which could include a mix of both masculine and feminine traits. In fact, researchers argue that being confined to a single gender-type may limit behavioural range and impede effective adaptation for a variety of situations (Bem, 1974; Kohlberg, 1966; Lewin, 1984).

An individual's choice to embrace sex-appropriate or sex-inappropriate traits is influenced not only by social learning, but also by factors such as culture, ethnicity, resources, education and attitudes (Park, 1996). For example, more liberal cultures may encourage women to adopt more assertive masculine characteristics, compared to more conservative cultures. This explains one way in which individuals can adopt a cross-typed SRI; where a male adopts a feminine SRI and conversely a female adopts a masculine SRI.

West and Zimmerman (1987) assert that social experiences and interactions also influence the adoption of an SRI. In their seminal article "Doing Gender", West and Zimmerman (1987) argue that gender is not an inherent set of rigid traits. Rather, gendered behaviour is dynamic, created and expressed through social interactions, relationships and situations (Deutch, 2007). This theory holds that gender develops in social interactions, where an individual plays a particular role or has a situated identity, reacting and behaving based on situational requirements and expectations (Hughes, 1945). Hughes (1945) argues that situation-specific gender roles are separate from an individual's master identity, such as their biological sex, which is constant across situations.

Given that gender and SRI are constructed rather than biologically determined, an individual can create their SRI by choosing which type of traits and behaviours to adopt, and whether to adhere to social and cultural norms by adopting sex-appropriate traits (Deutch, 2007). The SRI approach therefore makes provision for individuals to adopt SRIs not prescribed to their sex, based on the external social and cultural factors previously

described, subsequent to the childhood socialisation process where a basic understanding of gender is formed.

The assertion that SRI can be either congruent or incongruent with an individual's sex is supported by research, which has indicated that individuals of both sexes can adopt masculine and feminine SRIs (Bernstein, 2013; Chemaly, 2012; 2013; de Freitas, 2012; Ghaed & Gallo, 2006; Solomon, 2012; Woodhill & Samuels, 2003). Therefore some individuals adopt sex-based prescribed traits, while others adopt traits that they believe will serve them better, or which they prefer or which they have been taught.

2.2.8 Competing theories

There are a number of competing theories regarding which SRI is the most advantageous and adaptive within society. Two of the major theories are the Androgyny Model and the Masculinity Model. While the Androgyny Model proposes that a balance of masculine and feminine traits leads to optimal wellbeing and positive outcomes, the Masculinity Model postulates that masculinity is the key factor that contributes to wellbeing. Both theories fit within the social constructionist framework, given that they assert that individuals can display both masculine and feminine traits, regardless of sex (Gergen & Davis, 1997; Pleck, Sonenstein, & Ku, 1994). These competing theories are discussed below.

2.2.8.1 Androgyny Model

The Androgyny Model is based on the assertion that masculinity and femininity are not mutually exclusive and are, in fact, complementary (Whitley, 1984). According to Bem's (1974) theory, the adoption of an androgynous SRI, where an individual displays a balance of both masculine and feminine traits leads to optimal wellbeing (Bem, 1974). Proponents of the Androgyny Model have found relationships between androgyny and a wide range of positive outcomes, including more effective coping styles (Cheng, 2005), greater resilience (Lam & McBride-Chang, 2007), higher self-esteem (Chow, 1987; Flaherty & Dusek, 1980; Spence et al., 1975) and greater optimism (Norlander, Erixon & Archer, 2000).

2.2.8.2 Masculinity Model

The Masculinity Model posits that the relationship found between androgyny and wellbeing is largely attributable to the masculine traits incorporated within the

androgynous identity, with feminine traits having a negligible impact (Whitley, 1984). This theory views masculine traits as crucial to wellbeing and explains that psychological wellbeing for both sexes varies according to the extent to which an individual possesses these traits (Whitley, 1984). Advocates of this model view the masculine SRI as the most adaptive identity (Antill & Cunningham, 1979). Whitley's (1984) meta-analysis supports the Masculinity Model, finding a strong correlation between masculinity and general wellbeing indicators. Banihani, Lewis and Syed (2013) argue that masculine traits are typically more highly valued and encouraged within organisations and are thus associated with more advantageous outcomes.

In conclusion, the above section defines SRI, discusses the history of SRI, describes the various SRIs and the process of developing an SRI. The following section describes positive psychology and Psychological Capital (PsyCap), which is a psychological construct that has been linked to a large range of positive organisational outcomes (Luthans, 2002b; Luthans, Luthans & Luthans, 2004; Luthans, Avolio, Avey & Norman, 2007). Following this, the concept of work engagement, another positive psychology construct, is defined and explained. Thereafter, the relationship between each SRI and each construct is examined, including an overview of empirical research linking these constructs. This provides the rationale for this study.

2.1. Positive psychology

2.3.1 Positive psychology - a definition

Positive psychology is concerned with nurturing and enhancing the positive aspects of people, such as promoting strength, resilience, wellbeing and development of potential (Luthans, 2002b; Seligman & Csikszentmihalyi, 2000). Focusing on human capabilities and adaptive systems helps to promote effective human functioning (Masten, 2001). This represents a departure from psychology's traditional, almost exclusive, focus on pathology and dysfunction (Luthans, 2002b; Luthans et al., 2004). This branch of psychology was pioneered by a core group of researchers led by Seligman (1998).

Out of this movement, the term "Positive Organisational Behaviour" (POB) was coined to describe a positive approach to managing human resources in organisations (Luthans et al., 2007). Luthans (2002a) defines POB as positively-orientated psychological research, with the purpose of measuring, developing, enhancing and managing human capability, strength and potential. The objective of the POB approach is to improve human

resource management and to make a quantifiable improvement to performance within an organisational context (Luthans, 2002a).

To be classified as a POB construct, a construct must conform to the following criteria: it must have a sound theoretical basis; be measurable; be open to development and applicable to the domain of organisational behaviour; and positively impact work performance and satisfaction (Luthans, 2002b; Luthans et al., 2007). The four psychological capacities considered to best meet the POB criteria are self-efficacy, hope, resilience and optimism. Collectively these capacities are referred to as Positive Psychological Capital (Luthans, et al., 2004)

2.3.2 Positive Psychological Capital (PsyCap) - a definition

Positive Psychological Capital, commonly referred to as PsyCap, aggregates the four underlying positive psychological capacities of self-efficacy, hope, resilience and optimism (Luthans & Youssef, 2004; Luthans et al., 2007). While conceptually distinct, these four capabilities or resources have strong commonalities and underlying links. PsyCap has been empirically found to be a high-order core construct, which enables these resources to have a synergistic and interactive contribution towards performance outcomes, compared to each resource individually (Luthans et al., 2007; Sweetman, Luthans, Avey and Luthans, 2011).

Support for the theory of a higher order construct is drawn from Hobfoll's (1989; 1998) Conservation of Resources Theory (COR). This model posits that an individual's psychological resources develop over time in 'resource caravans' and co-exist within an individual (Hobfoll, 2002). These resources are then utilised collectively in the face of stressors to achieve better outcomes (Rini, Dunkel-Schetter, Wadhwa & Sandman, 1999). An individual can use any single resource, a combination, or all their available resources, depending on the context or stressor (Bandura, 1997; Hobfoll, 2002).

While the four PsyCap resources may remain stable over periods of time, they are not totally static and can be developed and enhanced through focused interventions and induced by environmental factors (Luthans, Avey, Avolio, Norman & Combs, 2006; Youssef & Luthans, 2007). Given that these positive psychological resources are applicable to the workplace and can be developed to effectively enhance work performance, they are of particular interest to organisations (Luthans et al., 2002a; 200b).

PsyCap is distinct and broader than similar human resource constructs such as human capital and social capital (Newman, Ucbasaran, Zhu & Hirst, 2014). Human capital encompasses employees' knowledge, education and experience, while PsyCap embodies who employees are and what they will become in the future (Luthans et al., 2008).

To understand PsyCap, an understanding of each of its underlying constructs is required. The following section describes these constructs as well as their importance within an organisational context.

2.3.2.1 Self-efficacy

Self-efficacy is a central element of Bandura's Social Learning Theory (1977) and refers to an individual's belief in their capability to take necessary action and sustain motivation to achieve a desired outcome. Bandura (1982) explains that self-efficacy is one's appraisal of one's capability to think, behave and act accordingly, to achieve a desired outcome. Individuals with high self-efficacy are more likely to choose difficult tasks and persevere in the face of adversity, given that they are optimistic of achieving their desired outcomes (Bandura, 1977). Individuals with high self-efficacy typically outperform those with low self-efficacy (Bandura, 1977).

Self-efficacy levels are strongly influenced by previous feedback and success of prior behaviour (Bandura, 1977, 1982). If previous behaviours have led to desired outcomes, this increases the self-efficacious perception of these behaviours, and therefore the likelihood of the individual to repeat these behaviours in the future (Bandura, 1977).

2.3.2.2 Hope

According to Snyder et al., (1991) hope encompasses two dimensions. Agency, the first dimension of hope, can be conceptualised as the willpower or goal-directed motivation to pursue and achieve desired outcomes (Snyder, 2000). The second dimension, pathways, includes not only the creation of plans to achieve a goal but also the ability to proactively develop contingency plans to overcome obstacles when they arise (Snyder, 2000; Luthans et al., 2007).

Hope is a positive motivational state, encompassing the belief in one's capacity to create pathways to achieve one's goals, and the motivation, via agency thinking, to utilise these pathways to meet desired goals (Snyder, 2002). Such positive thinking plays a critical role in the subsequent achievement of goals (Snyder et al., 1996).

2.3.2.3 Resilience

Resilience, in a positive organisational context, has been defined as “the capability of an individual to cope successfully in the face of significant change, adversity, or risk” (Stewart, Reid, & Mangham, 1997, p. 22). While early research described resilience as something rare and remarkable, it has come to be recognised as an ordinary phenomenon, developing from “basic human adaptive processes” and may include innate motivation, self-regulation and self-efficacy (Masten, 2001, p. 227).

Resilience requires the ability to be flexible and adapt in the face of change or uncertainty and may be particularly important during stressful periods (Stewart et al., 1997; Youssef & Luthans, 2007). Resilience involves the recognition of the need to take both proactive and reactive steps when confronted with challenges (Youssef & Luthans, 2007). Proactive resilience involves not only recovering from adversity, but using such setbacks as motivation to grow beyond one’s previous psychological state and achieve optimal development (Baldwin et al., 1993; Luthans, 2002b; Luthans, Vogelgesang, & Lester, 2006).

Resilience is dynamic and the capability to be resilient can be developed and enhanced through characteristics of the individual and supportive factors in the environment (Stewart et al., 1997). Characteristics that can develop and enhance resilience include optimism (Wyman, Cowan, Work, & Kerley, 1993) and high levels of self-esteem (e.g., Baldwin, et al., 1993).

2.3.2.4 Optimism

Optimism reflects a generalised positive explanatory style, with an expectation that one will experience positive outcomes across domains (Scheier & Carver, 1985). Optimism is heavily influenced by the Attribution Theory, introduced by Heider (1958). Optimism involves making internal, stable and global attributions about positive outcomes and external and temporary and situation-specific attributions about negative outcomes (Seligman, 1998). According to Rotter’s (1954) Outcome Expectancy Theory, if an individual has optimistic expectations about future success, this influences subsequent behaviour by creating motivation to increase and sustain effort. Scheier and Carver (1985) agree with this theory, positing that optimistic people expect positive things to happen and will therefore strive towards goal achievement, even when faced with obstacles.

2.3.3 Importance of PsyCap in a work context

Organisations and academics have taken a particular interest in PsyCap because of the empirical evidence linking increased levels of PsyCap to a diverse range of positive individual, team and organisational outcomes. PsyCap has been correlated with positive employee attitudes, including job satisfaction, organisational commitment (Larson & Luthans, 2006; Luthans & Jensen, 2005) and reduced intentions to leave (Avey, Reichard, Luthans & Mhatre, 2011). High levels of PsyCap are related to lower levels of stress (Avey, Luthans & Jensen, 2009) and higher levels of employee engagement (Avey, Wernsing & Luthans, 2008). PsyCap is a significant predictor of employee performance (Luthans et al., 2007; Luthans et al., 2008) and employees with high levels of PsyCap engage in more organisational citizenship behaviours (Norman, Avey, Nimnicht, & Graber-Pigeon, 2010; Walumbwa, Luthans, Avey & Oke, 2011).

PsyCap has been found to have a synergistic effect, predicting creativity in working adults to a greater extent than the individual contributions explained by each PsyCap construct (Sweetman et al., 2011). Creativity is directly linked to innovation in organisations (Amabile, Conti, Coon, Lazenby, & Herron, 1996). PsyCap has also been correlated with effective individual problem-solving and innovative behaviour (Luthans et al., 2011).

2.3.3.1 Importance of self-efficacy

Self-efficacy has been correlated with high levels of work-related performance (Stajkovic & Luthans, 1998), coping with career-related events (Stumpf, Brief & Hartman, 1987) and enhanced socialisation and integration of new employees (Saks, 1995).

Wood and Bandura (1989) found high levels of self-efficacy to be associated with an increased likelihood of undertaking challenging tasks, as well as better strategic execution of these tasks. For example, Harrison, Rainer, Hochwarter and Thompson (1997) found a high correlation between self-efficacy and successful adoption of new computer technologies.

Self-efficacy determines whether an individual initiates coping behaviour, the amount of energy expended and the duration of sustained coping behaviour when faced with obstacles (Bandura, 1977). Therefore an individual with high self-efficacy is more likely to respond positively to a challenge, persevere in the face of obstacles and be more motivated to accomplish a work-related task (Luthans, 2002b).

2.3.3.2 Importance of hope

High levels of hope have been positively related to improved performance in stressful human services roles, greater job satisfaction, happiness at work and organisational commitment (Kirk & Koesk, 1995; Yossef & Luthans, 2007). Simmons and Nelson (2001) found that hope in nurses was positively related to positive affect, meaningfulness, perceptions of wellbeing and active engagement at work. Hope has been found to be positively correlated to academic performance and perceived control of outcomes (Curry, Snyder, Cool, Ruby & Rehm, 1997).

2.3.3.3 Importance of resilience

Avey et al., (2009) argue that resilience is critical for managing and succeeding in a workplace that is dynamic and demanding. Resilient individuals may more effectively cope with stress and changing work environments, showing greater emotional stability in the face of adversity and lower cognitive appraisal of threats (Tugade & Fredrickson, 2004). Avey and colleagues (2009) also note that resilient individuals create effective coping strategies to deal with setbacks. Additionally, Maddi (2013) found that resilient managers retained performance and physical health under stressful working conditions. Given that resilience is associated with enhanced ability to cope with workplace stress, and stress is influential in job dissatisfaction and staff turnover, resilient employees may be less susceptible to staff turnover (Coomber & Barriball, 2007).

2.3.3.4 Importance of optimism

Optimism, as defined by Scheier and Carver (1987), is associated with a wide range of positive outcomes. Optimism has been positively related to job performance and work engagement (Salminen, Mäkikangas and Feldt, 2014; Yossef & Luthans, 2007). Optimism has been found to moderate job strain and enhance active problem-focused coping (Scheier, Weintraub, & Carver, 1986; Totterdell, Wood and Wall, 2006). High optimism, combined with self-awareness is associated with increased persistence in the face of challenges (Solberg Nes, Segerstrom & Sephton, 2005). This is likely due to the fact that optimistic individuals view their goals as being more achievable and therefore engage and exert more effort (Carver & Scheier, 1998).

2.4 Work engagement

The value of work engagement, also a positive psychological construct, has become increasingly recognised by organisations, given the range of positive outcomes with which it is associated. This section describes work engagement, including its importance in an organisational context. Once work engagement is described, the following section summarises the relationships between the various SRIs, PsyCap and work engagement, to provide empirical support for the hypotheses.

2.4.1 Work engagement – a definition

Work engagement is part of the positive psychology movement, which focuses on optimal functioning, wellbeing, enthusiasm and health at work (Schaufeli & Bakker, 2003). Schaufeli, Salanova, Gonzalez-Roma & Bakker (2002) conceive work engagement as a positive work-related state of mind, defined by three dimensions – vigour, dedication and absorption, measured using the Utrecht Work Engagement Scale (UWES).

In almost all definitions of work engagement, there is an emphasis on the increased intellectual and emotional connection that an employee has to his or her job, organisation or co-workers, which leads to increased discretionary effort (Gibbons, 2006; Balain & Sparrow, 2009; Towers Perrin, 2005). The key attitudinal and behavioural components of work engagement include commitment, enthusiasm, dedication, loyalty and job satisfaction (Gallup, 2012; Macey & Schneider, 2008; Towers Perrin, 2005; Gallup, 2012). Further attitudinal elements of work engagement include pride, loyalty, satisfaction, and intention to stay with the company (Gallup, 2012).

Thomas (2009a) focuses on key behavioural outcomes of work engagement, including greater commitment to the purpose of one's work, selecting behaviours to best accomplish one's purpose, actively examining behaviour to ensure that work is being performed competently and monitoring progress towards achieving work goals. The outcome of this is self-management, which is a highly advantageous outcome for organisations (Thomas, 2009a).

Kahn (1990) examines the personal features of work engagement, defining it as the extent to which employees express themselves through their roles, physically, emotionally and cognitively. Employees are engaged with their work when they identify with their role (Kahn, 1990). This emotional experience of being at work then influences attitudes and behaviours towards one's role and workplace (Hackman & Oldham, 1980).

Burnout is seen as the reduction of work engagement and these two constructs are negatively correlated (Demerouti, Bakker, Nachreiner & Schaufeli, 2001; Maslach & Leiter, 1997; Schaufeli & Bakker, 2003). While negatively related, Schaufeli et al., (2002) note that burnout and work engagement are distinct constructs and should be assessed separately and independently of one another.

For the purpose of this study, work engagement will be defined based on Schaufeli et al.'s (2002) conception. The first dimension, vigour, encompasses mental resilience, persistence when confronted with difficulties, pervasive positive feelings, energy and enthusiasm towards work (Schaufeli & Bakker, 2003; Bakker, Schaufeli, Leiter & Taris, 2008). Dedication, the second dimension, is characterised by passion, pride and active involvement in one's work. This includes persevering and seeing obstacles as surmountable challenges (Bakker et al., 2008). The third and final dimension, absorption, is when a person concentrates so fully and is so engrossed in their work that time passes without being noticed (Bakker et al., 2008). Work engagement leads to feeling connected to one's work activities and feeling well equipped to deal with the demands of one's job (Schaufeli & Bakker, 2003).

According to the Job-demand Resource Model, work engagement is decreased by job demands such as complexity, job insecurity and role ambiguity (Bakker & Demerouti, 2008). Conversely, work engagement is enhanced by job resources including control, feedback and development opportunities (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009). Furthermore personal resources such as self-efficacy, hope, resilience, self-esteem and intrinsic motivation predict work engagement (Bakker & Demerouti, 2008; Schaufeli & Taris, 2014).

2.4.2 Importance of work engagement

Industry experts and consultants generally agree that the key feature of work engagement is increased discretionary behaviour for individuals (Balain & Sparrow, 2009; Towers Perrin, 2005). Discretionary behaviour involves making choices about how to do a job, including speed, effort, innovation and effectiveness (Purcell, Kinnie, Hutchinson, Rayton & Swart, 2003, Towers Perrin, 2005). Employers require engaged employees, because it is often difficult for employers to monitor and control the amount of cognitive effort utilised, particularly for employees in innovation and knowledge industries (Thomas, 2009b). Work engagement has also been linked to enhanced coping in stressful situations, with engaged employees enjoying the challenge of demanding work (Bakker et al., 2008).

Furthermore, work engagement has been correlated with higher job enthusiasm (Baker et al., 2008), job satisfaction (Bakker & Demerouti, 2009), happiness at work and organisational commitment (Field & Buitendach, 2011). Additionally, work engagement is negatively correlated with burnout (Schaufeli & Bakker, 2003).

At an organisational level, positive correlates of high engagement levels include reduced absenteeism, higher employee retention and fewer safety incidents (Bakker & Demerouti, 2009; Harter, Schmidt & Hayes, 2002; Schaufeli & Bakker, 2003; Gallup, 2012). In a wide range of industries and organisations, positive correlations have been found between engagement levels and increased productivity, higher business profitability and higher operating margins (Harter et al., 2002; Bakker & Demerouti, 2009; Gallup, 2012; Towers Perrin, 2005). Several studies have found causal relationships between work engagement and higher business performance (Baumruk, 2004; Harter, Schmidt, Asplund & Killham, 2005). Harter et al. (2005) however suggest a more complex reciprocal relationship between work engagement and its associated business outcomes. Higher engagement levels lead to greater business performance which, in turn, leads to even higher engagement levels, and so on.

2.5 The relationships between sex role identity, PsyCap and work engagement

This section outlines potential relationships between the various SRIs, the four PsyCap constructs and work engagement. These hypothesised relationships form the basis for the research questions in this study. Following Woodhill and Samuels (2003), no predictions will be made for the undifferentiated SRI, because individuals who fall into this category score low on all identities and/or provide unpredictable responses. Within each section below, the interlinks between each SRI and positive psychological construct are described, in the order of A+ (positive androgyny), M+ (positive masculinity), F+ (positive femininity), M- (negative masculinity), F- (negative femininity) and lastly A- (negative androgyny).

It is important to note that the order of the discussion of the negative identities differs somewhat to that of the positive identities. Within the negative identities, negative masculinity seems to experience the best outcomes, negative femininity seems to experience the worst outcomes, and negative androgyny fares somewhere in between due to the combination of traits from both the negative identities. The reasons for this become evident when these identities are discussed in the following section.

2.5.1 Sex role identity and PsyCap constructs

While conceptually distinct, all four PsyCap constructs have strong commonalities and inter-correlation (Luthans, et al., 2007; Sweetman et al., 2011). Therefore they are predicted to have similar relationships with each SRI. Based on this assumption, the following section discusses all PsyCap constructs together, in terms of SRI.

2.5.1.1 Positive androgyny

Self-efficacy: Positively androgynous individuals are not limited to a specified range of behaviours, as are masculine and feminine individuals. This allows them to select from a wider repertoire of behaviours and respond to a broader range of cues (Bem, 1975; Woodhill & Samuels, 2004). Consequently, positively androgynous individuals can competently perform a more diverse range of tasks and feel more confident in their ability to adapt to situational demands (Woodhill & Samuels, 2004.) Within a work environment, positively androgynous individuals reported higher career self-efficacy than other SRIs (Matsui & Onglatco, 1991). Furthermore, self-esteem and self-concept, variables strongly related to self-efficacy, have been found to be more strongly related to positive androgyny than other SRIs (Chow, 1987; Flaherty & Dusek, 1980; Spence et al., 1975). Positively androgynous individuals are therefore likely to report the highest level of self-efficacy, compared to the other SRIs.

Hope: The first dimension of hope is agency, which is conceptually closely aligned with self-efficacy. Agency encompasses the willpower to achieve a desired goal and confidence in one's ability to display required behaviours (Snyder, 2000). As described above, positively androgynous individuals report the highest levels of perceived self-efficacy and self-esteem and would therefore likely report high levels of agency.

The second dimension of hope is called 'pathways', which is the belief in one's ability to create plans to achieve a goal, and develop alternative plans when obstacles arise (Snyder, 2000). Positive androgyny is associated with superior decision making quality (Kirchmeyer, 1996) and greater resilience to challenges, as outlined below. Furthermore, positively androgynous individuals have been found to have the highest level of hope compared to other SRIs. Therefore, this study predicts that positive androgyny will rank highest for levels of hope (Richardson & Cronister, 1998).

Resilience: Androgynous individuals are able to draw on both masculine and feminine traits, enabling a wider range of behaviours than either masculine or feminine individuals

(Bem, 1974). Given that different situations require a range of behavioural responses, flexibility to utilise both masculine and feminine traits enables this identity to effectively modify behaviour, which enhances the ability to cope with a range of challenges (Bem, 1975). Resilient individuals display effective stress management, which facilitates optimal functioning (Masten, 2001). For example, androgynous individuals reported the highest levels of adaptation to workplace stressors (Chow, 1987; Gianakos, 2000). Stake (1997) suggests that the reason that positively androgynous individuals have the highest stress buffer is because they are able to effectively balance consideration towards others with the achievement of personal goals. Androgyny has been found to enhance resilience in young adults more effectively than masculinity or femininity (Lam & McBride-Chang, 2007).

Optimism: Positively androgynous individuals report the highest levels of psychological health, wellbeing and general happiness compared to the other identities (Woodhill & Samuels, 2003). They report higher positive self-talk, suggesting higher optimistic thoughts and expectations (Ghaed & Gallo, 2006; Helgeson & Fritz, 2000). Positive androgyny is therefore predicted to report the highest levels of optimism compared to the other SRIs.

2.5.1.2 Positive masculinity

Self-efficacy: Conceptually, masculinity is strongly related to self-efficacy, as they are both centred around qualities like confidence, independence, success and achievement (Gianakos, 2000; Long, 1989). A range of studies have found significant positive relationships between masculinity, self-esteem and self-efficacy (Allgood-Merten & Stockard, 1991; Choi, 2004; Helgeson, 1994; Hirschy & Morris, 2002; Spence et al., 1975). Masculine individuals report higher self-efficacy and agency beliefs in the workplace than individuals with feminine identities (Banihani et al., 2013). Masculine individuals report a preference for careers that are challenging and expressed high levels of career decision-making efficacy, signs of high self-efficacy beliefs (Gianakos, 1995).

Choi (2004) posits that “masculinity may be a key construct in the formation of self-efficacy” (p. 156). This is likely due to the fact that masculine traits are seen as more valuable in an organisational context, leading to greater success, which reinforces the individual’s belief that they have the capability to display the required behaviours to bring about success, which enhances self-esteem and self-efficacy (Gianakos, 2000; Long, 1989; Orlofsky & O’Heron, 1987). Positive masculinity is also associated with greater power in

organisations, thereby facilitating the opportunity to achieve goals (Banihani et al., 2013; Gianakos 2002; Sarasin, Mayor & Faniko, 2014).

However, several studies have found that while positive masculinity is correlated with high levels of self-esteem and self-efficacy, they are slightly lower than in positive androgyny (Chow, 1987; Flaherty & Dusek, 1980; Spence et al., 1975). Positive masculinity is therefore predicted to report high levels of self-efficacy, second only to positive androgyny.

Hope: As per the discussion above, positive masculinity has a strong and positive relationship with self-efficacy and is also therefore predicted to report high levels of agency (the first dimension of hope). In terms of pathways, the second dimension of hope, positive masculinity is associated with higher consciousness than negative identities. Higher consciousness is characterised by the ability to create long-term plans and strive towards goal achievement through hard work and organised planning, fundamental in creating pathways to achieve desired goals (Ghaed & Gallo, 2006; Watson et al., 1994).

Furthermore, individuals with positively masculine traits have been found to score more highly on internal locus of control and tend to positively appraise obstacles as challenges to be overcome. Both are important predictors of hope (Gianakos 2002; Sarasin, Mayor & Faniko, 2014). Finally, given that Richardson and Cronister (1998) found similar levels of hope between androgyny and masculinity, it is expected that positive masculinity will have a significant positive relationship with hope, similar to positive androgyny.

Resilience: Research on coping suggests that masculinity and femininity use different coping styles, which may impact on ability to manage stressors. Masculinity is associated with greater use of problem-focused coping than femininity (Long, 1989; Brems & Johnson, 1989; Taylor & Amor, 1996). Problem-focused coping targets the issue causing the stress and enables the individual to pursue ways to reduce the problem, alleviate the stress and therefore be more resilient when faced with challenges (Baker and Berenbaum, 2007). Given that masculinity also reports lower levels of neuroticism and higher levels of dominance and achievement, masculine individuals are more likely to perceive that they have adequate ability to meet demands and cope with challenges (Ghaed & Gallo, 2006; Helgeson & Fritz, 2000). This then leads to higher perceptions of resilience. Positive masculinity is therefore predicted to report high levels of resilience, second only to positive androgyny.

Optimism: While slightly lower than positive androgyny, positive masculinity is associated with significantly higher levels of wellbeing and general happiness compared to negative SRIs, indicating greater levels of optimism (Woodhill & Samuels, 2003). Positively masculine individuals report high use of positive thinking and self-talk, suggesting an optimistic approach to adversity (Ghaed & Gallo, 2006; Helgeson & Fritz, 2000). Positively masculine individuals are therefore predicted to report higher levels of optimism than the negative identities.

2.5.1.3 Positive femininity

Self-efficacy: Positive femininity has been positively correlated to self-efficacy and other related concepts such as self-esteem and self-concept. Positive androgyny and positive masculinity however do predict higher levels of these outcomes in a work context (Choi, 2004; Chow, 1987; Flaherty & Dusek, 1980; Helgeson, 1994; Spence et al., 1975). For example women report lower levels of career self-efficacy compared to males, in male-dominated career areas (Betz & Hackett, 1981). This is likely due to the fact that male characteristics and values dominate the work environment. Feminine traits are not as highly valued and thus the adoption of feminine traits is not typically regarded as empowering or as advantageous for future success. Therefore the adoption and display of feminine traits produces poorer outcomes, leading to lower self-efficacy compared to masculine individuals (Vince, 1999). It is therefore likely that while positive femininity will be positively related to levels of self-efficacy, the relationship will not be as strong as the other positive identities.

Hope: As outlined above, positive femininity has been positively related to self-efficacy, critical for the first dimension of hope (agency). For the second component of hope (pathways), femininity may however have a weaker relationship than the other positive SRIs, given that this SRI is not clearly linked with internal locus of control. Individuals who are feminine may therefore not have as strong a belief in their ability to create successful pathways at work, compared to masculine individuals (Sarrasin et al., 2014). Sherman, Higgs & Williams (1997) found that women perceived themselves to have less control over interpersonal relationships and uncontrollable life events. Therefore while positive femininity is expected to relate positively to hope, this relationship will be weaker than positive androgyny and positive masculinity.

Resilience: A key characteristic of positive femininity is the “others orientation” (Helgeson, 1994, p. 412). Positively feminine individuals, of all the identities, generally

report the highest levels of perceived support (Helgeson, 1994; Helgeson & Fritz, 1999). Having close caring relationships can be protective and empowering (Jack, 1991). Well-balanced interactions provide social support and boost resilience (Aube, 2008).

However, femininity is also associated with greater use of emotion-focused coping, which concentrates on reducing the emotional response to the stressor, without resolving the issue (Vingerhoets & Van Heck, 1990). While this may reduce immediate discomfort, it may not be the most effective long-term method for coping with challenges.

Furthermore, women typically report greater work stress due to balancing work with their family responsibilities (Arber, Gilbert & Dale, 1985; Barnett and Brennan, 1997) and lower social support in male dominated work domains (Marshall, 1995). Positive femininity therefore is likely to be positively related to resilience, but is expected to report slightly lower levels than the other positive identities.

Optimism: Similar to positive masculinity, positively feminine individuals also report greater positive thinking and use of positive self-talk, leading to the prediction of higher optimism than negative SRIs (Gianakos, 2000). Women however also report greater rumination than men, strongly related to depressive thoughts (Butler & Nolen-Hoeksema, 1994). Given that feminine traits are often less valued in organisations, individuals demonstrating these traits may be less optimistic about future career success than masculine individuals. Therefore it is predicted that positive femininity will have slightly lower levels of optimism than the other positive identities, but greater than the negative identities (Cheng, 1999; Holahan & Spence, 1980).

2.5.1.4 Negative masculinity

Self-efficacy: Negative masculinity is predicted to outperform and report higher levels of self-efficacy than the other negative identities. However when compared to the positive identities, negative masculinity is expected to report poorer outcomes and therefore lower levels of self-efficacy. Social Dominance Theory contends that societies are constructed as social hierarchies, where the more dominant groups assume superior positions (Poch & Roberts, 2003). To retain control and superiority, one must be able to dominate by controlling resources (Hawley, 1999). The ability to dominate in this way, according to Hawley (1999), depends on an individual's specific characteristics, development and social context.

Negatively masculine individuals are characterised by traits such as excessive dominance, aggression, selfishness, narcissism and anger (Buss, 1990). A negatively masculine strategy of coercion through aggression and force, while not optimal, does lead to more effective outcomes than passive and self-sacrificing strategies (Hawley, 1999). Negatively masculine individuals have an extreme over-confidence in their ability, which can bolster perceived efficacy beliefs (Helgeson & Fritz, 1999; 2000).

Furthermore, due to social and cultural influences and changes in South Africa, many traits associated with negative masculinity may actually be perceived to be desirable and beneficial (Pratto et al., 2000). Within South African communities, traditional gender roles are still pervasive and accepted, leading to the use of negatively masculine traits like toughness and aggression to assert masculinity and ensure control (Strebel et al., 2006). Negatively masculine traits are therefore likely to be seen as more effective in a South African context, compared to negatively feminine traits. Thus negative masculinity is expected to report greater positive outcomes than negative femininity, and to some extent negative androgyny, which may be 'contaminated' by negatively feminine traits.

However, Social Dominance Theory asserts that, because of the complex and competitive nature of society, individuals must evolve to simultaneously ensure resource acquisition, while at the same time, minimising interpersonal conflict to ensure long-term success and acceptance (Hawley, 1999). This includes reciprocation, kindness and cooperation, requiring a complex balance of dominance and consideration for others. Positive SRIs, particularly positive androgyny would typically show the greatest ability to display this nuanced behaviour, thereby gaining the greatest resources and enhancing self-efficacy beliefs. Negatively masculine individuals may repel others in the long-term, leading to poorer outcomes than the positive identities for levels of self-efficacy. Consequently, negative masculinity is likely to be associated with lower positive outcomes than the positive identities, but better than the other negative identities.

Hope: As previously outlined, in terms of the first component of hope (agency), negatively masculine individuals are likely to have higher agency and be more likely to focus on individual goals than the other negative SRIs (Buss, 1990). Additionally, negative masculinity is associated with lower levels of neuroticism than negative femininity and therefore, to some extent negative androgyny. High levels of neuroticism are associated with lower ability to deal with stress and negative appraisal of challenges (Ghaed & Gallo, 2006; Watson et al., 1994). These traits are key impediments to proactively developing

pathways to achieve goals and overcoming obstacles. Therefore, negative masculinity is expected to report higher levels of hope than negative femininity and negative androgyny.

However, negative masculinity is expected to have a weaker relationship than the positive identities, to the pathways component of hope, given that this identity is associated with lower levels of conscientiousness, a trait highly correlated with long-term planning and sustained effort (Helgeson & Fritz, 2000). Therefore given the robust self-efficacy/agency beliefs but the lower capability of pathway planning, this identity is predicted to report lower levels of hope than the positive identities, but greater than the other positive identities.

Resilience: As described above, the Social Dominance Theory explains that to successfully dominate, adapt and thus display resilience, an individual must adopt a strategy of behavioural balance (Hawley, 1999). A negatively masculine individual is more likely to successfully navigate this delicate behavioural balance with greater confidence than the other negative identities. Given the aggressive characteristics and confidence of negative masculinity, these individuals assert their demands and force control of a situation when challenged, thus ensuring fulfillment of needs and resilience, compared to the other negative identities.

However the long-term resilience of negatively masculine individuals is uncertain, given the characteristics of greater selfishness, low agreeableness, verbal and physical aggression as well as social conflict (Ghaed & Gallo, 2006; Helgeson & Fritz, 1999; 2000). Negative masculinity has a confrontational interactional style and a small to moderate relationship with hostility (Helgeson & Fritz, 1999; 2000). Therefore this identity is expected to have poorer relationships and lower social support availability in the long term compared to the positive identities (particularly positive femininity and positive androgyny), a key predictor of resilience (Netuveli, Wiggins, Montgomery, Hildon & Blane, 2008; Pietrzak, Johnson, Goldstein, Malley & Southwick, 2009).

Optimism: Negatively masculine individuals are expected to report higher levels of optimism than negative androgyny and negative femininity. Previous findings confirm that masculinity is associated with less negative rumination and less depression than negative femininity (Cheng, 1999; Malley & Stewart, 1988; Stewart & Malley, 1987; Wupperman & Neumann, 2006). The forceful and dominant traits of negative masculinity may provide some success in attaining some of their goals in the working environment, which may strengthen optimistic beliefs.

While the negatively masculine identity is predicted to have higher optimism than the other negative identities, it may have a lower level of optimism than all positive identities. Negatively masculine individuals report elevated levels of anxiety, depression, anger and lower psychological health and wellbeing compared to the positive identities (Ghaed & Gallo, 2006; Helgeson & Fritz, 1999; Woodhill & Samuels, 2003). People high in negative masculinity typically have avoidant attachment with the fear of being abandoned and report greater levels of interpersonal problems and social conflict, and lower levels of social support (Ghaed & Gallo, 2006; Helgson & Fritz, 2000). Perceived social support is highly correlated with positive generalised perceptions of life and optimism (Karademas, 2006).

2.5.1.5 Negative femininity

Self-efficacy: Negatively feminine traits include being overly submissive, anxious, fretful, panicky and/or passive; traits not conducive to believing in one's capability and strengths (Woodhill and Samuels, 2004). Furthermore, negative femininity is characterised by over- involvement with others, where self-perception and self-esteem are dependent on the opinions of others (Fritz & Helgeson, 1998; Helgeson & Fritz, 2000). Negatively feminine individuals score highly on neuroticism, associated with being self-critical, self-conscious and feeling inadequate (Ghaed & Gallo, 2006; Helgeson & Fritz, 2000; Spence et al., 1979; Watson et al., 1994). It is therefore unsurprising that negatively feminine individuals report the lowest self-regard and lower levels of self-esteem and self-efficacy (Helgeson & Fritz, 1998; Marsh & Meyers, 1986). Low self-efficacy beliefs become self-fulfilling; previous inability to achieve positive outcomes leads to a negative self-appraisal of capability to enact behaviour required to achieve outcomes. This leads to lower effort when faced with challenges, impaired performance and greater likelihood of giving up when faced with potential difficulties (Bandura, 1977; 1982). Negatively feminine individuals are therefore likely to report the lowest levels of self-efficacy.

Hope: As previously outlined, negative femininity is predicted to have low levels of self-efficacy, which then leads to lower perceptions of ability to initiate and sustain behaviour to meet goals (hope) and less likelihood of creating alternate pathways when faced with obstacles (pathways). Additionally, negatively feminine individuals have being shown to neglect their own goals such as individual academic achievement, in favour of social involvement (Bem, 1974; Ghaed & Gallo, 2006; Helgeson, 1974). These characteristics are not conducive to focusing on the fulfillment of individual goals. It is

therefore likely that negatively feminine individuals will report lower levels of hope than other SRIs.

Resilience: Negatively feminine individuals are predicted to report the lowest level of resilience. As previously outlined, negatively feminine individuals show an excessive willingness to submit to others' desires, which can lower an individual's resilience (Aube, 2008; Helgeson, 1994). Given that this SRI is associated with an external self-perception, their sense of self is driven by the opinions and feedback received from others, making it fragile and unsustainable (Fritz & Helgeson, 1998).

Furthermore, negative femininity is associated with low self-efficacy, which decreases perception of the ability to be resilience in the face of challenges. Negatively feminine individuals report high levels of neuroticism, correlated with lower coping abilities, greater stress, anxiety and self-criticism (Ghaed & Gallo, 2006; Watson et al., 1994). Additionally, negatively feminine individuals exhibit passive aggressive behaviour and have insecure attachment, which tends to drive others away (Ghaed & Gallo, 2006; Helgeson & Fritz, 1999). Thus in times of stress they lack the critical resource of social support, to bolster their resilience. Negative femininity is therefore expected to have the lowest level of resilience.

Optimism: Negatively feminine individuals report higher psychological distress, hostile thoughts, depressive symptoms, negative affect, lower psychosocial adjustment and subjective wellbeing than other identities, all likely to lower one's optimistic outlook (Aube, 2008; Bernstein, 2013; Ghaed & Gallo, 2006; Helgeson, 1994; Wupperman & Neumann, 2006). As previously outlined, the high neuroticism scores of negative femininity are associated with viewing the world as a threatening and problematic place (Ghaed & Gallo, 2006; Helgeson & Fritz, 2000; Spence et al., 1979; Watson et al., 1994). Such individuals are therefore likely to have far less optimistic perceptions, which hinders them from achieving positive outcomes for themselves.

2.5.1.6 Negative androgyny

Self-efficacy: This SRI includes traits of both negative masculinity and negative femininity. These individuals therefore are predicted to fare slightly better than negatively feminine, as they will benefit from the assertiveness of negative masculinity, leading to higher perceived efficacy than those categorised as predominantly negatively feminine. However, negative androgyny is predicted to report slightly lower self-efficacy

than negatively masculine individuals, as the presence of negative feminine traits would detract from their overall self-efficacy. Although they may be able to utilise negative masculine traits to some advantage, some of the time, the presence and the influence of the negatively feminine traits of submissiveness and self-neglect would contaminate this identity, lowering success and overall wellbeing (Bernstein, 2013).

Hope: Accounting for the influence of the negatively feminine SRI, including low agency, low optimism, neuroticism and lower focus on individual goals, the negative androgyny identity is predicted to report lower agency, lower perceived capability to create pathways and therefore lower levels of hope than negative masculinity (Fritz & Helgeson, 1998; Helgeson, 1994). However, negatively masculine traits such as aggression, control and dominance are associated with greater agency and may counteract the passive negatively feminine traits. Therefore, negatively androgynous individuals are likely to be more motivated to develop pathways to achieve goals to maintain power and control than their negatively feminine counterparts. Therefore negatively androgynous individuals are likely to possess higher levels of hope than those who are negatively feminine, but lower levels than those who are negatively masculine.

Resilience: As mentioned, negatively feminine traits predict low resilience given this identity's poor ability to cope, excessive self-sacrifice as well as low perceptions of self-efficacy. These traits are detrimental to resilience and therefore the contribution of these traits to negative androgyny decreases predicted resilience levels, compared to negatively masculine individuals. Thus while this SRI is predicted to be more fortigenic than negative femininity, it will still fall significantly below all other SRIs.

Optimism: Negatively androgynous individuals report lower psychological health and wellbeing outcomes than positive SRIs (Woodhill & Samuels, 2003). The contribution from negatively feminine traits is likely to reduce optimistic thoughts, perceptions and emotions for this identity, when compared to negatively masculine individuals. Therefore this SRI is predicted to have a lower relationship to optimism, than negative masculinity but still higher than negative femininity.

2.5.2 Sex role identity and work engagement

No conclusive differences have been found between biological sexes and levels of work engagement. This may be due to the fact that no previous study has examined the relationship using positive and negative SRIs. Therefore the relationships between SRIs

and work engagement outlined below are hypothesized, based on SRI traits and work engagement theory.

Positive androgyny: As previously explained, positively androgynous individuals report high levels of self-efficacy, self-esteem, social support and would therefore be more likely to have the ability to cope with stressors, perceive challenges as less threatening and adapt better (Chow, 1987; Gianakos, 2000). This would lead to lower stress perception, lower burnout and thus higher work engagement compared to the other SRIs (Betz & Hackett, 1981).

Positive masculinity: Applying Gendered Organisational Theory, Banihani et al., (2013) argue that masculine individuals would likely demonstrate higher levels of work engagement than feminine individuals, because organisations tend to value and encourage masculine characteristics more than feminine characteristics. Because masculine characteristics are rewarded, masculine individuals may see their role as more meaningful, which is, in turn, a key antecedent of work engagement. Furthermore, masculine individuals are more likely to use problem-focused coping skills, which reduces stress and burnout and thus leads to high levels of work engagement (Coetzee & de Villiers, 2010). Positively masculine individuals are therefore predicted to report higher levels of work engagement than positive femininity or any of the negative identities.

Positive femininity: As previously explained, positively feminine individuals focus more on others than masculine individuals, providing and receiving greater social support, a key antecedent of work engagement. However in the work environment, previous studies have found that women are less likely than men to access work-related social support networks (Schaufeli & Bakker, 2004; Welsh, 1980). Additionally, professional efficacy is strongly related to high levels of work engagement (Maslach & Leiter, 1997). Women, particularly those scoring high on positive femininity report lower levels of career self-efficacy than masculine or androgynous people, particularly in male-dominated job types, leading to reduced engagement (Betz & Hackett, 1981; Matsui & Onglatco, 1991).

Furthermore, highly feminine women often select lower paid female-dominated jobs, which come with lower decision autonomy and power. Autonomy is a critical job resource which predict high levels of work engagement (Schaufeli, Bakker, & Rhenen, 2009; Tarris, Stoffelsen, Bakker, Schaufeli, & van Dierendonck, 2005; Jacobs, Snelgar & Renard, 2013). Additionally, Banihani et al., (2013) posit that feminine individuals feel less secure displaying their innate characteristics at work because feminine traits are less valued in

organisations. This leads to a reduced sense of job security, and a reduced level of work engagement, to levels lower than positive androgyny and positive masculinity.

Negative masculinity: As previously discussed, negatively masculine individuals have moderate levels of neuroticism (albeit less than negatively feminine individuals), a characteristic strongly associated with burnout (Langelaan, Bakker, van Doornen & Schaufeli, 2006). Furthermore, negative masculinity is related to hostile-dominant behaviours, verbal aggression and more social conflict, indicating poor interpersonal relationships and thus low social support availability (Ghaed & Gallo, 2006; Helgeson & Fritz, 1999). Given that negatively masculine individuals often do not turn to others for support, they may be unable to express feelings, which may be to their detriment in coping with stress (Helgeson & Fritz, 2000). Stress-related issues stemming from work can have a negative impact on employees' wellbeing, increasing the chance of burnout and decreasing work engagement (Luthans et al., 2007).

However, negatively masculine individuals are also highly instrumental, assertive and aggressive and may therefore show greater energy and perseverance with goals at work, even when confronted with challenges, all key characteristics of the work engagement component of vigour. This SRI may demand autonomy and be aggressive or potentially manipulative to achieve individual career goals, both of which contribute to engagement (Coetzee & de Villiers, 2010; Schaufeli & Bakker, 2004). This SRI is therefore likely to report higher work engagement than the other negative SRIs, but lower levels than the positive identities.

Negative femininity: Given the over-involvement with others and self-neglect characteristic of this SRI, negatively feminine individuals may not devote sufficient emotional resources to their work to develop dedication, absorption and vigour. This may lead to lower levels of work engagement. Negatively feminine individuals are typically less comfortable in social relationships and have higher insecure attachment, suggesting lower perceived social support (Ghaed & Gallo, 2006; Helgeson & Fritz, 1999). Negatively feminine individuals report the highest levels of neuroticism, strongly related to burnout (Ghaed & Gallo, 2006; Helgeson & Fritz, 2000; Spence et al., 1979). Furthermore, common sources of job stress that contribute to burnout include interpersonal deficiencies, inability to cope with work ambiguity, failure to constructively receive feedback from supervisors and negative appraisal of stressors (Coetzee & de Villiers,

2010). Negatively feminine individuals are susceptible to all of these issues, suggesting a higher risk of burnout and thus lower levels of work engagement relative to all other SRIs.

Negative androgyny: As outlined above, negatively feminine individuals typically report low self-efficacy, lack the confidence to be autonomous, and may therefore be less self-directing, all key antecedents of engagement (Coetzee & de Villiers, 2010). These deleterious traits may contaminate the negatively masculine traits of this identity, some of which would otherwise be advantageous to the individual. Therefore negatively androgynous individuals are likely to have lower work engagement levels than negatively masculine individuals, given the high risk of burnout associated with negative femininity.

To conclude, research indicates that those with positive SRIs, in the order of positive androgyny, positive masculinity and thereafter positive femininity tend to cope better with stress, have more personal resources and would therefore experience less burnout and greater levels of engagement (Banihani et al., 2013; Coetzee & de Villiers, 2010; Maslach & Leiter, 1997; Schaufeli & Bakker, 2004; Schaufeli, Bakker, & Rhenen, 2009; Tarris et al., 2005; Welsh, 1980). These positive identities see job demands as less challenging and threatening than the negative identities. Literature suggests that negative identities, in the order of negatively masculine, negatively androgynous and negatively feminine are more likely to report greater burnout and thus lower work engagement (Coetzee & de Villiers, 2010; Ghaed & Gallo, 2006; Helgeson & Fritz, 1999; Langelaan et al., 2006; Luthans et al., 2007; Spence et al., 1979).

2.6 Conclusion

This chapter defined the key constructs under investigation, including gender, sex, SRI, PsyCap and work engagement. Specifically, the difference between gender and sex was clarified and the definition of each SRI was discussed. Furthermore, the limitation of previous SRI research was outlined. Next, the importance of positive psychology was explained, including the benefits of PsyCap and work engagement. Finally, the proposed relationship between SRI and each construct was described.

Having reviewed the literature, it is clear that there has been insufficient research into the relationship between both positive and negative SRIs and the high-order construct of PsyCap and work engagement. In fact, to the author's knowledge there has been no previous investigation of the relationship between SRI and PsyCap or SRI and work engagement.

As a final note to this chapter, understanding the relationship between various SRIs and positive outcomes provides an important understanding of the benefits of masculine and feminine traits within organisations. For example, while historically organisations have utilised and valued traditional masculine values, promoting men to positions of power and influence, the focus on only masculine traits may not always produce the best outcomes (Korac-Kakabadse & Kouzmin, 1997). For example individuals high on masculinity may not always be the most appropriate for roles requiring significant cooperation, communication, interactions and management of diverse employees (Park, 1996).

Additionally, the focus on masculinity fails to take cognisance of the fact that not all masculine traits are positive and negative or socially undesirable masculine traits have been shown in international research to produce poorer outcomes than positive identities (Buss, 1990; Ghaed & Gallo, 2006; Watson et al., 1994). It is therefore critical to challenge the hegemony of masculine traits in organisations, by understanding the relationship between positive and negative masculine, feminine and androgynous traits and positive psychological outcomes.

CHAPTER 3

Methodology

3.1 Introduction

This chapter describes the methodology used for this empirical study, starting with the proposed research questions and hypotheses, followed by the research design and the sampling method. Next, the measuring instruments used to collect the data are detailed, including reliability statistics. Finally, the data analysis techniques utilised in this study to test the hypotheses are outlined, the procedure applied to conduct this study is described and the ethical considerations of this research explained.

3.2 Aims and rationale

As described in Chapter 2, research on SRI has been limited to the investigation of positive identities, with few studies having looked at negative SRIs (Berger & Krahe, 2013; Spence, 1993; Wajsbilat, 2011; Woodhill & Samuels, 2003). This research has largely been conducted using instruments that measure only positive or socially desirable masculine and feminine attributes. Additionally, there is a dearth of research investigating the relationship between both positive and negative SRIs and the range of positive psychological outcomes such as PsyCap (self-efficacy, hope, resilience, optimism,) and work engagement. Positive organisational behaviour is an area of increasing interest and importance given its correlation with employee performance (Ardichvili, 2011).

Furthermore, most research on SRI and its correlates has been conducted on international samples, with a paucity of research conducted on diverse cultural and language groups. This type of research has limited generality to the multi-cultural South African context. Therefore, the present study seeks to investigate the relationship between various positive and negative SRIs (positive androgyny, negative androgyny, positive masculinity, negative masculinity, positive femininity, negative femininity), PsyCap (self-efficacy, hope, resilience, optimism) and work engagement in a South African context.

3.3 Research questions

The research questions below were formulated on the basis of the previous literature review. The research questions have been described below:

3.3.1 Research question 1

Do individuals with positive SRIs, in the order of positive androgyny, positive masculinity and positive femininity, have higher levels of PsyCap compared to negative SRIs, in the order of negative masculinity, negative androgyny and negative femininity?

3.3.2 Research question 2

Do individuals with positive SRIs, in the order of positive androgyny, positive masculinity and positive femininity, have higher levels of self-efficacy compared to negative SRIs, in the order of negative masculinity, negative androgyny and negative femininity?

3.3.3 Research question 3

Do individuals with positive SRIs, in the order of positive androgyny, positive masculinity and positive femininity, have higher levels of hope compared to negative SRIs, in the order of negative masculinity, negative androgyny and negative femininity?

3.3.4 Research question 4

Do individuals with positive SRIs, in the order of positive androgyny, positive masculinity and positive femininity, have higher levels of resilience compared to negative SRIs, in the order of negative masculinity, negative androgyny and negativity femininity?

3.3.5 Research question 5

Do individuals with positive SRIs, in the order of positive androgyny, positive masculinity and positive femininity, have higher levels of optimism compared to negative SRIs, in the order of negative masculinity, negative androgyny and negative femininity?

3.3.6 Research question 6

Do individuals with positive SRIs, in the order of positive androgyny, positive masculinity and positive femininity, have higher scores for work engagement compared to negative SRIs, in the order of negative masculinity, negative androgyny and negative femininity?

3.3.7 Research question 7

Is there an interaction between SRI and PsyCap on levels of work engagement?

3.4 Hypotheses

Based on the research questions above and the available empirical literature summarised in Chapter 2, the following hypotheses were formulated:

3.4.1 Hypothesis 1

Individuals with positive SRIs, in the order of positive androgyny, positive masculinity and positive femininity, will have higher levels of PsyCap compared to individuals with negative SRIs, in the order of negative masculinity, negative androgyny and negative femininity.

3.4.2 Hypothesis 2

Individuals with positive SRIs, in the order of positive androgyny, positive masculinity and positive femininity, will have higher levels of self-efficacy compared to individuals with negative SRIs, in the order of negative masculinity, negative androgyny and negative femininity.

3.4.3 Hypothesis 3

Individuals with positive SRIs, in the order of positive androgyny, positive masculinity and positive femininity, will have higher levels of hope compared to individuals with negative SRIs, in the order of negative masculinity, negative androgyny and negative femininity.

3.4.4 Hypothesis 4

Individuals with positive SRIs, in the order of positive androgyny, positive masculinity and positive femininity, will have higher levels of resilience compared to individuals with negative SRIs, in the order of negative masculinity, negative androgyny and negative femininity.

3.4.5 Hypothesis 5

Individuals with positive SRIs, in the order of positive androgyny, positive masculinity and positive femininity, will have higher levels of optimism compared to

individuals with negative SRIs, in the order of negative masculinity, negative androgyny and negative femininity.

3.4.6 Hypothesis 6

Individuals with positive SRIs, in the order of positive androgyny, positive masculinity and positive femininity, will have higher levels of work engagement compared to individuals with negative SRIs, in the order of negative masculinity, negative androgyny and negative femininity.

3.4.7 Hypothesis 7

There will be an interaction between SRI and PsyCap on levels of work engagement.

3.5 Research design

This empirical research was conducted as a non-experimental quantitative study, utilising a self-report questionnaire. This study was non-experimental because the key variables (SRI, PsyCap and work engagement) could not be manipulated by the researcher (Kerlinger, 1981). This questionnaire contained fixed-format items to generate quantitative data, which was statistically analysed (Stangor, 2011). Questionnaires in social science are the most popular investigative tool, particularly for descriptive research or research examining the relationship between several variables (Muijs, 2011).

This research used a cross-sectional design, which involves drawing a sample from the target population at a single point in time (Babbie, 2013). While this design does not allow for causality to be established, given that the traits of SRIs are understood to be sex-based personality traits and thus stable over time, it was deemed appropriate for this research (Kohlberg, 1966; Littlefield, 2004). This design enabled the assessment and comparison of relationships between various SRI categories, PsyCap constructs, that is, levels of self-efficacy, hope, resilience, optimism and work engagement, at a certain point in time. A between-subjects design was used and groups for the independent variable were based on the seven SRI categories.

3.6 Sampling frame

The sampling frame represents the elements used to identify the target population (Malhotra, 2010). The elements of this study were individuals currently employed in South Africa, over the age of 18, with access to a computer and the internet and working in any

role other than manual labour or blue collar work; typically white and pink collar (retail) employees. Respondents were targeted based on these characteristics.

3.7 Sampling technique

To maximise the number of respondents, this study utilised two types of non-probability sampling techniques; convenience sampling and snowball sampling. Convenience sampling involves collecting data from participants who are available and accessible to the researcher (Huck, 2012). This technique allowed for the sourcing of respondents and organisations willing to participate in this study.

Snowball sampling is defined as a non-probability sampling technique in which initial respondents are requested to identify other appropriate respondents to complete the questionnaire (Malhotra, 2010). The researcher requested that some participants forward the questionnaire to other individuals, who fitted the inclusion criteria (elements in the sampling frame), allowing a greater number of participants.

All participation in this study was voluntary. A sample size of a minimum of 350 respondents was required, given the large number of items in the scales. Respondents were sourced from a range of organisations, including eight organisations who agreed to distribute a link to the questionnaire to their employees. Respondents within these organisations then completed the questionnaire. These organisations were sourced from a range of industries including optometry, advertising, consulting, retail and pharmaceuticals. These businesses were largely privately owned and all operating in South Africa.

In addition, Wits Plus students were approached and requested to participate in this study. Wits Plus is the centre at the University of Witswatersrand offering part-time studies with classes in the evening. Most students work during the day and therefore study in the evenings. These students were typically over the age of 23 and employed full-time.

3.8 Measuring instruments

A composite questionnaire was used to conduct this study, which included eight demographic items, followed by the EPAQ-R, PCQ-24 and UWES instruments. The demographic items asked participants their age, gender, racial group, home language, marital status, level of education, job level and industry. These details were used to describe the sample and determine generality of results. No identifying information was requested.

The three instruments (EPAQ-R, PCQ-24, UWES) used a fixed answer format, requiring the respondents to select from a series of pre-determined answers (Malhotra, 2010). The advantage of fixed-alternative questionnaires is that it allows data to be collected from a large number of people, reduces variability in results, ensures responses are reliable because they are limited to provided alternatives, and increases the ease of coding, analysis and interpretation (Malhotra, 2010).

3.8.1 EPAQ-R: To measure sex role identities

To measure the independent variable of SRI category, the Extended Personal Attribute Questionnaire (EPAQ), modified by Bernstein (2013) into the EPAQ-R was utilised. The EPAQ, originally developed by Spence et al., (1979) extended the preceding Personal Attribute Questionnaire (PAQ), which focused almost exclusively on socially desirable traits (Spence & Helmreich, 1978; Spence et al., 1974). The EPAQ was constructed utilising items referring to positive traits from the PAQ and additional items to measure socially undesirable masculine (e.g. “arrogant” “boastful” and “egotistical”) and undesirable feminine traits (e.g. “servile”, “gullible” and “subordinates self to others”) (Spence et al., 1979).

However relatively low internal consistencies have been found in a range of studies, particularly for the negative subscales of the EPAQ (Miles, Keitel, Jackson, Harris & Licciardi, 2009; Spence et al., 1979; Spence et al., 1981). For example Spence et al., (1981) report relatively low internal consistencies for the negative femininity scales ($\alpha = 0.46, 0.41$), and for the masculine-feminine scale ($\alpha = 0.54, 0.63$). Aube (2008) found a coefficient alpha for the negative femininity scale of 0.51, below the minimum acceptable criteria of 0.70 for social science research (Malhotra, 2010). Additionally, many articles utilising the EPAQ failed to report reliability coefficients.

Given the commonly reported low reliabilities and the fact that the EPAQ had not previously been used in a South African organisation, Bernstein (2013) ran a pilot study in. Bernstein (2013) found low reliabilities for the negative masculine and feminine subscales ($\alpha = 0.59, 0.46$). Bernstein (2013) therefore revised the EPAQ to create the EPAQ-R, to more comprehensively measure constructs in the EPAQ scale and thus increase the internal consistency for each subscale (Bernstein, 2013). This version has been found to have sufficient reliability in a South African context, with Cronbach alphas ranging from 0.79 -0.90 for the subscales, as seen in Table 1 (Bernstein, 2013; Chemaly, 2012;

Solomon, 2012). These are higher than the recommended minimum level of 0.70 (Malhotra, 2010).

Table 1

Cronbach alphas of the EPAQ-R

EPAQ-R Subscale	Bernstein (2013)	Chemaly (2012)	Chemaly (2013)	de Freitas (2013)	Solomon (2012)
M+	0.83	0.76	0.83	0.82	0.79
M-	0.85	0.83	0.88	0.86	0.85
F+	0.85	0.79	0.88	0.79	0.80
F-	0.81	0.83	0.90	0.86	0.79

The EPAQ-R is a 57 items questionnaire. Similarly to the EPAQ, the EPAQ-R asks respondents to indicate the extent to which each item is representative of their behaviour. Each item consists of a behavioural adjective on a bipolar continuum ranging from 1-5. A low score typically represents that the individual rates that they are associated with such a trait to only a small degree, and a high score indicates that an individual rates himself or herself as strongly exhibiting this trait. Each of these traits or items can be attributed to one of the SRI subscales; namely positive masculine, negative masculine, positive feminine and negative feminine. The total score is calculated by summing the item scores for each subscale. There are 11 positive feminine items; 13 positive masculine items; 18 negative feminine items and 15 negative masculine items (Bernstein, 2013). A copy of the EPAQ-R has been included in Appendix A.

To make valid statistical comparisons, all raw scores on the EPAQ-R were converted into z-scores and then classified into one of the seven SRIs, namely; positively androgynous, positively masculine, positively feminine, negatively androgynous, negatively masculine, negatively feminine or undifferentiated. Individuals with high scores on a particular subscale were classified as that SRI, in accordance with the methodology described by Woodhill and Samuels (2003). Respondents with high scores for both positive masculinity and positive femininity were classified as positively androgynous. Those with high scores for both negative masculinity and negative femininity were classified as negatively androgynous. Respondents with low scores on all subscales were

classified as an undifferentiated identity. These categories were then used for the statistical tests described in Section 3.10

3.8.2 PCQ-24: To measure the dependent variable PsyCap

The PCQ-24 is a 24-item questionnaire developed and validated by Luthans et al., (2007) in the United States and is considered the standard instrument to measure levels of PsyCap in the workplace (Dawkins et al., 2013). The instrument utilises a 6-point Likert scale ranging from “1” being strongly disagree to “6” being strongly agree. Permission was obtained to use this instrument for research purposes by submitting an application online to Mind Garden, the organisation that owns the rights to use and distribute the PCQ-24.

The PCQ-24 is comprised of four subscales, namely; self-efficacy, hope, resilience and optimism, with each subscale containing 6 items. Items for each subscale were selected or adapted from pre-existing published instruments. For example, the self-efficacy subscale includes items adapted from Parker’s (1988) scale. The hope subscale was selected and adapted from the Snyder et al., (1996) State Hope Scale. The resilience subscale items were modified from the Resilience Scale (Wagnild & Young, 1993) and the items in the optimism subscale are adapted from Scheier and Carver’s (1985) Life Orientation Test. Items were chosen and modified from these various existing instruments based on the extent to which they were relevant to the workplace. This instrument is copyrighted and therefore while the full instrument could not be attached, sample items have been included in Appendix B. To calculate overall levels of PsyCap, the total points for each item are summed.

According to Newman et al., (2014) there are 66 published papers using PsyCap, indicating that it is a widely used international measure. Dawkins, et al., (2013) conducted a psychometric review of the PCQ-24 using 29 published studies. This review found that 28 of the 29 studies reported overall Cronbach internal reliability alphas of above 0.70, the minimum acceptable level (Malhotra, 2010). However when each individual subscale of PsyCap was analysed, the internal reliability of the subscales of optimism and resilience fell slightly lower than the 0.70 for three of the studies (Dawkins et al., 2013; Görgens-Ekermans and Herbert, 2013). Dawkins et al., (2013) found consistent evidence of a four-factor structure for the PCQ-24, which aligns with the theoretical background of PsyCap. Görgens-Ekermans and Herbert (2013) validated this instrument in a South African context, finding sufficient overall internal reliability (0.85) and strong support for the four-factor model.

3.8.3 UWES: To measure the dependent variable work engagement

The Utrecht Work Engagement Scale (UWES) was used to measure work engagement in the sample. This self-report questionnaire is comprised of 17 items to measure the three dimensions of work engagement discussed in Chapter 2 (vigour, dedication and absorption) (Schaufeli and Bakker, 2003). The UWES uses a 7-point Likert-scale, where respondents select how often they have each feeling at work. The pre-determined categories range from “0” (Never) to “6” (Always).

The UWES was originally developed as a 24-item questionnaire to measure these factors, mostly consisting of positively rephrased items from Maslach’s Burnout Inventory (Schaufeli & Bakker, 2003). This instrument was validated on two different samples, where 17 items were determined to be sound and seven were excluded (Schaufeli et al., 2002). The three subscales are described below.

The vigour subscale consists of six items. Those scoring high on the vigour subscale usually have high levels of energy, resilience and persistence when facing difficulty (Schaufeli & Bakker, 2003). This also includes willingness to exert additional discretionary effort towards work. The dedication subscale includes five items and refers to gaining meaning from work and feeling proud about one’s job. Those scoring high on dedication typically perceive their work to be meaningful and challenging (Schaufeli & Bakker, 2003). Absorption is measured by six items and refers to being so immersed in one’s work that time flies by unnoticed. It also includes having difficulty detaching oneself from work (Schaufeli & Bakker, 2003).

While the three dimensions of work engagement have been found to be closely related, confirmatory factor analysis confirms the superiority of the three-factor structure above a one-factor structure for the 17-item UWES (Schaufeli et al., 2002; Schaufeli & Bakker, 2003). However some studies have been unable to replicate this finding and found evidence for a one-factor model (Sonnentag, 2003; Shimzu et al., 2008;). Since these studies were in other languages, translation issues for the metaphors contained in some UWES items may account for these results (Bakker et al., 2008).

Psychometric evaluation of this instrument and each subscale using 25 studies has found sufficient validity and reliability across a wide range of samples, including several occupations (for example, civil servants, nurses, teachers, farmers, information technology consultants and police officers) and different countries (for example, Australia, the Netherlands, Canada, South Africa and France) (Schaufeli & Bakker, 2003).

Strong internal consistency (Cronbach alphas) has also been found for the UWES in the South African context, with Cronbach alphas above the minimum level of 0.70 for all subscales (Coetzee & de Villiers, 2010; Schaufeli & Bakker, 2003; Storm & Rothmann, 2003; Rothmann & Rothmann, 2010). Storm and Rothmann (2003) determined that the UWES can be used to measure work engagement in South Africa, as there is no uniform or non-uniform bias between racial groups. Total work engagement scores are calculated by adding up the total score for each UWES subscale. A copy of the UWES is included in Appendix C. Table 2 displays Cronbach alphas for each subscale of the instrument.

Table 2

Cronbach alphas of the UWES scale

Subscale	Schaufeli & Bakker (2003)	Storm & Rothmann (2003)	Coetzee & de Villiers (2010)
Vigour	0.82	0.78	0.77
Dedication	0.89	0.89	0.88
Absorption	0.83	0.78	0.83

3.9 Sample

The sample for this study consisted of 478 respondents, of which 130 were male (27.2%) and 348 female (72.8%). All participants were working in South Africa. The age of respondents ranged from 18 to 74 years of age ($M = 37.48$). Demographic information obtained from respondents is presented in Tables 3, 4 and 5 and Figure 1.

Only one respondent was found with an undifferentiated identity. This respondent was excluded, as there were insufficient participants with this identity to conduct meaningful analysis. Therefore in this study, no analysis has been conducted on the undifferentiated identity, meaning six SRI categories will be shown.

Table 3

Gender for sample

Gender	Frequency	Percentage%
Male	130	27.2
Female	348	72.8

Table 4

Age for sample

Variable	Mean	Range
Age	37.48	18-74

Table 5

Demographic information for sample

Variable	Category	Frequency	Percentage(%)
Population group	Caucasian	296	61.9
	Black African	111	23.2
	Coloured	39	8.2
	Indian	28	5.9
	Asian	2	0.4
	Other	2	0.4
Language	English	278	58.2
	Afrikaans	105	22.0
	Zulu	88	18.4
	Xhosa	6	1.3
	Missing	1	0.2
Level of education	Less than grade 10	2	0.4
	Grade 10 - Grade 11	10	2.1
	Matric	114	23.8
	Diploma	118	24.7

	Undergraduate degree	101	21.1
	Honours degree	60	12.6
	Masters degree	46	9.6
	Doctoral degree	27	5.6
Marital status	Single	160	33.5
	Cohabiting	42	8.8
	Married	243	50.8
	Divorced	25	5.2
	Separated	1	0.2
	Widowed	7	1.5
Job level	Entry level	57	12.0
	Intermediate	139	29.2
	Junior Management	66	13.9
	Middle Management	131	27.5
	Upper Management	56	11.8
	Executive	27	5.7
	Missing	2	0.4

In terms of population group, 296 respondents were Caucasian (61.9%), 111 respondents were Black African (23.2%), 39 were Coloured (8.2%), 28 were Indian (5.9%), 2 were Asian (0.4%) and 2 (0.4%) indicated “Other” as their population group. For the home language spoken by the respondents, 278 spoke English (58.2%), 105 spoke Afrikaans (22.0%), 88 spoke Zulu (18.4%), 6 spoke Xhosa (1.3%) and one respondent (0.2%) did not report their home language.

For education, 27 respondents (5.6%) reported their highest qualification as a doctoral degree, 46 respondents a masters degree (9.6), 60 an honours degree (12.6%), 101 an undergraduate degree (21.1%), 118 a diploma (24.7%), 114 respondents a matric (23.8%), 10 respondents (2.1%) an education between grade 10 to grade 11 and 2 respondents (0.4%) an education of less than a grade 10, as their highest level of qualification.

For the marital status of the sample, 160 respondents (33.5%) were single, 42 (8.8%) cohabiting, 243 married (50.8%), 25 (5.2%) divorced, 1 (0.2%) separated and 7 (1.5%)

widowed. The job levels of respondents ranged from entry level to executive level. 57 (12.0%) respondents reported their job to be entry level, 139 intermediate (29.2%), 66 (13.9%) junior management, 131 (27.5%) middle management, 56 (11.8%) upper management, 27 (5.7%) reported being executives and 2 (0.4%) respondents did not report their job level.

Figure 1 shows the percentage of respondents working in each industry or occupational group. The largest number of respondents worked in retail (15%), followed by education (11%) and finance/financial services (10%).

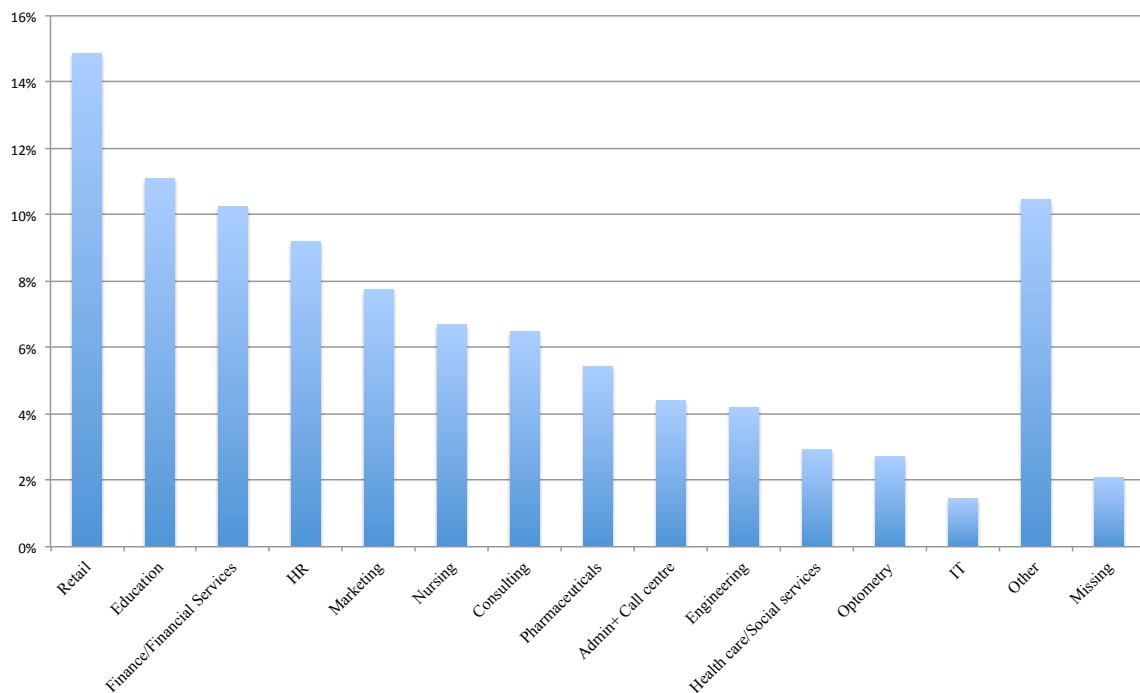


Figure 1. Percentage of sample in each industry group

3.10 Data analysis

3.10.1 Descriptive statistics

Descriptive statistics is the term given to the analysis of data that helps describe, show or summarise data in a meaningful way so that patterns may be understood (Leard Statistics, 2013). Descriptive statistics have been used to display trends and describe the data relating to SRI, PsyCap and work engagement, as well as the respondents (Welman, Kruger & Mitchell, 2005). Descriptive statistics have also been utilised to establish normality of the data, which was done by looking at skewness and kurtosis.

3.10.2 Internal consistency reliability

The reliability of an instrument is defined by its consistency, accuracy, precision and freedom from measurement error (Anastasi, 1982). The Cronbach Alpha is an index of “the average of all possible split-half coefficients” and was used to determine the internal consistency of all instruments and subscales used in this study (Malhotra, 2010, p. 318). Measuring the internal consistency or positive correlation between items in an instrument, calculates the degree to which items within each subscale of an instrument measure the same factor and are therefore free of measurement error (Gregory, 2007).

The use of the Cronbach Alpha to measure internal reliability is suitable when there is one administration and no alternative forms of the instrument (Gregory, 2007). Furthermore the Cronbach Alpha should be used for instruments where responses can be scored on more than three values, such as the EPAQ-R, PCQ-24 and UWES, which all produce scores along a five to seven point scale (Huck, 2012).

The Cronbach Alpha is therefore an appropriate metric for this study. The internal consistency of all instruments was assessed before running the statistical analysis. Internal consistency within social sciences is typically regarded as acceptable between 0.60 and 0.70 (Hair, Black, Babin, Anderson and Tatham, 2010; Nunnally & Bernstein, 1994).

3.10.3 Pearson’s Product Moment Correlation

Pearson’s Product Moment Correlations were used to measure the degree of linear relationship between two scores from the same individual, for the variables under study (Gregory, 2007). A correlation statistic ranges between -1 and +1, with -1 representing a perfectly negative relationship and +1 representing a perfectly positive relationship (Stangor, 2011). The closer the coefficient is to each limit, the stronger the relationship between the two variables (Howell, 1999). Howell (2008) however notes that a correlational relationship does not imply causation.

In this study, Pearson’s Correlations were used to ascertain the strength and nature of the relationships between each SRI, self-efficacy, hope, resilience, optimism and work engagement. For the purposes of the Pearson’s Correlations, SRIs were used as continuous variables and therefore only relationships between the scales of the EPAQ-R (positive masculine, negative masculine, positive feminine and negative feminine) were assessed.

Pearson's Correlations were conducted in this study, based on the following assumptions (Huck, 2012; Lockhart, 1998):

- i. Random independent sampling;
- ii. Variables are independent of one another;
- iii. Normal distribution of both variables;
- iv. Both variables are continuous, randomly distributed and at least interval in nature;
- v. Homogeneity of variance for both variables.

For the purposes of this research, a correlation of 0.10 will be considered small, 0.30 moderate and 0.50 and greater will be considered a large coefficient (Cohen, 1988). To determine statistical significance of each correlation, F-tests were conducted, with $p > 0.05$ indicating a statistically significant relationship (Muijs, 2011).

3.10.4 ANOVAs

3.10.4.1 One-way ANOVA

An ANOVA is a statistical technique utilising ratios to conduct statistical tests of differences between means (Stangor, 2011). A one-way ANOVA compares multiple levels of means for one independent variable and one dependent variable, to determine whether the mean scores for the dependent variable differ significantly across levels of an independent variable (Huck, 2012). In this study, multiple one-way ANOVAs were used to determine if there were statistically significant differences between the means of the independent variable (six categories of SRI) for PsyCap, self-efficacy, hope, resilience, optimism and work engagement. This analysis was used to answer research questions 1-6.

An ANOVA compares the variance of means of the dependent variable by partitioning variance between the levels of the dependent variable and comparing it to the variance within each level (Stangor, 2011). The ratio is typically expressed as an F-statistic. The larger the F-static the greater the likelihood of a statistically significant difference between the two means (Meyers, Gamst & Guarino, 2006). If the p-value associated with the F-statistic is less than an alpha level of 0.05, then with 95% confidence it can be stated that the difference between the means is not due to chance and the difference is then due to the independent variable (Meyers, et al., 2006). The degrees of freedom statistic presented in the ANOVA summary table provides information on the number of levels of the

independent variable, as well as the number of respondents included in the study (Stangor, 2011).

3.10.4.2 Two-way ANOVA

A two-way ANOVA compares means between groups, which are divided by two different independent variables, to determine if they are significantly different (Huck, 2013). A two-way ANOVA provides information on both the ‘main effect’ of each independent variable, as well as an ‘interaction effect’ between the independent variables, on the dependent variable. A main effect provides a comparison between the mean of the dependent variable, across each level of one of the independent variables, controlling for the other variable (Meyers et al., 2006). An interaction occurs when “the influence of one of the independent variables on the dependent variable is different, at different levels of another independent variable” (Stangor, 2011, p. 211). This allows an evaluation of whether there is an interaction between the two independent variables (Meyers et al., 2006).

The first independent variable in this study was SRI, which consisted of six levels (given that the undifferentiated identity was excluded from analysis due to lack of respondents); namely, positive androgyny, negative androgyny, positive masculinity, negative masculinity, positive femininity and negative femininity. The second independent variable was PsyCap, which consisted of four levels (the four constructs of self-efficacy, hope, resilience and optimism) and the dependent variable of work engagement consisted of one level.

One-way and two-way ANOVAS are required to fulfill the following list of assumptions. If these assumptions are not met, then non-parametric tests must be used for statistical analysis instead. The assumptions are as follows (Huck, 2012; Lockhart, 1998):

- i. Normal distribution of variables;
- ii. Homogeneity of variance for dependent variable;
- iii. Variables are categorical and at least interval in nature;
- iv. Statistical independence of observations or groups of scores to be analysed (McCall, 1990); and
- v. Random sampling.

3.10.4.3 Normal distribution assumption - skewness and kurtosis coefficients

To test the assumption of normal distribution of the variables of SRI, self-efficacy, hope, resilience, optimism and work engagement, the skewness and kurtosis coefficients of the sample distribution were examined (Howell, 2008). Skewness measures how symmetrical the distribution of the scores is and kurtosis measures how steep or flat the peak of the distribution curve is (Meyers et al., 2006). While normally distributed data should have a skewness and kurtosis coefficient close to zero, distributions with skewness and kurtosis figures between -1 and +1 are considered approximately normal (Huck, 2013).

3.10.4.4 Homogeneity of variance assumption – Levene’s test

Homogeneity of variance assumes that across each level of the independent variable, the variances of the dependent variables are equal (Keppel, 1991). Levene’s test is a popular statistic to assess the “statistical hypothesis of equal variance across the levels of the independent variable” (Meyers et al., 2006, p. 70). If this hypothesis is rejected it means that the variances are not equal. If the hypothesis is not rejected, then the assumption of homogeneity of variance is not violated and thus there is homogeneity of variance.

3.10.5 Cohen’s d statistic effect size statistic

One-way and two-way ANOVAs identify statistically significant differences across means, but cannot indicate which means differ from one another. Therefore where ANOVA results were significant, Tukey’s post-hoc comparisons were calculated to determine for each variable, which pairs of means were significantly different. In this study, where significant differences between group means were found, Cohen’s d was calculated to determine practical significance or effect size of each difference.

Cohen’s d calculates the magnitude of the effect of the independent variable, on the dependent variable groups (Lockhart, 1997; Stommel & Willis, 2004). According to Cohen (1988), a d value of 0.20 is considered a small effect, a value of 0.50 is considered a medium effect and a value equal to or greater than 0.80 is a large effect size. These values are typically regarded as cut-offs. Therefore for the purposes of this study, 0.20-0.29 will be considered small, 0.30-0.59 will be considered moderate and a range of 0.60 to 0.79 will be understood as moderate to large effect size. The Cohen’s d statistic is calculated by

dividing the difference between two group or population means by the standard deviation of either group (Howell, 1999).

3.11 Procedure

Prior to conducting this research, ethical clearance was obtained from the University of Witwatersrand Human Research Ethics Committee (Protocol Number MORG/14/002H). Once ethical clearance was obtained, respondents were sourced concurrently via two main methods; organisational participants and Wits Plus Students. Wits Plus students are individuals who are enrolled in part-time evening classes at the University of Witwatersrand, studying towards a degree. These students typically work during business hours, and therefore choose to study during the evenings. These two methods are described separately in the following section.

3.11.1 Employees of South African organisations

Prior to the commencement of data collection, to facilitate electronic collection of data, a composite questionnaire was created on an online electronic website called Survey Monkey. This online questionnaire included a covering letter and a combined questionnaire consisting of biographical questions and the items from EPAQ-R, PCQ-24 and UWES. An encrypted link was created on the electronic website, which enabled access to this questionnaire. This link was included in the e-mail to participants.

To source South African participants, HR managers and directors in a range of organisations were contacted by the researcher to attain permission to electronically distribute the composite questionnaires to employees, within their organisations. This was typically achieved through an initial request letter outlining the purpose of the study, the procedure and the requirements, as well as a follow up discussion. Permission was granted from eight organisations. A copy of the initial contact letter has been included in Appendix D.

For data collection from organisations, once permission was granted the HR Manager (or relevant director who had granted permission) then distributed an e-mail to all employees. This e-mail contained an invitation to participate in this study, a brief outline of the purpose of the study, the expected time required for participation (approximately 15-20 minutes) and stated that participation was voluntary and there were no advantages or disadvantages for participating (See Appendix E). The e-mail also contained a secure encrypted link to the questionnaire.

Respondents were informed that no information that was identifying would be collected and therefore responses were anonymous. Furthermore, respondents were informed that confidentiality would be ensured as only the researcher and her supervisor would have access to the data. They were also informed that their organisation would receive a summarised report of the findings of the entire study, but no organisation or individual could be identified in the summary. Participants were asked to complete the questionnaire before the 5th of September. Finally this e-mail advised respondents that if they had any questions or concerns they could contact the researcher, whose details were included at the bottom of the e-mail.

As well as approaching organisations, a request for participation was posted on South African LinkedIn pages for South African individuals who fulfilled the participation criteria. The posts requested individuals who fulfilled the participation criteria to click on the encrypted link to the online questionnaire to participate in the research. The LinkedIn pages on which the link and explanation about the research was posted include: The Society for Industrial and Organisational Psychologists (SIOP), South African Awards Association (SARA), Employee Engagement Forum and the South African HR and Psychometrics Forum. The link to the questionnaire opened on an introduction page shown in Appendix F. This page outlined the participation criteria, the purpose of the research, benefits and risks. Therefore only individuals who fulfilled the criteria and had been informed about all relevant information would have accepted these conditions and completed the questionnaire.

3.11.2 Students at University of Witwatersrand

Permission was requested and granted from the coordinator of the Wits Plus program, to approach the Wits Plus students and invite them to participate in this study. The letter requesting permission from the Wits Plus coordinator is included in Appendix G. The collection of data from Wits Plus students was conducted with another organisational psychology masters student from the University of Witwatersrand (also granted ethics approval by University of Witwatersrand Human Research Ethics Committee), who was researching a similar topic and also using the EPAQ-R scale. An encrypted link on the electronic survey website Survey Monkey was created specifically for the Wits Plus students. This link contained a covering letter, demographic questions and composite questionnaire, containing the EPAQ-R as well as the five additional instruments required for both of the masters students' research.

The researchers presented to the Wits Plus students during one of their evening classes, outlining the purpose of the study and inviting all Wits Plus students currently working to participate. For all students who indicated willingness to participate, paper and pen tests were used. Researchers handed out a three-page Wits Plus participant information letter (Appendix H) and a hard copy of the questionnaire. This letter detailed the purpose of the study and the participation criteria (currently working, not in a blue-collar or manual labour, in South Africa). This letter also stated that this composite questionnaire would take 45 minutes to complete, guaranteed anonymity and confidentiality of responses and stated that there were no risks for participation. Furthermore, the letter highlighted that the student would be awarded with a 2% participation mark towards their overall class marks for filling in the questionnaire. The students could participate by filling in the hard copy of the questionnaire handed out during class, or online using the Survey Monkey link specifically created for the Wits Plus students.

To ensure anonymity of responses, unique participant numbers were utilised. On the third page of each participant information letter handed out to students, was a unique participant number. Students were asked to put his/her student number next to this participant number and hand this page back to the researcher. The letter stated that by the student writing their student number next to the participant number and handing the page back to the researcher, the student was providing informed consent for his/her student number to be used to award participation marks. Students were then asked to write only their unique participant number on the top of their questionnaire (both hard copy and the electronic copy). When completed questionnaires were received, the participant number on top of each questionnaire was matched with the student number provided by each respondent in class and participation marks were then allocated. Once participation marks were allocated and sent to the course coordinator, the students' numbers were deleted from the data set.

Students were also invited to voluntarily forward or snowball the questionnaire link included in the participant information letter to 10 friends or colleagues, for an additional 1% participation mark. Suggested wording for this snowball e-mail was included in the participant information letter (Appendix H). Students were asked to forward their participant number with the snowball request and ask all snowball recipients to put this number at the top of the questionnaire. When snowball responses were received with the student's participant number on it, the additional mark was awarded to the student.

Students were asked to fill in the questionnaire and forward it within 2 weeks of receiving the participant information letter, with the final date of data collection being the 5th of September. The responses from Survey Monkey as well as the paper and pen versions of the questionnaire were then exported into Microsoft Excel for collation. This spread sheet was then imported into the SPSS software for statistical analysis.

3.12 Ethical Considerations

To ensure that this study was conducted in an ethical manner, several ethical issues were taken into account and dealt with in an appropriate manner. The first was that ethical approval for this study was obtained from University of Witwatersrand Human Research Ethics Committee (Protocol Number MORG/14/002H). The second consideration was that permission was granted from organisations as well as the Wits Plus coordinator prior to commencing data collection.

The third ethical consideration was that all individuals invited to participate in this study were provided with a covering letter. The link to the questionnaire opened directly onto the covering letter (as shown in Appendix F) and the first page of the hard copy questionnaire provided to Wits Plus students also contained the same covering letter (Appendix H). This ensured that all respondents were fully informed before participating.

This letter explained the purpose of this study, that there were no risks or benefits for participation (aside from the participation marks for Wits Plus students), that all participation was voluntary and respondents may withdraw from the study at any point prior to submitting their responses, with submission being regarded as informed consent. The covering letter stated that feedback would be provided in the form of a summarised report, showing general trends and general findings and that no individual respondent or organisation could be identified. Respondents were informed that this summary would be available from the researcher or online on a blog on the completion of the research.

The covering letter confirmed that all responses would be confidential and anonymous. Confidentiality for all respondents was maintained as only the researcher and their supervisor had access to the data. The raw data was stored on a password secured computer. Anonymity was ensured as no ID numbers or names were collected from respondents. While IP addresses were automatically collected by the electronic questionnaire, these were immediately deleted when the questionnaire link was closed and the data was downloaded for analysis.

For the Wits Plus respondents, there was the additional anonymity consideration of keeping student numbers and questionnaire responses separate, to ensure anonymity. This was accomplished by providing each Wits Plus student who volunteered with a participant information sheet, containing a unique random participant number (Appendix H). Underneath the participant number, was a place for students to write their student number and hand this sheet back to the researcher. Respondents were then requested to place only their participant number on top of their completed questionnaire and if they chose to snowball the questionnaire, forward this participant number. This meant that potentially identifying student numbers were not written on any responses. A spread sheet containing the correlation between the student number and random participant number was accessible only to the researcher and was used only for the purposes of assigning participant points, after which this information was deleted. Finally, the covering letter encouraged the prospective respondent to contact the researcher if he/she required any further information and the contact details of the researcher and the researcher's supervisor were provided.

3.13 Conclusion

This section described the rationale of the study, including the aims, research questions and hypotheses. Subsequently the research design, instruments utilised and demographics of the sample were explained, followed by an overview of the procedure and ethical considerations of the present study.

In addition a discussion of the statistical procedures used in this study to evaluate the hypotheses were described. These procedures include the Cronbach alpha to assess internal consistency of instruments, Pearson's Correlation Coefficient to determine the relationship between all the variables, one-way ANOVA to examine if there were differences in PsyCap and work engagement based on SRI and a two-way ANOVA to examine if there was an interaction between SRI and PsyCap on levels of work engagement. The following chapter will detail the findings of this research.

CHAPTER 4

Results

4.1 Introduction

As described in the previous chapter, this study administered the EPAQ-R, PCQ-24 and UWES to 478 individuals currently employed in South Africa. This chapter describes the results from this empirical research, including descriptive statistics, Pearson's correlations, as well as one-way and two-way ANOVAs. Before conducting the statistical analysis and hypothesis testing, the reliability of each instrument used was assessed, as reported in the following section. All numbers in tables throughout the chapter have been rounded to 2 decimal places.

4.2 Reliability – internal consistency

In order to assess the internal consistency of all instruments and subscales utilised, for the South African sample, Cronbach Alpha coefficients were calculated. Cronbach Alpha is used to assess the degree to which items are positively inter-correlated on an instrument or subscale and therefore measure the same trait (Anastasi, 1982)

4.2.1 Internal consistency of EPAQ-R

The EPAQ-R was used to capture the SRI of each respondent. The Cronbach Alpha coefficients for each subscale of the EPAQ-R are presented in Table 6 below.

Table 6

Internal consistency reliability for the EPAQ-R

EPAQ Subscale	Cronbach Alpha Coefficient
M+	0.82 [*]
M-	0.83 [*]
F+	0.83 [*]
F-	0.84 [*]

Figures with an asterisk represent acceptable internal consistency reliability

All four subscales had acceptable internal reliabilities with a Cronbach Alpha of 0.82 for positive masculinity, 0.83 for negative masculinity, 0.83 for positive femininity and 0.84 for negative femininity. These alphas were all above 0.70, the more stringent threshold for reliability for social sciences (Nunnally & Bernstein, 1994).

4.2.2 Internal consistency PCQ-24

The Cronbach Alpha coefficients obtained for each subscale of the PCQ-24 are presented in Tables 7. The Alpha for self-efficacy was 0.69, hope 0.82, resilience 0.83 and optimism 0.62. The Alpha for the overall PCQ-24 scale was 0.89.

Table 7
Internal consistency reliability for the PCQ-24

PCQ-24 Subscale	Cronbach Alpha Coefficient
Self-efficacy	0.85 [*]
Hope	0.82 [*]
Resilience	0.69 [*]
Optimism	0.62 [*]
PCQ-24 total	0.89 [*]

Figures with an asterisk represent acceptable internal consistency reliability

All Alphas for the subscales of the PCQ-24 were above 0.60. Within the social sciences, while a Cronbach Alpha of 0.70 is preferred, a Cronbach Alpha of 0.60 is regarded as an acceptable level of internal consistency (Hair et al, 2010; Nunnally & Bernstein, 1994).

4.2.3 Internal consistency UWES

As seen in Table 8, the Alpha of 0.94 for the UWES scale in this study was above the acceptable level for internal reliability (Nunnally & Bernstein, 1994).

Table 8

Internal consistency reliability for the PCQ-24

Instrument	Cronbach Alpha Coefficient
UWES scale	0.94

4.3 Pearsons correlations

Pearson's Correlational Coefficients have been calculated between each of the four subscales of the EPAQ-R to assess relative independence from one other. Furthermore, Pearson's Correlations have been calculated between SRIs and PsyCap constructs, as well as with work engagement, to examine the strength and nature of these relationships. The assumptions outlined in the previous chapter regarding Pearson's Correlations were met and thus this parametric technique has been used. Given that these assumptions are very similar to the assumptions required to be satisfied for the one-way and two-way ANOVAs, the results of the assumption tests for Pearson's Correlations are discussed in section 4.5, which present the assumptions for ANOVA testing.

4.3.1 Correlations between the four EPAQ-R subscales

The correlations between each EPAQ-R subscale are displayed in Table 9.

Table 9

Correlations between subscales of the EPAQ-R

Subscale	M+	M-	F+	F-
M+	1.00			
M-	.16 [*]	1.00		
F+	.11 [*]	-.45 [*]	1.00	
F-	-.49 [*]	.18 [*]	0.08	1.00

Figures with an asterisk represent statistically significant correlations

For the present study, the correlation between positive and negative masculinity (0.16) was low, as was the correlation between positive and negative femininity (0.08). Additionally, a low correlation was found between the positive cross-type scales of

positive masculinity and positive femininity (0.11) and the negative cross-type scales of negative masculinity and negative femininity (0.18). Large inverse correlations were found between the positive and negative cross-typed scales. The correlation between positive masculinity and negative femininity was -0.49 and the correlation between positive femininity and negative masculinity was -0.45. All of the correlations between the EPAQ-R subscales were significant, except for the correlation between positive and negative femininity

The patterns of inter-correlations found in the study, were very similar to those found in Bernstein (2013) and were in the expected direction. Positive and negative masculinity were expected to be low to moderately correlated, given that these traits are considered to be more stereotypically displayed by males than females, but differ in the extent to which they are regarded to be socially desirable (Helmreich et al., 1981; Spence et al., 1979). Additionally, positive and negative femininity were expected to be somewhat correlated, given that these traits are considered to be more stereotypically exhibited by females, but again differ in the extent to which they are considered socially acceptable (Helmreich et al., 1981; Spence et al., 1979).

Positive masculinity reflects a cluster of personality traits including assertiveness, self-efficacy, ambition and independence (Bem, 1974). Positive masculinity is therefore intuitively negatively related to negative femininity, which includes traits such as being whiny, timid, passive, complaining, anxious and excessively worried (Woodhill & Samuels, 2003). Finally, negative masculinity, which encompasses traits such as cynicism, excessive aggression and hostility was expected to be negatively related to positive femininity, reflecting traits including being emotional, tactful, considerate, gentle and kind (Helmreich et al., 1981; Helgeson & Fritz, 2000; Spence et al., 1975; 1979).

4.3.2 Correlations between the EPAQ-R subscales, PCQ-24 subscales and UWES

The correlations between each of the four EPAQ-R subscales, PCQ-24, the four subscales of PCQ-24 (self-efficacy, hope, resilience, optimism) and work engagement were calculated as presented in Table 10.

Table 10

Correlations between subscales of the EPAQ-R, PCQ-24 and UWES

Subscale	Self- efficacy	Hope	Resilience	Optimism	PCQ-24 Total	UWES
M+	.45*	.43*	.43*	.38*	.53*	.32*
M-	.08	.03	-.06	-.08	-.01	-.02
F+	.10*	.07	.15*	.18*	.15*	.09*
F-	-.36*	-.39*	-.39*	-.38*	-.48*	-.32*

Figures with an asterisk represent statistically significant correlations

The positive masculine subscale had significant positive moderate to strong correlations with self-efficacy (0.45), hope (0.43), resilience (0.43), optimism (0.38) and PsyCap (0.53). This indicates that respondents who had high scores on the positive masculine subscale reported high levels of PsyCap variables. Positive masculinity also had a significant positive moderate correlation to work engagement (0.32), indicating that high scores on the positive masculine subscale were moderately correlated to high levels of work engagement.

After the positive masculine subscale, the subscale with the highest positive correlations to the other variables was positive femininity. High scores on positive femininity had a significant positive, albeit low to moderate correlation to self-efficacy (0.10), resilience (0.15), optimism (0.18), overall PsyCap (0.15) and work engagement (0.09).

High scores on the negative masculine subscale had no significant correlations to any PsyCap subscales, overall PsyCap or to work engagement. This suggests that high scores on the negative masculinity subscale were unrelated to scores on PsyCap or work engagement.

The negative femininity subscale had significantly negative correlations to self-efficacy (0.36), hope (-0.39), resilience (-0.39), optimism (-0.38), overall PsyCap (-0.48) and work engagement (-0.32). These correlations were all moderate in size. These findings mean that high scores on the negative femininity subscale were moderately correlated to low scores on PsyCap, all its subscales subscales, as well as work engagement.

4.3.3 Correlations between the four PCQ-24 subscales and UWES

The correlations between the PCQ-24 and its subscales and the UWES are displayed in Table 11 below.

Table 11

Correlations between four subscales of the PCQ-24 and the correlation with UWES

Subscale	Self-efficacy	Hope	Resilience	Optimism	PCQ-24 Total	UWES
Self-efficacy	1.00	.59*				
Hope	.59*	1.00				
Resilience	.48*	.53*	1.00			
Optimism	.42*	.54*	.49*	1.00		
PCQ-24 Total	.79*	.84*	.77*	.77**	1.00	
UWES	.51*	.58*	.40*	.51*	.65*	1.00

Figures with an asterisk represent statistically significant correlations

As can be seen in Table 11, all correlations were significant. All correlations between each PCQ-24 subscale and the overall PCQ-24 score were positive and strong. The strongest correlation with PCQ-24 was with hope (0.84), followed by self-efficacy (0.79) and resilience and optimism (0.77). This aligns with the literature previously outlined, which explains that while these constructs are conceptually distinct, they have strong underlying links, commonalities and a synergistic contribution towards outcomes (Luthans et al., 2007; Sweetman et al., 2011).

The strongest correlation between the four PCQ-24 subscales was between hope and self-efficacy (0.59). This is unsurprising, given that the first dimension of hope, agency, which is determination towards a goal, is conceptually similar to self-efficacy (Luthans, 2002b; Snyder et al., 1996). Hope and optimism (0.54) were also strongly correlated in this study, suggesting that optimistic expectations about future events are strongly related to an individual's belief that he or she has the capacity to develop a plan to achieve their goal (Luthans, 2002b). Hope was also strongly correlated to resilience (0.53), suggesting that a positive and resilient outlook is related to the belief in one's capacity to create pathways and sustain motivation to achieve one's goal, even in the face of obstacles (Snyder, 2002).

Resilience was strongly correlated with both optimism (0.49) and self-efficacy (0.48). The correlation between resilience and self-efficacy indicates that an individual's capacity to successfully cope with challenges (resilience) is strongly related to their generalised expectations of successful and positive future events (optimism). This correlation aligns with previous literature, arguing that the ability to cope in the face of uncertainty may stem from strong self-efficacy beliefs (Masten, 2001).

Optimism and self-efficacy were also strongly correlated (0.42). Optimistic people expect positive things to happen and therefore strive towards goal achievement even when faced with obstacles (Scheier and Carver, 1985). It therefore makes sense that high optimism would be correlated with high self-efficacy, as people with high self-efficacy are more likely to choose difficult tasks and persevere in the face of adversity, given that they predict that their actions will lead to the achievement of desired outcomes (Bandura, 1977).

As can be seen from Table 11, UWES was strongly correlated with self-efficacy (0.51), hope (0.58), resilience (0.40), optimism (0.51) and PCQ-24 (0.65), indicating that high levels of these variables are correlated to high levels of work engagement.

4.4 Assessing the relationship between the proposed hypotheses

To test the proposed hypotheses of this study, the statistical technique of an ANOVA was utilised. Prior to conducting this analysis however, the assumptions underlying the ANOVA were assessed. The discussion below outlines the assumptions and the results for testing of these assumptions in this study.

As described in Chapter 3, there are five key assumptions that must be fulfilled prior to using parametric tests like an ANOVA. These assumptions are normal distribution of data, homogeneity of variance (the equality of variance within each group), random sampling, independence of observations or groups of scores to be analysed and finally the assumption that the dependent variable is at least interval in nature (Huck, 2012; Lockhart, 1998; McCall, 1990). These assumptions were all fulfilled and therefore parametric procedures such as Pearson's correlations and ANOVAs were utilised. The results of the assumption testing are provided below and in the following section.

The assumption of normality was tested by examining the skewness and kurtosis coefficients. Homogeneity of variance was tested by using Levene's Test. These results are presented in section 4.5. With regard to random sampling and statistical independence of observations, while pure random sampling was not utilised in this study, every individual

within the target population had an equal chance of participating in the study. For example every individual working in South Africa, with access to the internet, who received an invitation to participate, saw the invitation online, or was referred as part of the snowball sampling, had an equal opportunity to participate in this study. Additionally no individual participant had more than one set of scores included in this study. Therefore the assumption of random sampling and independence of scores is deemed to have been fulfilled. Finally, the dependent variables of PsyCap (self-efficacy, hope, resilience and optimism) and work engagement were measured using Likert scale instruments and thus these scores are interval in nature.

4.5 Descriptive statistics

The descriptive statistics of frequency, mean, standard deviation, minimum and maximum scores were calculated for the variables under study. The frequency of each SRI category was also calculated. The skewness and kurtosis for the all the variables in this study were determined, which allowed for the establishment of the fulfillment of the normality assumption for parametric testing. Demographic information was collected and analysed to describe the characteristics of the sample. The descriptive statistics are presented in Table 12 and the assumptions for parametric testing to utilise ANOVAs are discussed in the following sections.

4.5.1 Normal distribution of data

Skewness and kurtosis coefficients were calculated and examined to determine if the scores for SRI, self-efficacy, hope, resilience, optimism and work engagement were normally distributed. According to Huck (2013), while normally distributed data should have a skewness and kurtosis coefficient close to zero, distributions with skewness and kurtosis figures between -1 and +1 are considered approximately normal (Huck, 2013). Table 12 below summarises the mean, standard deviation, minimum and maximum values obtained, as well as the skewness and kurtosis coefficients obtained for all scales and subscales.

Table 12

Descriptive statistics, skewness and kurtosis coefficients

Variable	N	Mean	Standard Deviation	Min	Max	Skewness Coefficient	Kurtosis Coefficient
PCQ-24 total	478	114.93	13.52	71	144	-0.36	0.28
UWES	478	88.54	16.74	22	119	-0.60	0.43
Positive Masculine	478	47.49	7.48	25	65	-0.19	-0.17
Negative Feminine	478	45.18	9.59	21	79	0.23	0.08
Positive Feminine	478	44.36	5.96	26	55	-0.33	-0.38
Negative Masculine	478	35.12	8.26	15	60	0.19	-0.34
Self- efficacy	478	29.94	4.39	14	36	-0.76	0.62
Hope	478	28.79	4.44	15	36	-0.50	0.11
Resilience	478	28.92	3.86	13	36	-0.49	0.48
Optimism	478	27.28	4.31	12	36	-0.40	0.58

As can be seen from Table 12 the PCQ-24 total, measuring overall PsyCap has a mean of 114.93, a standard deviation of 13.52, a minimum of 71 and maximum of 144 (from 24 items with a theoretical range of 24 to 144). The UWES scale, used to measure work engagement has a mean of 88.54 with a standard deviation of 16.74 and a minimum of 22 and maximum of 119 (from 18 items with a potential range from 17 to 126).

The positive masculine subscale had a mean of 47.49, a standard deviation of 7.48 and a minimum and maximum of 25 and 65 (across 13 items with a theoretical range of 13 and 65). The negative feminine subscale had a mean of 45.18, a standard deviation of 9.59, a minimum of 21 and a maximum of 79 (across 18 items with a theoretical range of 18 and 90). The positive feminine subscale had a mean of 44.36, a standard deviation of 5.96 and a minimum and maximum of 26 and 55 respectively (across 11 items with a theoretical range of 11 and 55). Finally, the negative masculine subscale had a mean of 35.12, a

standard deviation of 8.26 and a minimum 15 and maximum of 60 respectively (across 15 items with a theoretical range of 15 and 75).

Self-efficacy had a mean of 29.94 and a standard deviation of 4.39 with a minimum of 14 and a maximum of 36, while Hope had a mean of 28.79 and a standard deviation of 4.44 with a minimum of 15 and a maximum of 36. Resilience had a mean of 28.92 and a standard deviation of 3.86 with a minimum of 13 and a maximum of 36; and Optimism had a mean of 27.28 and a standard deviation of 4.31 with a minimum of 12 and a maximum of 36. All of these PsyCap scales have six items, with a theoretical range of 6 to 36.

From the results of this study shown in Table 12, it is clear that all variables are sufficiently normally distributed, falling between -1 and +1 for both skewness and kurtosis coefficients (Huck, 2013).

4.5.2 Homogeneity of variance

Levene's Tests were conducted on all one-way ANOVAs to test the assumption of homogeneity of variance, or that there is equal variance of the dependent variables across levels of the independent variable (Meyers et al., 2006). The results of these Levene's Tests are presented in Table 13. As shown in Table 13, all of the Levene's Tests between SRI and PsyCap and SRI and work engagement were non-significant, indicating that the variances between groups were sufficiently similar, and thus this assumption was fulfilled. Therefore parametric tests could be used for this analysis.

Table 13

Levene's test for equality of variances

Dependent variable	F	p-value
PCQ-24 total	1.231	0.293
UWES	0.541	0.745
Self-efficacy	1.512	0.185
Hope	2.152	0.058
Resilience	1.431	0.211
Optimism	1.868	0.099

4.5.3 Frequency of SRI category

Table 14 provides the descriptive statistics for the proportion of respondents who indicated belonging to each SRI. The highest proportion of the sample was negatively feminine (31.6%), followed by positively feminine (24.7%), positively masculine (22%), negatively masculine (12.6%), positive androgynous (4.8%) and finally negatively androgynous (4.4%). The high proportion of positive and negative femininity was likely to be attributable to the large number of females in the sample (73% of the sample is female).

Table 14

SRI composition of present sample

SRI category	N	% of sample
Positive androgyny	23	4.8
Negative androgyny	21	4.4
Positive masculinity	105	22.0
Negative masculinity	60	12.6
Positive femininity	118	24.7
Negative femininity	151	31.6

4.6 Results of one-way and two-way ANOVAS for sex role identity, PsyCap and work engagement

This section first describes the patterns of means for each variable, in terms of SRIs. Subsequently, one-way ANOVA results are presented for PsyCap, self-efficacy, hope, resilience, optimism and work engagement, including descriptive statistics, plotted mean graphs and Tukey's post-hoc tests. Finally, the results for the two-way ANOVA are shown.

4.6.1 Patterns of means for SRI by each variable

Table 15 shows the patterns of means for each variable, by SRI.

Table 15

Descriptive statistics – order of mean of each variable based on SRI

Self-efficacy	Hope	Resilience	Optimism	PCQ-24	UWES
A+ (32.78)	A+ (31.35)	A+ (32.00)	A+ (29.70)	A+ (125.83)	A+ (93.61)
M+ (31.63)	M+ (30.65)	M+ (30.21)	M+ (29.11)	M+ (121.60)	F+ (92.25)
M- (31.50)	M- (29.75)	M- (30.00)	F+ (28.20)	M- (118.32)	M+ (91.89)
F+ (30.22)	F+ (28.97)	F+ (29.37)	M- (27.07)	F+ (116.77)	M- (90.30)
A- (29.24)	A- (27.05)	A- (27.05)	A- (25.57)	A- (108.90)	A- (87.86)
F- (27.60)	F- (26.83)	F- (27.02)	F- (25.24)	F- (106.70)	F- (81.95)

As shown in Table 15, the pattern of means scores for the PCQ-24 and subscales are all the same across the various SRIs, except for the optimism subscale. The means range from positive androgyny as the highest, followed by positive masculinity, negative masculinity, positive femininity, negative androgyny and finally negative femininity. However, for the optimism subscale, positive androgyny had the highest mean, followed by positive masculinity, positive femininity and then negative masculinity.

For the means of the UWES, positive androgyny reported the highest mean, with the second highest mean for positive femininity, followed by positive masculinity, negative masculinity, negative androgyny and lastly negative femininity.

It is important to note that the above table displays the pattern of means only, which is distinct from significant differences between means. An examination of the extent to which these means significantly differ from one another as identified by post-hoc tests are discussed in the following section using the ANOVA technique.

4.6.2 One-way ANOVA results

4.6.2.1 SRI and overall PsyCap

Table 16 presents the frequency, mean and standard deviation for each SRI category and Figure 2 displays the means obtained by each SRI category, for overall PsyCap. The highest score obtained was for positive androgyny (125.83), followed by positive masculinity (121.60), negative masculinity (118.32), positive femininity (116.77), negative androgyny (108.90) and lastly negative femininity (106.70). Thus negatively feminine individuals reported the lowest level of overall PsyCap compared to all other SRIs. A high score on the PCQ-24 indicates high levels of overall PsyCap. All of these findings, except for negative masculinity, were in the direction expected.

Table 16

Descriptive statistics –SRI and overall PsyCap

PCQ-24			
SRI category	N	Mean	Standard Deviation
A+	23	125.83	13.21
A-	21	108.90	12.26
M+	105	121.60	11.10
M-	60	118.32	10.32
F+	118	116.77	11.61
F-	151	106.70	13.18

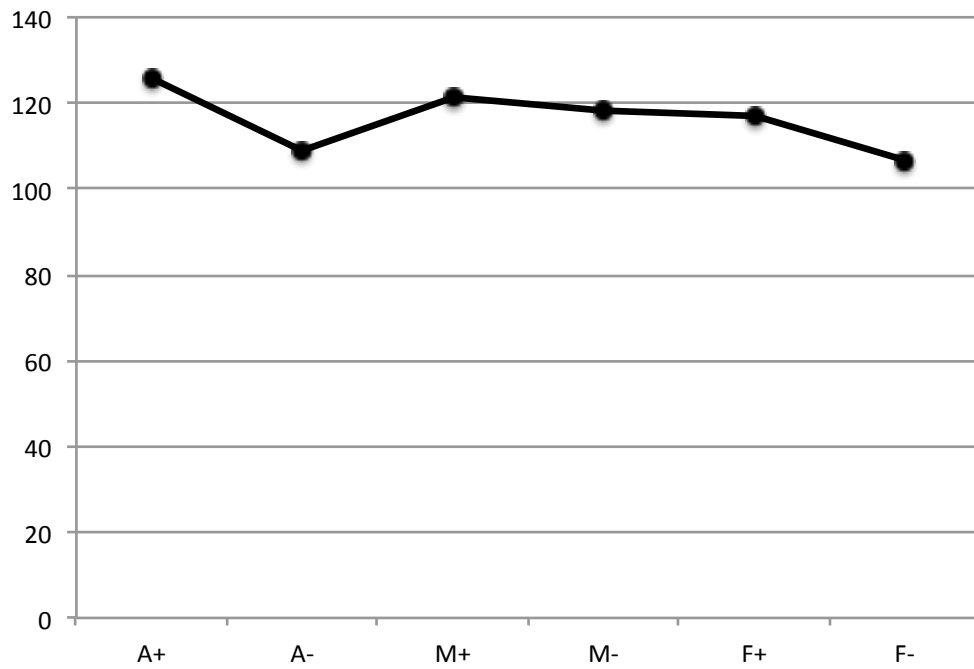


Figure 2. Plotted means – SRI and PCQ-24

As can be seen from Table 17, the overall ANOVA model was significant ($p < 0.05$), indicating that there were significant differences between the various SRIs for the mean scores of PsyCap.

Table 17

One-way ANOVA – SRI and PsyCap

Source	DF	MS	F-value	p-value
Model	5	3898.35	27.15	0.00
Error	472	143.58		

Given that the ANOVA was significant, post-hoc tests were conducted between the groups to determine which means were significantly different from one another. Significant differences between SRIs for levels of PsyCap are presented in Table 18. Positive androgyny was significantly higher than positive femininity, negative androgyny and negative femininity. Similarly, positive masculinity was significantly greater than positive femininity, negative androgyny and negative femininity. Negative masculinity was

significantly higher than both negative androgyny and negative femininity. Finally, positive femininity reported a significantly higher mean than negative femininity.

Effect sizes for significant ANOVA results were calculated using Cohen's *d* (Huck, 2013). All effect sizes observed were large, except between positive masculinity and positive femininity, which was moderate. Therefore the effect sizes between positive androgyny and positive femininity; positive and negative androgyny; positive androgyny and negative femininity; positive masculinity and positive femininity; positive masculinity and negative androgyny; positive masculinity and negative femininity; negative masculinity and negative androgyny; negative masculinity and negative femininity, and positive and negative femininity were all large.

Table 18

Tukey's post-hoc tests - SRI and PsyCap

Group comparison	Mean difference	Cohen's <i>d</i>	95% LCI	95% UCI
A+ and F+	9.06	0.73	1.24	16.87
A+ and A-	16.92	1.33	6.57	27.27
A+ and F-	19.13	1.45	11.46	26.81
M+ and F+	4.83	0.43	0.23	9.43
M+ and A-	12.70	1.09	4.50	20.89
M+ and F-	14.91	1.22	10.55	19.26
M- and A-	9.41	0.83	0.72	18.11
M- and F-	11.62	0.98	6.39	16.85
F+ and F-	10.08	0.81	5.86	14.29

The ANOVA findings outlined in Table 18 supported the hypotheses that positively androgyny and positive masculinity have higher levels of overall PsyCap compared to positive femininity, negative androgyny and negative femininity. Negative masculinity reported significantly greater PsyCap than negative androgyny and negative femininity. Positive femininity was significantly greater than negative femininity.

In conclusion, negatively feminine individuals reported significantly lower levels of PsyCap than all the positive identities. Additionally, no significant differences were found between positive femininity and either negative masculinity or negative androgyny. It is interesting to note that negative masculinity reported significantly higher PsyCap than the other negative identities and was not significantly different to any of the positive identities. These findings, including the positive outcomes found for negative masculinity will be discussed in greater depth in Chapter 5.

4.6.2.2 Sex role identity and self-efficacy

Table 19 shows the frequency, mean and standard deviation and Figure 3 graphically shows the means, for each SRI category on the self-efficacy subscale. The SRI with the highest mean for self-efficacy was positive androgyny (32.78), followed by positive masculinity (31.63), negative masculinity (31.50) and positive femininity (30.22). Negative androgyny reported the second lowest mean (29.24) and negative femininity reported the lowest score on the self-efficacy subscale (27.60).

Table 19

Descriptive statistics – SRI and self-efficacy

SRI categories	N	Self-efficacy	
		Mean	Standard Deviation
A+	23	32.78	4.77
A-	21	29.24	4.38
M+	105	31.63	3.81
M-	60	31.50	3.17
F+	118	30.22	3.83
F-	151	27.60	4.49

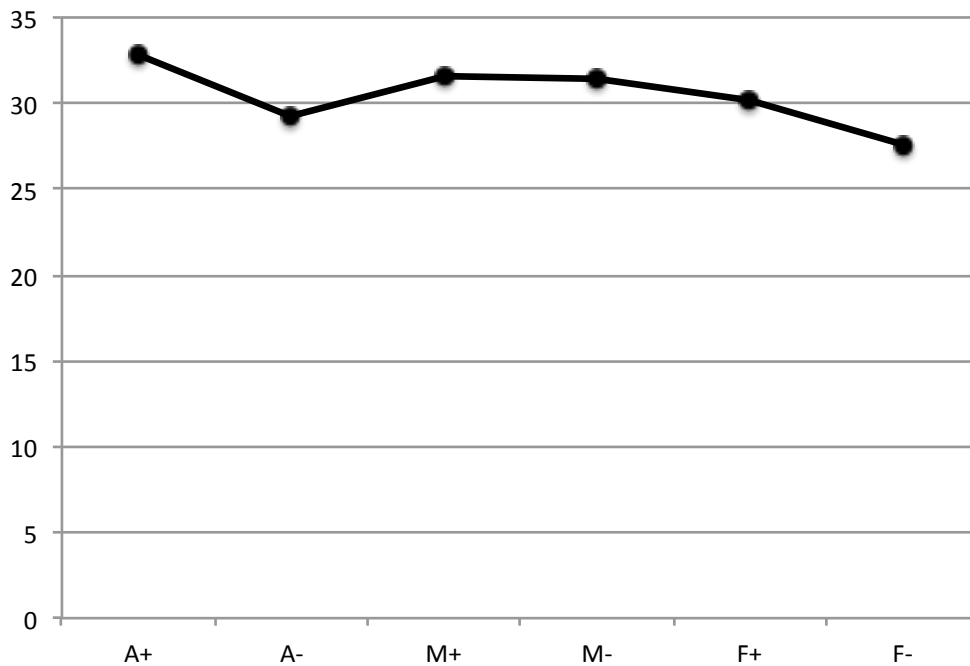


Figure 3. Plotted means – SRI and self-efficacy

As shown in Table 20, the overall model for the ANOVA was significant ($p < 0.05$), indicating that there were significant differences for the mean scores on the dependent variable of self-efficacy, between the SRI categories.

Table 20

One-way ANOVA – SRI and self-efficacy

Source	DF	MS	F-value	p-value
Model	5	295.16	18.03	0.00
Error	472	16.37		

Given that the ANOVA was significant, post-hoc tests were conducted between the SRI categories. These results are shown in Table 21. With regard to significant differences in the self-efficacy subscale, positive androgyny was found to be significantly higher than both negative androgyny and negative femininity; and positive masculinity had a significantly greater mean than negative femininity. Negative masculinity reported a significantly larger mean than negative femininity. Similarly, positive femininity also had a significantly greater mean than negative femininity.

Effect sizes for significant difference between SRI categories for self-efficacy were calculated using the Cohen's *d* statistic (Huck, 2013). A moderate effect size was reported for the difference between positive and negative femininity. All the other effect sizes observed were large. Therefore there was a large effect size for the difference between positive and negative androgyny, positive androgyny and negative femininity, positive masculinity and negative femininity, negative masculinity and negative femininity and similarly between positive femininity and negative femininity.

Table 21

Tukey's post-hoc tests – SRI and self-efficacy

Group comparison	Mean difference	Cohen's <i>d</i>	95% LCI	95% UCI
A+ and A-	3.55	0.77	0.05	7.04
A+ and F-	5.18	1.12	2.59	7.77
M+ and F-	4.03	0.97	2.55	5.50
M- and F-	3.90	1.00	2.13	5.66
F+ and F-	2.62	0.63	1.20	4.04

The results from the ANOVA and post-hoc tests provided partial support for the hypothesis that positive identities would have significantly greater self-efficacy than negative identities. Positive androgyny was significantly greater than negative androgyny and negative femininity, and positive masculinity, negative masculinity and positive femininity all reported significantly greater means than negative femininity. These results will be discussed in Chapter 5.

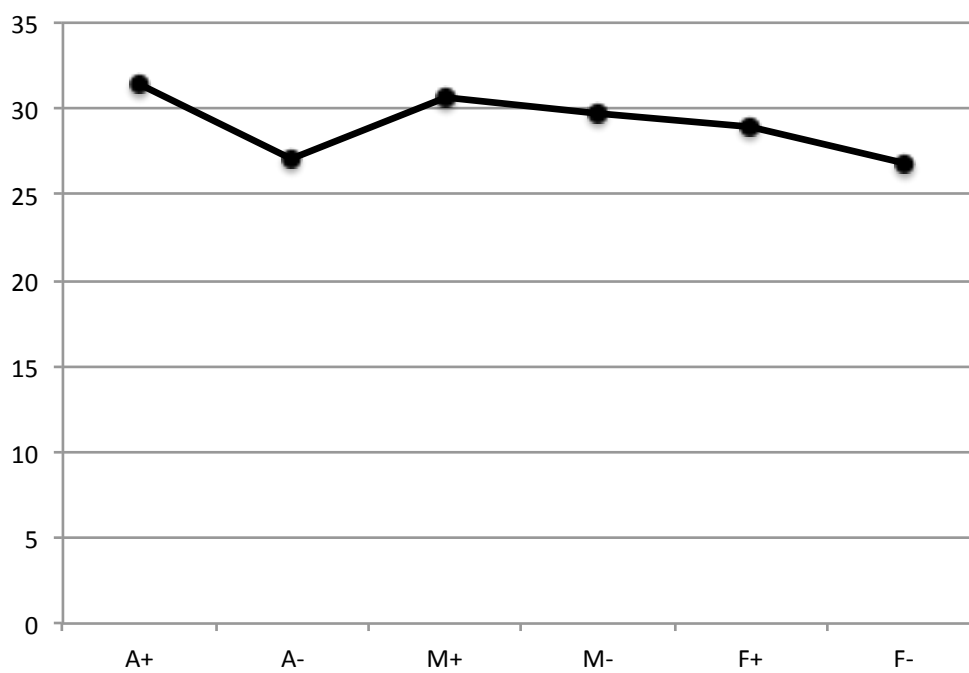
4.6.2.3 Sex role identity and hope

Table 22 presents the frequency, mean and standard deviation for each SRI category and Figure 4 shows the means obtained by each SRI category, on the hope subscale. The highest score obtained for hope was for positive androgyny (31.35), followed by positive masculinity (30.65), negative masculinity (29.75), positive femininity (28.97), negative androgyny (27.05) and lastly negative femininity (26.83). A high score on the hope subscale indicates high levels of perceived agency, pathways and motivation to achieve goals (Snyder et al., 1991).

Table 22

Descriptive statistics – SRI and hope

SRI categories	Hope		
	N	Mean	Standard Deviation
A+	23	31.35	4.52
A-	21	27.05	4.89
M+	105	30.65	4.04
M-	60	29.75	3.36
F+	118	28.97	3.96
F-	151	26.83	4.52

*Figure 4. Plotted means – SRI and hope*

As shown in Table 23, the overall ANOVA model was significant ($p < 0.05$). This indicates significant differences between the various SRIs for mean scores of hope.

Table 23

One-way ANOVA – SRI and hope

Source	DF	MS	F-value	p-value
Model	5	242.67	13.99	0.00
Error	472	17.35		

To identify which differences between SRI groups were significant for levels of hope, Tukey's post-hoc tests were conducted. The results of these post-hoc tests are displayed in Table 23. In terms of significant differences between means, positive androgyny was significantly higher than negative androgyny and negative femininity. Positive masculinity was significantly higher than positive femininity, negative androgyny and negative femininity. Negative masculinity was found to be significantly greater than negative femininity and finally positive femininity reported a significantly higher mean than negative femininity for levels of hope. The only significant difference found between the positive identities was between positive masculinity and positive femininity. Finally, no significant differences were found between negative masculinity and any of the positive identities.

Effect sizes for the significant results found from the ANOVA were calculated using Cohen's d (Huck, 2013). As shown in Table 24, results ranged from moderate to large. The effect size between positive masculinity and positive femininity; positive androgyny and negative femininity; and between positive femininity and negative femininity were all moderate. The Cohen's d effect sizes for all remaining post-hoc test differences between means were all large.

Table 24

Tukey's post-hoc tests - SRI and hope

Group comparison	Mean difference	Cohen's d	95% LCI	95% UCI
A+ and A-	4.30	0.91	0.70	7.90
A+ and F-	4.51	0.56	1.85	7.18
M+ and F+	1.67	0.42	0.07	3.27
M+ and A-	3.60	0.80	0.75	6.45
M+ and F-	3.81	0.89	2.30	5.33
M- and F-	2.92	0.73	1.10	4.73
F+ and F-	2.14	0.50	0.68	3.60

The ANOVA results provide support for the hypothesis that positive identities would report greater hope than negative identities, given that the positive identities reported significantly higher levels of hope than negative androgyny and negative femininity. Negative femininity fared the worst out of all of the identities. However negative masculinity did not report significantly lower levels of hope than the positive identities. This result will be discussed in Chapter 5.

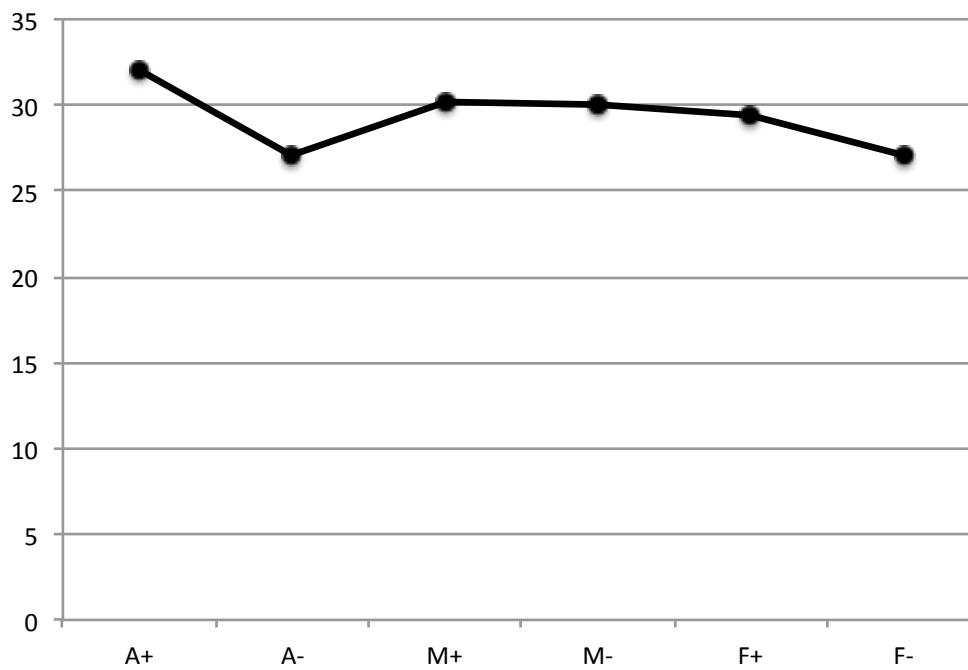
4.6.2.4 Sex role identity and resilience

Table 25 presents the frequency, mean and standard deviation for each SRI category and Figure 5 graphically shows the means obtained by each SRI category, for resilience. Positively androgyny had the highest mean score (32.00), followed by positive masculinity (30.21), negative masculinity (30.00), positive femininity (29.37) and negative androgyny (27.05). The lowest mean score found was for negative femininity (27.02). High scores on the resilience subscale suggest a confidence to be able to effectively cope with new and significant challenges (Youssef & Luthans, 2007).

Table 25

Descriptive statistics – SRI and resilience

SRI categories	N	Resilience	
		Mean	Standard Deviation
A+	23	32.00	3.18
A-	21	27.05	4.04
M+	105	30.21	3.36
M-	60	30.00	2.90
F+	118	29.37	3.63
F-	151	27.02	3.86

*Figure 5. Plotted means – SRI and resilience*

As presented in Table 26, the overall model for the ANOVA was significant ($p < 0.05$), indicating that there were significant differences between SRI groups for the mean scores of resilience.

Table 26

One-way ANOVA – SRI and resilience

Source	DF	MS	F-value	p-value
Model	5	221.16	17.44	0.00
Error	472	12.68		

Given that the ANOVA was significant, post-hoc tests were conducted between the SRI groups to determine which means were significantly different. Significant differences between SRIs on levels of resilience are shown in Table 27. Positive androgyny was significant higher than positive femininity, negative androgyny and negative femininity. Positive masculinity was significantly higher than negative androgyny and negative femininity. Similarly, negative masculinity was significantly greater than negative androgyny and negative femininity. Lastly, positive femininity reported a significantly greater mean than negative femininity for levels of resilience.

No significant differences were found between positive androgyny and positive or negative masculinity. Additionally, no significant differences were found between positive masculinity and positive femininity or negative masculinity. Finally, no significant differences were reported between negative androgyny and negative femininity.

For significant post-hoc differences, effect sizes were calculated using Cohen's d (Huck, 2013). Effect sizes for all comparisons were large, except between positive and negative femininity, which was moderate. Therefore large effect sizes were found between positive androgyny and positive femininity; positive androgyny and negative androgyny; positive androgyny and negative femininity; positive masculinity and negative androgyny; positive masculinity and negative femininity; negative masculinity and negative androgyny; negative masculinity and negative femininity, and finally positive femininity and negative femininity.

Table 27

Tukey's post-hoc tests - SRI and resilience

Group comparison	Mean difference	Cohen's d	95% LCI	95% UCI
A+ and F+	2.63	0.77	0.30	4.95
A+ and A-	4.95	1.36	1.88	8.03
A+ and F-	4.98	1.41	2.70	7.26
M+ and A-	3.16	0.85	0.73	5.60
M+ and F-	3.19	0.88	1.89	4.48
M- and A-	2.95	0.84	0.37	5.54
M- and F-	2.98	0.87	1.42	4.54
F+ and F-	2.35	0.63	1.10	3.61

The results of this ANOVA and the post-hoc tests shown in Tables 26 and 27 provide support for the hypothesis that positive identities would report greater resilience than negative identities. Androgyny and positive masculinity reported greater resilience than both negative androgyny and negative femininity. Contradicting the proposed hypothesis, no statistically significant difference was found between negative masculinity and all the positive identities for resilience. This finding was unexpected and will be discussed in the following chapter (Chapter 5).

4.6.2.5 Sex role identity and optimism

Table 28 presents the frequency, mean and standard deviation for each SRI category and Figure 6 shows the means obtained by each SRI category, on the optimism subscale. Positive androgyny had the highest mean score for optimism (29.70), followed by positive masculinity (29.11), positive femininity (28.20), negative masculinity (27.07) and negative androgyny (27.07). The lowest mean score was for negative femininity (25.24). Individuals scoring highly on the optimism subscale expect positive outcomes and have a stable positive outlook on the world (Scheier & Carver, 1985)

Table 28

Descriptive statistics – SRI and optimism

SRI categories	N	Optimism	
		Mean	Standard Deviation
A+	23	29.70	5.62
A-	21	25.57	3.43
M+	105	29.11	3.48
M-	60	27.07	3.81
F+	118	28.20	4.02
F-	151	25.24	4.19

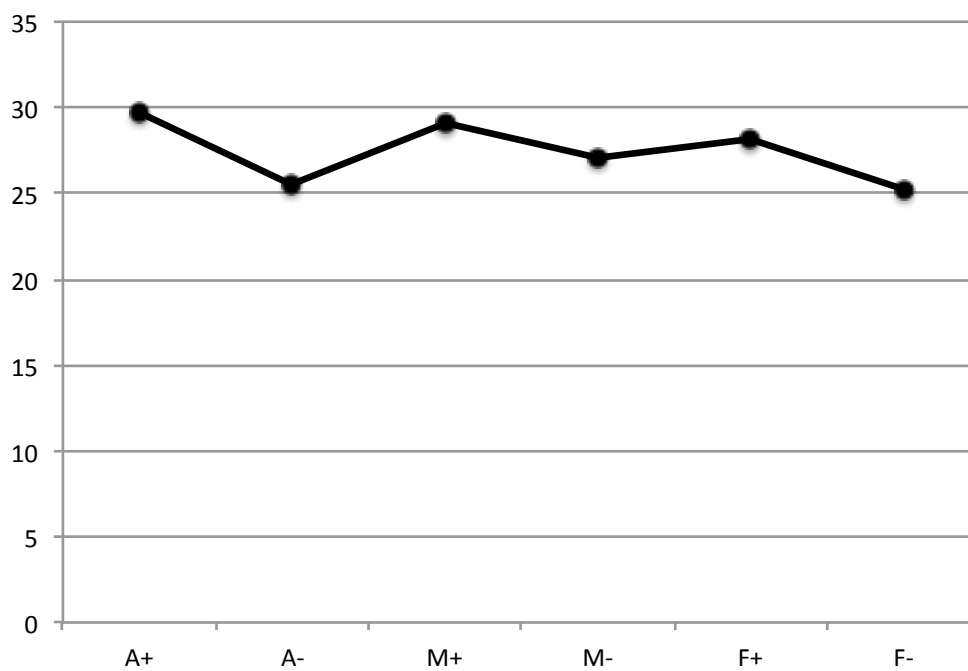
*Figure 6. Plotted means – SRI and optimism*

Table 29 shows the overall significant ANOVA model ($p < 0.05$). This indicates that there were significant differences in the mean score of optimism on the basis of SRI category.

Table 29*One-way ANOVA – SRI and optimism*

Source	DF	MS	F-value	p-value
Model	5	256.31	15.98	0.00
Error	472	16.04		

Given that the ANOVA produced significant results, Tukey's post-hoc tests were conducted to identify which differences between SRI groups were significant. The significant results of these post-hoc tests are displayed in Table 30.

Regarding significant differences between the means, positive androgyny had a significantly higher mean than both negative androgyny and negative femininity. Positive masculinity had a higher mean than negative masculinity, negative androgyny and negative femininity. Similarly the mean for negative masculinity was significantly greater than the mean for negative femininity. Additionally positive femininity had a significantly higher mean than negative femininity. No significant differences were found amongst the positive identities. Finally, no significant difference was found between negative masculinity and positive androgyny or positive femininity.

The effect sizes for significant results found from the ANOVA were determined using Cohen's d calculation (Huck, 2013). Moderate effect sizes were reported between positive and negative masculinity and negative masculinity and femininity. Large effect sizes were found between positive and negative androgyny; positive androgyny and negative femininity; positive masculinity and negative androgyny; positive masculinity and negative femininity and between positive and negative femininity.

Table 30

Tukey's post-hoc tests - SRI and optimism

Group comparison	Mean difference	Cohen's d	LCL	UCL
A+ and A-	4.12	0.89	0.66	7.58
A+ and F-	4.46	0.90	1.89	7.02
M+ and M-	2.05	0.56	0.19	3.90
M+ and A-	3.54	1.02	0.80	6.28
M+ and F-	3.88	1.00	2.42	5.33
M- and F-	1.83	0.46	0.08	3.58
F+ and F-	2.97	0.72	1.56	4.37

The results from the ANOVA and post-hoc tests provided supported for the hypothesis, given that positive androgyny had higher optimism than negative androgyny and negative femininity. While positive masculinity was found to be significantly higher than negative masculinity, the hypothesis that all positive identities would be significantly higher on the optimism subscale than negative masculinity (and all negative identities) was not supported. These results will be discussed in Chapter 5.

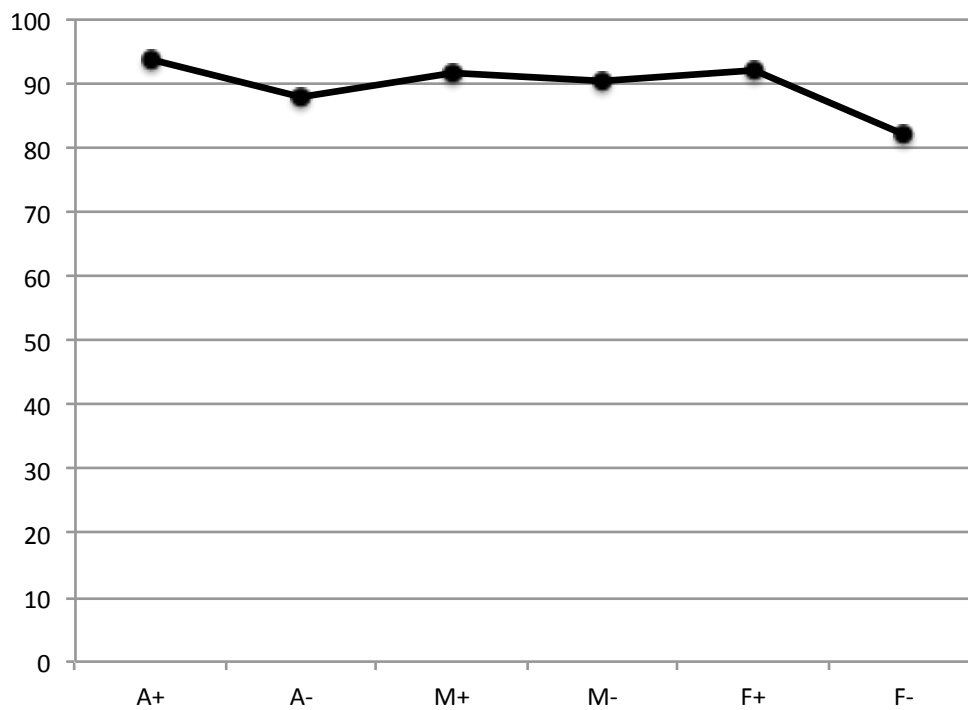
4.6.2.6 Sex role identity and work engagement

Table 31 presents the frequency, mean and standard deviation for each SRI category and Figure 7 shows the means obtained by each SRI category, for levels of work engagement. The highest score obtained on the UWES was for positive androgyny (93.61), followed by positive femininity (92.25), positive masculinity (91.89), negative masculinity (90.30), negative androgyny (87.86) and lastly negative femininity (81.95). A high score on the UWES scale indicates high levels of work engagement indicating high levels of vigour, dedication and absorption towards work (Schaufeli & Bakker, 2003).

Table 31

Descriptive statistics – SRI and work engagement

UWES			
SRI categories	N	Mean	Standard Deviation
A+	23	93.61	16.68
A-	21	87.86	17.50
M+	105	91.89	15.69
M-	60	90.30	15.31
F+	118	92.25	14.88
F-	151	81.95	17.50

*Figure 7. Plotted means – SRI and work engagement*

As presented in Table 32, the overall model for the ANOVA was significant ($p < 0.05$), indicating significant differences between various SRI categories for the mean scores of work engagement.

Table 32

One-way ANOVA – SRI and work engagement

Source	DF	MS	F-value	p-value
Model	5	2030.67	7.76	0.00
Error	472	261.70		

Given the significant ANOVA results, to identify specific differences between SRI groups, Tukey’s post-hoc tests were conducted. These results are shown in Table 33. Significant differences were found between all the positive identities and negative femininity as well as between negative masculinity and negative femininity.

No significant differences were found between any of the positive identities for levels of work engagement. Furthermore, no significant differences were found between the positive identities and negative androgyny or the positive identities and negative masculinity. Finally, no significant difference was found between negative androgyny and negative femininity for levels of work engagement.

Effect sizes were calculated for the significant post-hoc differences using Cohen’s D (Huck, 2013). As can be seen from Table 33, the effect sizes for significant post-hoc tests between SRI and work engagement were moderate to large (0.51 – 0.68).

Table 33

Tukey's post-hoc tests - SRI and work engagement

Group comparison	Mean difference	Cohen's d	95% LCI	95% UCI
A+ and F-	11.66	0.68	1.30	22.02
M+ and F-	9.94	0.60	4.06	15.82
F+ and F-	10.31	0.63	4.62	15.99
M- and F-	8.35	0.51	1.29	15.42

The results of this ANOVA provided support for the hypothesis that positive identities would report greater work engagement than negative identities, given that all positive identities had a significantly higher mean for work engagement than negative femininity. Notably, negative masculinity and negative androgyny were not significantly different to any of the positive identities, which will be further discussed in the following chapter (Chapter 5).

4.6.3 Results of two-way ANOVAS

In the current study, a 6 x 2 two-way ANOVA was run with the dependent variable of work engagement. Given that all two-way ANOVAs have two defined independent variables, the independent variables for this analysis were SRI (6 levels) and PsyCap (2 levels). PsyCap was divided into two levels or categories, namely; “low” and “high”. The PsyCap categories were created by placing all individuals with scores below the median PsyCap score achieved by participants in this study, into the “low” category and all participants above the median score into the “high” category. Therefore every respondent's PsyCap score became classified as either low or high, compared to the rest of the sample.

The six SRI levels are the six SRIs: positive and negative androgyny, positive and negative masculinity, and positive and negative femininity. While the undifferentiated identity does exist, there were insufficient respondents with this identity in this study for analysis to be run.

The purpose of the two-way ANOVA was to determine if there were significant differences in levels of work engagement among different SRI groups, under varying levels of PsyCap (low and high groups). There were three possible effects of the two-way

ANOVA; the main effect of SRIs on the dependent variable of work engagement, the main effect of PsyCap levels on work engagement, and the interaction between the six SRIs and the two PsyCap levels on work engagement. The two-way ANOVA assumptions are the same as the one-way ANOVA assumptions fulfilled above (random sampling, independence of observations, normality and homogeneity of variance), so they were therefore deemed to have been met for the two-way ANOVA calculation. The results for the two-way ANOVA are presented and discussed below.

4.6.4 Sex role identity, PsyCap and work engagement

Table 34 and Figure 8 display the means of work engagement for each SRI, across low and high levels of PsyCap. As can be seen from Table 33, for the low PsyCap group, the highest mean for work engagement was negative androgyny, followed by positive femininity, positive masculinity, negative masculinity, negative femininity and finally positive androgyny. This order indicates that for low levels of PsyCap, negative androgyny had the highest mean, which is the highest level of work engagement and positive androgyny had the lowest.

For the high PsyCap condition, positive femininity reported the highest level of work engagement, followed by negative masculinity, positive masculinity, positive androgyny, negative femininity and finally negative androgyny. The higher mean for negative masculinity, relative to positive masculinity was an unexpected result. Another interesting result was that the work engagement levels of negative androgyny were extremely similar for both low and high levels of PsyCap.

Table 34

Descriptive statistics - SRI, PsyCap and work engagement

	Low PsyCap	High PsyCap
SRI category	Mean	Mean
A+	74.00	97.74
A-	87.85	87.88
M+	80.00	98.09
M-	79.46	98.59
F+	83.75	99.18
F-	78.34	95.38

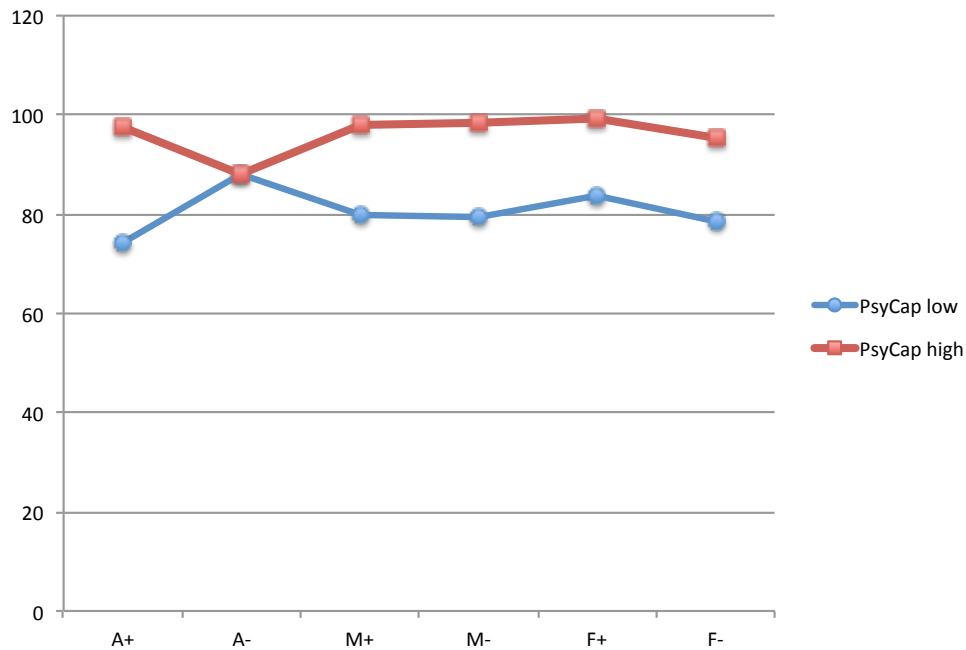


Figure 8. Plotted means – SRI and work engagement (PsyCap low and high)

As shown in Table 35, the main effect of PsyCap levels on work engagement was the only significant finding from the two-way ANOVA. This finding indicates that significant differences were found in levels of work engagement, between low and high PsyCap groups. This indicates that individuals with high levels of PsyCap have significantly higher levels of work engagement than individuals with low levels of PsyCap. Given that no significant interaction was found, no post-hoc tests were conducted. The findings from this two-way ANOVA will be discussed in the Chapter 5.

Table 35

Two-way ANOVA – SRI, PsyCap and work engagement

Source	DF	MS	F-value	p-value
PsyCap	1	12681.52	62.70*	0.00*
SRI	5	266.25	1.32	0.26
SRI * PsyCap	5	343.72	1.70	0.13

Figures with an asterisk are statistically significant

While the one-way ANOVA found statistically significant differences between SRI categories for work engagement, the two-way ANOVA did not find a main effect for SRI categories on work engagement. This kind of differing result can occur using a two-way ANOVA model with an interaction term, as the effect of each independent variable, varies with the value of the other independent variable, in the interaction model. This may make it more difficult understand the main effects of each independent variable, particularly if these two independent variables are highly correlated, as they are in this study (Gill, 2001).

In this kind of situation, once no significant interaction has been established using a two-way ANOVA, a better prediction and understanding of main effects can be obtained by dropping the interaction term and using a one-way ANOVA. Therefore the significant result of the one-way ANOVA for SRI and work engagement will be used for analysis and discussion purposes.

4.6.5 Summary of one-way and two-way ANOVA results

In summary, the positive identities generally fared better than the negative identities in all instances. In all the one-way ANOVAS for PCQ-24 and the subscales of self-efficacy, hope, resilience and optimism, positive androgyny and positive masculinity had significantly higher means than negative androgyny and negative femininity. The exception was for hope, where positive masculinity was only significantly greater than negative femininity.

The positive identities did not differ from one another for any of the variables under investigation, except for positive femininity for certain variables. For overall PCQ-24, both positive masculinity and positive androgyny were greater than positive femininity. Similarly for hope, positive masculinity was significantly greater than positive femininity, and for resilience, positive androgyny was significantly higher than positive femininity. For all other variables there were no significant differences between positive identities. This provides partial support for the hypotheses.

Interestingly, with regard to negative masculinity, this identity was not significantly different to any of the positive identities, with the exception of being significantly lower than positive masculinity for the optimism subscale. Additionally, negative masculinity did generally report significantly higher means than other negative identities, particularly negative femininity. The similar outcomes for the positive identities and negative masculinity is a counterintuitive finding, which will be discussed in the following chapter.

Negative androgyny was significantly lower than positive androgyny and positive masculinity (but not positive femininity) for all scale and subscales. The only exception was for self-efficacy, where negative androgyny was lower than positive androgyny but not positive masculinity. Negative femininity was significantly lower than all the positive identities and negative masculinity for all the PCQ-24 and subscales, as well as for the UWES. These results partially support the research hypotheses.

For the two-way ANOVA no interaction was found between SRI and PsyCap, on levels of work engagement. A main effect of PsyCap was found, indicating that respondents with high levels of PsyCap had significantly higher levels of work engagement than respondents with low levels of PsyCap.

4.7 Conclusion

Chapter 4 outlined the results for this study, including summarising the descriptive statistics, the correlation coefficients and the one-way and two-way ANOVAs conducted. The following chapter, Chapter 5, provides a discussion of these results, examining both the significant and non-significant findings for the relationship between SRI, PsyCap and work engagement. Furthermore, counter-intuitive, or unexpected findings are discussed.

CHAPTER 5

Discussion

5.1 Introduction

This chapter provides a comprehensive discussion of the results from this study. The chapter begins with an overview of the theoretical contribution of this study. The one-way ANOVA findings are then explained. Following this, a discussion of the statistically significant results from this study, specifically, the various patterns of relationships between SRI, PsyCap and work engagement among respondents is provided, followed by a summary of the important non-significant findings. Finally, the counter-intuitive and unexpected findings of this study are explained.

5.2 Theoretical contribution of study

5.2.1 Contribution of the study in terms of positive and negative SRIs and PsyCap

This study explored the relationship between both positive and negative SRIs and a range of positive psychological outcomes, including self-efficacy, hope, resilience, optimism, and overall PsyCap, within a South African context. This type of research is important, given the pervasive impact of SRI behaviour on interpersonal functioning and thus the potential impact on positive psychological outcomes for individuals at work (Eagly & Johnson, 1990).

Previous research has investigated the relationship between SRIs (generally only the positive identities) and positive individual outcomes such as wellbeing, self-esteem or self-efficacy (Chow, 1987; Flaherty & Dusek, 1980; Spence et al., 1975). To the researcher's knowledge this is the first known study to investigate the relationship between both positive and negative SRIs and the higher order construct of PsyCap in an occupational setting. Additionally, previous research has been conducted in a global context, which may differ from South African contextual influences. Furthermore, this study utilised the EPAQ-R scale, which has higher reliability than the EPAQ scale, used in previous research.

5.2.2 Contribution of the study in terms of positive and negative SRIs and work engagement

To the researcher's knowledge, this study is unique in exploring the relationship between the Differentiated Model of SRI (both positive and negative identities) and work engagement in a South African organisational setting. Previous research has explored the relationship between positive masculinity and positive femininity to work engagement (Banihani, et al., 2013) and between sex and work engagement, where contradictory and inconsistent results have been found (Balducci, Fraccaroli, & Schaufeli, 2010; Coetzee & de Villiers, 2010; Jacobs et al., 2014; Schaufeli and Bakker, 2003; Schaufeli, et al., 2006). Therefore this study seeks to provide greater insight and potential reasons for previous contradictory results by examining the relationships between positive and negative SRIs and work engagement.

5.2.3 Contribution of the study in terms of hypotheses proposed

Hypothesis 1 to 5 predicted that variations in SRI would lead to differences in levels of PsyCap and its constructs. Hypothesis 6 predicted that differences in SRI would be related to differing levels of work engagement. Hypothesis 7 proposed that there would be an interaction between SRI and PsyCap on levels of work engagement, where there would be different levels of work engagement for the various SRIs, based on the high and low PsyCap groups.

These hypotheses proposed an order for which SRI would have the highest levels of PsyCap and work engagement. The hypotheses proposed that positive androgyny (A+) would have the highest level of both, followed by positive masculinity (M+), positive femininity (F+), negative masculinity (M), negative androgyny (A-) and finally negative femininity (F-). This predicted order was based on Woodhill and Samuels' (2003) findings, with one small variation. While Woodhill and Samuels predicted negative androgyny to fare better than negative masculinity, the hypotheses in this study predicted that negative masculinity would report slightly better outcomes than negative androgyny.

The slight variation of the predicted relative performance of negative masculinity was based on recent South African research, which found that negative masculinity fared better than negative androgyny in terms of positive outcomes (Bernstein, 2013; Chemaly, 2012; 2013; de Freitas, 2013). Therefore, based on previous findings and an examination of South African culture regarding sex and gender, negative masculinity was predicted to

report lower levels of PsyCap and work engagement than the positive identities, but higher than the other negative identities. Therefore the predicted relative performance of the SRIs aligns with international research, with a slight variation for negative masculinity to reflect local findings.

5.3 The influence of SRI and PsyCap on work engagement

This study examined the relationship between SRI and work engagement for low and high levels of PsyCap, using a two-way ANOVA. The key finding from this analysis was the main effect of PsyCap, indicating that respondents reporting relatively high levels of PsyCap compared to the rest of the sample, reported significantly greater levels of work engagement, than those with relatively low levels of PsyCap.

Given that PsyCap and work engagement are both positive psychological outcomes in an organisational setting, it is not surprising that individuals with high levels of PsyCap report significantly higher levels of work engagement. Furthermore, the two concepts are theoretically connected. According to the Job-demand Resource Model, personal resources and job resources help to neutralise job demands and predict higher work engagement (Bakker & Demerouti, 2008). This model predicts that the personal resources of self-efficacy, resilience and optimism are three of the key antecedents of work engagement (Rothmann et al., 2011; Xanthopoulou, Bakker, Demerouti & Schaufeli, 2007). This is aligned with the Conservation of Resource (COR) Theory, which contends that individuals have a range of available physiological and psychological resources (Hobfoll, 2002). Such personal resources can be collectively and simultaneously utilised to effectively cope with job demands, thus predicting engagement and superior outcomes at work (Bakker & Demerouti, 2007; 2008; Bandura, 1977; Rini et al., 1999; Schaufeli and Bakker, 2004; Scheier & Carver, 1985; Solberg Nes & Segerstrom, 2006; Xanthopoulou et al., 2009). Therefore, individuals with higher levels of PsyCap resources are expected to have greater work engagement, which aligns with the findings of this study.

5.4 Statistically significant and noteworthy findings

5.4.1 Significant differences between the positive and negative SRIs for PsyCap

For PsyCap, and each of its constructs, positive androgyny and positive masculinity showed consistently higher outcomes than negative androgyny and negative femininity.

Furthermore, respondents who were positively feminine reported significantly better outcomes than negatively feminine individuals. Therefore the results of this research supported the predicted outcome that positive identities would generally fare better than negative identities for the positive psychological outcomes under investigation (with the exception of negative masculinity in some cases).

Finding higher self-efficacy for positive identities is consistent with existing literature and theory. Self-efficacy is strongly related to and reinforced by prior successes or failures in similar domains (Bandura, 1997). Positive characteristics, particularly positively masculine traits are often viewed as imperative and highly valued in the work domain and therefore associated with more successful outcomes, especially when compared to traits of negative femininity and negative androgyny (Welle & Heilman, 2007; Mueller, 2008). These superior outcomes are perpetuated by reinforcing confidence and self-efficacy, which further support superior outcomes, and so on (Bandura, 1977; 1982). The corollary of this, however, is that negative identities, particularly negative femininity, suffer from a downward spiral. Low confidence and self-efficacy lead to poor results, which in turn, reduces confidence and self-efficacy (Ghaed & Gallo, 2006; Helgeson & Fritz, 2000; Spence et al., 1979; Watson et al., 1994). Therefore individuals with positive SRIs, possessing traits that consistently produce advantageous outcomes in the workplace, were expected to report higher self-efficacy than their negatively feminine and negatively androgynous counterparts (Welle & Heilman, 2007).

Individuals with positive SRIs have also been associated with greater agency, conscientiousness, internal locus of control and positive appraisals of future challenges than those with negative identities. This supports the findings of higher levels of hope for the positive identities (Ghaed & Gallo, 2006; Gianakos 2002; Sarrasin et al., 2014; Watson et al., 1994).

Additionally, individuals with positive identities have the skills to successfully develop and embed themselves in social networks, which enhances resilience. This is compared to individuals embracing negative identities, who lack the ability to build such effective long-term supportive interpersonal relationships (Ghaed & Gallo, 2006; Netuveli et al., 2008). Furthermore, positive SRIs appraise challenges more positively, more effectively manage stress and utilise greater problem-focused coping skills compared to individuals with negative identities (Chow, 1987; Ghaed & Gallo, 2006; Gianakos, 2000; Helgeson, 1994; Helgeson & Fritz, 1999; 2000; Lam & McBride-Chang, 2007). Therefore

previous findings support higher levels of resilience for positive androgyny and positive masculinity.

Higher levels of optimism for positive identities are also consistent with empirical findings, given that positive identities report greater wellbeing, general happiness and greater positive thinking than negative identities (Gianakos, 2000; Woodhill & Samuels, 2003). Furthermore, consistent with this study, individuals who were positively androgynous reported the highest level of optimism compared to other SRIs (Norlander et al., 2000).

Notably, the SRI that did not align to the proposed pattern was negative masculinity, which was predicted to report significantly lower levels of the positive constructs than the positive identities. However, on the whole negative masculinity generally reported equal or better outcomes. This deviation from international research and the predicted relative performance is discussed in greater detail in Section 5.7.

The differing results between positive and negative identities for positive psychological outcomes, provides support for the Differentiated Model of SRI, which predicts different outcomes for positive and negative SRIs. The Differentiated Model is discussed in Section 5.5.

5.4.2 Significant differences between the positive and negative SRIs for work engagement

In this study, the positive identities and negative masculinity all reported significantly higher means than negative femininity for work engagement. The result of superior work engagement for the positive identities is consistent with previous research. As outlined above, positive identities reported significantly higher levels of the personal resources of self-efficacy, optimism and resilience in this study, which predict work engagement (Rothmann et al., 2011; Xanthopoulou, Bakker, Demerouti & Schaufeli, 2007). Furthermore, positive identities comprise of traits conducive to building greater social networks and report higher levels of social support than negative femininity, a key job resource and antecedent of work engagement (Bakker & Demerouti, 2007; Gianakos, 2000; Helgeson, 1994; Helgeson & Fritz, 1999; Helgeson & Fritz, 2000; Schaufeli & Salanova, 2007).

Furthermore, positive identities also report enhanced ability to cope with uncertainty and occupational stress, and have a more positive appraisal of challenges, compared to

negatively feminine individuals. These are all factors which lower perceived job demands and boost work engagement, including within the South African context (Betz & Hackett, 1981; Bakker & Demerouti, 2007; Coetzee & de Villiers, 2010; Chow, 1987; Ghaed & Gallo, 2006; Gianakos, 2000; Helgeson & Fritz, 2000; Rothmann, Jorgensen & Hill, 2011; Spence et al., 1979). Finally, the positive identities would be more likely to devote adequate emotional resources to their work and career opportunities, to develop dedication, absorption and vigour, compared to negatively feminine individuals, who are overly involved with the needs of others (Bem, 1974; Spence et al., 1975; Fritz & Helgeson, 1998; Helgeson, 1994; Whitehead & Kotze, 2003).

The superior levels of work engagement for negative masculinity compared to negative femininity can be explained by the nature of the traits of negative masculinity, including instrumentality, extreme assertiveness and competitiveness. These traits would make a negatively masculine individual more likely to persevere towards goals and ensure individual success over all else, leading to the display of greater work engagement, compared to the submissive and self-sacrificing traits of negative femininity. Therefore the fact that negative femininity reported the lowest level of work engagement aligns with existing literature and models, describing the antecedents of work engagement and job resources to support and sustain high levels of work engagement.

5.4.3 Significant findings between SRI for PsyCap and work engagement

The main purpose of the study was to determine significant differences between SRIs for levels of PsyCap and work engagement. The significant findings for positive androgyny, positive masculinity and positive femininity are detailed in the sections below.

5.4.3.1 Positive androgyny

Positive androgyny was found to have significantly higher means than negative androgyny and negative femininity for PsyCap, self-efficacy, hope, resilience and optimism. Positive androgyny was also found to have greater levels of PsyCap and resilience than positive femininity. Furthermore, positive androgyny reported significantly higher levels of work engagement than negative femininity.

These positive outcomes align with a range of research conducted over the last three decades which concludes that positive androgyny as an SRI for both men and women is associated with greater behavioural adaptability and a wide range of advantageous outcomes. These superior outcomes include enhanced coping (Cheng, 2005), creativity

(Keller, Lavish & Brown, 2007), self-concept (Flaherty & Dusek, 1980), higher achievement motivation (Norlander et al., 2000) and career self-efficacy in a working environment compared to the other SRIs (Matsui & Onglatco, 1991). Androgynous individuals display traits, which are required to be effective and successful managers (Maheshwari & Kumar, 2008). Maheshwari and Kumar (2008) suggest that androgynous individuals are associated with better outcomes in organisations because they are less inhibited, given that they are less focused on maintaining consistency with an internalised gender-related behaviour.

The significant positive findings for positively androgynous individuals provide support for the Androgynous Model, which advocates that the adoption of both socially desirable masculine and feminine traits is associated with better positive psychological outcomes. However, given the similar outcomes for positive androgyny and positive masculinity (as discussed in the following section) and poorer outcomes for positive femininity, the Masculinity Model may also provide a more appropriate explanation of these results. The Masculinity Model is discussed in section 5.4.6.

5.4.3.2 Positive masculinity

In this study, positive masculinity was generally found to be significantly greater than negative androgyny and negative femininity for PsyCap, self-efficacy, hope, optimism, resilience and work engagement. Positive masculinity was also found to have greater than PsyCap and hope than positive femininity. These beneficial outcomes highlight the advantageous nature of the positively masculine traits. For example masculinity has been associated with greater wellbeing and mental health (Antill & Cunningham, 1979; Woodhill & Samuels, 2003), lower depression (Whitley, 1984) and higher self-efficacy (Allgood-Merten & Stockard, 1991; Choi, 2004; Helgeson, 1994).

In the South African context, masculine traits are still more acceptable and therefore more often desired than feminine traits (both positive and negative) and thus may lead to more positive outcomes in an organisational context (Cheng, 2005). The significant and positive outcomes for positive masculinity provide support for the beneficial impact of masculine traits and the argument for the Masculinity Model. The Masculinity Model proposes that masculine traits (both in masculinity and the masculine traits in androgyny) produce superior outcomes as compared to feminine traits. This model and its applicability in the work context are discussed in section 5.4.4.

5.4.3.3 Positive femininity vs. negative femininity

Positive femininity was found to be significantly higher than negative femininity for PsyCap, self-efficacy, hope, resilience, optimism and work engagement. These results indicate that the positively feminine traits are associated with greater personal resources and enhanced engagement at work.

The poor performance of negative femininity was expected, given that negative femininity has generally been associated with the worst psychological outcomes (Aube, 2008; Helgeson & Fritz, 1998). These inferior outcomes are largely driven by the typical behaviours of this SRI, including being timid, overly compliant, anxious and passive aggressive (Spence et al., 1979; Woodhill & Samuels, 2003). These passive traits are associated with lower self-efficacy, agency and lower confidence (Bem, 1974; Helgeson, 1974).

For levels of hope, negatively feminine individuals are often associated with self-punitive neglect of personal aspirations and goals, leading to insufficient resources and effort being utilised to create pathways or proactively overcome obstacles (Buss, 1990; Ghaed & Gallo, 2006). Similarly with resilience, negative femininity is associated with high levels of neuroticism, lower coping abilities and resources, and greater perceptions of stress (Watson et al., 1994). This lack of focus on one's own needs can decrease resilience in the face of hardships and challenges (Aube, 2008; Helgeson, 1994).

Finally, the significantly lower levels of optimism of negative femininity compared to positive femininity aligns with previous research, finding that negatively feminine individuals experienced lower wellbeing, greater anxiety, depression and neuroticism (Ghaed & Gallo, 2006; Helgeson & Fritz, 1999; McCreary, 1990; Ricciardelli & Williams, 1995; Woodhill & Samuels, 2003; 2004).

The reason for the lowest level of work engagement for negative femininity may be explained using the Job-demand Resource Model. This model stipulates that job resources predict work engagement. Since negative femininity possess fewer personal resources than the other identities, including lower self-efficacy, optimism, resilience and perceived social support, it follows that negatively feminine individuals will have low levels of work engagement (Bakker & Demerouti, 2007; 2008; Ghaed & Gallo, 2006; Helgeson & Fritz, 1999).

Therefore, the superior outcome for positive femininity compared to negative femininity on the positive psychological constructs in this study is supported by an array of

previous findings. Furthermore, this result supports the importance of the Differentiated Model by studying positive and negative identities separately, in an organisational context.

5.4.4 Positive androgyny and positive masculinity as compared to positive femininity

No significant differences were found in this research between positive androgyny and positive masculinity. This differs from a range of research which supports the benefits of androgyny compared to masculinity, particularly the ability to display *both* masculine and feminine traits, depending on appropriateness for the situation (Woodhill & Samuels, 2004; Chow, 1987; Flaherty & Dusek, 1980; Gianakos, 2000; Lam & McBride-Chang, 2007; Spence et al., 1975; Richardson & Cronister, 1998). Such research regards androgyny as contributing to greater happiness, wellbeing and capability (Antil & Cunningham, 1979).

Instead, the similar outcomes for positive androgyny and positive masculinity and the superior results of these two identities compared to positive femininity for PsyCap, hope and resilience, provide endorsement for the Masculinity Model of SRI. The Masculinity Model cites the negligible impact of femininity on the beneficial outcomes of positive androgyny, claiming that it is the masculine traits producing the superior outcomes (Whitley, 1983). A range of other studies which also found no significant difference between androgyny and masculinity for predicting positive outcomes, provides support for this assertion (Orlofsky & O'Heron, 1987; O'Heron & Orlofsky, 1990; Skoe, 1995). The Masculinity Model remains the key opponent to the Androgyny model (Wajsblat, 2011).

The finding of this study may be understood by utilising Acker's (1990) Gendered Organisation Theory. This theory argues that organisations are dominated by masculine traits, values and norms, which lead to social structures and processes within organisations being gendered. Masculine traits, including emotional stability, independence, power, autonomy, competitiveness, aggression, seriousness and responsibility, are all valued and rewarded (Dennis & Kunkel, 2004; Heilman et al., 2004; Powell, Butterfield, & Parent, 2002; Schein, 1973). Gherardi (2003) asserts that there is mainstream recognition that masculinity dominates organisational values and processes.

Feminine traits are typically less valued and subtly or informally discriminated against in an organisational environment, leading to inferior results for those who possess these traits (Welle & Heilman, 2007). For example, stereotypic characteristics and language commonly associated with masculinity are often used to describe performance outcomes

against which employees are measured (Metcalf and Rees, 2007). By specifying behaviours stereotypically associated with masculinity in performance management frameworks, this devalues typically feminine traits, producing gendered hierarchies with masculine traits deemed more important for performance and therefore rewards (Vince, 1999).

Furthermore the display of masculine traits is associated with greater work satisfaction and more effective management behaviours (Antil & Cunningham, 1979; Chow, 1987; Jurma & Powell, 1994; Markstrom-Adams, 1989). Continual positive outcomes for those displaying masculine traits promote self-efficacy, self-esteem and greater ability to be engaged at work (Acker, 1990; Williams, Muller & Kilanski, 2012).

In a range of organisations, both males and females with a strong masculine orientation reported greater confidence and had higher efficacy beliefs for persuading and leading others, than with those with feminine traits (Mueller, 2008). An array of research has found masculinity to be the more adaptive SRI (Kopper & Epperson, 1996; Markstrom-Adams, 1989; Whitley, 1983). Even in teams, a fundamental working method in modern organisations, the processes and dynamics are gendered and dominated by masculine traits and based on masculine discourse, leading to individuals possessing these traits to achieve more favourable outcomes (Metcalf & Linstead, 2003).

The beneficial impact of positive masculinity as well as negative masculinity is particularly true in South Africa according to previous findings (Bernstein, 2013, Chemaly, 2012; de Freitas, 2013). In South Africa, despite legislation such as the Employment Equity Act and Affirmative Action to ensure non-discrimination and gender equality, the importance of masculinity still prevails and hegemonic masculinity is still dominant (Thaler, 2011). There is a range of socio-cultural influences unique to South Africa, which may influence the hegemony of masculinity. These include traditional gender roles and patriarchal attitudes. The social and cultural influences in South African society that perpetuate the dominance of masculinity are outlined in section 5.7.

Furthermore, the association of masculinity with success, in a working environment has been shown to lead to a range of cognitive biases and distortions against women and the display of feminine characteristics. Stereotypical male attributes are commonly regarded as necessary for management and senior positions and such beliefs are reasonably resistant to change (Gaucher, Friesen & Kay, 2011; Heilman, 2012). Based on these stereotypical attributes of males and females, individuals unconsciously create

performance expectations. These expectations have powerful influences on perceptions, impressions and expectations of males and females in the workplace (Heilman, 2012; Macrae, Milne & Bodenhausen, 1994). Banaji & Hardin (1996) note that the use of stereotypes to make judgments are typically automatically activated.

Cognitive distortions utilising gender-based stereotypes and biases lead to biased evaluations of a female's competence and lack of acknowledgement of female success in male dominated roles or environments (Heilman, Wallen, Fuchs & Tamkins, 2004). Even when females do display equal levels of seniority, competence and performance, biased gender evaluations of women often allow such behaviours to be discounted, competence devalued and ability denied (Heilman et al., 2004; Lyness & Judiesch, 1999). Furthermore, even women who exhibit increasingly masculine SRIs to align with organisational values are still frustrated by the failure to be recognised and also by the lower level of advancement opportunities offered (Gottlieb, Kelloway & Barham, 1998; Kirchmeyer, 2002).

Interestingly, Horner (1968) suggests that women have traditionally been socialised not to focus on success, because of the anticipated loss of femininity contingent on views of achievement within our cultural framework. A focus on dominance and success may lead to cultural disapproval of women, particularly in typically male domains (Nieva & Gutek, 1981). Furthermore, given that gender stereotypes are commonly accepted norms, the female display of agency and authority may be accompanied by a social backlash against women for not acting in accordance with gender-related behavioural stereotypes (Korac-Kakabadse & Kouzmin, 1997; Rudman & Phelan, 2008). Therefore women may feel that the display of stereotypic masculine traits are prohibited and may self-censor, making them less likely to display dominance and achievement-orientation in a work environment (Heilman, 2001; Heilman & Okimoto, 2007). This is supported by the greater number of males displaying positive and negative masculine SRIs in this study, compared to females.

Women therefore must face the dilemma of being perceived as feminine and therefore lacking ambition and competitiveness, or if utilising masculine traits, face a backlash from colleagues for breaking culturally appropriate gender stereotypes. This conflict, resulting in self-monitoring and fear of showing dominant behaviour may explain the lower positive outcomes for positively feminine individuals in this study, compared to those containing masculine attributes as part of their SRI.

5.5 Support for the Differentiated Model of sex role identity

The results of this study provide strong support for the Differentiated Model of SRI. As outlined in Chapter 2, the Differentiated Model argues that it is essential to differentiate measure both positive and negative SRIs during research, to ensure correct and accurate exploration of the impact of different SRIs (Woodhill & Samuels, 2003). This study exhibited consistent findings of superior psychological outcomes for positive SRIs (particularly positive androgyny and positive masculinity) compared to the negative identities of negative androgyny and negative femininity.

Additionally, the SRI distribution of the sample in this study provides strong support for the Differentiated Model in a South African context. The sample distribution supported the found men and women displayed both positive and negative identities. Figure 9 displays the SRI distribution of the sample in terms of sex. The figure shows a similar proportion of males and females being positively androgynous (4.60% of males and 4.90% of females) and negatively androgynous (3.90% of males and 4.90% of females). For the masculine identities, 29.20% of men were classified as positively masculine, compared to 19.30% of women from the sample. With regard to the negatively masculine identity, the proportion of men was also higher, with 24.90% of men and 8.00% of women from the sample embracing this identity. These findings again support previous research that men are more likely to embody masculine identities (Berger & Krahe, 2013; Danoff-Burg et al., 2004).

For positive femininity, 16.20% of males and 27.90% of females reported embracing this identity and for negative femininity, 22.30% of males and 35.10% of females from the sample identified with this SRI. Women reporting a greater proportion of the feminine SRIs aligns with previous findings, that women typically prefer and rate themselves higher on gender-congruent attributes as part of their self-concept, compared to gender-incongruent attributes (Berger & Krahe, 2013; Roehling et al., 1996).

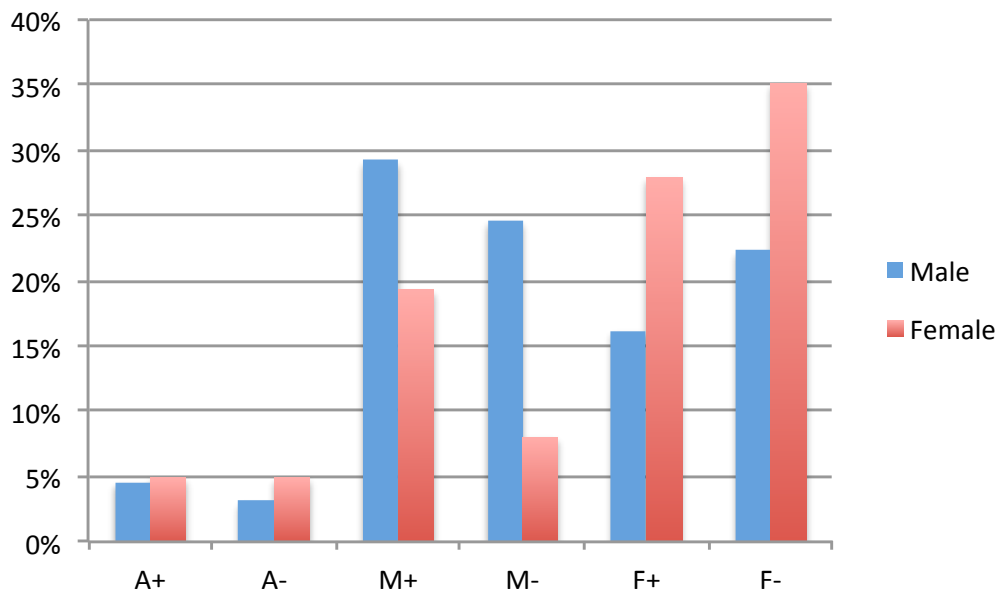


Figure 9. SRI composition of sample in terms of sex

An important finding related to the distribution of SRIs is the number of males and females in the sample displaying cross-typed or non-traditional SRIs. Traditional approaches to gender and SRI assert that men should display masculine SRIs only and females should exclusively display feminine SRIs. However in this study 46.2% of males adopted feminine and androgynous SRIs and 37.10% of the females adopted masculine and androgynous identities (both positive and negative). These findings highlight that while the majority of males and females are still tied to traditionally congruent SRIs, a greater proportion of both men and women in organisations are embracing non-traditional SRIs, which are not congruent with their biological sex. This aligns with the social constructionist theories that assert that adopted SRIs are based on social and cultural influences, rather than biologically determined (Bussey & Bandura, 1999).

The large proportion of men embracing non-traditional SRIs indicates a shift not only in the adoption of gender-stereotyped behaviours, but potentially a shift in the modern conception of masculinity and acceptable range of behaviours. The global sociological phenomenon of “metrosexuality”, where men increasingly partake in consumption-related behaviour traditionally seen as feminine, such as grooming and self-care has become increasingly common. It represents a generation of males becoming more comfortable with displaying aspects of feminine behaviour (Hall, Gough, Seymour-Smith, 2012). It however, does not change the fundamental adoption of hegemonic masculinity, which is

still frequently displayed and referred to by men (Carniel, 2009). Instead hegemonic masculinity has simply been reworked and these two attitudes co-exist rather than compete, in a more image-conscious consumerist society (Carniel, 2009; Hall et al., 2012).

Furthermore, a proportion of women reporting non-traditional identities and utilising both masculine and feminine traits, indicates that South African females in this sample are becoming less constrained by traditional gender stereotypes at work. Henley (1977) found women in positions of power behaved in a manner typically described as masculine. The proportion of females now embodying more masculine traits represents the enhanced power and authority of females. In the last two decades, legislation promoting affirmative action, equal opportunity in the workplace, gender equality and increased financial independence of many women may have contributed to the increased number of women embracing traits previously associated with masculinity, authority and power (Langa, 2012). Given the political and social importance of equality between men and women in South Africa, the findings that women are embracing more masculine and androgynous traits provides support for progress towards greater equality (Hicks, 2011). However, the finding that a greater proportion of men felt comfortable embracing a cross-typed SRI compared to females (46% compared to 37%) still suggests that females are more constrained by traditional traits and behaviours.

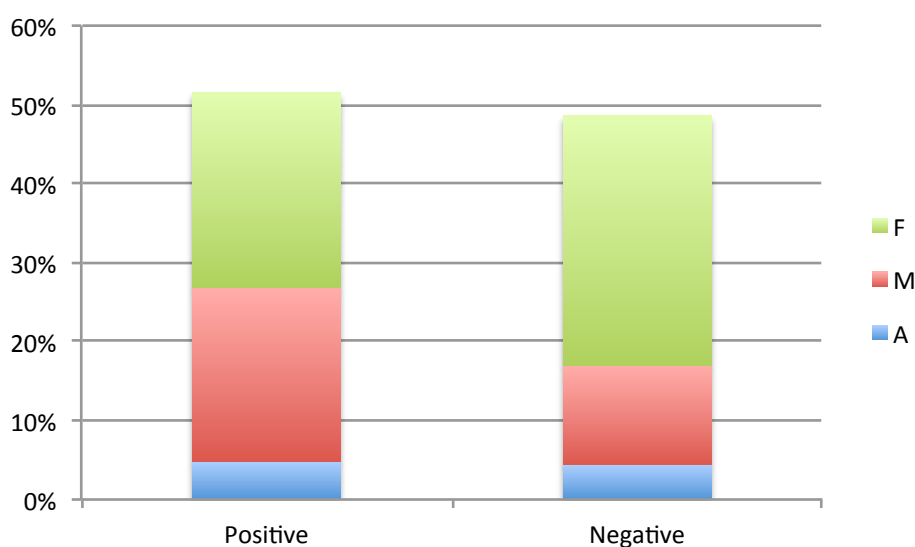


Figure 10. Stacked column bar graph displaying frequency of positive and negative SRIs

Finally, an important result to note from this study is that 51.50% of the sample embodied a positive SRI and 48.60% reported a negative SRI, as shown in Figure 10. This finding aligns with a range of South African studies on SRI, which found a significant

proportion of the sample demonstrated negative SRIs (Bernstein, 2013; Chemaly, 2012; 2013; Solomon; 2012).

This highlights the critical importance of the use of a Differentiated Model when conducting research on SRI. The Differentiated model contends that studying only masculine, feminine or androgynous traits without differentiating between positive and negative identities can confound the results and may explain the range of inconsistent findings previously found in the study of SRIs (Berger & Krahe, 2013). Furthermore, researchers acknowledge the limited international research conducted on positive and negative SRIs (Helgeson, 1994; Korabik & McCreary, 2000; Ricciardelli & Williams, 2000). This study is therefore unique in its contribution, investigating both positive and negative SRIs in a South African organisational setting.

5.6 Statistically non-significant findings

5.6.1 Non-significant differences between positive androgyny and positive masculinity

It was proposed that positively androgynous respondents; utilising both positively masculine and feminine traits, would report significantly higher levels of both PsyCap and work engagement, compared to positively masculine respondents. However, the two identities were not found to be significantly different from one another for any of the variables under investigation. It is therefore possible that both of these identities utilise their positively masculine traits to achieve beneficial outcomes, with the additional impact of feminine traits not appearing to contribute to significantly greater outcomes within this South African sample. This finding does not align to international research, which reported significantly better outcomes for positive androgyny compared to positive masculinity (Chow, 1987; Flaherty & Dusek, 1980; Matsui & Onglatco, 1991; Spence et al., 1975). As previously discussed, these findings support the Masculinity Model in the South African context. The socio-economic factors unique to South Africa, which could potentially contribute to the advantageous outcomes of masculinity, will be outlined in section 5.7.

5.6.2 Non-significant differences between negative androgyny and negative femininity

While negative androgyny was predicted to report significantly higher levels of overall PsyCap, self-efficacy, hope, resilience, optimism, self-efficacy and work engagement than

negative femininity, no significant differences were found between these identities. The similar levels of means can be explained by the contribution of negative femininity in both identities. Negative femininity fared the worst in terms of means and significant differences for all positive psychological variables in this study. Both negative androgyny and negative femininity utilise negatively feminine traits, which include being whiny, timid, passive, complaining, anxious and excessively worried (Woodhill & Samuels, 2003). As previously outlined the self-punitive timidity of negative femininity led to self-effacing outcomes, where such individuals fail to display agentic responses, even when required for self-preservation (Buss, 1990). These negatively feminine traits likely led to more deleterious outcomes for both negatively androgynous and negatively feminine identities.

Negative masculinity however fared significantly better than both of the other negative identities. The advantageous outcomes for negative masculinity found in this study (as outlined in section 5.7) and the cultural acceptance of negative masculinity in South African society, may account for the particularly poor outcomes for negative femininity.

5.6.3 Non-significant differences between negative masculinity and positive identities

Negative masculinity was not significantly lower than any of the positive identities for any of the variables in this study. Potential reasons for the unexpected positive outcomes of the negatively masculine identity are discussed in the following section.

5.7 Counter-intuitive and unexpected findings

Negative masculinity encompasses a wide range of negative traits such as excessive dominance, aggression, selfishness, narcissism and anger, as well as passive-aggressive behaviour and higher avoidant attachment (Buss, 1990; Ghaed & Gallo, 2006; Helgeson & Fritz, 1999). In international research, these traits have been associated with a wide range of deleterious outcomes, including greater verbal and physical aggression, interpersonal problems, elevated levels of anxiety, depression, anger and social conflict compared to positive identities (Ghaed & Gallo, 2006; Helgeson & Fritz, 1999; 2000).

Furthermore, according to the Social Dominance Theory, as outlined in Chapter 2, societies are structured as social hierarchies, with individuals and groups competing to acquire resources. Those who are more adept at competing gain more resources and maintain power and prestige (Bernstein, 1981; Rowell, 1974; Strayer & Strayer, 1976).

However those exclusively employing highly coercive, anti-social and aggressive behaviours to gain resources, typically experience negative responses from peers.

Therefore those able to simultaneously display cooperation and concern for others would likely achieve better outcomes (Hawley, 1999; Olweus, 1993). In an international context, negative masculinity, the identity failing to temper dominant behaviour with concern for others and cooperation, typically experiences poorer outcomes over the long-term than the positive identities (Hawley, 1999). Thus in this study, negative masculinity was predicted to report lower levels of hope, resilience, optimism, self-efficacy and work engagement than all positive SRIs.

Despite this, negative masculinity was expected to predict superior results to the other negative identities. Negative masculinity has been shown to be associated with higher conscientiousness, confidence, self-preservation and lower depression than the other negative identities (Buss, 1990; Cheng, 1999; Malley & Stewart, 1988; Helgeson & Fritz, 1999; 2000; Stewart & Malley, 1987; Wupperman & Neumann, 2006). Furthermore, the dominant traits of this identity can be utilised to more effectively look after one's own needs, compared to the passivity of negative femininity (Buss, 1990). The achievement of better outcomes typically leads to more positive expectations for the future and therefore greater efficacy and enhanced confidence (Bandura, 1997; Buss, 1990).

The findings for the negatively masculine SRI in this study differed from previous international findings and the predicted pattern of means. Negative masculinity fared no worse than the positive identities. Furthermore, for PsyCap, hope and resilience, negative masculinity reported significantly higher means than positive femininity. The beneficial outcomes for the negatively masculine identity in this study align with other SRI research previously conducted in South Africa (Bernstein, 2013; Chemaly, 2012; de Freitas, 2013). It is therefore possible that socio-cultural factors unique to South Africa, such as the greater cultural acceptance of dominance, aggression and power of masculinity, may have contributed to the more positive outcomes for the negatively masculine SRI.

The South African culture and acceptance of "hegemonic masculinity" is a potential explanation for the advantageous outcomes for negatively masculine behaviours. The term hegemonic masculinity has emerged to describe a form of masculinity that is dominant in terms of power relations in society (Connell & Messerschmidt, 2005). The emergence of this concept is based on a range of research finding multiple expressions or types of masculinity within local cultures (Morrell, Jewkes & Lindegger, 2012). Several theorists

have found hegemonic masculinity applicable in the South African culture and it has been widely used in South African gender research (Cockburn 1983; Herdt 1981; Groes-green, 2009; Morrell et al., 2012). Hegemonic masculinity is based on societal values and is ideologically embedded in South African culture (Morrell et al., 2012).

For example in South Africa, the traditional masculine roles include aggression, coercion, arrogance, dominance and superiority are socially present, endorsed, accepted and even seen as beneficial (Thaler, 2011). Gender-based violence to assert masculinity and maintain power has been documented across the country (Jewkes, Levin, & Penn-Kekana, 2003; Jewkes, Penn-Kekana, Levin, Ratsaka, & Schrieber, 2001; Silberschmidt, 2004; Strebel et al., 2006; Thaler, 2011). Coetzee (2001) asserts that it is the patriarchal attitudes, values and traditional gender roles still prevalent in South African society, reinforced by a range of cultural and religious practices, which provides social endorsement for these types of behaviour (Hicks, 2011). Hegemonic masculinity ascends to power through cultural and institutional support (Connell & Messerschmidt, 2005).

An evaluation of the traits of hegemonic masculinity highlights the strong similarities with the negative masculine SRI, which includes hostile-dominant behaviour such as excessive dominance, aggression, boastfulness, superiority and arrogance (Buss, 1990; Ghaed & Gallo, 2006). Therefore hegemonic masculinity, incorporating negatively masculine traits has become accepted in Southern Africa through a combination of historically inherited traditional masculine ideals and culturally accepted patriarchy (Groes-Green, 2009). Hegemonic masculinity is a normative view of masculinity, seen as an accepted cultural prototype of masculinity in South Africa (Connell & Messerschmidt, 2005).

A key antecedent of the greater acceptance of negatively masculine traits may have begun during the apartheid years. Langa (2012) argues that the experience of black youths living under the apartheid regime in the township in the 80s and 90s influenced their understanding, development and expression of masculinity. Langa and Eagle (2008) focus on the expression of 'militarised masculinity', where young boys were encouraged to be aggressive, violent, fearless and tough and black masculinity centred on the expression of these traits (Langa & Eagle, 2008). Therefore these types of behavioural expressions, which reflect many traits of the negatively masculine SRI were extolled as virtuous and became accepted as useful to achieve success.

Furthermore, spurred by the high unemployment and associated poverty, out of fear of losing their patriarchal status, young men in Southern Africa are adopting hegemonic masculinity, asserting their power and social status through aggression, violence, coercion and domination (Groes-Green, 2009). Connell (1995) highlights that poverty and fears of marginalisation in Southern Africa increase the use of this type of aggressive behaviour.

Given that negatively masculine traits are present in cultural beliefs of gender relationship and are still considered acceptable and useful in South African society, this could explain the more positive outcomes of the negatively masculine identity, compared to other socio-cultural contexts. While there have been new social and political influences since the fall of Apartheid, the masculine traits of dominance, aggression and control are still traits regarded positively by many South Africans (Langa, 2012).

The unexpectedly positive outcomes of negative masculinity found in this study contribute to the development of SRI research, including a greater understanding of culturally specific influences that may affect outcomes for each SRI.

5.8 Conclusion

This chapter discussed the significant and non-significant results from this study. These included the findings of the one-way ANOVAs, including the superior outcomes for positive androgyny and positive masculinity compared to negative androgyny and negative femininity and the support for the Differentiated Model of SRI. The discussion of the two-way ANOVA, particularly the finding that those high in PsyCap were found to have significantly greater levels of work engagement than those low in PsyCap, provide evidence for the importance of PsyCap for employees in the work environment. Furthermore this study provided a discussion of the contextually specific factors that may impact on the outcomes obtained by negative masculinity. This research therefore provides greater insight into the challenging question, of what types of personality traits are beneficial and associated with enhanced personal resources and work engagement in a South African organisational context.

The following chapter will discuss the key implications of these results for organisations, as well as future research in this field. Finally, recommendations for further research based on the findings of this study will be provided.

CHAPTER 6

Practical implications, limitations and recommendations

6.1 Introduction

The preceding chapters presented an overview of the relevant literature, the methodology utilised for this study, a summary of the results and a discussion of the findings. This chapter outlines the theoretical and practical implications of this study, as well as potential limitations. Furthermore, recommendations are provided to mitigate potential limitations in subsequent research and expand the current area of investigation.

6.2 Theoretical implications

Historically, there has been a bias within organisations to encourage and promote men over women, often because of a belief that males outperform females in organisations (Acker, 1990; Banihani et al., 2013; Korac-Kakabadse & Kouzmin, 1997; Metcalfe and Linstead, 2003). Not only is this kind of bias unacceptable, the basis for this bias could be fallacious, as it makes an incorrect assumption about the correlate of positive outcomes, assuming a correlation with biological sex (men) as opposed to SRI. In this study, it was SRI that was linked to positive psychological outcomes, not biological sex.

Additionally, a focus on masculinity fails to appreciate the difference between positive and negative types of this identity. Furthermore, assuming that all men embody positively masculine traits in an organisation is flawed. Within the social constructionist framework, gender and stereotypical gendered behaviour are socially constructed and not innate, and therefore not all men display positively masculine traits. In fact, as has been shown in this study and a variety of other South African studies that each sex is capable of adopting any one of the SRIs (Bernstein, 2013; Chemaly, 2012; 2013; de Freitas, 2013; Solomon, 2012).

It would therefore serve organisations to better understand the complex implications of SRI, as sex does not necessarily determine traits and attributes. Furthermore, it is critical to challenge the hegemony of men and masculinity in organisations, by understanding the relationship between both positive and negative masculinity, femininity and androgyny with positive individual outcomes. This includes understanding the correlates of each identity, particularly within a South African organisational context (Walby, 1990).

Organisations are the foundation of working life and play a key role in the wellbeing of employees (Alvesson & Billing, 2009). Therefore, it is important to better understand

how people function within organisations and the influence of different personality traits on positive psychological outcomes. The body of literature, of which this study forms part, provides insight into the relationship between various SRIs and positive outcomes desired by organisations.

6.3 Practical implications of research for organisations

Should South African organisations choose to utilise an SRI framework, EPAQ-R results provide interesting insights into employees, similar to the use of other personality instruments. For example SRI information provides greater understanding of the behavioural preferences and traits existing within teams and organisations. Additionally, personality testing is often used in organisations as a tool for leadership development, and when accompanied with appropriate feedback, can be used to enhance self-awareness (OPP, 2014). For example self-awareness is increased by gaining an in-depth understanding of one's strengths and weaknesses, which can then be enhanced through training and development, in order to maximise a leader's full potential (OPP, 2014).

Understanding an employee's SRI provides awareness of the type of behaviours an individual typically engages in and how they tend to react in different situations. Through coaching and mentoring an employee can better understand his or her preferred behaviour, the appropriate behaviour and then learn to effectively manage his or her behaviour when required. For example, if an individual has the cluster of behaviours typically referred to as negative masculinity, the individual can work towards behaving in a less controlling and aggressive manner with their staff members, resulting in better managerial outcomes.

Additionally, understanding SRIs of employees and the relationship between various SRIs and positive psychological outcomes, may give an organisation more information on their employee profile. For example, positively masculine individuals may experience enhanced resilience, as they are able to effectively manage change and continue to excel in their jobs, even in uncertain conditions (Simmons & Nelson, 2001). However clusters of behavioural preferences and personality traits are by no means the only indicator of potential reactions to periods of change, and this information should be used in conjunction with a wide variety of other information.

6.4 Limitations of this study

Despite the significant findings and empirical contribution of this study, there are a number of limitations that must be acknowledged when interpreting the results and evaluating this study. These limitations will be detailed in the following section.

6.4.1 Methodological limitations

One of the key methodological limitations of this study was the utilisation of a cut-off point, required with the use of the z-scoring method for determining SRI category. The use of a cut-off point in this method means that it is not sensitive to variations in the strength of an individual's SRI (Woodhill & Samuels, 2003).

Another limitation of this method is that each respondent is categorised into one dominant SRI (A+, A-, M+, M-, F+, F-, U). This method however fails to account for other traits that an individual may possess, which are representative of other identities, but which fall below the threshold cut-off point. The existence of a dominant identity and traits of other identities, which fall below the cut-off point, is classified as a 'blended identity'. Therefore although an individual may be classified as a certain dominant SRI based on scoring above the z-score cut-off, they may possess traits of other identities, which may influence their behaviour and subsequent outcomes. The fact that blended identities were not measured in this study provides a methodological limitation.

6.4.2 South African context and culture limitations

An important limitation that became evident in this study was the potential contextual specificity of research into positive outcomes for different SRIs. Given the over-performance of negative masculinity and under-performance of positive femininity relative to research in other countries, it indicates idiosyncratic factors at play within the South African organisational context. South African cultural factors may influence attitudes towards certain types of traits. Future research therefore needs to examine the Differentiated Model of SRI and positive psychological constructs in other countries and contexts, as a basis for comparison.

6.4.3 Industry and organisational culture limitations

This study was conducted in an organisational context, where respondents were asked to complete the questionnaire based on their work experiences. It is therefore not necessarily possible to generalise the results to non-work environments, where SRI may

predict different outcomes. Furthermore, this study utilised a sample that included respondents from a range of different industries and organisations. Organisations vary in terms of culture, values and norms. Organisational culture may vary to the extent that it embodies more masculine or feminine values or is more communally or individualistically orientated (Hofstede, 1983). The organisation's culture may therefore impact on the outcomes for different SRIs, as organisational culture can have significant implications for individual success or failure (Korac-Kakabadse & Kouzmin, 1997).

Future research could consider conducting similar research within a single organisation, to try to control for organisational factors. Alternatively, a study of the impact of organisational culture on the relationship between different SRIs and positive psychological outcomes is a useful and interesting area requiring further exploration.

6.4.4 Limitations of sample, sampling technique and instruments

The use of a convenience sampling technique may have introduced potential bias, including self-selection bias of respondents into this study. Secondly, this study utilised a self-report questionnaire. Self-report questionnaires are susceptible to social desirability response bias (Van de Mortel, 2008). Social desirability is the tendency of respondents to provide responses that they believe are desired, whether they are true or not (Malhotra, 2010). While it was clearly communicated to all respondents that results were anonymous, confidential, would not be individually shared with the organisation and that there were no right or wrong answers, it is not possible to entirely eliminate social desirability responding from self-report questionnaires.

Additionally, the use of convenience sampling may mean that the sample utilised may not be representative of the wider population. Therefore the results of this study may not be generalised to the wider South African population. Furthermore, the sample was not balanced in terms of the characteristics of respondents. There were 348 females compared to 130 male respondents and there were very few Indian and Asian respondents. A more gender equivalent and diverse sample should be considered for future research.

This research used a non-experimental cross-sectional design, meaning that all questionnaires were filled in at a single point in time. Therefore no causal relationship could be established, only conclusions regarding relationships and correlations between SRI, PsyCap and work engagement. Furthermore, although SRIs are personality traits, and PsyCap variables and work engagement have been reported to remain stable over time, a

longitudinal design, taking measurements of the variables at several points in time could minimise the influence of any daily fluctuations of experiences at work (Kahn, 1990; Schaufeli, Bakker & Salanova, 2006). Finally, given that information was collected at a single point in time using a single source, this may have led to an increase in single method variance (Newman et al., 2014). A single method variance may lead to an inflation of the true correlation between SRIs, PsyCap subscales and work engagement.

6.5 Recommendation for future research

6.5.1 Research on sex role identities

Hegemonic Masculinity Theory and Blended Identity Theory are centered on the concepts of plurality and subtlety in SRIs, suggesting that more SRIs exist outside the seven dominant identities. The Hegemonic Masculinity Theory asserts that there are multiple types of masculinity and Ghaed and Gallo (2006) acknowledge that there may be blended identities, when an individual displays a dominant SRI plus some traits from another identity (Connell & Messerschmidt, 2005).

Therefore, future research could explore blended identities and nuances in SRIs and the relationship of these nuanced identities to positive psychological outcomes. This could include creating more categories than the seven overarching SRIs that are currently measured by instruments, including the EPAQ-R (Bernstein, 2013), EPAQ (Spence et al., 1974; 1979), BSRI (Bem, 1981) and the Australian sex-role scale (Antil et al., 1981). However this type of research would require a significantly larger sample to maintain statistical power, when dividing the sample into such a large number of categories.

Additionally given the limitations of the z-scoring method, with the inability to differentiate between strengths of an individual's SRI, future research should investigate ways of identifying and differentiating between the relative strengths of identities, to assess within group differences (Woodhill & Samuels, 2003).

6.5.2 Research on sex, sex role identity and positive organisational outcomes

While SRI can provide valuable descriptions of an individual's behavioural preferences, gender stereotypes also have prescriptive qualities, designating how a man or woman should behave (Heilman, 2012). It is therefore important to explore the impact in terms of positive organisational outcomes for individuals who adhere to or deviate from

these gender-stereotypical behaviours and traits. As previously described, the female display of stereotypically masculine traits may be accompanied by strong social disapproval and negative responses from others (Korac-Kakabadse & Kouzmin, 1997; Rudman & Phelan, 2008).

Previous research found that the demonstration of negatively masculine traits for women lead to far more detrimental outcomes than for men (Ghaed & Gallo, 2006). Therefore, future research should explore the relationship and differences between males and females embracing a variety of SRIs, in a range of industries, within a South African context.

6.5.3 Research on PsyCap and work engagement

The results of this study found that high levels of PsyCap were related to high levels of work engagement. This is aligned with the Job-demand Resource Model. While the Job-demand Resource Model views personal resources as antecedents to work engagement, Xanthopoulou et al. (2009) also found that work engagement predicted personal resources over time. This reciprocal relationship indicates a dynamic cycle, in which the (perceived) availability of personal resources promotes or enhances work engagement, which then enhances personal resources (Salanova, Schaufeli, Xanthopoulou & Bakker, 2010). This assertion aligns with Hobfoll's (2002) COR Theory, which details the process in which individuals seek to nurture and accumulate personal resources, many of which can be utilised in a working environment. While a relationship between these constructs was found in this study, future research could investigate the psychological processes by which the personal resources of PsyCap and work engagement impact on one another, particularly in the South African working environment.

6.6 Cultural differences and sex role identities

There is much debate about the accuracy of stereotyped psychological personality traits of men and women across cultures. Some argue that these stereotypic differences in traits are largely a result of historical social, cultural, religious and political forces and are therefore constructed premises, not accurately reflective of reality (Sines, 1995). Williams and Best (1990) conducted a cross-cultural study across 27 different countries, all varying in terms of culture, religion, economic and geographic characteristics, to investigate commonly held beliefs or stereotypes about the psychological composition of men and women. Williams and Best (1990) concluded that while some cross-cultural differences

were found, the "sex stereotypes in different countries are more similar than they are different" (p. 71), and that while there are some sex-role variations, they are largely similar across cultures.

Other studies have questioned whether these traditional gender stereotypes are still appropriate given that attitudes and conceptions of masculinity and femininity have evolved during recent decades (Berger & Krahe, 2013). Given the finding in Twenge's (1997) meta-analysis from 1973 to 1993 that women are reporting greater levels of masculine attributes in later studies compared to earlier ones, it is possible that while the traits have not changed, the extent to which each gender is endorsing these traits may be changing.

Future research in South Africa, as has been done in Germany, could explore the desirability, adoption and stereotypic nature of traditional SRI traits for men and women. Understanding how gender roles have changed in a cultural system and which traits are endorsed as masculine or feminine requires an extensive study using a wide cross-section of the population, which is beyond the scope of this thesis. This being said, it should be noted that the EPAQ-R was developed and tested on a large South African sample in 2012 by Bernstein (2012). This study adjusted the SRI subscales to reflect current perceptions of gendered behaviour.

6.7 Conclusion

This study provides a unique contribution to existing literature by examining both positive and negative SRIs and their relationship to positive psychological outcomes, in a South African organisational context. This adds to the understanding of how men and women experience their working life and the relationship between the display of gendered behaviours and positive outcomes.

This study further supports the applicability of the Differentiated Model in South Africa. The methodological importance of differentiating between positive and negative identities is evident in this study, given the differences in positive psychological outcomes between positive androgyny and positive masculinity compared to negative androgyny and negative femininity. Furthermore, the results of this study, particularly those pertaining to negative masculinity, which are different in certain ways from empirical research and theoretical models originating in other countries, highlight the potentially unique impact of South Africa's socio-cultural context on SRIs and their correlates.

Reference list

- Acker, J. (1990). Hierarchies, jobs, bodies: a theory of gendered organizations. *Gender & Society*, 4, 139-158.
- Allgood-Merten, B., & Stockard, J. (1991). Sex role identity and self-esteem: A comparison of children and adolescents. *Sex Roles*, 25(3/4), 129 – 139.
- Alvesson, M., & Billing, Y. D. (2009). *Understanding gender and organizations*. London: Sage Publications.
- Amabile, T.M., Conti, R., Coon, H., Lazenby, J., & Herron, M. (1996). Assessing the work environment for creativity. *Academy of Management Journal*, 39(5), 1154 – 1184.
- American Psychological Association. (2011). The Guidelines for Psychological Practice with Lesbian, Gay and Bisexual Clients, adopted by the APA Council of Representatives. Retrieved from www.apa.org/pi/lgbt/resources/guidelines.aspx.
- Anastasi, A. (1982). *Psychological testing* (5th ed.). New York: Macmillan.
- Antill, J. K., & Cunningham, J. D. (1979). Self-esteem as a function of masculinity in both sexes. *Journal of Consulting and Clinical Psychology*, 47(4), 783 – 785.
- Antill, J. K., Cunningham, J.D., Russell, G., & Thompson, L. (1981). An Australian sex-role scale. *Australian Journal of Psychology*, 33(2), 169 – 183.
- Arber, S., Gilbert, N. & Dale, A. (1985) Paid employment and women's health: a benefit or a source of strain? *Sociology of Health and Illness*, 7(3), 375 – 399.
- Ardichvili, A. (2011). Invited reaction: Meta-analysis of the impact of psychological capital on employee attitudes, behaviours and performance. *Human Resource Development Quarterly*, 22(2), 153-156.
- Athenstaedt, U. (2003). On the content and structure of the gender role self-concept: including gender-stereotypical behaviors in addition to traits. *Psychology of Women Quarterly*, 27(4), 309 – 318.
- Athenstaedt, U., Mikula, G., & Bredt, C. (2009). Gender roles self-concept and leisure activities of adolescents. *Sex Roles*, 60(5), 399 – 409.

- Aube, J. (2008). Balancing concern for other with concern for self: links between unmitigated communion, communion, and psychological well-being. *Journal of Personality*, 76(1), 101-133.
- Avey, J. B., Luthans, F., & Jensen, S.M. (2009). Psychological capital: A positive resource for combating employee stress and turnover. *Human Resource Management*, 48(5), 677- 693
- Avey, J. B., Reichard, R., Luthans, F., & Mhatre, K. (2011). Meta-analysis of the impact of positive psychological capital on employee attitudes, behaviors, and performance. *Human Resource Development Quarterly*, 22(2), 127-152.
- Avey, J., Wernsing, T. S., & Luthans, F. (2008). Can positive employees help positive organizational change? Impact of psychological capital and emotions on relevant attitudes and behaviours. *The Journal of Applied Behavioural Science*, 44(1), 48-70.
- Babbie, E. (2013). *The practice of social research* (13th ed.). Ontario, Canada: Cengage Learning.
- Bakan, D. (1966). *The duality of human existence: An essay on psychology and religion*. Oxford, England: Rand McNally, Ballard.
- Bakker, J. P, & Berenbaum, H. (2007). Emotional approach and problem-focused coping: A comparison of potentially adaptive strategies. *Cognition and Emotion*, 21(1), 95-118.
- Bakker, A. B. & Demerouti, E. (2007). The Job Demands-Resources model: State of the art. *Journal of Managerial Psychology*, 22(3), 309-328.
- Bakker, A. B. & Demerouti, E. (2008). Towards a model of work engagement. *Career Development International*, 13(3), 209-223.
- Bakker, A. B. & Demerouti, E. (2009). The crossover of work engagement: A closer look at the role of empathy. *Journal of Managerial Psychology*, 24(3), 220-236.
- Bakker, A.B., Schaufeli, W.B., Leiter, M.P., & Taris, T.W. (2008). Work engagement: An emerging concept in occupational health psychology. *Work & Stress*, 22(3), 187-200.
- Balain, S. & Sparrow. (2009). *Engaged to perform: A new perspective on employee engagement*. UK: Lancaster University Management School.

- Balducci, C., Fraccaroli, F., & Schaufeli, W. B. (2010). Psychometric properties of the Italian version of the Utrecht Work Engagement Scale: A cross-cultural analysis. *European Journal of Psychological Assessment*, 26(2), 143-149.
- Baldwin, A.L., Baldwin, C.P., Kasser, T., Zax, M., Sameroff, A., & Seifer, R. (1993). Contextual risk and resiliency during late adolescence. *Development and Psychopathology*, 5(4), 741-761.
- Banaji, B. M., & Hardin, C. (1996). Automatic stereotyping. *Psychological Science*, 7, 136-141.
- Bandura, A. (1973). *Aggression: A social learning analysis*. Englewood Cliffs: NJ: Prentice Hall.
- Bandura, A. (1977). Self-efficacy: Towards a unifying theory of behavioral change. *Psychological Review*, 84(2), 191-215.
- Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist*, 37(2), 122-147.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Bandura, A., & Wood, R. (1989). Effects of perceived controllability and performance standards on self-regulation of complex decision making. *Journal of Personality and Social Psychology*, 56(5), 805-814.
- Bandura, A. (1997). *Self-Efficacy: The Exercise of Control*. NY: W.H. Freeman and Company.
- Bandura A. (1998). Personal and collective efficacy in human adaptation and change. In J. G. Adair & D. Belanger (Eds.), *Advances in psychological science, Vol. 1: Social, personal, and cultural aspects* (pp. 51-71). Hove, England: Taylor & Francis.
- Bandura A. (1998). Personal and collective efficacy in human adaptation and change. In J. G. Adair & D. Belanger (Eds.), *Advances in psychological science, Vol. 1: Social, personal, and cultural aspects* (pp. 51-71). Hove, England: Taylor & Francis.
- Banihani, M., Lewis, P., & Syed, J. (2013). Is work engagement gendered. *Gender in Management: An International Journal*, 28(7), 400-423.

- Barnett, R. C. & Brennan, R. T. (1997) Changes in job conditions, changes in psychological distress, and gender: a longitudinal study of dual-earner couples. *Journal of Organisational Behaviour*, 18, 253-274.
- Baumruk, R. (2004). The Missing Link: The Role of Employee Engagement in Business Success. *Workspan: WorldatWork*, November, 48-53.
- Bem, S. L. (1974). The measurement of psychological androgyny. *Journal of Consulting and Clinical Psychology*, 42(2), 155-162.
- Bem, S. L. (1975). Sex role adaptability: One consequence of psychological androgyny. *Journal of Personality and Social Psychology*, 31(4), 634-643.
- Bem, S. L. (1976). Sex typing and the avoidance of cross-sex behavior. *Journal of Personality and Social Psychology*, 33, 48-54.
- Bem, S. L. (1981). *Bem Sex-Role Inventory: Professional Manual*. Palo Alto, California: Consulting Psychologists Press.
- Bernstein, I. S. (1987). The evolution of nonhuman primate social behavior. *Genetica*, 73, 99-116.
- Bernstein, C. (2013). *Sex roles identity and wellbeing*. Unpublished doctoral dissertation. University of Witwatersrand, Johannesburg, South Africa.
- Berger, A., & Krahe, B. (2013). Negative attributes are gendered too: Conceptualizing and measuring positive and negative facets of sex-role identity. *European Journal of Social Psychology*, 43(6), 516-531.
- Bernstein, I. (1981). Dominance: The baby and the bathwater. *Behavioral and Brain Sciences*, 4, 419-457.
- Betz, N. E., & Hackett, G. (1981). The relationship of career-related self-efficacy expectations to perceived career options in college women and men. *Journal of Counseling Psychology*, 28(5), 399-410.
- Bigler, R. S. & Liben, L.S. (2006). A developmental intergroup theory of social stereotypes and prejudice. *Advances in Child Development and Behavior*, 34, 39-89.
- Bigler, R. S. & Liben, L.S. (2007). Developmental intergroup theory: Explaining and reducing children's social stereotyping and prejudice. *Current Direction in Psychological Science*, 16(3), 162-166.

- Borna, S., & White, G. (2003). "Sex" and "gender": two confused and confusing concepts in the "Women in corporate management" literature. *Journal of Business Ethics*, 47(2) 89-97.
- Brems, C., & Johnson, M. E. (1989). Problem-solving appraisal and coping style: The influence of sex-role orientation and gender. *Journal of Psychology & Human Sexuality*, 2, 187-194.
- Buss, D. M. (1990). Unmitigated agency and unmitigated communion: An analysis of the negative components of masculinity and femininity. *Sex Roles*, 22(9-10), 555-568.
- Bussey, K., & Bandura, A. (1999). Social cognitive theory of gender development and differentiation. *Psychological Review*, 106, 676-713.
- Butler, L. D., & Nolen-Hoeksema, S. (1994). Gender differences in responses to depressed mood in a college sample. *Sex Roles*, 30, 331-371.
- Carniel, J. (2009). Sheilas, wogs and metrosexuals: Masculinity, ethnicity and Australian soccer. *Soccer & Society*, 10(1), 73-83.
- Carter, R. T., & Parks, E. E. (1996). Womanist identity and mental health. *Journal of Counseling and Development*, 74, 484-489.
- Carver, C. S., & Scheier, M. F. (1998). *On the self-regulation of behavior*. NY: Cambridge University Press.
- Chemaly, C. (2012). *The relationship between positive and negative sex role identities, stress, wellbeing and self-esteem in first year South African University Students*. Unpublished Honours dissertation, University of the Witwatersrand, South Africa.
- Chemaly, C. (2013). *Positive and negative sex role identities, conflict management styles and psychological wellbeing*. Unpublished Masters dissertation, University of the Witwatersrand, South Africa.
- Cheng, C. (1999). Gender role differences in susceptibility to the influence of support availability on depression. *Journal of Personality*, 67(3), 439-467.
- Cheng, C. (2005). Processes underlying gender-role flexibility: Do androgynous individuals know more or know how to cope? *Journal of Personality*, 73(3), 645-673.

- Choi, N. (2004). Sex role group differences in specific, academic and general self-efficacy. *The Journal of Psychology: Interdisciplinary and Applied*, 138(2), 149-159.
- Chow, E. N. (1987). The influence of sex-role identity and occupational attainment on the psychological well-being of Asian American women. *Psychology of Women Quarterly*, 11, 69-82.
- Cockburn, C. 1983. *Brothers: Male dominance and technological change*. London: Pluto.
- Coetzee, D. (2001). South African education and the ideology of patriarchy. *South African Journal of Education*, 21(4), 300-304.
- Coetzee, M., & de Villiers, M. (2010). Sources of job stress, work engagement and career orientations of employees in a South African financial institution. *Southern African Business Review*, 14(1), 27-58.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. (2nd ed.). Hillsdale, NJ: Erlbaum.
- Connell, R. W. (1995). *Masculinities*. Cambridge, UK: Polity Press.
- Connell, R. W., & Messerschmidt, J. W. (2005). Hegemonic masculinity: Rethinking the concept. *Gender and Society*, 19(6), 829-859.
- Constantinople, A. (1973). Masculinity-femininity: An exception to the famous dictum? *Psychological Bulletin*, 80, 389-407.
- Coomber, B., & Barriball, K.L. (2007). Impact of job satisfaction components on intent to leave and turnover for hospital-based nurses: A review of the research literature. *International Journal of Nursing Studies*, 44(2), 297-314.
- Curry, L. A., Snyder, C. R., Cook, D. L., Ruby, B. C., & Rehm, M. (1997). Role of hope in academic and sport achievement. *Journal of Personality and Social Psychology*, 73(6), 1257-1267.
- Danoff-Burg, S., Revenson, T.A., Trudeau, K.J., & Paget, S. A. (2004). Unmitigated communion, social constraints and psychological distress among women with Rheumatoid Arthritis. *Journal of Personality*, 72(1), 29-46.
- Dawkins, S., Martin, A., Scott, J., & Sanderson, K. (2013). Building on the positives: A psychometric review and critical analysis of the construct of Psychological Capital. *Journal of Occupational and Organizational Psychology*, 86(3), 348-370.

- De Freitas, D. (2012). *Variation in sex role identity, sexual orientation, perceived insider status and perceived organisational support; amongst South African male employees*. Unpublished honours thesis. University of Witwatersrand, Johannesburg, South Africa.
- Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout, *Journal of Applied Psychology*, 86(3), 499-512.
- Dennis, M. R., & Kunkel, A. D. (2004). Perceptions of men, women, and CEOs: The effects of gender identity. *Social Behavior and Personality*, 32(2), 155-172.
- Deuch, F. M. (2007). Undoing gender. *Gender and Society*, 21(1), 106-127.
- Eagly, A. H & Johnson, B. T. (1990). Gender and leadership style: A meta-analysis. *Psychological Bulletin*, 168, 233-256.
- Eagly, A. H., & Wood, W. (1999). The origins of sex differences in Human Behavior. *American Psychologist*, 54(6), 408-423.
- Ettiore, E. (2004). Revisioning women and drug use: Gender sensitivity, embodiment and reducing harm. *International Journal of Drug Policy*, 15 (5/6), 327-335.
- Fielden S. L., & Cooper, C. L. (2001). Women managers and stress: A critical analysis. *Equal Opportunities International*, 20(1/2), 3-15.
- Field, L. K. & Buitendach, J. H. (2011). Happiness, work engagement and organisational commitment of support staff at a tertiary education institution in South Africa. *SA Journal of Industrial Psychology*, 37(1), 68-77.
- Flaherty, F. F & Dusek, J. B. (1980). An investigation of the relationship between psychological androgyny and components of self-concept. *Journal of Personality and Social Psychology*, 38, 984-992.
- Fritz, H. L., & Helgeson, V. S. (1998). Distinctions of unmitigated communion from communion: Self-neglect and over involvement with others. *Journal of Personality and Social Psychology*, 75(1), 121-140.
- Fritz, H. L. (2000). Gender-linked personality traits predict mental health and functional status following a first coronary event. *Health Psychology*, 19(5), 420-428.

- Gallup. (2012). Engagement at work: its effect on performance continues in tough times. Retrieved from <http://mtmrecognition.com/wp-content/uploads/2013/04/2012-Q12-Meta-Analysis-Summary-of-Findings.pdf>.
- Gaucher, D., Friesen, J., & Kay, A. C. (2011). Evidence that gendered wording in job advertisements exists and sustains gender inequality. *Journal of Personality and Social Psychology*, 101, 109-128.
- Gergen, M. M., & Davis, S. N. (1997). *Towards a new psychology of gender*. NY: Routledge.
- Ghaed, S. G., & Gallo, L. C. (2006). Distinctions among agency, communion, and unmitigated agency and communion according to the interpersonal circumplex model, five-factor model and socio-emotional correlates. *Journal of Personality Assessment*, 86(1), 77-88.
- Gherardi, S. (2003). Feminist theory and organizational theory: A dialogue on new bases. In H. Tsoukas and C. Knudsen (eds). *The oxford handbook of organizational theory: Meta-theoretical perspectives*. Oxford: Oxford University Press.
- Gianakos, I. (1995). The relation of sex-role identity to career decision-making self-efficacy. *Journal of Vocational Behavior*, 46, 131-143.
- Gianakos, I. (2000). Gender roles and coping with stress. *Sex roles*, 42(11/12), 1059-1079.
- Gianakos, I. (2002). Predictors of coping with work stress: The influences of sex, gender role, social desirability, and locus of control. *Sex Roles*, 46(5/6), 149-158
- Gibbons, J. (2006). Employee Engagement: A Review of Current Research and Its Implications. Retrieved from <http://montrealoffice.wikispaces.com/file/view/Employee+Engagement+Conference+Board.pdf>.
- Gill, J. (2001). Interpreting interactions and interaction hierarchies in generalized linear models: Issues and applications. *Proceedings of the American Political Science Association Annual Meeting*, San Francisco, September, 1-43. Retrieved from <http://www.artsci.wustl.edu/~jgill/papers/interactions3.pdf>.
- Görgens-Ekermans, G., & Herbert, M. (2013). Psychological capital: Internal and external validity of the Psychological Capital Questionnaire (PCQ-24) on a South African sample. *SA Journal of Industrial Psychology*, 39(2), 1-12.

- Gottlieb, B.H., Kelloway, K.E., & Barham, E. (1998). *Flexible work arrangements: Managing the work-family boundary*. Chichester, United Kingdom: John Wiley & Sons.
- Greenglass, E. R., Burke, R. J., & Ondrack, M. (1990). A gender-role perspective of coping and burnout. *Applied Psychology: An International Review*, 39, 5–27.
- Gregory, R. J. (2007). *Psychological testing: History, principles, and applications* (5th ed.). Boston, Massachusetts: Pearson.
- Groes- Green, C. (2009). Hegemonic and subordinated masculinities: Class, violence and sexual performance among young Mozambican men. *Nordic Journal of African Studies*, 18(4), 286-304.
- Hackman, J. R., & Oldham, G. R. (1980). *Work redesign*. Reading, Massachusetts: Addison-Wesley.
- Hair, J. F., Black, B., Babin, B., Anderson, R. E., & Tatham, R. L. (2010). *Multivariate data analysis* (6th Ed.) Englewood Cliffs, NJ: Prentice Hall.
- Hall, M., Gough, B., & Seymour-Smith, S. (2012). “I’m METRO-not gay!”: A discursive analysis of men’s accounts of makeup use on YouTube. *Journal of Men’s Studies*, 20(3), 209-226.
- Harrison, A. W., Rainer, R. K., Hochwarter, W. A., & Thompson, K. R. (1997). Testing the self-efficacy- performance linkage of social-cognitive theory. *The Journal of Social Psychology*, 137(1), 79-87.
- Harter, J. K., Schmidt, F. L., Asplund, J. W. & Killham, E. A. (2005). *Employee engagement and performance: A meta-analytic study of causal direction*. Omaha, Nebraska: The Gallup Organization.
- Harter, J. K., Schmidt, F. L., Killham, E. A. & Asplund, J. W. (2006). Q12 Meta-analysis. *Gallup Consulting*. Retrieved from http://strengths.gallup.com/private/Resources/Q12Meta-Analysis_Flyer_GEN_08%2008_BP.pdf.
- Harter, J. K., Schmidt, F. L., & Hayes, T. L. (2002). Business unit-level relationship between employee satisfaction, employee engagement, and business outcomes: A meta-analysis. *Journal of Applied Psychology*, 87(2), 268-279.

- Hawley, P. H. (1999). The ontogenesis of social dominance: A strategy based evolutionary perspective. *Development Review*, 19(1), 97-132.
- Heider, F. (1958). *The psychology of interpersonal relations*. NY: Wiley.
- Heilman, M. E. (2001). Description and prescription: How gender stereotypes prevent women's ascent up the organizational ladder. *Journal of Social Issues*, 57(4), 657-674.
- Heilman, M. E. (2012). Gender stereotypes and workplace bias. *Research in Organisational Behaviour*, 32, 113-135.
- Heilman, M. E., & Okimoto, T. G. (2007). Why are women penalized for success at male tasks? The implied communality deficit. *Journal of Applied Psychology*, 92, 81-92.
- Heilman, M. E., Wallen, A. S., Fuchs, D., & Tamkins, M. M. (2004). Penalties for success: Reactions to women who succeed at male gender-typed tasks. *Journal of Applied Psychology*, 89(3), 416-427.
- Helgeson, V. S. (1993). Implications of agency and communion for patient and spouse adaptation to a first coronary event. *Journal of Personality and Social Psychology*, 64, 807-816.
- Helgeson, V.S. (1994). Relation of agency and communion to well-being: Evidence and potential explanations. *Psychological Bulletin*, 6(3), 412-428.
- Helgeson, V. S., & Fritz, H. L. (1996). Implications of communion and unmitigated communion for adolescent adaptation to Type I diabetes. *Women's Health*, 2, 169-194.
- Helgeson, V. S., & Fritz. (1998). A theory of unmitigated communion. *Personality and Social Psychology Review*, 2(3), 173-183.
- Helgeson, V.S. & Fritz, H. L. (1999). Unmitigated agency and unmitigated communion: Distinctions from agency and communion. *Journal of Research in Personality*, 33, 131-158.
- Helgeson, V. S., & Fritz. (2000). The implications of unmitigated agency and unmitigated communion for domains of problem behaviour. *Journal of Personality*, 68(6), 1031-1057.

- Helmreich, R. L. Spence, J. T., Wilhelm, J. A. (1981). A psychometric analysis of the Personal Attributes Questionnaires. *Sex Roles*, 7, 1097-1108.
- Henley, N. M. (1977). *Body politics: Power, sex and nonverbal communication*. Englewood Cliffs, NJ: Prentice-Hall.
- Herd, G. H. (1981). *Guardians of the flutes: Idioms of masculinity*. NY: McGraw-Hill.
- Hicks, J. (2011). Gender Equity in South Africa – Progress and Challenges. Retrieved from <http://www.cge.gov.za>.
- Hirschy, A. J., & Morris, J. R. (2002). Individual differences in attributional style: the relational influence of self-efficacy, self-esteem and sex role identity. *Personality and Individual Differences*, 32(2), 183-196.
- Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, 44, 513–524.
- Hobfoll, S.E. (1998). *Stress, culture, and community: The psychology and philosophy of stress*. NY: Plenum.
- Hobfoll, S.E. (2002). Social and psychological resources and adaptation. *Review of General Psychology*, 6(4), 307-324.
- Holahan, C. K., & Spence, J. T. (1980). Desirable and undesirable masculine and feminine traits in counselling clients and unselected students. *Journal of Consulting and Clinical Psychology*, 48, 300-302.
- Hofstede, G. (1983). The cultural relativity of organizational practices and theories. *Journal of International Business Studies*, 14(2), 75-89.
- Hoffman, R. 2001. The Measurement of Masculinity and Femininity: Historical Perspective and Implications for Counseling. *Journal of Counseling and Development*, 79(4), 472-484.
- Horner, M. S. (1968). *Sex Differences in Achievement Motivation and Performance in Competitive and Non-competitive Situations*. Unpublished doctoral dissertation, University of Michigan.
- Howell, D. C. (1999). *Fundamental statistics for the behavioural sciences* (4th ed.). California: Pacific Grove.

- Huck, S. W. (2012). *Reading statistics and research* (6th Ed.). Boston: Pearson Education Inc.
- Hughes, E. C. (1945). Dilemmas and Contradictions of Status. *American Journal of Sociology*, 50, 353-59.
- Jack, D. C. (1991). *Silencing the self: Women and depression*. Cambridge: Harvard University.
- Jacobs, S., Snelgar, R., & Renard, M. (2014). Intrinsic rewards and work engagement in the South African retail industry. *SA Journal of Industrial Psychology*, 40(2), 1-14.
- Jewkes, R., Levin, L., & Penn-Kekana, L. (2003). Gender inequalities, intimate partner violence and HIV prevention practices: findings of a South African cross-sectional study. *Social Science and Medicine*, 56(1), 125-134.
- Jewkes, R., Penn-Kekana, L., Levin, J., Ratsaka, M., & Schrieber, M. (2001). Prevalence of emotional, physical, and sexual abuse of women in three South African provinces. *South African Medical Journal*, 91, 421-428.
- Jurma, W. E., & Powell, M. L. (1994). Perceived gender roles of managers and effective conflict management. *Psychological Reports*, 74(1), 104-106.
- Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, 33(4), 692-72.
- Keppel, G. (1991). *Design and analysis: A researcher's handbook*. (3rd Ed.) Englewood Cliffs, NJ: Prentice Hall.
- Kerlinger, F. N. (1981). *Foundations of behavioral research* (2nd Ed.). NY: Holt, Rinehart, and Winston, Inc.
- Kiguwa, P. (2004). Narratives of gender and identity constructs. In T. Sefer, F. Boonzaier & P. Kiguwa (Eds.), *The gender of psychology* (pp. 12-28). Cape Town, SA: UCT Press.
- Kirchmeyer, C. (1996). Gender roles and decision-making in demographically diverse groups: A case for reviving androgyny. *Sex Roles*, 34(9/10), 649-663.
- Kirchmeyer, C. (2002). Change and stability in managers' gender roles. *Journal of Applied Psychology*, 87(5), 929-939.

- Kirk, S., & Koesk, G. (1995). The fate of optimism: a longitudinal study of case managers' hopefulness and subsequent morale. *Research in Social Work Practice*, 5, 47-61.
- Kohlberg, L. A. (1966). A cognitive–developmental analysis of children's sex role concepts and attitudes. In E. E. Maccoby (Ed.), *The development of sex differences* (pp. 82-173). Stanford, California: Stanford University Press.
- Kopper, B. A., & Epperson, D. I. (1996). The experience and expression of anger: Relationships with gender, gender role socialization, depression and mental health functioning. *Journal of Counseling Psychology*, 43, 158-165.
- Korac-Kakabadse, N., & Kouzmin, A. (1997). Maintaining the rage: From glass and concrete ceilings and metaphorical sex change to psychological audits and renegotiating organizational scripts – part 2. *Women in Management Review*, 12(6), 207-221.
- Langelaan, S., & Bakker, A. B., Schaufeli, W. B., & Van Dooren, L. P. (2006). Burnout and work engagement: Do individual differences make a difference? *Personality and Individual Differences*, 40, 521-532.
- Lam, C. B., & McBride-Chang, C. A. (2007). Resilience in young adulthood: The moderating influences of gender-related traits and coping flexibility. *Sex Roles*, 56, 159-172.
- Langa, M. (2012). *Becoming a man: Exploring multiple voices of masculinity amongst a group of young adolescent boys in Alexandra Township, South Africa*. Unpublished doctoral dissertation. University of Witwatersrand, Johannesburg, South Africa.
- Langa, M., & Eagle, G. (2008). The intractability of militarized masculinity: interviews with former combatants in East rand. *South African Journal of Psychology*, 38(1), 152-175.
- Larson, M., & Luthans, F. (2006). Potential added value of psychological capital in predicting work attitudes. *Journal of Leadership and Organization Studies*, 13(1), 45-62.
- Leard Statistics. (2013). Descriptive and inferential statistics. Retrieved from <https://statistics.laerd.com/statistical-guides/descriptive-inferential-statistics.php>

- Lewin, M. (1984). Psychology measures femininity and masculinity: 2. From '13 gay men' to the instrumental-expressive distinction. In M. Lewin (Ed.), *In the shadow of the past: Psychology portrays the sexes* (pp. 179-204). NY: Columbia University Press.
- Li, C. E., DiGiuseppe, R., & Froh, L. (2006). The roles of sex, gender, and coping in adolescent depression. *Adolescence*, 41, 409-15.
- Lockhart, R. S. (1998). *Introduction to statistics and data analysis for the behavioral sciences*. NY: W. H. Freeman & Co Ltd.
- Long, B. C. (1989). Sex-role orientation, coping strategies, and self-efficacy in women in traditional and non-traditional occupations. *Psychology of Women Quarterly*, 13, 307-324.
- Lubinski, D., Tellegen, A., & Butcher, J. N. (1983). Masculinity, femininity, and androgyny viewed and assessed as distinct concepts. *Journal of Personality and Social Psychology*, 44(2), 428-439.
- Luthans, F. (2002a). Positive organizational behavior: Developing and managing psychological strengths. *Academy of Management Executive*, 16(1), 57-72.
- Luthans, F. (2002b). The need for and meaning of positive organizational behavior. *Journal of Organizational Behavior*, 23(6), 695-706.
- Luthans, F., Avey, J. B., Avolio, B. J. (2007). Psychological Capital (PsyCap) Questionnaire (PCQ). *Mind Garden*.
- Luthans, F., Avey, J. B., Avolio, B. J., Norman, S. M., & Combs, G. J. (2006). Psychological capital development: Toward a micro-intervention. *Journal of Organizational Behavior*, 27, 387-393.
- Luthans, K. W., & Jensen, S. M. (2005). The linkage between psychological capital and commitment to organizational mission. *Journal of Nursing Administration*, 35, 304-310.
- Luthans, F., Avolio, B. J., Avey, J. B., & Norman, S. M. (2007). Positive Psychological Capital: Measurement and Relationship with Performance and Satisfaction. *Personnel Psychology*, 60, 541-572.
- Luthans, F., Luthans, K. W., & Luthans, B. C. (2004). Positive psychological capital: Beyond human and social capital. *Business Horizons*, 47(1), 45-50.

- Luthans, F., & Youssef, C. M. (2004). Human, social, and now Positive Psychological Capital Management: Investing in people for competitive advantage. *Organizational Dynamics*, 33(2), 143-160.
- Luthans, F., Avey, J.B., Clapp-Smith, R., & Weixing, L. (2008). More evidence of the value of Chinese workers' psychological capital: A potentially unlimited competitive resource. *The International Journal of Human Resource Management*, 19(5), 818-827.
- Luthans, F., Vogelgesang, G. R., & Lester, P. B. (2006). Developing the psychological capital of resiliency. *Human Resource Development Review*, 5(1), 25-44.
- Luthans, F., Youssef, C. M., & Rawski, S. L. (2011). A tale of two paradigms: The impact of psychological capital and reinforcing feedback on problem solving and innovation. *Journal of Organizational Behavior Management*, 31(4), 333-350.
- Lyness, K. S., & Judiesch, M. K. (1999). Are women more likely to be hired or promoted into management positions? *Journal of Vocational Behavior*, 54, 158-173.
- Maccoby, E. E. (1990). The role of gender identity and gender constancy in sex-differentiated development. *New Direction for Child Development*, 47, 5-20.
- Macey, W.H. and Schneider, B. (2008). The meaning of employee engagement. *Industrial and Organizational Psychology*, 1, 3-30.
- Macrae, C. N., Milne, A. B., & Bodenhausen, G. V. (1994). Stereotypes as energy-saving devices: A peek inside the cognitive toolbox. *Journal of Personality and Social Psychology*, 66, 37-47.
- Maddi, S. R. (2013). *Turning stressful circumstances into resilient growth*. NY: Springer.
- Maheshwari, N., & Kumar, V. (2008). Personal effectiveness as a function of Psychological Androgyny. *Industrial Psychiatry Journal*, 17(1), 39-45.
- Malhotra, N. K. (2010). *Marketing Research: An Applied Orientation* (6th ed). Upper Saddle River, NJ: Pearson.
- Malley, J. E., & Stewart, A. J. (1988). *Women's work and family roles: Sources of stress and sources of strength*. In S. Fisher & J. Reason (Eds.), *Handbook of life stress, cognition, and health* (pp. 175-191). NY: Wiley.

- Markstrom-Adams, C. (1989). Androgyny and its relation to adolescent psychological wellbeing: A review of the literature. *Sex Roles*, 21, 469-473.
- Marsh, H. & Myers, M. (1986) Masculinity, femininity and androgyny: a methodological and theoretical critique, *Sex Roles*, 14, 397-430.
- Marshall, J. (1995). Working at senior management and board levels: some of the issues for women. *Women in Management Review*, 10(3), 21-25.
- Martin, C. L., Ruble, D. N., & Szkrybalo, J. (2002). Cognitive theories of early gender development. *Psychological Bulletin*, 128(6), 903-933.
- Masten, A. S. (2001). Ordinary magic: Resilience process in development. *American Psychologist*, 56(3), 227-238.
- Maslach, C. & Leiter, M. P. (1997). *The Truth about Burnout*. San Francisco: Jossey-Bass.
- Matsui, T., & Onglatco, M. L (1991). Instrumentality, expressiveness and self-efficacy career activities among Japanese working women. *Journal of Vocational Behavior*, 39,241-250.
- McCall, R. B. (1990). *Fundamental statistics for the behavioural sciences*. London: Harcourt Brace Jovanovich.
- McCall, C., & Dasgupta, N. (2007). The malleability of men's gender self concept. *Self and Identity*, 6, 173-188.
- McCreary, D. R. (1990). Multidimensionality and the measurement of gender role attributes: A comment on Archer. *British Journal of Social Psychology*, 29(3), 265-272.
- McCreary, D.R., Newcomb, M.D., & Sadava, S.W. (1998). Dimensions of the male gender role: A confirmatory analysis in men and women. *Sex Roles*, 39, 81-95.
- Metcalfe, B., & Linstead, A. (2003). Gendering teamwork: Re-writing the feminine *Gender, Work & Organisation*, 10(1), 94-119.
- Metcalfe, D., & Rees, C.J. (2009). Feminism, gender and HRD. In C. Rigg editor, J. Sreewart editor and K. Trehan editor (Eds.), *Critical human resource development: Beyond orthodoxy* (pp. 107-128). Essex, English: Prentice Hall.
- Meyers, L. S., Gamst, G., & Guarino, A. J. (2006). *Applied multivariate research* (2nd ed.). Beverley Hills, California: Sage Publications.

- Miles, L., Keitel, M., Jackson, M., Harris, A., & Licciardi, F. (2009). Predictors of distress in women being treated for infertility. *Journal of Reproductive and Infant Psychology*, 27(3), 238-257.
- Mischel, W. Sex-typing and socialisation. (1970). In P.H. Mussen (Ed.). *Carmichael's manual of child psychology* (Vol. 2). NY: Wiley.
- Morrell, R., Jewkes, R., & Lindegger, G. (2012). Hegemonic Masculinity/Masculinities in South Africa. *Men and Masculinities*, 15(1), 11-30.
- Mueller, S. L. (2008). Gender-role orientation as a determinant of entrepreneurial self-efficacy. *Journal of Developmental Entrepreneurship*, 13(1), 3-20.
- Netuveli, G., Wiggins, R.D., Montgomery, S.M., Hildon, Z., & Blane, D. (2008). Mental health and resilience at older ages: bouncing back after adversity in the British Household Panel Survey. *Journal of Epidemiology & Community Health*, 62(11), 987-991.
- Newman, A., Ucbasaran, D., Zhu, F. E. I., & Hirst, G. (2014). Psychological capital : A review and synthesis. *Journal of Organizational Behavior*, 35, 120-138.
- Nieva, V. G., & Gutek, B. A. (1980). Sex effects on evaluation. *Academy of Management Review*, 5, 267-276.
- Norlander, T., Erixon, A., & Archer, T. (2000). Psychological androgyny and creativity: Dynamics of gender-role and personality trait. *Social Behaviour and Personality*, 28(5), 423-436.
- Norman, S. M., Avey, J. B., Nimnicht, J. L., & Graber-Pigeon, N. P. (2010). The interactive effects of psychological capital and organizational identity on employee citizenship and deviance behaviors. *Journal of Leadership and Organization Studies*, 17(4), 380-391.
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). NY: McGraw-Hill.
- O'Heron, C. A. & Orlofsky, J. L. (1990). Stereotypic and non-stereotypic sex role trait and behaviour orientation, gender identity and psychological adjustment. *Journal of Personality and Social Psychology*, 58, 134-143.
- Olweus, D. (1993). *Bullying at school*. Oxford: Blackwell.

- OPP. (2014). Drive organisational effectiveness with authentic leadership. Retried from <http://www.opp.com/en/Solutions/Leadership-development>.
- Orlofsky, J. L., & O'Heron, C. A. (1987). Stereotypic and non-stereotypic sex-role traits and behaviour orientation: Implications for personal judgement. *Journal of Personality and Social Psychology*, 52, 1034-1042.
- Park, D. (1996). Gender role, decision style and leadership style. *Women in Management Review*, 11(8), 13-17.
- Parker, S. (1998). Enhancing role-breadth self efficacy: The roles of job enrichment and other organizational interventions. *Journal of Applied Psychology*, 83, 835–852.
- Perry, D., & Bussey, K. (1984). *Social Development*. Englewood Cliffs, NJ: Prentice-Hall.
- Phillips, S. P. (2005). Defining and measuring gender: A social determinant of health whose time has come. *International Journal for Equity in Health*, 4, 11-15.
- Piaget, J. (1952). *The origins of intelligence in children*. NY: International Universities Press.
- Pietrzak, R.H., Johnson, D.C., Goldstein, M.B., Malley, J.C., Southwick, S.M. (2009). Psychological resilience and post-deployment social support project against traumatic stress and depressive symptoms in soldiers returning from Operations Enduring Freedom and Iraqi Freedom. *Special Operations Medical Journal*, 9(3), 67-73.
- Pleck, J. H., Sonenstein, F. L., & Ku, L. C. (1994). Attitudes towards male roles among adolescent: A discriminant validity analysis. *Sex Roles*, 30(7/8), 481-501.
- Poch, J., & Roberts, S. (2003). The influence of social dominance orientation and masculinity on men's perceptions of women in the workplace. *Colgate University Journal of the Sciences*, 35, 171-186.
- Powell, G. N., Butterfield, D. A., & Parent, J. D. (2002). Gender and managerial stereotypes: Have the times changed? *Journal of Management*, 28(2), 17-193.
- Pratto, F., Liu, J. H., Levin, S., Sidanius, J., Shih, M., Bachrach, H., & Hegarty, P. (2000). Social dominance orientation and the legitimization of inequality across cultures. *Journal of Cross- Cultural Psychology*, 31(2), 369-409.

- Purcell, J., Kinnie, K., Hutchinson, S., Rayton, B. & Swart, J. (2003). *Understanding the people and performance link: Unlocking the black box*. London: Chartered Institute of Personnel and Development.
- Ricciardelli, L. A., & Williams, R. J. (1995). Desirable and undesirable gender traits in three behavioural domains. *Sex Roles*, 33(9/10), 637-655.
- Richardson, T. R., Cronister, J. R. (1998). Relating hope, sex-role and interpersonal flexibility. *Journal of Psychological Enquiry*, 3, 7-10.
- Rini, C. K., Dunkel-Schetter, C., Wadhwa, P. D., & Sandman, C. A. (1999). Psychological adaptation and birth outcomes: The role of personal resources, stress, and sociocultural context in pregnancy. *Health Psychology*, 18, 333-345.
- Roehling, P.V., Koelbel, N., & Rutgers, C. (1996). Codependence and Conduct Disorder: Feminine Versus Masculine Coping Responses to Abusive Parenting Practices. *Sex Roles*, 35(9/10), 603-618.
- Rothmann, S., Jorgensen, L., & Hill, C. (2011). Coping and work engagement in selected South African organisations. *SA Journal of Industrial Psychology*, 37(1), 1-11.
- Rothmann, S. & Rothmann, S., Jr. (2010). Factors associated with employee engagement in South Africa. *SA Journal of Industrial Psychology*, 36(2), 1-12.
- Rotter, J.B. (1954). *Social learning and clinical psychology*. NY: Prentice-Hall.
- Rowell, T. (1974). The concept of social dominance. *Behavioral Biology*, 11(2), 131-154.
- Ruble, D. N, Balaban, T., & Cooper, J. (1981). Gender constancy and the effects of sex-typed televised toy commercials. *Child Development*, 52(2), 667-673.
- Ruble, D. N., & Stangor, C. (1986). Stalking the elusive schema: Insights from development and social-psychological analyses of gender schemas. *Social Cognition*, 4(2), 227-261.
- Rudman, L. A., & Phelan, J. E. (2008). Backlash effects for disconfirming gender stereotypes in organizations. *Research in Organizational Behavior*, 28, 61-79.
- Saks, A. M. (1995). Longitudinal field investigation of the moderating and mediating effects of self-efficacy on the relationship between training and newcomer adjustment. *Journal of Applied Psychology*, 80, 211-225.

- Salanova, M., Schaufeli, W. B., Xanthopoulos, D., & Bakker, A. B. (2010). The gain spiral of resources and work engagement: Sustaining a positive worklife. In A. B. Bakker & M. P. Leiter (Eds.), *Work engagement: A handbook of essential theory and research* (pp. 118-131). NY: Psychology Press.
- Salminen, S., R., Mäkikangas, A., & Feldt, T. (2014). Job Resources and Work Engagement: Optimism as Moderator Among Finnish Managers. *Journal of European Psychology Students*, 5(1), 69-77.
- Sarrasin, O., Mayor, E., & Faniko, K. (2014). Gender traits and cognitive appraisal in young adults; The mediating role of locus of control. *Sex Roles*, 70, 122-133.
- Sasso, S. L. (2010). *A qualitative study of gender role identity and relationship satisfaction in adults raised in equal parenting households*. Unpublished Doctoral dissertation, Rutgers University, New Brunswick, New Jersey.
- Schaufeli, W. B., & Bakker, A. (2003). UWES *Utrecht Work Engagement Scale: Preliminary Manual* (Version 1). *Utrecht University: Occupational Health Psychology Unit*. Retrieved from http://www.beanmanaged.eu/pdf/articles/arnoldbakker/article_arnold_bakker_87.pdf.
- Schaufeli, W. B., & Bakker, A.B. (2004). Job demands, job resources, and their relationship with burnout and engagement: a multi-sample study. *Journal of Organizational Behavior*, 25(3), 293-315.
- Schaufeli, W. B., Bakker, A. B & Salanova, M. (2006). The measurement of work engagement with a short questionnaire. *Educational and Psychological Measurement*, 66(4), 701-716.
- Schaufeli, W. B., Bakker, A. B., & Rhenen, W. V. A. N. (2009). How changes in job demands and resources predict burnout, work engagement, and sickness absenteeism. *Journal of Organizational Behavior*, 30(7), 893-917.
- Schaufeli, W. B., & Salanova, M. (2007). Efficacy or inefficacy, that's the question: Burnout and work engagement and their relationship with efficacy beliefs. *Anxiety, Stress and Coping*, 20(20), 177-196.
- Schaufeli, W. B., Salanova, M., Gonzalez-Roma, V., & Bakker, A. B. (2002). The measurement of burnout and engagement: A confirmatory factor analytic approach. *Journal of Happiness Studies*, 3(1), 71-92.

- Schaufeli, W. B., & Taris, T. W. (2014). A Critical Review of the Job Demands-Resources Model: Implications for Improving Work and Health. *Bridging Occupational, Organizational and Public Health*, 43-68.
- Scheier, M. F., & Carver, C. S. (1985). Optimism, coping and health: Assessments and implications of generalized outcome expectancies. *Health Psychology*, 4, 219-247.
- Scheier, M. F., Weintraub, J. K., & Carver, S. (1986). Coping with stress: Divergent strategies of optimists and pessimists. *Journal of Personality and Social Psychology*, 51(6), 1257-64.
- Schein, V. E. (1973). The relationship between sex role stereotypes and requisite management characteristics. *Journal of Applied Psychology*, 57, 95-100.
- Seckinger, J., Langerak, B., Mishra, J., & Mishra, B. (2010). Optimism and longevity. *Advances in Management*, 3(3), 32-39.
- Seligman, M. E. P. (1998). *Learned Optimism*. NY: Pocket Books.
- Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist*, 55, 5–14.
- Serbin, L.A., & Connor, J. M. (1979). Sex-typing of children's play preferences and patterns of cognitive performance. *The Journal of Genetic Psychology*, 134(2), 315-316.
- Sherif, C. W.(1982). Needed Concepts in the Study of Gender Identity. *Psychology of Women Quarterly*, 6(4), 375–398.
- Sherman, A. C., Higgs, G. E.,& Williams, R. L. (1997). Gender differences in the locus of control construct. *Psychology and Health*, 12(2), 239–248.
- Shimzu, A, Schaufeli, W. B., Kosugi, S., Suzuki, A., Nashiwa, H., Kato, A., Sakamoto, M., Irimajiri, H., & Amano, S., Hirohata, K., & Goto, R. (2008). Work engagement in Japan: Validation of the Japanese Version of the Utrecht Work Engagement Scale. *Applied Psychology: An International Review*, 57(3), 510-523.
- Siebers, H. (2004). Identity formation: Issues, debates and tools. In D. Kalb, W. Pansters & H. Siebers (Eds.), *Globalization and development: Themes and concepts in current research* (pp. 75-102). London: Kluwer Academic Publishers.

- Silberschmidt, M. (2004). Men, male sexuality and HIV/AIDS: Reflections from studies in rural and urban East Africa. *Transformation: Critical Perspectives on Southern Africa*, 54, 42-58.
- Simmons, B. L., & Nelson, D. L. (2001). Eustress at work: the relationship between hope and health in hospital nurses. *Health Care Management Review*, 26, 7-18.
- Sines, J. O. (1995). Book reviews -- Measuring Sex Stereotypes: A Multination Study (revised edition) by John E. Williams and Deborah L. Best. *Archives of Sexual Behavior*, 24(4), 478.
- Skoe, E. (1995). Sex role orientation and its relationship to the development of identity and moral thought. *Scandinavian Journal of Psychology*, 36(3), 235-245.
- Slaby, R. G., & Frey, K. S. (1975). Development of gender constancy and selective attention to same-sex models. *Child Development*, 52, 849-856.
- Snyder C. R. (2000). *Handbook of hope*. San Diego: Academic Press.
- Snyder, C. R. (2002). Hope Theory: Rainbows in the Mind. *Psychological Inquiry*, 13(4), 249-275.
- Snyder, C. R., Harris, C., Anderson, J.R., Holleran, S.A., Irving, L. M., Sigmon, S. T., Yoshinobu, L., Gibb, J., Langelle, C., Harney P. (1991). The will and the ways: development and validation of individual-differences measure of hope. *Journal of Personality and Social Psychology*, 60(4), 570-585.
- Snyder, C. R., Sympson, S. C., Ybasco, F. C., Borders, T. F., Babyak, M. A., Higgins, R. L., (1996). Development and validation of the state hope scale. *Journal of Personality and Social Development*, 70(2), 321-335.
- Solberg Nes, L. & Segerstrom, S. C. (2006). Dispositional optimism and coping: A meta-analytic review. *Personality and Social Psychology Review*, 10, 235-251.
- Solberg Nes, L., Segerstrom, S. C., & Sephton, S. E. (2005). Engagement and arousal: Optimism's effects during a brief stressor. *Personality and Social Psychology Bulletin*, 31, 111-120.
- Solomon, T. S. (2012). *Sex-role identity and work-family conflict in South African working mothers*. Unpublished doctoral dissertation. University of Witwatersrand, Johannesburg, South Africa.

- Sonnentag, S. (2003). Recovery, work engagement, and proactive behavior: A new look at the interface between non-work and work. *Journal of Applied Psychology*, 88(3), 518-528.
- Spence, J. (1993). Gender-related traits and gender ideology: Evidence for a multifactorial theory. *Journal of Personality and Social Psychology*, 64, 624-635.
- Spence J T & Helmreich R L. (1978). *Masculinity & femininity: their psychological dimensions, correlates, & antecedents*. Austin, TX: University of Texas Press.
- Spence, J., Helmreich, R., & Holahan, C. (1979). Negative and positive components of psychological masculinity and femininity and their relationships to self-reports of neurotic and acting out behaviors. *Journal of Personality and Social Psychology*, 37(10), 1673-1682.
- Spence, J. T., Helmreich, R. L., & Stapp, J. (1974). The Personal Attributes Questionnaire: A measure of sex role stereotypes and masculinity-femininity. *JSAS Catalog of Selected Documents in Psychology*, 4, 43.
- Spence, J. T., Helmreich, R. L., & Stapp, J. (1975). Ratings of self and peers on sex-role attitudes and relation to self-esteem and conceptions of masculinity and femininity. *Journal of Personality and Social Psychology*, 32, 29-39.
- Stajkovic, A. D., & Luthans, F. (1998). Self-efficacy and work-related performance: A meta-analysis. *Psychological Bulletin*, 124(2), 240-261.
- Stake, J. E. (1997). Integrating expressiveness and instrumentality in real-life settings: A new perspective on the benefits of androgyny. *Sex Roles*, 37, 541-564.
- Stangor, C. (2011). *Research methods for the behavioural sciences*. California: Wadsworth Cengage Learning.
- Steel, P., & Ones, D. (2002). Personality and happiness: A national-level analysis. *Journal of Personality and Social Psychology*, 83(3), 767-781.
- Steel, P., Schmidt, J., & Shultz, J. (2008). Refining the relationship between personality and subjective well-being. *Psychological Bulletin*, 134(1), 138-161.
- Stewart, A. J., & Malley, J. E. (1987). Role combination in women: Mitigating agency and communion. In F. Crosby (Ed.), *Spouse, parent, worker: On gender and multiple roles* (pp. 44-62). New Haven, CT: Yale University Press.

- Stewart, M., Reid, G., & Mangham, C. (1997). Fostering children's resilience. *Journal of Paediatric Nursing*, 12(1), 21–31.
- Stommel, M., & Willis, C. (2004). *Clinical research: Concepts and principles for advanced practice nurses*. Philadelphia: Lippincott Williams & Wilkins.
- Storm, K., & Rothmann, S. (2003). A psychometric analysis of the Utrecht Work Engagement Scale in the South African police force. *SA Journal of Industrial Psychology*, 29(4), 62–70.
- Strayer, F. F., & Strayer, J. (1976). An ethological analysis of social agonism and dominance relations among preschool children. *Child Development*, 47, 980–989.
- Strebel, A., Crawford, M., Shefer, T., Cloete, A., Dwadwe-Henda, N., Kaufman, M., Simbayi, L., Magome, K., & Kalichman, S. (2006). Social constructions of gender roles, gender-based violence and HIV/AIDS in two communities of the Western Cape, South Africa. *Journal of Social Aspects of HIV/AIDS*, 3(3), 516–528.
- Stumpf, S. A., Brief, A. P., & Hartman, K. (1987). Self-efficacy expectations and coping with career-related events. *Journal of Vocational Behavior*, 31, 91–108.
- Sweetman, D., Luthans, F., Avey, J. B., Luthans, B.C. (2011). Relationships between positive psychological capital and creative performance. *Canadian Journal of Administrative Sciences*, 28(1), 4–13.
- Tarris, T. W., Stoffelsen, J., Bakker, A. B., Schaufeli, W. B., & van Dierendonck, D. (2005). Job control and burnout across occupations. *Psychological Reports*, 98, 955–961.
- Tauber, M. (1979). Sex differences in parent-child interaction styles during free play sessions. *Child Development*, 50, 981–988.
- Taylor, S. E., & Armor, D. A. (1996). Positive illusions and coping with adversity. *Journal of Personality*, 64, 873–898.
- Termin, L.M., & Miles, C.C. (1936). *Sex and Personality*. NY: McGraw-Hill.
- Thaler, K. (2011). Drivers of male perpetration of family and intimate partner violence in Cape Town. *Centre for Social Science Research*, working paper 289. Retrieved from http://www.cssr.uct.ac.za/sites/cssr.uct.ac.za/files/pubs/WP289_0.pdf

- Thomas, K. W. (2009a). *Technical brief for the Work Engagement Profile: Content, reliability and validity*. Mountain View, CA: CPP.
- Thomas, K. W. (2009b). *Intrinsic motivation at work: What really drives employee engagement* (2nd ed.). San Francisco, California: Berrett-Koehler Publishers.
- Totterdell, P., Wood, S., & Wall, T. (2006). An intra-individual test of the demands-control model: A weekly diary study of job strain in portfolio workers. *Journal of Occupational and Organizational Psychology*, 79, 63–84.
- Towers Perrin. (2005). *Reconnecting with employees: Quantifying the value of engaging your workforce*. London: Towers Perrin.
- Tugade, M. M., & Fredrickson, B. L. (2004). Resilient individuals use positive emotions to bounce back from negative emotional experiences. *Journal of Personality and Social Psychology*, 86(2), 320–333.
- Twenge, J. M. (1997). Changes in masculine and feminine traits over time: A meta-analysis. *Sex Roles*, 36, 305–325.
- Van d Mortel, T. F. (2008). Faking it: Social desirability response in self-report research. *Australian Journal of Nursing*, 25(4), 40–48.
- Vince, R. (1999). *Managing change: Reflecting on equality and management learning*. Bristol, England: Policy Press.
- Vingerhoets A. J., & Van Heck, G. L. (1990). Gender, coping and psychosomatic symptoms. *Psychological Medicine*, 20, 125–135.
- Wajsblat, L.L. (2011). *Positive androgyny and wellbeing: a positive psychological perspective on gender role valence*. (Unpublished doctoral thesis). Hofstra University, Hempstead, N.Y.
- Wagnild, G. M., & Young, H. M. (1993). Development and psychometric evaluation of the resiliency scale. *Journal of Nursing Management*, 1, 165-178.
- Walby, S. (1990). *Theorizing patriarchy*. Oxford, United Kingdom: Basil Blackwell.
- Walumbwa, F. O., Luthans, F., Avey, J. B., & Oke, A. (2011). Authentically leading groups: The mediating role of collective psychological capital and trust. *Journal of Organizational Behavior*, 32, 4-24.

- Warin, J. (2000). The attainment of self-consistency through gender in young children. *Sex Role*, 42, 209-231.
- Watson, D., Clark, L. A., & Harkness, A. R. (1994). Structures of personality and their relevance to psychopathology. *Journal of Abnormal Psychology*, 103, 18-31.
- Welle, B. and Heilman, M. E. (2007). Formal and informal discrimination against women at work. In D. Steiner, S. W. Gilliland & D. Skarlicki (Eds.), *Research in social issues in management: Managing social and ethical issues in organizations* (pp. 229-252). Charlotte, NC: Information Age Publishers.
- Welman, C., Kruger, F. & Mitchell, B. (2005). *Research methodology* (3rd ed.). Cape Town, South Africa: Oxford University Press of South Africa.
- Welsh, M. S. (1980). Networking: the great new way for woman to get ahead? *Journal of Personality Assessment*, 54(3/4), 564-575
- West, C., & Zimmerman, D. H. (1987). Doing gender. *Gender and Society*, 1(2), 125-151.
- Whitehead, T., & Kotze, N. E. (2003). Career and life-balance of professional women: A South African study. *SA Journal of Human Resource Management*, 1(3), 62-76.
- Whitley, B. (1983). Sex role orientation and self-esteem: A critical meta-analytic review. *Sex Roles*, 12, 207-225.
- Whitley, B.E. (1984). Sex-role orientation and psychological well-being: Two meta-analyses. *Sex Roles*, 12(1/2), 207-222.
- Williams, J. E., & Best, D.L. (1990). *Measuring sex stereotypes: A multination study revised edition*. California: Sage publications Inc.
- Williams, C. L., Muller, C., & Kilanski, K. (2012). Gendered organizations in the new economy. *Gender & Society*, 26(4), 549-573.
- Wood, R., & Bandura, A. (1989). Impact of conceptions of ability on self-regulatory mechanisms and complex decision making. *Journal of Personality and Social Psychology*, 86, 407-415.
- Woodhill, B. M., & Samuels, C. A. (2003). Positive and negative androgyny and their relationship with psychological health and wellbeing. *Sex Roles*, 48(11/12), 555–564.
- Woodhill, B. M., & Samuels, C. A. (2004). Desirable and undesirable androgyny: A prescription for the twenty-first century. *Journal of Gender Studies*, 13(1), 15-28.

- Wupperman, P., & Neumann, C. S. (2006). Depressive symptoms as a function of sex-roles, rumination and neuroticism. *Personality and Individual Differences*, 40, 189-201.
- Wyman, P.A., Cowen, E.L., Work, W.C., & Kerley, J.H. (1993). The role of children's future expectations in self-system functioning and adjustment to life stress: A prospective study of urban at-risk children. *Development and Psychopathology*, 5, 649-661.
- Xanthopoulou, D., Bakker, A. B., Demerouti, E. and Schaufeli, W. B. (2007). The role of personal resources in the job demands-resources model. *International Journal of Stress Management*, 14, 121-41.
- Xanthopoulou, D., Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2009). Work engagement and financial returns: A diary study on the role of job and personal resources. *Journal of Organizational and Occupational Psychology*, 82, 183-200.
- Youssef, C. M., & Luthans, F. (2007). Positive organizational behavior in the workplace: The impact of hope, optimism and resilience. *Journal of Management*, 33(5), 774-800.

Appendix A: EPAQ-R questionnaire

EPAQ-R: Gender-role questionnaire

The items below inquire about what kind of person you think you are. Each item consists of a pair of characteristics, with the numbers 1-5 in between. For example:

Not at all artistic	1	2	3	4	5	Very Artistic
---------------------	---	---	---	---	---	---------------

Each pair describes a set of contradictory characteristics. This means that you cannot be both characteristics at the same time, such as being very artistic and not artistic at all. The numbers form a scale between the two extremes. You are to choose a number that describes where you fall on the scale. For example if you have no artistic ability you would choose 1. If you think you are quite good you may choose 4 and if you are only medium you may choose 3, and so forth.

Please be open and honest in your responses, remembering that your responses are anonymous and confidential.

	1	2	3	4	5	
1. Not at all aggressive						Very aggressive
2. Not at all whiny						Very whiny
3. Not at all independent						Very independent
4. Not at all arrogant						Very arrogant
5. Not at all emotional						Very emotional
6. Not at all submissive						Very submissive
7. Not at all dominant						Very dominant
8. Not at all boastful						Very boastful
9. Not at all panicked in a crisis						Very panicked in major crisis
10. Not at all passive						Very passive
11. Not at all egotistical						Very egotistical
12. Not at all able to devote oneself completely to others						Very able to devote oneself completely to others
13. Not at all spineless						Very spineless
14. Not at all tough						Very tough
15. Not at all complaining						Very complaining
16. Not at all helpful to others						Very helpful to others
17. Not at all considerate						Very considerate

18.	Not at all competitive					Very competitive
19.	Not shy at all					Very shy
20.	Not at all greedy					Very greedy
21.	Not at all kind					Very kind
22.	Not at all anxious					Very anxious
23.	Not at all forgiving					Very forgiving
24.	Indifferent to the approval of others					Very needful of the approval of others
25.	Not at all dictatorial					Very dictatorial
26.	Not at all eager to soothe hurt feelings of others					Very eager to soothe hurt feelings of others
27.	Not at all nervous					Very nervous
28.	Feelings are not easily hurt					Feelings are very easily hurt
29.	Does not nag at all					Tends to nag a lot
30.	Not at all aware of the feelings of others					Very aware of the feelings of others
31.	Not at all hard headed					Very hard headed
32.	Does not worry at all					Tends to worry a lot
33.	Not at all adventurous					Very adventurous
34.	Has difficulty making decisions					Can make decisions easily
35.	Not at all soft hearted					Very soft hearted
36.	Not at all willing to take risks					Very willing to take risks
37.	Not at all fussy					Very fussy
38.	Gives up very easily					Never gives up easily
39.	Not at all cynical					Very cynical
40.	Never cries					Cries very easily
41.	Not at all selfish					Very selfish
42.	Not at all daring					Very daring
43.	Not all self confident					Very self confident
44.	Not at all outspoken					Very outspoken
45.	Tends to feel very inferior					Never tends to feel inferior
46.	Not at all hostile					Very hostile
47.	Not at all understanding of					Very understanding of others

others						
48. Never feels superior						Feels very superior
49. Not at all bossy						Very bossy
50. Very cold in relations with others						Very warm in relations with others
51. Not at all subservient						Very subservient
52. Very little need for security						Very high need for security
53. Not at all gullible						Very gullible
54. Goes to pieces under pressure						Stands up well under pressure
55. Not at all active						Very active
56. Not at all gentle						Very gentle
57. Not at all abrupt						Very abrupt

Appendix B: PSYCAP questionnaire

Psychological Capital (PsyCap) Questionnaire

Self-rater version (sample questions only provided given instrument is copyrighted)

Instructions: Below are statements that describe how you may think about yourself right now. Use the following scale to indicate your level of agreement or disagreement with each statement.

Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly Agree
1	2	3	4	5	6

Example of efficacy scale:

Q1	I feel confident analysing a long-term problem to find a solution	1	2	3	4	5	6
----	---	---	---	---	---	---	---

Example of Hope scale:

Q11	I can think of many ways to reach my current work goals	1	2	3	4	5	6
-----	---	---	---	---	---	---	---

Example of Resiliency scale:

Q16	I usually take stressful things at work in stride	1	2	3	4	5	6
-----	---	---	---	---	---	---	---

Example of Optimism scale:

Q19	When things are uncertain for me at work, I usually expect the best	1	2	3	4	5	6
-----	---	---	---	---	---	---	---

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Appendix C: UWES Questionnaire

Utrecht Work Engagement Scale (UWES)

The following 17 statements are about how you feel at work. Please read each statement and decide if you ever feel this way about your job. If you have never had this feeling select “0”. If you have had this feeling, indicate how often you feel it by selecting the number (1-6) that best describes how frequently you feel that way.

	Never	Almost never	Rarely	Sometimes	Often	Very often	Always
1 At my work I feel bursting with energy							
2 I find the work that I do full of meaning and purpose							
3 Time flies when I'm working							
4 At my job, I feel strong and vigorous							
5 I am enthusiastic about my job							
6 When I am working, I forget everything else around me							
7 My job inspires me							
8 When I get up in the morning, I feel like going to work							
9 I feel happy when I am working intensely							
10 I am proud of the work that I do							
11 I am immersed in my work							
12 I can continue working for very long periods at a time							
13 To me, my job is challenging							
14 I get carried away when I'm working							
15 At my job, I am very resilient, mentally							
16 It is difficult to detach myself from my job							
17 At my work I always persevere, even when things do not go well							

Appendix D: Letters sent to organisation

REQUEST LETTER AND INFORMATION LEAFLET ON MASTERS STUDY. SARA JACOBS: STUDENT NUMBER 916168



Dear (INSERT COMPANY NAME HERE),

My name is Sara Jacobs and I am presently completing my Masters in Organisational Psychology at the University of Witwatersrand. As part of my degree I am conducting research designed to explore stereotypical gender-based behaviours in the workplace and how these impacts on positive psychological outcomes for employees, including work engagement and levels of resilience and optimism.

To complete this research, I would really appreciate if you would allow an e-mail to be sent out to your employees requesting their participation in this study, by filling out a short questionnaire. Data will be collected electronically through an encrypted questionnaire link. The questionnaire **will not** ask for identifying information about the participant or the company that they work for. The questionnaire will take about 15-20 minutes. The e-mail sent to employees will highlight that participation is completely voluntary and that there are no benefits or negative consequences for participation. Anonymity and confidentiality of every response will be assured.

Benefits for the organisation

Your organisation will benefit as essentially I will be providing you with an understanding of the levels and trends of work engagement, hope, resilience, optimism and self-efficacy within the sample, as well as insight into how gendered behaviours may impact on these outcomes in South Africa. Levels of work engagement, hope, resilience, optimism and self-efficacy have important implications in the workplace, including on employee engagement, absenteeism, emotional wellbeing and workforce productivity. Feedback of the results will be supplied and presented in a summarised report in February 2015. No information that could identify the company or its employees will be included in the research report.

Additional information

I am more than willing to sign a non-disclosure agreement if the organisation feels that this is necessary. No involvement is required from the organisation, other than to allow an e-mail to be sent out by an employee of your organisation (ideally HR) with the link to this questionnaire. Informed consent will be assumed if employees complete and submit the questionnaire.

This research will contribute to a larger body of domestic and international research. The research will be conducted under the supervision of an Organisational Psychologist and has been approved by the Wits Human and Community Development ethics committee (approval number MORG/14/002H). Please contact me or my supervisor Dr Colleen Bernstein should you have any questions.

Thank you for your consideration in allowing me to include your organisation in this research. Every individual's contribution by completing the questionnaire will be greatly appreciated.

Kind Regards,



Sara Jacobs
Student
Department of Organisational
Psychology
University of the Witwatersrand
Sarajacobs88@gmail.com



Dr Colleen Bernstein
Supervisor, Lecturer and Registered Organisational
Psychologist
Department of Organisational Psychology
University of the Witwatersrand
Colleen.Bernstein@wits.ac.za

Appendix E: E-mail sent to staff in organisations

Subject: Please participate in Masters research | short questionnaire

Dear (INSERT COMPANY NAME HERE) staff,

My name is Sara and I am currently completing my Masters in Organisational Psychology at the University of Witwatersrand. As part of this degree, I am required to complete original research. My research aims to broaden the understanding of how particular stereotypical gendered behaviours at work correspond to a range of positive psychological outcomes including engagement, resilience and hope in South African organisations.

I would really appreciate if you would complete a short electronic questionnaire to participate in this research, by clicking on the encrypted link below. It will take about 15-20 minutes. It is incredibly difficult to gain participants so every single questionnaire will be greatly appreciated. Informed consent is assumed by completion and submission of the questionnaire. The final date for data collection is 5th September.

<https://www.surveymonkey.com/s/Witsbehaviour>

This questionnaire is completely anonymous and confidential and will be used for research purposes only. The questionnaire will not ask for identifying information about you or your organisation. This research has been given ethical clearance by the University of Witwatersrand (approval no. MORG/14/002H).

Please contact me or my supervisor Dr Colleen Bernstein should you have any questions.

Thanks for your support,

Sara Jacobs
Department of Organisational Psychology, Witwatersrand
Sarajacobs88@gmail.com

Dr Colleen Bernstein
Supervisor, Lecturer and Registered Organisational Psychologist
Department of Organisational Psychology, Witwatersrand
Colleen.Bernstein@wits.ac.za

Appendix F: Opening page of online survey monkey questionnaire

Dear respondent,

Thank you so much for taking the time to complete this questionnaire. This will help me complete my masters research in Organisational Psychology at the University of the Witwatersrand. The questionnaire should take approximately 15 – 20 minutes. Please note that to participate you must be working in South Africa, be in a role other than manual labour and be older than 18 years of age. The final date for data collection is 5th September.

As part of my ethics clearance I need to inform you that participation is completely voluntary and you may choose to leave the study at any time until submission of the questionnaire. There are no positive or negative consequences for participating. Anonymity and confidentiality of every response will be assured. Submission of your questionnaire is seen as informed consent for participation. The questionnaire will not ask for identifying information about you or your organisation. Only group trends will be examined when publishing from these results.

It is incredibly difficult to gain participants so every single questionnaire will be greatly appreciated. The research is being conducted under the supervision of an Organisational Psychologist and has been given ethical clearance (approval number MORG/14/002H). Please contact me or my supervisor Dr. Colleen Bernstein should you have any questions.

Thank you in advance for your support.

Kind regards,

Sara Jacobs (Sarajacobs88@gmail.com)

Supervisor: Dr. Colleen Bernstein (Colleen.bernstein@wits.ac.za)

Appendix G: Wits Plus access letter to course co-ordinator

Good day Course Coordinator of Wits Plus,

Our names are Daniel de Freitas and Sara Jacobs and we are doing our Masters degrees in Organisational Psychology at the University of the Witwatersrand. In completing our degree, a large component of the Masters course is focused on a compulsory research project, which has to be completed by each of us, with the help of a qualified and skilled supervisor. Our research is focused on exploring the relationship between one's gender role identity and various organisational constructs, particularly focusing on South African employees.

In participating, the individuals would be involved in completing a questionnaire, which takes approximately 45 minutes and is completely anonymous and confidential in terms of individual results and findings. The questionnaire will be sent out in the form of an encrypted link and predominantly consists of 'marking off a box' indicating where they fit in. The questionnaire **will not** ask for the participant's name or company that they work for. Feedback of the results will be supplied and presented in a summarised form, but no individual responses or information will be provided to the company or any other individuals. Only our supervisor and ourselves will have access to the responses. Participation is voluntary and unobtrusive. If the research is found to be interesting, it would be appreciated if the questionnaire is circulated by providing the link below to fellow colleagues or contacts, in order to generate a larger sample.

Participation in the study is voluntary, confidential and anonymous. Students will be assured that they will not be disadvantaged in any way for choosing to participate or not participate in the study. The only gain associated in the study will be the 2% course credit which students can achieve if they participate in the study and a further 1% if the students snowball the sample as explained in the *WITS Plus Participation Information Sheet* (c.f Appendix G). Student numbers will be requested and linked to unique participation numbers to assign participation course credits, which will be deleted after completion of the study.

If your organisation does participate, a summary of the results will be made available to you in February 2015 on the blog below. No involvement would be required from your apart from allowing me to distribute questionnaires to your students.

Questionnaire Link: <https://www.surveymonkey.com/s/WITSPLUS>

Summarised findings: <http://www.witsresearch.blogspot.com>

The findings of this study would be beneficial for organisations and academic institutions as it may provide one with information as to how gender roles may have implications for positive organisational outcomes including productivity, work engagement, organisational commitment and reduction in absenteeism.

If you have any other questions please feel free to contact my supervisor, Dr Colleen Bernstein, or either of us.

Thank you for your consideration in allowing us access to your WITS Plus students for our research, each and every individual's potential contribution by means of completing a questionnaire and circulating it will be greatly appreciated.

Kind regards,

Sara Jacobs
Masters Student
Department of Organisational Psychology
University of the Witwatersrand
Sarajacobs88@gmail.com

Daniel de Freitas
Masters Student
Department of Organisational Psychology
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Appendix H: Letter given to Wits Plus students

PARTICIPANT INFORMATION SHEET



Dear Wits Plus student,

Our names are Sara Jacobs and Daniel de Freitas and we are currently completing our Masters in Organisational Psychology at the University of the Witwatersrand. In the fulfillment of this degree our research is designed to investigate the relationship between gender role identities and organisational constructs such as self efficacy and job satisfaction, to name a few.

We would really appreciate if you would consider participating in this study by completing this questionnaire. It should take approximately 45 minutes. **For participating you will receive 2% towards your course mark and for forwarding the questionnaire you will receive an additional 1%.** Participation is totally voluntary and there are no negative consequences for choosing not to participate.

As part of this study, to protect your identity and student number, every participant will be assigned a random participant number. This participant number must be written on your completed questionnaire and any other questionnaires you choose to forward to others. To allow the researchers to match the participant number and student number and therefore award participation marks, we request that you write your student number next to the randomly assigned participant number on the third page of this handout. You will be asked to detach the third page and return it to the researchers. Once all questionnaires are collected and participation marks assigned, your student number will then be deleted from the data set. **No one other than the researchers and our supervisor will have access to the data. The course coordinator will NOT have access to the data. Anonymity and confidentiality of all responses can be assured.**

Other than the participation marks, **a maximum of 3% in course credits**, there will be no other positive or negative impact from participating in this study. Responses will ONLY be used for research purposes. The summarised results will be available at www.blogspot.witsresearch.com and will indicate group trends only. Informed consent is assumed by the completion and submission of the questionnaires.

This research is an independent study, which will be conducted with guidance from our supervisor. Please contact either of us or our supervisor (details below) if you have any further questions.

Thank you for considering participation in this study,

Sara Jacobs

Masters Student
University of the Witwatersrand
Sarajacobs88@gmail.com

Dr Colleen Bernstein

Supervisor
University of the Witwatersrand
Colleen.Bernstein@wits.ac.za

Daniel de Freitas

Masters Student
University of the Witwatersrand
Danroberto26@gmail.com

Participant number to be used: (unique number placed here)

INSTRUCTIONS FOR PARTICIPATION

To participate in this study and receive participation marks, please follow the instructions below. You can choose to fill in the questionnaire as a hard copy, or online using the link provided. Prior to participating, please fill in your student number on the third page, underneath your unique participant number and hand it to the researchers.

Hard copy participation:

1. Complete the questionnaire, writing the participant number from this form, on the top of the questionnaire and hand the completed questionnaire to the researchers,
2. *For additional 1% participation mark*, please e-mail the link and message below, along with your unique participant number to 10 other people. Once the respondents fill in the questionnaire *and* your participant number at the top, the additional percentage will be awarded,
3. Please fill in the form and forward it to others, within 2 weeks.

Electronic participation:

1. Using the link below, please access the questionnaire. In the allocated space, please type in your participant number and complete the questionnaire,

Questionnaire Link: <https://www.surveymonkey.com/s/WITSPLUS>

2. Please fill in the questionnaire before the 5th of September,
3. *For additional 1% participation mark*, please e-mail the link and message below, along with your unique participant number to 10 other people. Once the respondents fill in the questionnaire *and* your participant number at the top, the additional percentage will be awarded.

TO PASS ON THIS QUESTIONNAIRE TO OTHERS FOR ADDITIONAL PARTICIPATION MARKS

Please include the following message if you choose to forward this questionnaire to others. Please note the other participants must be working.

Subject: Wits masters research| request for participation

“Dear participant. Our names are Sara Jacobs and Daniel de Freitas and we are completing our Masters in Organisational Psychology at the University of the Witwatersrand. This e-mail will have been forwarded to you from a current Wits student, who is assisting with this research. We would appreciate if you would take the time to fill in this questionnaire. To allow the student who forwarded you this link to receive additional participation marks, please type **their participant number** (STUDENT TO FILL IN THEIR PARTICIPANT NUMBER HERE) starting with “SD” at the top of the questionnaire. Your participation is totally voluntary. Informed consent is assumed by the completion and submission of the questionnaires. This research is for academic purposes only. There are no benefits or risks for participation. Please e-mail us if you have any questions. The final day for data collection is the 5th of September.

Questionnaire Link: <https://www.surveymonkey.com/s/WITSPLUSREFERRAL>

We appreciate your help,

Daniel de Freitas
Danroberto26@gmail.com

Sara Jacobs
Sarajacobs88@gmail.com

***PLEASE TEAR OFF THIS PAGE AND HAND TO THE
RESEARCHERS.***

PLEASE KEEP FIRST 2 PAGES

REQUEST TO ACCESS STUDENT NUMBER

If you choose to participate in the study, **please fill in your student number below**. This is to enable the researchers to match your participant number with your student number and award participation marks. Please keep the participation information sheet (first two pages), which provide instructions.

Write your unique participation number shown below, at the top of the questionnaire you fill out and if you choose to forward this questionnaire, please forward your participation number to those participants so they can also write **your** participant number. This will allow participation marks to be awarded to you. When participation marks have been awarded, your student number will be deleted from the data set. Your student number will only be used for awarding marks.

Wits student number (please fill in): _____

Participant number (use for this research): (unique number placed here)